NORTHERN RURAL NURSES' SELF-PERCEIVED COMPETENCE IN ADDRESSING THE SPIRITUAL NEEDS OF PATIENTS WITH LIFE-LIMITING CONDITIONS BY USING A PALLIATIVE APPROACH

by

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Abstract

Spirituality has been long recognized as part of holistic nursing care. Nurses need to have a degree of self-perceived competence, enabling them to consider spiritual needs of persons with life-limiting conditions in their care. This secondary analysis study examined the degree of self-perceived competence of registered nurses (RNs), licensed practical nurses (LPNs) and care aides (CAs) in addressing spiritual needs of patients with advancing life-limiting conditions who are in need of a palliative approach. The study was conducted in rural hospitals and in residential and homecare settings in Northern British Columbia, Canada.

The sample included 189 RNs, LPNs and CAs at twenty sites in the Northern Health Authority of British Columbia, who participated in a provincial survey with the Initiative for a Palliative Approach in Nursing: Education and Leadership. Descriptive statistical analyses and multivariate linear regression were conducted to compare RNs, LPNs and CAs and to examine factors that explain variation in their self-perceived competence to addressing spiritual needs.

RNs in homecare settings have the highest levels of self-perceived competence among care providers across settings. The most significant predictors were the self-perceived levels of knowledge and education on spiritual needs. Higher self-perceived levels of "knowledge and education" predicted higher levels of self-perceived competence. Other statistically significant predictors were the levels of education in nursing, being older, and speaking English as the primary language. All variables combined explained 58% of the variance in self-perceived competence. Providing continuous education on spiritual needs to rural care providers could increase competence levels. Care providers with higher competence levels would more likely address the spiritual needs, improving therefore the experience and quality of care of patients who would benefit from a palliative approach.

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Dedication

To my father, Andrei- my first teacher, who nurtured in me a passion for learning.

You encouraged me to be curious about mathematics and numbers, to search beyond science into philosophy. Your passing strengthened my reason to unremittingly promote spirituality and a palliative approach in my interactions with people who have life-limiting conditions.

Chapter One: Background and Definitions

Introduction

In the past few decades, healthcare in the economically developed countries has witnessed an explosion of new technologies and treatments, leading to an overarching emphasis on evidence-based care in the treatment of the body. Despite the fact that, historically, nursing and spirituality have been closely interconnected, with movement towards technological treatment, the mysterious, transcendent, and unexplainable has been pushed outside of the realm of healthcare. Following a state of dormancy, interest in spirituality is reemerging in the healthcare field and particularly in nursing (Cockell & McSherry, 2012; Edwards et al., 2010; Johnston Taylor, 2003b; MacLaren, 2004; Pesut & Thorne, 2007).

There are several possible reasons for this revived interest in spirituality in nursing care. Spirituality is widely recognized as an important factor or relevance to human health (MacKinlay, 2008; Ross, 2006; Swinton & Pattison, 2001). According to Hermann and Looney's (2011) meta-study findings, spirituality is considered particularly relevant in palliative care contexts because "there may be increased questioning and searching for meaning, an awakening of the spiritual dimension, towards the end of life" (p. 23). Recognizing that in their practice nurses are situated in a uniquely favorable position to ensure that the patients' spiritual needs are addressed, the Canadian Nurses Association (CNA) issued a position statement on spirituality. This statement acknowledges that in any practice setting "[n]urses need not feel they must be knowledgeable in particular spiritual traditions, but they are required to be open to inviting or allowing reflection by the individual on the spiritual dimension of his or her experience of illness and suffering" (2010, p. 3).

To address the holistic care needs of patients, nurses need some degree of confidence in addressing spiritual needs. In the residential care and homecare settings, care aides provide much of the practical care for people who are dying; therefore, care aides and community health care workers also need self-confidence in observing and reporting the spiritual needs of patients, in accordance with their scope of practice. Without such confidence, nurses and care aides may feel apprehensive about not addressing the spiritual needs of patients, subsequently not opening up conversations on spirituality. However, not much is written on the subject of nurses' and care aides' self-perceived competence in this area; the literature is almost non-existent in addressing the self-perceived competence of rural nurses and care aides in providing for the spiritual needs of the patients outside of specialized palliative care settings.

The proposed study seeks to address this gap by examining the self-perceived competence of nurses, care aides and community healthcare workers in addressing spiritual needs of patients with advancing life-limiting conditions who are in need of a palliative approach, in northern rural hospital, residential and homecare settings. In northern rural settings the access to specialized services is limited, and resultantly the end-of-life care falls on the primary care healthcare providers. To date there is no formal definition of a palliative approach in primary care or in other care settings; however, Shad, Burge, Stajduhar, Cohen, Kelley, and Pesut (2013) state a palliative approach means that interprofessional teams, regardless of the setting of care, have the "skills, resources, and processes necessary to recognize, assess, and manage basic palliative care needs, in a timely fashion in a community setting (office, home or long-term care facility)" (p. 1149). A palliative approach combines the provision of comfort measures that improve the quality of life with active treatment options for people with life-limiting conditions.

Why is this study important now?

As the population is aging, more people are living with frailty for a longer period of time. Despite this, relatively few people will receive specialized palliative care services, in rural northern areas in particular. Most are people living and dying in hospital or residential care settings. As care is increasingly shifting from hospital to home-based environments, the care complexities of people with life-limiting conditions will create an urgency to increase the capacity for end-of-life nursing care in homecare (Kaasalainen et al., 2011). Eventually, nurses who work outside of palliative care settings, including those in hospitals and residential care, will progressively face the need to address the end-of-life issues of the frail patients with multiple co-morbidities. However, addressing the spiritual needs of the patients with life-limiting conditions is an important, often neglected, aspect of holistic care. It can be argued that spirituality helps people with chronic conditions accept their illnesses, retain meaningful lives despite their health challenges, and cope with dying (White, 2013). Nevertheless, to date, there are no known studies that analyze the self-perceived level of competence of rural nurses and care aides in responding to the spiritual needs of patients with life-limiting conditions in the home and community care, residential care and medical settings.

Objective and purpose. The objective of this study is to address this gap in knowledge by conducting a secondary analysis of data obtained via a previously conducted survey of nurses and care-aides in British Columbia, Canada. This survey was completed as part of the Initiative for a Palliative Approach in Nursing: Excellence and Leadership (iPANEL, see www.ipanel.ca). The purpose of this secondary analysis is to determine and analyze the level of self-perceived competence and what factors may promote or inhibit the self-perceived competence of northern rural BC nurses and care aids in addressing the spiritual needs of patients with life-limiting

conditions who require a palliative approach, in residential, home and acute care settings. Specifically, this study will address the following research questions:

1. In addressing the spiritual needs of patients with chronic life-limiting illness, what is the self-perceived competence of RNs, LPNs and CAs in home care, residential care, and hospital medical units in rural areas?

2. To what extent are differences in self-perceived competence explained by professional role (RN, LPN or CA), clinical context (residential, home, hospital), demographic factors, professional background ("years of practice"), work environment, adequacy of knowledge and education, and nurses' self-perceived identification of both the number of patients with life-limiting conditions and those who would benefit from a palliative approach?

The results of this study will help to inform the nurses, policy decision makers, administrators and educators about the existing level of self-perceived competence in dealing with end-of-life issues, and it can be a springboard for further action.

Background and definitions. The following section provides background information regarding a palliative approach, rural communities and health, spiritual needs and the differentiation of self-perceived competence and demonstrated competence. The first section describes the demographic context of the growing aging population and introduces the concept of a palliative approach in caring for people with life-limiting conditions. The rural health section points out the particularities of receiving and providing health care services in rural northern communities in British Columbia, Canada. The spiritual needs section makes reference to the importance and relevance of addressing spiritual needs when working with patients with life-limiting illness. The self-perceived competence section emphasizes the conceptual

differences between self-perceived competence (defined as self-efficacy) and demonstrated competence (defined as performance).

1. Palliative approach for people with life-limiting conditions. The aging population in British Columbia is resulting in increased prevalence of chronic conditions that are associated with aging (BC Statistics, 2011). Between 2010 and 2036, the BC population is projected to increase by approximately 36%, the percentage of the population aged 65 and over is expected to increase from 15.0% to 23.7%, and the median population age will increase from 40.8 years to 45.4 years by 2036 (BC Statistics, 2011). The advances of medical treatments and technology has increased the longevity of patients, changing the pattern of disease with the leading cause of death being chronic disease (Thompson, McClement, & Daeninck, 2006; WHO, 2004). By the time of death, most people will have developed and lived with more than one chronic condition for an extended period of time. The number of people living with two or more chronic conditions for a longer period and the likelihood that they will spend their final days in a healthcare facility is also increasing. Presently, approximately 39% of all deaths in Canada occur in residential long term care (LTC) facilities and the average length of stay in such facilities is 835 days (Statistics Canada, 2009). Many people suffer from slow deteriorating conditions, such as dementia: there are approximately 500,000 Canadians living with dementia, and this number is expected to double within the next 30 years (Smetanin et al., 2009). Currently, in BC, only about 20% of the people with life-limiting conditions are being identified with a terminal phase to their disease and placed on the palliative care plans.

Chronic illness is defined as "illness that persists over time with the person's health status fluctuating between maximal functioning and serious, even life-threatening health relapses" (Crisp & Taylor, 2009, as cited in Bloomer, Moss, & Cross, 2011, p. 166). Life-limiting

conditions are those for which there is no reasonable hope of cure and of which people are likely to die (e.g., cancer, organ failure, irreversible and non-progressive diseases like dementia). Because of the lack of identification of a terminal phase, the vast majority of patients will continue living with a vulnerable fragility, in the indistinctive phase of being sick enough to die of their disease but without receiving services aimed at alleviating their suffering (Lynn, 2005). These people tend to die on medical surgical wards or in residential care facilities. Furthermore, most of the residents in residential care facilities lack decisional capacities, therefore early interventions regarding end-of-life care become more significant for ensuring quality of life and dying (Brazil et al., 2012). Clearly, the demographic predictions raise the issue of needing forms of intervention that simultaneously manage the treatment for symptoms related to exacerbations of chronic conditions and the quality of life of people with life-limiting conditions.

To date, the provision of healthcare in BC has been oriented towards episodic clinical care with an emphasis on the treatment and management of a single disease at a time. From the beginning to the near-end of their care journey, the patients transition through segmented services that are focused on treating or reducing the effects of the disease. Healthcare providers view the discussions about the choices related to the quality of living with increased frailty as part of the specialized work of palliative care teams. The language and definitions used at organizational level to describe end-of-life or palliative care, has practical implications, as they establish boundaries between specialized and non-specialized types of care. The lack of consistent terminology applied to care of dying people induces confusion and ambiguity, thereby contributing to inequity in care delivery (Bloomer, Moss, & Cross, 2011).

The BC Ministry of Health (2006) defines "palliative care" as the specialized care of people who are dying – care aimed at alleviating suffering (physical, emotional, psychosocial or

spiritual). The term "palliative care" is generally used in association with people who have an active, progressive and advanced disease, with little or no prospect of cure. In practice settings, the care of the patients who are dying is referred to also as 'terminal care', 'hospice care', 'care of the dying', 'end-of-life care'. In BC, when the prognosis for life expectancy is less than six months, the dying patients may be admitted to a specialized palliative care program where such service is available. Through the years, palliative care in BC has become equated with a service associated with a particular time frame.

Rather than waiting until the last six months of life to raise issues surrounding quality of living, patients with life-limiting conditions and their caregivers would benefit from a palliative approach. The palliative approach is a way of caring concomitantly for the needs of comfort while providing treatment to a person with life-limiting conditions. This approach concurrently addresses active treatment issues and measures of comfort with the view of increasing the quality of living. A palliative approach to care is an upstream intervention that is not limited to the prediction of life expectancy and is not reserved for specialty nursing teams. A palliative approach incorporates conversations about patients' and families' needs and wishes, comfort measures, psychological and spiritual issues, and discussions about death and care after death. Curtis (2008, as cited in Disler, Currow, Phillips, Smith, Johnson, & Davidson, 2012, p. 1445) states that "while the term 'end-of-life care' is commonly taken to refer to care provided in the final phase of life, a palliative approach can be used in the management of the life-limiting conditions during the acute, chronic or terminal phases". For nurses in the rural areas in particular, where there is a lack of specialty care, there are "real tensions between the ideal of specialized palliative care and the more indistinct gray zone of a palliative approach" (Pesut, McLeod, Hole, & Dalhouisen, 2012, p. 301). Although the definitions and practical implications

of applying a palliative approach are less clear to rural nurses, the philosophy of care presents real advantages and opportunities for implementing the 'northern way of caring' vision of the organization (NHA, 2009) since most care delivery in rural areas is longitudinal, with strong connections between the healthcare team members and with personal investment from rural nurses to ensuring quality of life and death of people in their communities.

2. Rural communities and health. Rural communities face unique health related challenges. People living in rural northern communities in Canada have overall poorer health outcomes in comparison to the general population (Canadian Institute for Healthcare Information, 2006). Structural factors such as distances between health care settings, lack of adequate public transportation, and availability of specialized services are potential barriers to accessing health care in a timely manner. Other causes may be related to a particular mentality related to living in a harsh climate where people perceive themselves as self-sufficient and independent individuals who access health care as a last resort for illness (Eisenhauer, Hunter, & Pullen, 2010). In terms of the social determinants of health, low education levels lead to a lack of health literacy skills, and unemployment is linked to poorer health. Generally, rural areas lack higher education opportunities, and people tend to earn less than their urban counterparts unless they live in resource rich communities (CIHI, 2006).

Approximately 20% of Canadian citizens reside in rural areas (CIHI, 2012), and according to Dandy and Bollman (2009), the population in rural communities is aging faster than in urban centres. In the past, people moved to the southern parts of the province after retirement, but in the last decade more retirees are choosing to continue living in their northern residences until they die. In most of these rural northern communities, specialized palliative care services are virtually unavailable to the majority of patients. The end-of-life care is provided through

generalist home care nurses, acute medical staff and other healthcare providers like Community Healthcare Workers (CHWs) or care aides, as geographical factors prohibit access to nationally known palliative support organizations which operate primarily in major centres. The nurses and care aides working in rural and remote community health centers face different challenges than their counterparts in large urban centers: people living in rural communities tend to have different expectations of what "good death" means because of the "inherent accountabilities and high degree of volunteerism", and often nurses working in these communities have interwoven personal and professional lives (Pesut et al., 2012, p. 289). These aspects add a moral dimension to the responsibility of nurses to provide high-quality end-of-life care. On the other hand, nurses who work in rural communities experience additional stressors to their urban counterparts because they tend to work alone in isolated roles, travel to isolated places, and have limited education opportunities (Kaasalainem et al., 2011; MacLeod, Kulig, Stewart, Pitblado, Knock, 2004; Robinson, Pesut, & Bottorrff, 2010).

Healthcare in rural settings often provides continuity of care for the patients but it lacks the strength of expert and specialty knowledge that is predominantly concentrated in urban centres. In rural centers, nurses work mostly with general practitioners who provide concomitantly primary health care, maternity, emergency and acute medical services. Generally, the rural nurses have to independently make significantly more serious decisions in a broader range of circumstances. The clinical expertise of the nurses working in rural settings is highly valued as they need to intervene on any number of conditions, often with limited specialized supervision or support. For example, generalist home care nurses make home visits to palliative patients alone - they do not have access to rapid response teams - and provide interventions without the assistance of a physician. Furthermore, in addressing spiritual needs in the rural

context, in homecare situations, the patient may have limited access a multidisciplinary team, which in an urban setting could include a chaplain or spiritual care provider. Considering the continuous one-to-one contact between the RN and the patient, the homecare clinician could be in an ideal situation to develop and implement spiritual practices, enhancing the caring relationship between the clinician and the patient (Ruder, 2008).

3. Spiritual care. The care needs of people living with life-limiting conditions vary depending on the stage of their condition. Initially, the focus of care is overwhelmingly on addressing the physical needs. As the person transitions to end-of-life care, there is often a greater recognition of the need to address emotional and spiritual needs. Milligan (2011) emphasizes that "people with life-limiting illness are particularly likely to require care that addresses their spiritual needs and nurses through appropriate spiritual care have the potential to relieve suffering and improve quality of life" (p. 47). Meador (2006) states that the role of spiritual care and its relevance should be a focus for people faced with a life-limiting illness because the patients, who may otherwise experience ambivalence about spirituality in their lives, have a "heightened sense of concern regarding spiritual concerns" (p. 1184). Spiritual care may be particularly helpful in identifying the meaning of disease to their lives and finding sources of hope. Especially when faced with life and death issues, people are looking for answers beyond the clinical interpretation of test results and prognostic indicators. Johnston Taylor (2003a) mentions that many studies on the subject of spirituality "indicate that serious illness or hospitalization can help people become more receptive to spiritual care from nurses" (p. 586). The role of spirituality in healthcare has been the subject of many studies, and a more extensive review of conceptual foundations of spirituality in nursing will be presented in the literature review.

4. Self-perceived competence versus competence. The concept of competence is sometimes equaled with performance and ability to practice according to a standard. According to Desbiens, Gagnon, and Fillion (2011), the concept of competence and performance are two distinct concepts which are closely related. A performance corresponds to an action that "is an accomplishment, i.e. an observable action or behavior" at a certain moment (p. 2114). A competence is the capability to deliver a performance in various circumstances. The construct of competence thus represents the capability "to translate subskills (cognitive, social, emotional and sensorimotor), knowledge, values and attitudes into proficient actions" (p. 2114).The concept of competence is employed by the registration and regulatory professional bodies when assessing the safety to practice a certain action (e.g., College of Registered Nurses of BC). Competence includes the level of skills and knowledge in a certain area that has been developed through experience and training.

Self-perceived competence is defined as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986). Self-perceived competence is linked to self-efficacy, the ability to apply effort and be persistent in ambiguous circumstances despite perceived difficulties. Bandura and Cervone (1983) highlight several studies (including Bandurra, 1977; Brown & Inouye, 1978; Schunk, 1981; Weiberg, Gould, & Jackson, 1979) to demonstrate that self-perceptions of efficacy can affect people's choice of activities, effort expended, and persistence in the face of difficulties. Unlike competence, which is an external evaluation of performance based on prescribed standards, self-perceived competence refers to peoples' internal evaluation of their belief in themselves to be able to perform an action competently at a professional standard. It is also believed that "nurses with high self-perceived competence demonstrate greater performance

when providing quality care to patients with life-threatening illness and their family then nurses with low self-perceived competence" (Desbiens et al., 2011, p. 2115).

Healthcare providers are expected to deliver high quality healthcare services at any point of contact with the system. However, considering the demographic factors, the number of patients with multiple life-limiting conditions will increase, as will the frequency of contacts with the healthcare system, particularly in the last years of life. A major determinant in nursing quality of care at the end of life is considered to be the staff's competence in the provision of palliative care (Brazil et al., 2012). It is important for nurses who work with people with life-limiting conditions to have an understanding of the palliative dimensions of care, of which addressing spiritual needs is recognized as one. If spiritual care is a component of nursing practice then, similar to other areas of practice, nurses should feel competent enough to be able to acknowledge and provide support for the spiritual needs of patients. According to van Leeuwen et al., 2009, spiritual competencies in spiritual care refer to a "complex set of skills employed in a professional context, that is, in the clinical nursing process" (p. 2858). Spiritual care competency could be defined as the "knowledge, skills and attitudes required for spiritual care delivery" (Ross et al., 2014, p. 698). The use of a questionnaire that invites an evaluation of nurses' and care aides' own sense of competence in addressing the spiritual needs of the patients with life-limiting illness opens the possibility for them to discover some of their strengths or gaps in this domain. Self-awareness and clarification of personal values and beliefs are important aspects of competence as a nurse; the resulting self-discovery may lead to a desire to learn and become more competent in addressing spiritual needs.

Outline of the Paper

This project describes the levels of self-perceived competence in addressing spiritual needs of patients with life-limiting conditions by using a palliative approach, in a rural northern context. The first chapter addresses background to the study and the literature associated with the major concepts. The second chapter provides an in-depth review of nursing literature surrounding the concepts related to addressing the spiritual needs of patients in the context of a palliative approach and the theoretical background to assessing self-perceived competence of nurses in relation to providing spiritual care. Chapter three describes the research design, primary study design, sampling methods, data analysis plan, sample distribution and reliability of research measures. This chapter also outlines the data analysis plan to address the two research questions and the hierarchical linear regression analysis. The findings of this study are presented in chapter four. In chapter five, these findings are further discussed and integrated in the context of the existing literature. Implications to nursing practice and future recommendations for research are also discussed.

Conclusion

Addressing the spiritual needs of patients with life-limiting conditions is recognized as an important aspect of providing holistic care, in particular at the end-of-life. Implementing a palliative approach and by including spiritual components to their care interactions with patients in hospitals, residential and community settings, nurses are in a position to enhance the quality of care for patients with life-limiting conditions. The results of this research study will be unique in the literature because no other studies have explored the levels of self-perceived competence in addressing the spiritual needs of patients by RNs, LPNs and CAs in the rural northern context of hospital, residential and homecare settings.

Chapter Two: Literature Review

Introduction

This chapter discusses the current literature surrounding the concepts related to palliative approach, spirituality in nursing and self-perceived competence levels. A literature review was conducted to better understand what it means for nurses to address spiritual needs when providing a palliative approach for people with life-limiting illness. This chapter will describe the methods used to retrieve the articles, relevant studies and literature. The description will include the search terms and the inclusion and exclusion criteria.

Literature Search and Retrieval Strategies

The aim of the literature search was to identify studies that address factors that related to nurses' self-perceived competence in addressing the spiritual needs of the patients with life-limiting conditions by using a palliative approach. A preliminary literature review was conducted in 2012-2013, in view of the development of the thesis project proposal. Following the proposal, a more comprehensive literature review process was developed, involving two stages. The review examined the existing literature in the following databases: Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed. Spirituality in nursing has been researched by many authors over a broad timeframe; however, the meaning and understanding of spirituality have changed significantly in recent years; therefore, a wide timeframe was selected: 1990-2014. Palliative approach to care is an emerging term and in order to understand the latest trends in the literature, specific attention was given to the literature published in the last 5 years. To expand the literature review, citation lists were reviewed, identifying key authors in the literature and conducting further searches based on the additional findings.

Methodology

Concepts and search terms. The concepts used for the search were divided in three streams based on the following outline: palliative approaches to care, spirituality, and self-perceived competence in the context of nursing care. Special consideration was given to articles' titles and abstracts which addressed rural aspects of care in homecare, residential or acute care settings. The first stage of the search was aimed to enhance the author's knowledge of the topics. This was accomplished by first conducting a wide search based on each of the major concepts. The next step was to conduct the systematic search combining the major concepts.

The first set of concepts helped define the context of 'palliative approaches to care' and the following synonyms were used: 'palliative care', 'chronic disease', 'end- of- life', 'life-limiting condition' and a combination thereof. The second addressed the terminology related to spiritual care in nursing, using terms like 'spirituality', 'spiritual care', 'religion', 'spiritual need', 'spiritual distress'. The third addressed the issue of perceived competence. The concepts used were 'self-perceived competence', 'competence' and 'self-efficacy'. All the concepts were then combined with the terms 'nursing' and 'adult'.

The inclusion and exclusion criteria. The criteria were determined based on an initial wider reading on the topic. Manuscripts examined were articles, studies, dissertations, etc. The majority of the literature included in the literature review consisted of English journals with one exception of relevant research completed in Quebec, Canada. The French research article was relevant to the instrument used in this current research. Research articles were included with the condition that they were peer reviewed. The research was focused primarily on the adult population (aged 18 years and older). The exclusion criteria were tape recordings, electronic

media, unpublished manuscripts, and articles that were referring to pediatric or neonatal care patients. For the purpose of this analysis, the grey literature was not explored.

Stage One. The primary search was in the CINAHL database. Article titles and abstracts were examined to ascertain applicable major and minor subject headings. For the CINAHL database search, the Boolean operator "OR" was used to combine terms that represented the same concept and "AND" was used to combine the searches for the same concept with 'nursing' and 'adult'. For instance, the concept 'spirituality' was searched with OR 'religion' OR 'spiritual distress' OR 'spiritual need' and combined with AND 'nursing' AND 'adult'. The controlled vocabulary in the PubMed was examined using the Major Subject Heading (MeSH). All fields were included in the final search.

Concept one: **Spirituality.** The literature search on this concept was considered most influential in gaining understanding of the findings of this current research study. The search term in CINAHL revealed 6,947 titles under this concept of which 6,945 were research articles. Of these a total of 549 addressed issues related to nursing and adults. The PubMed search yielded 34,714 articles of which 1,228 were related to nursing and adults, and 355 were published within the last 5 years. Given the large number of PubMed articles, the author reviewed the list of article titles published in the last 5 years as well as the 84 titles that resulted combining spirituality AND ('palliative approach' OR 'palliative care' OR 'chronic disease' OR 'end-of-life' OR 'life-limiting conditions'). The studies about spiritual wellbeing, culture, patients' and providers' experiences, children and their families experience were excluded.

Concept two: Palliative approach to care. As an emerging concept, it is important to gain understanding of the use of the term 'palliative approach'. The search term "palliative approach" in CINAHL revealed 97 titles, 35 research articles under this concept in CINAHL,

and 6,152 articles in PubMed. The CINAHL search for ('palliative approach' OR 'palliative care' OR 'end-of- life' OR 'chronic disease' OR 'life-limiting condition') AND 'nursing' AND 'adult' resulted in 640 research articles of which more than half (329) were published in the last 5 years. In PubMed the same search retrieved 271 articles related to 'palliative approach' of which 103 were published in the last 5 years. The PubMed search for ('palliative approach' OR 'palliative care' OR 'end-of- life' OR 'chronic disease' OR 'life-limiting condition') AND 'nursing' AND 'adult' resulted in 3,617 articles with 1,137 published between the years 2009-2014. Most of the studies originated from North America, Australia and Western Europe. A high volume of articles was excluded because they focused on palliative performance and outcome scales measurements, clinical conditions, policies and patient experiences.

Concept three: Self-perceived competence. The literature search on 'self-perceived competence' in CINAHL returned 40 citations of which 37 were research articles. The combination of ('self- efficacy' OR 'self-perceived competence' OR 'competence') AND 'nursing' AND 'adult' resulted in 2,159 articles. In PubMed similar searches retrieved 97 articles related to 'self-perceived competence' and 126,357 articles for the combination of terms. Given the high volume and the purpose of this study, the author restricted the article review and examined the relationship between 'self-perceived competence' AND 'spirituality'. The CINAHL search resulted in 52 articles of which 32 were published between 2009 and 2014. The PubMed search resulted in 67 articles, of which 25 were published in the last 5 years. The vast majority of the articles addressed teaching, validation of scales, various conditions, rehabilitation and smoking cessation, and these were excluded from the review. Many articles were related to the evaluation of staff training, teaching and learning, mental health, rehabilitation, smoking, and validation of scales.

Stage Two. To combine the major concepts and ensure maximum retrieval of articles, a similar approach was used as in stage one. The boolean operator OR was used to combine terms that represented the same concept and AND was used to combine the searches for each concept. The general terms were as follows: (spirituality OR religion OR spiritual distress OR spiritual need OR spiritual care) AND (palliative approach OR palliative care OR end-of-life OR life-limiting condition OR chronic disease or spiritual distress) AND (competence OR self-perceived competence OR self-efficacy) AND' nursing' AND 'adult'. A total of five manuscripts (four articles and one dissertation) were retrieved in CINAHL and three in PubMed respectively. Of the five articles in CINAHL and the three in PubMed none was found relevant for this study. However, some of the studies identified an existing gap in defining competencies in spiritual care.

The following three studies addressed educating undergraduate and post graduate nurses on death and dying: how to develop skills in bereavement care (Brownhill, Chang, Bidewell, & Johnson, 2013); how to integrate teaching on effective spiritual interventions in addressing anxiety at the end of life (Kisvetrova, Klugar, & Kabelka, 2013), and how to increase confidence in dealing with death and dying by using Transformational Learning Theory (Gililand, 2011). Two studies were specific to addressing death and dying concerns in specific populations: one in an Australian Sudanese community (Sneesby, Sastchell, Good, & van der Riet, 2011) and the other referred to people with learning disabilities (Cooper, Gambles, Mason, & McGlinchey, 2014). Another two studies focused on education and described the implementation of a transdisciplinary palliative care curricula (Otis-Green, Yang & Lynne, 2013) and of a set of tools aimed to gain spiritual self-awareness, enhance spiritual assessment skills and increase comfort in developing plans of care on spiritual needs (Mitchell, Bennett & Manfrin-Ledet, 2006).

Finally, one studies described the effect of palliative care consultation on the self-efficacy and satisfaction with the service of bereaved families (Gelfman, Meier & Morrison, 2008). A more detailed list of the search is attached in the appendices A to E, including summaries of the five CINAHL and three PubMed retrieved from the respective databases.

Limitations of the literature review. Limiting the search to the CINAHL and PubMed databases was considered adequate. Preliminary searches of different databases did not reveal additional articles that were not already identified through CINAHL or PubMed. There is admittedly a potential for authors' bias in the selection of the articles, based on the authors priorities and what was deemed as relevant literature on the topic of research. To develop the search further and gain higher recall, the search could have incorporated a more expansive list of terms (e.g., oncology, cancer, COPD, care aides).

Literature Review

The systematic literature search did not find any empirical evidence about factors that relate to nurses' self-perceived competence in addressing the spiritual needs of the patients with life-limiting conditions by using a palliative approach. The following broader literature review of related articles will highlight overarching conceptual and theoretical foundations of the study. These articles were identified by browsing the literature for more general knowledge about living with life-limiting illness, a palliative approach, rural health, and self-perceived competence in nursing. The literature review findings will first address the overarching context of living with a life-limiting illness and why a palliative approach is recommended in a rural context. The second part will present findings relevant to one of the components of a palliative approach: namely, addressing the spiritual needs of the patients. Finally, it will focus on the concept of self-perceived competence in regards to addressing the spiritual needs of patients.

Why a palliative approach? According to the literature, the prognosis for people with chronic diseases follows one of three distinct illness trajectories: a trajectory that has a steady progression with a usual terminal phase, usually for patients with cancer; a trajectory which is episodic usually for people with organ failure, like congestive heart failure or chronic obstructive pulmonary disease; or a trajectory for slow lingering diseases, like dementia (Lynn & Adamson, 2003). Palliative care services, however, have been predominantly designed with prognosis of the cancer patients in mind, and may therefore not be responsive to the needs of people with slowly degenerating and complex illnesses, such as dementia or multiple life-limiting conditions that deteriorate gradually (Kristjanson, Walton, & Toye, 2005). Head (2003, cited in Birch & Draper, 2008, p. 1158) states that providing comfort and good quality of life for individuals with dementia should be the treatment priority because the progression of dementia cannot be cured or arrested. Often patients with dementia end up living in residential care units or in hospitals with a label attached that states alternate level of care, but without receiving palliative care support. People with multiple chronic conditions usually access episodic and symptomatic treatment. And often the end-of-life care issues are not addressed until late in the stages of their illness, and often during a hospital admission for an acute episode.

When the patients do not fit certain admission criteria into a program, their increasing need for care could go unnoticed until a major episode of illness occurs. As a result, many people live without optimal support in the indistinctive phase of being sick enough to die at any time, but without an identified prognosis of having less than six month to live. This situation creates a gap in care and raises the need for a different and more sustainable approach in non-palliative care settings. The type of intervention required at this stage would concomitantly involve managing treatment of symptoms related to exacerbations of chronic conditions while giving

consideration to the quality of life of the individual. Authors Lynn and Adamson (2003, cited in Davies and Higginson, 2004) point out that the belief that palliative care is relevant only to the last few weeks of life is being replaced with the recognition that a palliative approach should be offered alongside curative treatment for acute concomitant conditions (e.g., a secondary infection in chronic obstructive pulmonary disease) to support people with chronic progressive illnesses over many years. A palliative approach focuses on improving the quality of life of persons with life-limiting conditions and their families in all healthcare settings, without delay, until the end stage of illness. A palliative approach involves comfort-focused care and promotes understanding of loss and bereavement. It also involves the physical, psychological, social and spiritual dimensions of care. A palliative approach is beneficial for both the patient and the nurse because it promotes an ongoing and unbroken care relationship. This approach may be particularly relevant in rural and northern areas where patients and healthcare providers are often socially and culturally connected, and where the majority of services are usually delivered in a single setting, under the medical direction of the family physician.

Spirituality in nursing care. Palliative care providers are presumably more accustomed to responding to the spiritual needs of their patients, but even they report difficulties in discussing spirituality because it is too abstract for them (McSherry & Cash, 2004). Developing clarity about the concept of spirituality in nursing care is important because, as was highlighted by Vachon, Fillion, and Achille (2009), confusion surrounding the concept of spirituality impacts the provision of spiritual care in clinical settings. According to MacLaren (2004), nursing has a problem in reconciling the immense variety of approaches to spirituality because of the growing influence of secularism and other non-religious, but spiritually influential, movements like the

New Age. Nurses also encounter a growing number of patients who have spiritual needs and yet do not self-identify as religious (MacLaren, 2004).

McSherry and Draper (1998) argue that being spiritual is integral to being human, leading to the assumption that all patients would have, albeit unnoticed, spiritual needs. On the other hand, a less explored proposition is what Dyson (2007, cited in Paley, 2008, p. 180) states: that some patients would not perceive themselves as having a spiritual dimension to their human side unless the concept of spirituality is defined more widely. Even if spirituality were to be considered universal, it would still be "worked out in the particularities of peoples' lives," and to reach an agreement on a common definition of spirituality is a difficult, if not impossible, task (McSherry, 2010, p. 27). Because of this complexity, nurses need not and cannot have in-depth knowledge of the multiple types of spiritual expressions. However, to be responsive to the needs of the patients, it is necessary for the nurses and caregivers to have a fundamental understanding of common approaches to spirituality in healthcare.

Spirituality in nursing is presented from a variety of perspectives. The Canadian Nurses Association's (CNA, 2010) statement on spirituality in nursing affirms the notion that being attentive to an individual's spirituality is a component of a holistic nursing assessment and nursing practice. The idea of holistic care is a central concept in nursing and it means addressing the bio-psycho-social and spiritual needs of patients. If being spiritual is part of being human, then nurses "must learn to provide spiritual care as well as physical and psychosocial care" (MacKinlay, 2008, p. 153). Similarly, Chan (2009) states that, of these four domains of a whole person, the most neglected in daily practice is the spiritual. Despite these complexities surrounding definitions of spirituality, MacKinlay (2008) suggests that, in the context of providing holistic care, intervening at spiritual care level is "no longer optional but it must be

intentional, planned, available, offered, evaluated and documented," following a similar process as any other nursing intervention (p. 153).

The concept of "holism" is closely related to existentialism, represented by the work of Victor Frankl (1987). In Frankl's views, spirituality is linked to finding the meaning and reason for existence and discovering the sources of hope. When spiritual needs are seen as the "deepest requirements of self", the health care professionals' role is "to assist individuals to make sense and find meaning in times of crisis, such as the acceptance of a terminal diagnosis, the loss of a loved one, or adapting to life with a permanent disability" (McSherry, 2008, p. 54).

Another approach found in the literature is to place the word 'spirituality' back into its application (King & Koening, 2009). This approach views spirituality in terms of its functional relation to health and illness, and spiritual issues are given several titles in the literature. 'Spiritual health' as a concept reflects the positive effect of spirituality on health of the patients or the providers. Spiritual health contributes to overall wellness, and as Johnston Taylor (2008) states, spiritual health promotion is perceived as a necessary aspect of home healthcare in particular. The notion of 'everyday spirituality' refers to people's experiences in maintaining constancy of their daily spiritual practices that are relevant to their overall health. Alternatively, particularly nearing the end of life, a person can experience 'crisis spirituality' - existential and spiritual challenges which may result in symptoms of spiritual distress. 'Spiritual distress' occurs in the absence of addressing the issues of existential well-being and the sense of meaning and purpose (Chocinov et al., 2009). A person can also experience "distorted spiritual functioning" which requires intervention (van Leeuwen, 2008, p. 81).

The concept of spirituality is also presented in the literature in contrast or in relation to religion. Spirituality can be viewed as an "individualised journey characterised by experiential

descriptors such as meaning, purpose, transcendence, connectedness and energy" (Pesut et al., 2008, p. 2804), whereas religion is characterized by "institutional beliefs and rituals, relegated to a subset of culture in some instances" (p. 2804). McSherry (2008) discusses several studies (including Burkhardt, 1991; Cavendish et al., 2000; Shirahama & Inoue, 2001) that demonstrated that "perception and understandings of spirituality may be shaped by a variety of social, cultural or regional factors such as religious beliefs, ideologies and historical associations" (McSherry, 2008, p. 181). Exploring the belief systems of the nurse and of the patient is an important step because nurses "often see spiritual care through a postmodern and humanistic lens of nursing practice, while patients see spiritual care grounded in their own cultural and religious context" (MacKinlay, 2008, p. 152). The postmodern and humanistic worldview of beliefs emphasizes the existence of multiple spiritual truths and it prioritizes the subjective interpretation of the truth. Addressing the spiritual needs of patients using a postmodern paradigm validates the individual who is interpreting their own truth about what represents spirituality for them. This truth may be completely opposite to someone else's views, yet just as valid. Religious and culturally based worldviews stress the value of the collective beliefs, behaviors and values consistent with a group of people.

The many facets of spirituality in a postmodern worldview present increased challenges in identifying and addressing the spiritual needs for both groups: nurses and patients. To be effective, nurses need to reflect on their own spiritual understandings and how their perceptions of spirituality influence their practice of addressing the patients' needs. Nurses also need to regularly evaluate their need for further competence development in this domain.

Nursing competence in providing for the spiritual needs of patients. Although much has been researched in the field of spirituality in nursing care, the vast majority of the literature

aims to address spirituality from the point of view of the patient and the effect spirituality has on them. In evaluating the delivery of effective care, it is important to take into consideration both patients' and nurses' views on spirituality (MacKinlay, 2008). In her review of the literature on spirituality in nursing, Ross (2006) found that generally there seemed to be "a mismatch between clinician and client/patient/carers' perceptions of spirituality and desired spiritual care" (McSherry et al., 2004, cited in Ross, 2006, p. 859). A few authors describe sets of skills and nursing competencies that facilitate the delivery of spiritual care (Baldacchino, 2006; van Leeuwen, 2008; van Leeuwen & Cusveller, 2004; van Leeuwen, Tiesinga, Middel, Post, & Jochemsen, 2009), but the research is limited. Van Leeuwen and Cusveller (2004) refer to a lack of explicit competencies in spirituality care as one potential reason for neglecting to give importance in practice to the spiritual dimension of care. They state that "the competencies required to provide physical, psychological and social care have been clearly documented in the nursing literature but this is not the case for the competencies in spiritual care" (p. 234).

When addressing the spiritual needs of patients, nurses grapple with the complexity of definitions of spirituality and they also report lacking technical skills. In a study of 96 nurses from six residential care facilities, MacKinlay (2006) found that only 30% had preparation in providing spiritual care and 64.3% felt confident or competent to provide spiritual care while 94.3% stated that more preparation would help their practice. Nurses and other healthcare professionals are prepared and willing to be involved in the provision of spiritual care; however, they also report not feeling capable to address the patients' needs satisfactorily (McSherry, 2008).

The ability to meet the patients' needs satisfactorily is linked to the perception of self-confidence in one's abilities to deliver a service and meet a required standard. Desbiens and

Fillion (2011) state that the perceived self-competence is related to nurses' judgements about their own capabilities to provide quality care. The concept of self-competence is rooted in motivational theories and in Bandura's work about belief in self-efficacy. Self-efficacy is "concerned with judgments about how well one can organize and execute courses of action required to deal with prospective situations containing more ambiguous, unpredictable, and often stressful elements" (Bandura & Schunk, 1981, p. 587). Identifying the level of self-perceived confidence combined with clarity in defining spiritual care needs can lead to improving the care in the spiritual domain for people with life-limiting conditions.

Desbiens and Fillion (2011b) developed the 50 item Palliative Care Nursing Self-competences Scale (PCNSC) of which five questions used specifically assess nurses' self-perceived competence in addressing the spiritual needs of palliative patients. The authors developed the instrument to fill a gap in the assessing of self-competence within a range of dimensions of palliative care. The instrument, which is described in further detail below, is intended for research purposes and to foster palliative care nursing competence development, because "perceived self-competence is a determinant of competence learning" (2011, p. 240).

Gaps in the Literature

The literature review revealed several gaps. In one of the most recent reviews of 80 studies in the international literature on spiritual care in nursing, most notable gaps in research on spiritual care were the lack of studies outside of non-palliative or oncology settings, understanding the complexity of interconnectivity between culture and spirituality, and understanding more how nursing education can prepare nurses to learn spiritual care (Cockell & McSherry, 2012). These authors acknowledged that the literature on spirituality, though prolific, is polarized in palliative and cancer care, and most recent studies (66 of 80) were mainly

descriptive, exploring aspects of spirituality, spiritual care and spiritual needs of patients. One of the few correlational studies, (Lundmark, 2006) revealed seven factors which promoted or inhibited spiritual care, of which perceived degree of education in spiritual care and degree of comfort while providing care were identified as significant factors. Despite articles highlighting the need for validated spiritual nursing competence assessment tools, the literature was limited in the number of studies which were focused on nurses' competence in addressing the spiritual needs of the patients (Cockell & McSherry, 2012).

The literature review uncovered gaps in studies about the self-perceived competence of different nursing care provider groups (RNs and LPNs) and care aides in the various sectors of care (hospital, residential, and home care) for people with chronic life-limiting conditions, particularly with respect to rural context. This research arose from identifying the lack of studies which looked at factors that may contribute to the self-perceived competencies of care providers in addressing spiritual needs of patients who require a palliative approach and who live in rural settings. Although not specifically addressing self-perceived competence, in the literature some authors identified that addressing the spiritual needs of patients by nurses was affected by factors such as: the type and level of nursing education (Ronaldson, Hayes, Carey, Green, & Aggar, 2012), the age, life and professional experiences of nurses (White & Coyne, 2011; Gielen, van den Branden, van Iersel, & Broeckaert, 2009), and the context and culture of the nursing unit (palliative, residential or acute care) (Florin, Ehrenberg & Enfor, 2005; McCourt, Power, & Glackin, 2013). This current study aims to fill these gaps in the literature by (a) assessing the self-perceived competence of RNs, LPNs and care-aides in home care, residential care and hospital medical units in rural areas, and (b) examining factors that are associated with variability in self-perceived competence to address spiritual need.

The following research questions were developed to answer the gap in the literature:

1. In addressing the spiritual needs of patients with chronic life-limiting illnesses, what are the self-perceived competencies of RNs, LPNs and CAs in home care, residential care, and hospital medical units in rural areas?

2. To what extent are differences in self-perceived competence explained by demographic factors, professional roles (RN, LPN or CA), clinical contexts (residential, home, hospital), adequacy of knowledge and education on spiritual needs, nurses' self- perceived identification of number patients with life-limiting conditions and who would benefit from a palliative approach and work environment? Further details about the rationale for choosing each of these factors can be found in Appendix IV.

Conclusion

The BC population and health demographics are rapidly changing and, especially in the northern rural communities, the end-of-life services are a very limited resource. People live with multiple life-limiting conditions and have longer experiences in interacting with the healthcare system. Each interaction holds the potential not only to respond to the medical needs, but also to improve the quality of life of the individual living with illness. People who are affected by major life changes in their ability to function are more open to explore spiritual aspects of their lives, and nurses who work in non-palliative care environments are in a unique position to address the patients' spiritual needs. The goal of my research is to describe the current level of the factors that influence the degree of self-perceived competence of rural nurses in non-palliative care settings in responding to the spiritual needs of the patients using a palliative approach.

Chapter Three: Research Design, Methodology and Process

Introduction

The purpose of this project is to analyze and present the level of self- perceived competence and what factors may promote or inhibit the self-perceived competence of northern rural BC nurses and care aids in addressing the spiritual needs of patients with life-limiting conditions who require a palliative approach - in residential, home and acute care settings. The research questions were outlined in chapter one. The following chapter describes the project design, study sample, variables, data collection, ethics, scientific quality and limitations of the study.

Methodology

Research design. This research study is a secondary analysis based on data collected in a previous study (iPANEL). Secondary analysis is the use of data gathered in a previous study or collected for other purposes to test new hypotheses or explore new relationships (Polit & Beck, 2012). A secondary analysis is "best suited for descriptive, exploratory and correlational studies" (Connelly, 2010, p. 193). The primary iPANEL study purpose is described below. This secondary analysis study provided the opportunity to test new research questions related to the spiritual needs dimension of applying a palliative approach, with a specific focus on healthcare in rural settings. By using quantitative research methods this study identified the level of self-perceived competence of rural nurses and care aids in addressing the spiritual needs of the patients. Another part of the analysis was conducted to explain to what degree the level of self-perceived competence was explained by the following factors: demographic, professional role (RN, LPN or CA), clinical context (residential, home, hospital), adequacy of knowledge and

education on spiritual needs, nurses' perceived number of patients with life-limiting conditions and beneficiaries of a palliative approach and work environment.

Primary study design. The iPANEL study's general purpose was to address the questions, "How and in which contexts can a palliative approach better meet the needs of patients with life-limiting illnesses and their family members and guide the development of innovations in health care delivery systems to better support nursing practices and the health system in British Columbia?" The iPANEL survey was based on a mixed-methods research design which used both quantitative and qualitative analyses. The data were obtained from nursing care providers via a cross-sectional survey and focus groups, and in-depth and/or telephone interviews. This secondary analysis study was based on the data collected via quantitative survey methods.

Sampling methods. The iPANEL survey included data collected from five health authorities in British Columbia, but only data from the Northern Health Authority (NHA) facilities was included in this study. Northern Health Authority was selected because it is comprised primarily of small, geographically dispersed rural settings, with only one community over 50,000 citizens. Even though geo-economically, several locations could be considered urban centres, they are different from metropolitan areas. The care in the small urban facilities is based on the rural models of care whereby primary care physicians care for their patients across sectors. The only large urban site included in the survey is Prince George, which serves as a regional centre providing care for people from all rural areas. Based on these determinations, all of the NHA sites that participated in the original study were included in the secondary analysis regardless of their urban or rural status. The sampling strategy for the NHA and all other health authorities is described further below.

Sampling Methods

Data collection. The specific facilities and settings that participated in the survey were determined by the iPANEL researchers using a multi-stage clustered sampling strategy. The sampling of nursing care settings within each Health Authority was stratified by size and type of setting. The sampling frame was developed on the basis of information provided by the Ministry of Health Services and each Health Authority. A stratified random sample of hospital based medical units (general medical or medical-surgical units and specialized medical units), home care agencies and residential care facilities was taken from each geographic jurisdiction of each Health Authority. All RNs, LPNs and care aids or community health workers who provided direct patient care within each of the selected settings were invited to participate. This type of sampling was particularly suitable for ensuring representation of northern rural areas. Because the sampling design was stratified by type and size of setting, the benefit to the study was that an equal proportion of smaller sites, some with only one or two staff, was included in the survey. When provincial surveys base their sampling frame on nursing registration data using a simple random sample, isolated rural sites with few staff members tend to be less prominently represented in the sample. Consequently, perspectives of rural nurses may not be as visible. Data collection took place in two phases, from August to November in 2011 and from May to September in 2012.

The survey administration process consisted of survey packages which were made available to all participants (RNs, LPNs, CAs) and community health workers (CHWs) via site-specific location and research contact. The research contact was established through a clinical intern who worked with the manager to distribute the surveys. The author was the NHA clinical intern and made face-to-face contact with managers and staff from 14 of the 20 survey sites and

had written or phone contact with the other six sites. The survey was offered in four formats: online (using an assigned survey id code), on paper, in person with the clinical intern, or by phone (a toll-free number was provided). At the conclusion of the survey respondents were asked to indicate whether they wanted to also participate in a focus group or in-depth face-to-face or telephone interviews. Each survey package included the following components: (a) consent form, (b) link to online survey option, (c) paper copy of the survey, (d) follow up invitation for the qualitative data study, and (f) an envelope addressed to the iPANEL team to be returned to a specific contact at the site or the iPANEL research team. The surveys were left in the most accessible location for the staff, mostly in staff mail slots or in staff rooms.

The final provincial sample consisted of 1,468 nurses and care aids in 114 settings, including 39 medical units, 38 residential care facilities, and 37 home care agencies. Because the number of questionnaires distributed to each site was based on the site staff list, which included casual, part-time, and regular staff who were not at work during the survey period, it was impossible to determine how many people actually had opportunity to respond to the survey. An exact response rate could therefore not be determined. However, 20% of all questionnaires that were sent out were returned.

The NHA sample included the following 20 settings: six Home and Community Care (HCC) offices, seven residential care settings and seven hospital medical units. The type of care providers included (a) Registered Nurses (RNs) (N= 83); (b) Licenced Practical Nurses (LPNs) (N=40) and (c) Care Aids or CHWs (N= 67). All care providers regardless of their employment status (full time, part time, casual) were invited to participate.

Survey questionnaire of the original study. The original survey questionnaire consists of the following sections: (A) Care of the persons with life-limiting conditions; (B) Integration of

a palliative approach in the practice setting; (C) Knowledge and education; (D) Work environment; (E) Demographic data. Section A of the questionnaire includes the following instrument developed by Desbiens and Fillion (2011b): Self-Perceived Palliative Care Nursing Competencies (SPCNC). The SPCNC consists of 50 items measuring ten dimensions relevant to a palliative approach (five items per dimension): physical needs, psychological needs, social needs, spiritual needs, needs related to functional status, ethical and legal issues, interprofessional collaboration and communication, personal and professional issues related to nursing care and last hours of life. For example, the items related to psychological dimensions ask nurses and care aids to assess their confidence in assessing depression in persons with life-limiting conditions and their families, providing effective care in order to reduce psychological distress and providing support for families who are experiencing grief. The items related to ethical and legal issues ask, for example, nurses and care aids to assess how confident are they in identifying ethical and legal issues and advocating for the patient when there are differences in perspective between the family members on care issues.

Additional sections of the survey questionnaire included in this secondary analysis are focused on (a) the level of knowledge and education that the nurses and care aids have in applying a palliative approach, specifically as it related to addressing the spiritual needs of the patients, (b) the work environment, (c) respondents' reports of the proportions of patients who have life-limiting conditions in their care settings and the proportions of patients with life-limiting conditions who may benefit from a palliative approach, and (d) and the demographic characteristics of the respondents.

Measures and variables for the current study. An overview of the measures and variables for the proposed quantitative analyses of the survey data is provided in Appendix 4.

The central variable of interest in this study is nurses' self-perceptions of competence in addressing the spiritual needs of the patients using a palliative care approach. This variable was based on the spiritual self-perceived competence subscale of the SPCNC instrument developed by Desbiens and Fillion (2011b), which was comprised of five items. Respondents were asked to rate how confident they felt in relation to each item with responses ranging from "0" (not capable at all) to "5" (highly capable). The option of "I don't know" was an additional choice that was treated as missing data in the current analyses. The five SPCNC items for RNs and LPNs are as follows:

1. Assess the spiritual needs of persons with life-limiting conditions and their families.
2. Recognize signs of spiritual distress in persons with life-limiting conditions and their families.
3. Help persons with life-limiting conditions and their families to explore various sources of hope when they demonstrate signs of hopelessness.
4. Assist persons with life-limiting conditions to explore the meaning of their illness experience.
5. Adapt the nursing care in accordance with the spiritual beliefs of persons with life-limiting conditions and their families.

The same items were used for CAs and CHWs. However, the first item was modified to ensure compatibility with their scope of practice. Instead of using the word "assess the spiritual needs of persons with life-limiting conditions and their families" the CHWs and CAs may only "observe and report" on the patients status. Thus the first item was modified as follows: "Observe and report the spiritual needs of persons with life-limiting conditions and their families".

The spiritual needs subscale scores of the SPCNC were computed by averaging the five items. Mean imputation was used when responses to one or two of the five items were missing (Polit & Beck, 2012). If responses were missing for more than two of the items, a missing value was entered for the subscale score. The Cronbach's alpha coefficient was used to evaluate the internal consistency of the "Spiritual" subscale of the SPCNC, and exploratory factor analysis was used to examine dimensionality (Polit, 2010).

The Cronbach alpha coefficient was 0.93 in this sample, which was considered of good reliability reflecting internal consistency among the five items of the questionnaire. According to Polit, coefficients of .80 or greater are highly desirable (p. 355) in order to reduce the risk of a type II error. A factor analysis was conducted to confirm the unidimensionality of the five items (Polit). There was one component with an eigen value of 3.90, which was greater than 1, and factor loadings ranged from .82 to .93.

Independent variables. The independent variables that were used for each of the groups of care providers to address the second research question included the following: demographic factors, professional background ("years of practice") of the nurses, educational background, clinical context, adequacy of knowledge and education on spiritual needs, nurses' self- perceived number of patients with life-limiting conditions and number of patients who would benefit from a palliative approach and work environment.

Demographic variables. The demographic factors were: age, gender, place of birth primary language. The professional background ("years of practice") referred to the length of time that nurses have been working in their current professional role. The educational background ("level of education") referred to the highest level of educational qualification in nursing. The clinical context referred to the unit or department that the nurses worked in.

Adequacy of knowledge and education on spiritual needs. This variable referred to how adequate the nurses and care aides perceived their knowledge on spiritual needs in caring for the persons with life-limiting conditions. The responses provided were on a Likert type scale ranging between 0 and 4. Responses 0 and 1, represented inadequate, 2 represented adequate and responses 3 and 4, represented more than adequate levels of knowledge and education on the spiritual needs of the patients with life-limiting conditions.

Nurse's self-perceived number of patients with life-limiting conditions and number of patients who would benefit from a palliative approach. These variables refer to how many patients out of ten are identified by RNs, LPNs and CAs in each of the respective settings to have life-limiting conditions and how many out of ten patients would benefit from a receiving a palliative approach.

Work environment. The "work environment" variable represents autonomy subscale of the Revised Nursing Work Index (R-NWI) (Aichen & Patrician, 2000), an instrument used in the National Survey of the Work and Health of Nurses (NSWHN) (Health Canada, 2005). The R-NWI was a 57- items scale instrument intended to measure "the organizational attributes noted in the literature as characterizing an environment supportive of professional nursing practice: autonomy, control over the work environment, and relationships with physicians" (p. 151). The "Autonomy" subscale used in the iPANEL survey was identical to that used in the NSWHN/R-NWI. The reliability of the instrument was assessed in the original R-NWI study; the Cronbach alpha for the "Autonomy" variable was 0.75. Similarly, the construct validity was assessed by the original R-NWI scale (Aichen & Patrician, 2000, p152). Other questions included in the iPANEL survey based on the R-NWI instrument (e.g., the variable related to the control over the work environment and relationships with physicians) were excluded from this study because

some of the questions were slightly modified from the original tool. Further validation of the revised questions is therefore recommended.

The responses options for the questions about autonomy in practice were on a 4 point Likert type scale: 1 represented "strongly disagree", 2 represented "somewhat disagree" 3 represented "agree" and 4 represented "strongly agree". The variable "Autonomy" was created by using the mean of all the items which contained responses from at least three out of the possible five items. Mean imputation was chosen in order to substitute for missing data (Polit & Beck, 2012). The five questions included in this study representing autonomy in practice in the R-NWI were:

1. The supervisory staff is supportive of nurses.
2. Nursing controls its own practice.
3. I have the freedom to make important patient care and work decisions.
4. I am not placed in a position of having to do things that are against my nursing judgement.
5. I am a nurse manager or immediate supervisor who backs up the nursing staff in decision making, even if the conflict is with a physician.

The level of autonomy in practice affects how everyday care is planned and implemented. Despite, perceiving themselves self-competent in addressing the spiritual needs of the patients, the degree to which nurses may make independent decisions regarding the care for the patients has an effect on the actual delivery of spiritual care. Including this factor in the regression analysis allows for better understanding of the degree to which the environment of practice prohibits or promotes the level of self-perceived competence in addressing the spiritual needs of patients.

Data analysis plan. The data were examined using descriptive statistics, bivariate associations, and hierarchical linear regression. The analysis was conducted using IBM SPSS Statistics version 22. A sampling weight was used in this survey to adjust for the sampling design. Given the sampling weights, the findings refer to the estimated population percentages based on the responses from nurses and CAs in the corresponding sample.

The amount of missing data in data in each of the independent and dependent variables was assessed. Mean imputation was used for the spiritual self-competence and autonomy variables (see pages 44 and 46, respectively). In addition, a few missing responses for missing data in professional background ("years of practice") and education were inferred or imputed (see page 49). Listwise deletion was used in the regression analysis to accommodate missing responses on other variables. Consequently, of the 189 participants, 29.6% of participants (N=56) were not included in the final regression analysis because of missing responses on one or more of the variables. The sample size for the regression analysis decreased for each step in the analysis. The sample size was 138 and 137 for the first and second step of the regression analysis, respectively, and 133 for the final regression analysis.

Sample distributions. The samples were described using means and percentages in a narrative and graph format. The variable "Provider" was created to represent the three categories of care provider: RN (including RPNs), LPN and CA (including CHWs and CAs). The variable "Setting" was created to represent the three different types of settings: HCC, Residential Care and Hospital units. These variables were categorical variables. For the regression analysis, each category was combined and coded under "Provider-Setting" resulting in nine groups (e.g., RN in HCC, RN in Residential Care, RN in hospital, LPN in Hospital, etc). Only seven of these groups were included in the analysis because there are few care aids and few LPNs in HCC.

To describe the sample several demographic variables (age, gender, place of birth, primary language, professional background ("years of practice"), educational background, adequacy of knowledge and education in addressing the spiritual needs of the patients) were analysed by the type of providers. The results were presented using frequencies and percentages within each type of provider group. Similarly, variables which describe the type of patients in the care setting (number of patients out of ten with a life-limiting condition and number of patients out of ten benefiting from a palliative approach) as well as the autonomy in practice of nurses and care aides were described by care setting.

Several of the categorical variables were collapsed in the analysis. These variables had sparse responses in at least one of the categories. The independent variables "place of birth", "primary language" were collapsed into dichotomous groups. "Canada" represented sampled responses from people born in Canada and "Other"- represented responses from people who were born outside of Canada. Similarly the groups "English" or "Other" represented sampled responses from people who spoke English as the primary language or another language respectively. Other categorical variables with responses in related categories were collapsed in one comprehensive category. For example the original survey variable "highest level of education in Nursing" explicitly asked about Registered Psychiatric Nursing Diploma and Registered Nurse Diploma, Bachelors in Nursing and Bachelors in Psychiatric Nursing. In this study these four variables were collapsed into two discrete categories: Registered Nurse/Registered Psychiatric Nurse (RN) and Bachelors' Degree (BSc). If the sample contained responses from fewer than five participants (0.3% of total sample) these responses were collapsed in the next like-category (e.g., participants with a Masters' degree where combined with those who had a Bachelors' degree).

The following continuous variables were categorized based on quartiles of the sample: professional background ("years of practice"), nurses' self-perceived number of patients with life-limiting conditions, and number of patients identified to benefit from a palliative approach. A quartile contains a quarter of the distribution values and it identifies the 25^{th}, the median, which is the 50^{th} percentile, and the 75^{th} percentile of the sample values (Polit, 2010). By using this approach it allowed the researcher to mitigate the influence of any outliers.

To account for missing data in professional background ("years of practice") and education, the researcher manually analyzed the sample and identified other methods of ascribing responses. The information regarding the professional role was related to indicating whether a person was an RN, LPN or CA. If the participants identified working as an NHA employee in an LPN role, it was assumed that the conditions of hire included professional registration with the College of Licenced Practical Nurses of BC. One of the pre-requisites for registration is the LPN certificate education component; therefore whenever people identified themselves as an LPN, and this information was missing, the researcher manually ascribed the "Certificate" education to this response. There were a few situations in which the RNs did not provide information about their education level in nursing. The imputed data was 0.05% of the total sample (N=10). In the situation when there was no information to determine whether a nurse held a RN Diploma or a Bachelor degree, the responses were randomly imputed to either one of the two potential groups (RN or BSc). The randomization was completed by computer.

Methods for Research Question 1

An initial descriptive analysis was performed to determine the frequencies of the providers' responses for every individual item on the "Spirituality" scale. The results were presented in graph formats by using percentages. Next, the researcher analyzed the level of self-

perceived competence on every item of the "Spirituality" scale, by each type of care provider, and each type of care setting. Cross-tabulations were used to determine whether there is a tendency for any type of providers in any type of care setting to perceive themselves more confident regarding a particular item of the "Spirituality" scale. Some of the response categories were sparse. To address this, the "Spirituality" scale items were transformed into binary variables: confident and not confident. A self-perceived competence score of 3 or higher, represented feeling confident, and was interpreted having an adequate level of self-perceived competence, and a score from 0 to 2 indicated inadequate level of competence. The compiled data in the cross-tabulation provided an at-a-glance image about the adequacy of the level of self-perceived competence of a particular provider or in a particular setting. The frequencies were presented in tables noting any statistically significant associations between the items by reporting the Pearson chi-square test values.

The first research question was addressed by comparing the distributions of the "Spirituality" variable across the three different care provider groups (RNs, LPNs and CAs) and types of settings (hospital, residential, and homecare). To determine the significant differences in mean scores across the groups a one-way analysis of variance (ANOVA) was conducted for type of care setting and type of care provider. ANOVA was used to reduce the likelihood to commit a Type 1 error. The test was appropriate because the dependent variable, perceived level of competence in addressing the spiritual needs was on an interval scale with values from zero to five, and the independent variables are nominal level variables (based on the three settings, or three categories of professional designations). The results of the ANOVA were presented using means in a graph format. A post-hoc Tukey HSD test was used to determine the differences

between the various types of setting and provider groups. The effect size was calculated using the eta squared (Polit & Beck, 2012).

Methods for Research Question II

Hierarchical and multivariate linear regression were used to address the second question by evaluating the extent to which variation in registered nurses' and care aides' self-perceived spiritual care competence (dependent variables) was explained by demographic factors, professional background ("years of practice"), educational background ("level of education"), clinical context (residential, HCC, hospital), adequacy of knowledge and education on spiritual needs, nurses' self-perceived number of patients with life liming conditions and number of patients who would benefit from a palliative approach, work environment (independent variables). The multiple regression analysis included all following demographic factors: age, place of birth, primary language, "years of practice", "level of education" obtained, clinical context. Although the data set contained information about the gender of the participants, the variable "gender" was excluded from the regression analysis because there were only four male respondents.

Dummy coding was used in regression analysis when the predictor factor had more than two categories (Polit, 2010). Dummy variables were created for independent variables with multiple subgroups (e.g. "years of practice", type of care provider, type of setting, "level of education", adequacy of knowledge and education on spiritual needs, nurses' self- perceived identification of patients with life-limiting condition and those who would benefit from a palliative approach). Linear regression models were used to assess the bivariate associations between "Spirituality" and each independent dummy-coded variable. Each independent variable was examined individually in a regression analysis model with "Spirituality" as the dependent

variable. The sets of dummy variables related to an independent variable were introduced in the regression model together. The results were presented in a table which indicated the R^2 score, β scores and statistical significance levels.

Hierarchical linear regression analysis. To complete the examination of the second research question three hierarchical multiple regression were performed. A hierarchical multiple regression involved entering predictors into the equation in a series of steps, where a researcher controlled the order of entry based on theoretical considerations or logic (Polit & Beck, 2012). To examine the unique contribution of adequacy of knowledge and education on spiritual needs (hereafter referred to simply as "knowledge and education"), "level of education" in nursing and "years of practice", these variables were introduced in the first block of predictors. The empirical support for this decision was based on the results from the bivariate analysis. The "years of practice" variable was logically related to these two factors. The second block of predictors included the type of provider and the remaining demographic factors. The last block of predictors was related to the type of care setting, nurses' self- perceived identification of patients with life-limiting condition and those who would benefit from a palliative approach and the level of autonomy. This order of variable entry allowed the researcher to understand whether the addition of the elements related to the care provider or care setting characteristics added to the variance of the prediction of addressing the spiritual needs ("Spirituality").

The first model (block 1) examined the prediction of "Spirituality" by the following variables "knowledge and education", "level of education" and "years of practice". The "knowledge and education" variable was included as dummy coded variables for "less" than adequate knowledge and education (original values 0 or 1) and "more" than adequate (original values 3 or 4), with "adequate" specified as the referent group (original value 2). The dummy

variables related to "level of education" ("certificate", "Diploma" or "RN") were analyzed in relation to "BSc", and the "years of practice "1974-1996", "1997-2004", "2005-2008" in relation to the referent group "2009-2012".

The second model (block 2) looked at the type of provider, age, place of birth, primary language ('English as a first language'). The dummy variables "RN" and "CA" were analyzed with "LPN" as referent. This was based on Polit (2010) who stated that the reference group was often the one that has the smallest membership.

The third model (block 3) included the variables related to the type of care setting, autonomy, and nurses' self-perceived number of patients out of ten with life-limiting conditions, and number of patients who would benefit from a palliative approach. The variables number of patients with life-limiting conditions and those who would benefit from a palliative approach are based on nurses' evaluations thereof. The dummy variables "Residential" and "Home" were analyzed with "Hospital" as referent. "Hospital" was used as a referent on the basis that hospitals were settings where the focus was on physical aspects of care, and the level of self-perceived competence in the non-medical aspects of care tended to be the lowest amongst acute care nurses. The dummy variables for the number of patients (1-4), (5-7), (8-9) were created by collapsing in quartile groups, the numbers reported by nurses of patients out of ten who had life-limiting conditions and those who would benefit from a palliative approach. The dummy variables were examined in relation to the referent group "10" out of 10.

The results of all regression analysis are presented in a table format. A comparison between the beta weights highlighting the statistically significant values are presented in a table format. The parameters of the final regression were used in calculating the "Pratt index" score for the relative importance of each of the independent variables in the variance of the

"Spirituality" score (Thomas, Hughes, & Zumbo, 1998). The "Pratt index" score represents the importance of each of the independent variables in relation to the other variables used in this model. These results were discussed with the aim of gaining insight into the relative significance of the variables used in this model on the level of self-perceived competence of rural northern nurses and care aids in addressing the spiritual needs of the patients with life-limiting conditions by using a palliative approach.

The sample size was checked and deemed adequate for the purposes of the study. Considering a full sample size of 189 participants, the magnitude of effect that could be detected was at an $f^{2=}$ 0.12 with an R^2 of 0.11 at $\alpha = 0.05$, with power 0.80, with an alpha of 0.05. To account for missing data, the magnitude of effect that could be detected was considered for various sample sizes. A sample size representing approximately 15% missing data of (N=159), resulted in an R^2 of 0.18 (f^2= 0.22); for approximately 25% missing data (N=141), an R^2 of 0.20 (f^2= 0.25); for approximately 30% missing data (N=131), the R^2 =0.22 (f^2= 0.28).

Ethical Considerations

The primary data for this study received initial ethical board approval from Trinity Western University and the five health authorities, including the Northern Health Authority ethics review boards. The author, having been involved in the distribution of the surveys in NHA, was made familiar with these documents. Ethical consent for this secondary analysis study was obtained from the Trinity Western Research Ethics Board. This process was completed in accordance with the regulatory requirements, and approval was received and extended in February 2013 and 2014 respectively. Following the approval, access to the iPANEL survey data was granted and once the study is completed, written up and approved all data will be kept for five years on a password-protected computer.

Conclusion

This chapter aimed to describe in detail the project design, study sample, variables, processes of obtaining the data, ethics, scientific quality and limitations to the study. This chapter outlined methodology of the initial iPANEL study (design, sampling strategy, data collection). It also outlines the measures and variables which were used in the study, it describes in detail the research instruments (SPCNC instrument) and the data analysis plan. The scientific quality of the study was examined and the reliability and unidimentionality factors were reported. The number of valid responses and ethical considerations were confirmed.

Chapter Four: Findings

Introduction

In this chapter, the sample distribution of nurses and care aids who work in rural residential, home and acute care settings was examined through descriptive statistics. The results of the level of self-perceived competence of northern rural BC nurses and care aides in addressing the spiritual needs of patients with life-limiting conditions, who require a palliative care approach in the above mentioned care settings, were examined through bivariate associations. Hierarchical linear regression was used to address the question: "What factors may promote or inhibit the self-perceived competence of the nurses and care aids?

Sample Description

Survey responses were obtained from 189 nurses (RN, RPN, LPN) and CAs (representing both community health workers and care aides) at 20 care sites across Northern Health Authority (NHA). The distributions of the subjects who responded to the survey are organized by the type of provider (RN/RPN, LPN, CA) and by the type of setting where the services were provided (hospital, home and community care, residential care). Because the analysis used sampling weights, the percentages in the distribution refer to the estimated population percentages, based on the responses from nurses and CAs in the corresponding sample. About 44% of the represented population were RNs (including RPNs), of which about 40% worked in hospitals. About three quarters (73.1) of the CAs worked in residential care. However, only three percent of the CAs stated their workplace as being in the hospital. The LPNs who responded to the survey represented 21.1% of the respondent population, with two thirds of the LPNs working in residential care and one third in hospital. Home and Community Care (HCC) departments tend to primarily hire RNs and CAs; there were no LPNs in HCC who responded to the survey.

The mean age of the RNs was 43 with an SD of 12.4 years and a range from 21-64. The age distribution of the RNs was somewhat leptokurtic ($Z_{kurtosis}$=1.46). The mean age of LPNs was slightly lower than that of the RNs and CAs at 38.4 years with an SD of 11.7 years and a range from 22-62. The mean age for the CA was the highest amongst the three groups with a value of 46 years and an SD of 10.8 and a range from 24-64. The CA distribution was negatively skewed ($Z_{skewness}$ = -2.01). About 12% of the nurses and care aides were born outside of Canada. Almost all of the respondents were female with the primary language being English (85%). Four males responded to the questionnaire, representing only 2.5 % of the population.

The first "year of practice" varied from 1974 to 2012. About a quarter of the nurses (24.5%), LPNs (28.6%) and CAs (27.1%) have at least three years of practice, representing 26.4% of the population. About half of the LPNs (45.7%) and 43.1% of RNs and 57.6% of CAs have about seven years of practice in their work. About two thirds (64.9%) of the LPNs and CA also have less than four years of practice. About two thirds of all nurses and CAs combined hold a diploma, 35% have obtained a Bachelors' degree, and only one participant has a Masters' Degree. A more detailed description of the sample is presented in Table 1.

Table 1

*Sample Description by Type of Care Provider**

Variable	% RN (*N*=83)	% LPN (*N*=40)	% CA/CHW (*N*=66)	Frequency	% TOTAL*
Total providers	**43.7**	21.1	35.3	189	100
Setting					
Residential	19.3	65.0	**73.1**	91	47.9
Home	**39.8**	0.0	23.9	49	25.8

Hospital	**41.0**	35.0	3.0	49	26.3
$\chi^2(4, N=190)= 64.01$, df = 4, $p = .00$)					
Gender					
Male	2.8	**3.4**	1.6	4	2.5
Female	97.2	96.6	**98.4**	158	97.5
$\chi^2(2, N=162)= 0.34$, df = 2, $p = .34$)					
Place of birth					
Canada	74.7	**84.6**	82.1	150	79.4
Other	4.8	2.6	**10.4**	12	6.3
$\chi^2(4, N=189)= 7.86$, df = 4, $p = .09$)					
Language					
English	**42.0**	21.7	36.0	161	84.7
Other	25.0	12.5	**62.5**	8	4.2
$\chi^2(4, N=190)= 5.94$, df = 4, $p = .20$)					
"Years of practice"					
1974-1996	**33.8**	22.9	13.6	38	23.9
1997-2004	23.1	**31.4**	28.8	43	27.0
2005-2008	18.5	17.1	**30.5**	36	22.6
2009-2012	24.6	**28.6**	27.1	42	26.4
$\chi^2(6, N=159)= 8.78$, df = 6, $p = .19$)					
Highest level of education in Nursing					
High school	0.0	0.0	**3.1**	2	1.1
Certificate	0.0	0.0	**80**	52	27.7

Diploma	0.0	**97.4**	1.5	39	20.7
RN	**60.7**	0.0	1.5	52	27.7
BSc	**34.5**	0.0	1.5	30	16.0
MSc	**1.0**	0.0	0.0	1	0.5

$\chi^2(12, N=188)= 341.33$, df = 12, $p = .00$)

How adequate is knowledge and education in addressing the spiritual needs of the patients with life-limiting conditions?					
0	2.9	0.0	**6.3**	6	3.6
1	18.8	**48.6**	30.2	50	29.6
2	43.5	29.7	**49.2**	72	42.6
3	**29.0**	16.2	14.3	35	20.7
4	**5.8**	5.4	0.0	6	3.6

$\chi^2(8, N=169)= 19.60$, df = 8, p = .01)

In your setting how many patients out of ten have life-limiting conditions?					
1-4 patients	**33.3**	26.3	20.0	45	26.9
5-7 patients	**30.4**	23.7	21.7	43	25.7
8-9 patients	26.1	18.4	**30.0**	43	25.7
10 patients	10.1	**31.6**	28.3	36	21.6

$\chi^2(6, N=167)= 11.60$, df = 6, $p = .07$)

In your setting how many patients out of ten would benefit from a palliative approach?					
1-4 patients	27.9	**37.8**	10.0	3	23.6
5-7 patients	30.9	**32.4**	18.3	4	26.7

8-9 patients	5.9	13.5	**35.0**	3	18.2
10 patients	35.3	16.2	**36.7**	52	31.5
$\chi^2(6, N=165)= 29.88$, df = 6, $p < .00$)					
Age	Total care providers $M= 45.44$ ($SD= 11.68$)				
M (SD) ** *	43.09 (12.49)	38.43 (11.79)	**46.05** (10.86)	189	
$F(2, 167)= 1.06$, df = 2, $p = .34$)					

Note. Bolded values suggest highest percentage within the group.

* number of valid responses, **all provider percentages represent population estimates based on the weighted data, * ** M= Mean, SD= Standard Deviation, *F* = F-test for the ANOVA of continuous variables, χ^2 = chi-square test for the categorical variables, df = degrees of freedom.

Comparisons of independent variables distributions across care setting. The following part presents a comparison of the independent variables across the different types of care settings. The first part describes some of the demographic characteristics of the estimated percentage of staff in the corresponding residential, HCC and hospital setting. Distributions of the identification by nurses of patients with life-limiting conditions and who would benefit from a palliative approach variables are provided subsequently.

About two thirds of staff working in HCC were RNs with a mean age of about 49. The staff working in HCC tended to be more experienced than other groups; about 40% of them have practiced between 8 to 15 years. In comparison, the RNs working in hospital had a mean age around 43, and overall staff indicated that more than a third (35.9) of the total number of RNs who work in hospital have practiced for less than 3 years. In residential care, the largest staff

representation consisted of CAs and more than a third of the sampled responses from staff (35.1%) indicated that they also practiced for less than 3 years. In all three care settings the vast majority of sampled staff were female, born in Canada, and spoke English as the first language.

In residential care, most people with life-limiting conditions were identified as ones who would benefit from a palliative approach. About 42.7 % of residential care staff believed that 10 out of 10 patients have life-limiting conditions in their setting. Few nurses in HCC and HCWs (2.4%) and none of the nurses in the hospital settings considered that 10 out 10 patients at their settings have a life-limiting condition. Despite the lower percentage of patients identified with life-limiting conditions in HCC settings, about 40% of the participants who work in HCC settings identified that 10 out 10 patients with life-limiting conditions would benefit from a palliative approach, whereas only 7.5% of hospital staff considered a palliative approach beneficial to 10 out of 10 patients with life-limiting conditions. Half of the hospital participants indicated that 5-7 patients in their care have life-limiting conditions and that only 1-4 of these patients out of 10 would benefit from a palliative approach. A more detailed description is presented below.

Table 2

*Sample Description by Type of Care Setting**

Variable	% RESIDENTIAL (*N*=91)	% HOME (*N*=49)	% HOSPITAL (*N*=49)	Frequency	%TOTAL*
Total providers	47.9	25.8	26.3	190	100
Provider					
RN	17.6	**67.3**	68.0	83	43.7
LPN	**28.6**	0.0	28.0	40	21.1

CA/CHW	**53.8**	32.7	4.0	66	35.3
$\chi^2(4, N=190)= 64.01$, df = 4, $p = .00$)					
Gender					
Male	**3.7**	0.0	2.9	4	2.5
Female	96.3	**100**	97.1	158	97.5
$\chi^2(2, N=162)= 1.70$, df = 2, $p = .43$)					
Place of birth					
In Canada	79.1	**81.6**	77.1	149	79.3
Other	**6.6**	6.1	6.3	12	6.4
$\chi^2(4, N=188)= 0.41$, df = 4, $p = .98$)					
Language					
English	84.6	**87.8**	80	160	84.2
Other	3.3	**6.1**	4.0	8	4.2
$\chi^2(4, N=190)= 2.92$, df = 4, $p = .57$)					
"Years of practice"					
1974-1996	14.3	30	**35.9**	37	23.7
1997-2004	26.0	**40**	15.4	42	26.9
2005-2008	24.7	**27.5**	12.8	35	22.4
2009-2012	35.1	2.5	**35.9**	42	26.9
$\chi^2(6, N=156)= 24.70$, df = 6, $p = .00$)					
Highest level of education in Nursing					
High school	1.1	**2.1**	0.0	2	1.0
Certificate	**44.1**	25.0	4.0	55	28.8

Diploma	**28.0**	0.0	**28.0**	40	20.9
RN Diploma	9.7	**50.0**	38.0	52	27.2
BSc	10.8	10.4	**30.0**	30	15.7
MSc	0.0	**2.1**	0.0	1	0.5

$\chi^2(12, N=191)= 71.26$, df = 12, $p = .00$)

How adequate is knowledge and education in addressing the spiritual needs of the patients with life-limiting conditions?

0	3.6	2.2	**4.9**	6	3.6
1	**31.3**	17.8	39.0	49	29.3
2	44.6	**55.6**	22.0	71	42
3	18.1	20.0	**29.3**	35	21.3
4	2.4	4.4	**4.9**	6	3.6

$\chi^2(8, N=167)= 19.38$, df = 12, $p < .05$)

In your setting how many patients out of ten have life-limiting conditions?

1-4 patients	7.3	**52.4**	40.0	16	26.8
5-7 patients	22.0	35.7	**50.0**	42	25.6
8-9 patients	28.0	**5.7**	10.0	49	25.6
10 patients	**42.7**	2.4	0.0	36	22.0

$\chi^2(6, N=164)= 76.24$, df = 6, $p = .00$)

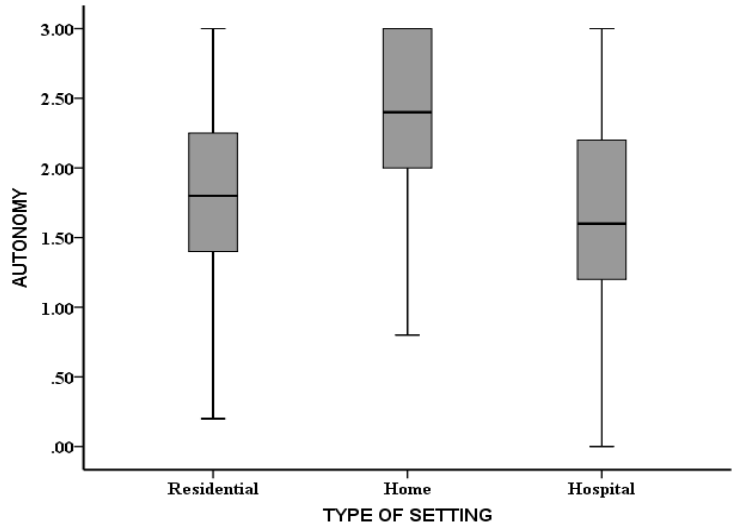
In your setting how many patients out of ten would benefit from a palliative approach?

1-4 patients	12.2	20.9	**50.0**	20	23.6
5-7 patients	24.4	20.9	**35.0**	43	26.1
8-9 patients	**24.4**	18.6	7.5	31	18.8

10 patients	39.0	**39.5**	7.5	52	31.5
$\chi^2(6, N=165)= 31.93$, df = 6, $p = .00$)					
Age	Total care providers $M= 45.44$ ($SD= 11.68$)				
M (SD) ** *	44.92 (11.40)	**48.78** (9.98)	42.92 (13.27)	189	
$F(2, 165)= 2.90$, $p = .06$					

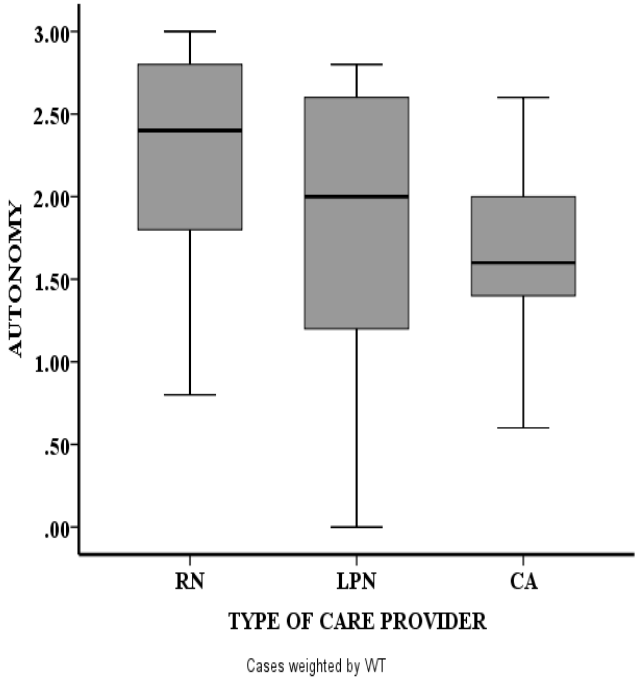
Note. Bolded values suggest highest percentage within the group. *of valid responses, **all provider percentages represent population estimates based on the weighted data, ** * M= Mean, SD= Standard Deviation, *F* = F-test for the ANOVA of continuous variables, χ^2 = chi-square test for the categorical variables, df = degrees of freedom.

Level of autonomy in practice. This section was focused on presenting the results of analysis of the "Autonomy" variable across the care setting and among care providers. The highest level of self-perceived autonomy in practice was in home and community care [*M*= 2.36, SD= 0.62; with a 95% CI= (2.17-2.54)], and the lowest level was in the hospital settings [*M*= 1.73, SD= 0.64; with a 95% CI= (1.53-1.93)]. The mean level of autonomy in residential care was 1.85 [SD= 0.58; with a 95% CI= (1.72-1.97)]. In analyzing the type of care provider, the RNs had the highest level of autonomy [*M*= 2.30, *SD*=.58 with a 95% CI= (2.16-2.44)], followed by LPNs [*M*= 1.87, *SD*= 0.70 with a CI= (1.64-2.11)] and CAs [*M*= 1.62, *SD*=0.50 with a 95% CI= (1.50-1.75)]. These values are represented in the graphs 1 and 2 below.



Note. *95% Confidence interval,**Sample size: Residential *N*=91, Home *N*= 49, Hospital *N*= 49.

Figure 1. Boxplot 1. Comparing mean levels of self-perceived autonomy in practice settings.



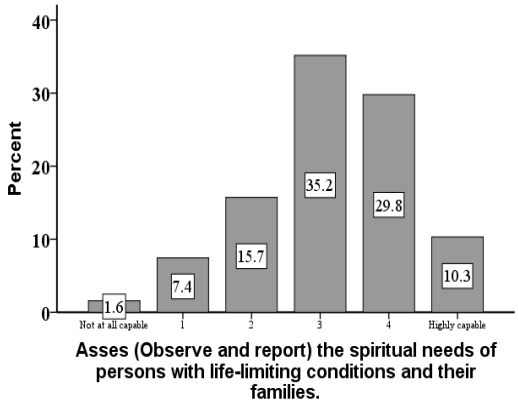
Note.* 95% Confidence interval, **Sample size: RNs *N*=83, LPNs *N*=40, CAs *N*=67.

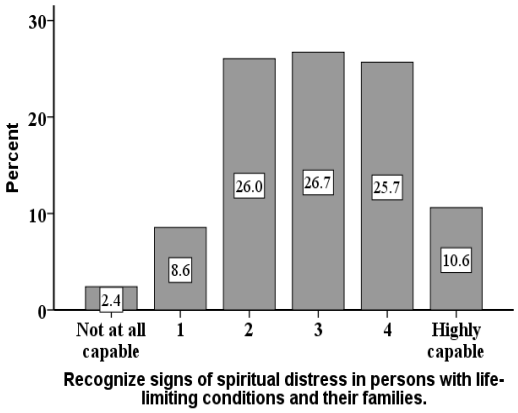
Figure 2. Boxplot 2. Comparing mean levels of self-perceived autonomy among care providers.

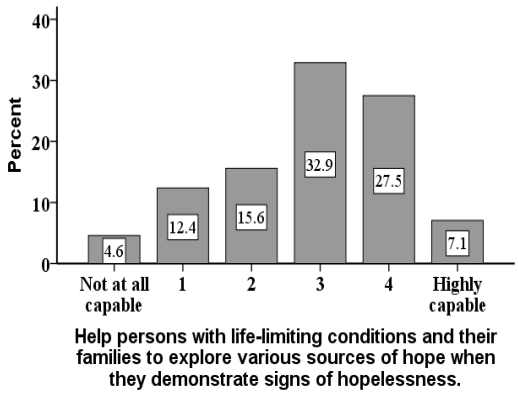
Research Question I

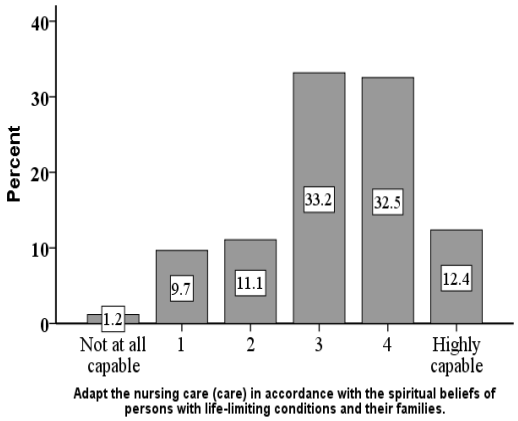
The following section was divided in three parts. The first part describes the results from analysis of responses for individual items on the "Spirituality" scale. The second part describes the results from the cross-tabulations between the five items of the variable "Spirituality" and the level of self-perceived competence of care providers in each of the three care settings. The third part addressed the comparison of the spiritual needs subscale scores amongst RNS, LPNs and CAs in the hospital, home care and residential care settings.

The initial analysis performed to determine the frequency distributions of each individual item on the "Spirituality" scale shows that more than one third of the responders considered themselves capable to assess (observe and report) the spiritual needs of persons with life-limiting conditions, to help persons and families to find sources of hope, and to assist to explore meaning of illness and adapt the care plan. About 10% of the RNs, LPNs and CAs perceived themselves highly capable to assess (observe and report) the spiritual needs of the persons with life-limiting conditions, to recognize signs of spiritual distress and to adapt the nursing care plan. However, almost half of the responders considered themselves less than capable to assist persons with life-limiting conditions explore the meaning of their illness experiences (Graphs 1-5).









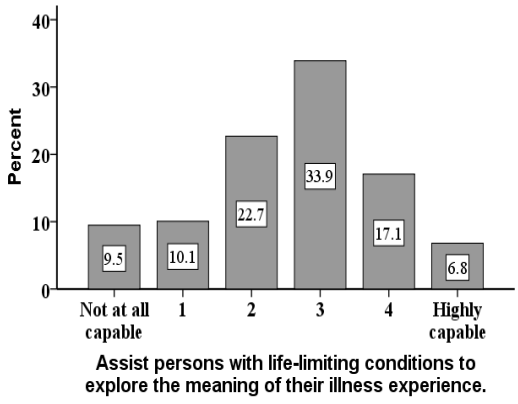


Figure 3. Graph 1-5. Nurses and care aids self-perceived competence for each "Spirituality" item (*N*=189).

To further facilitate a comparison of self-perceived competence of nurses in addressing the spiritual needs across the different care provider groups (RNs, LPNs, CAs) and settings (hospital, residential and home care), cross-tabulations of the collapsed item responses were completed. In particular, the within-group percentages of self-perceived competence scores greater than 2 (indicative of feeling confident) were compared. The results of the cross-tabulations are presented in Tables 3 and 4. Table 3 presents the results of the cross-tabulations between the level of self-perceived competence of care providers in each of the three care providers, and the five items of the variable "Spirituality". Table 4 presents the results of the same type of cross-tabulation as it pertains to the three care settings.

Table 3

Addressing spiritual needs variables by type of care provider

	RN* (*N*=83)	LPN (*N*=40)	CA (*N*=67)	Total
Assess spiritual needs	**77.7**	62.9	72.7	63.9
$\chi^2(2, N= 177)= 2.65$, df = 2, $p=.27$				
Recognize spiritual distress	62.3	**69.7**	62.7	63.8
$\chi^2(2, N= 177)= 0.60$, df = 2, $p=.74$				
Explore sources of hope	**67.5**	65.7	65.7	66.5
$\chi^2(2, N= 179)= 0.07$, df = 2, $p = .97$				
Explore meaning of illness	**64.9**	62.9	50	59
$\chi^2(2, N= 178)= 3.55$, df = 2, $p = .17$				
Adapt the nursing care	80.3	**82.4**	81.8	81.2
$\chi^2(2, N=176)=0.09$, df = 2, $p = .96$				

Note. *% confident. These values represent percentages of self-perceived competence level greater than 2. All questions are related to patients with life-limiting conditions and their families. Bolded values suggest highest percentage within the group.

Table 4

Addressing spiritual needs variables by type of care setting

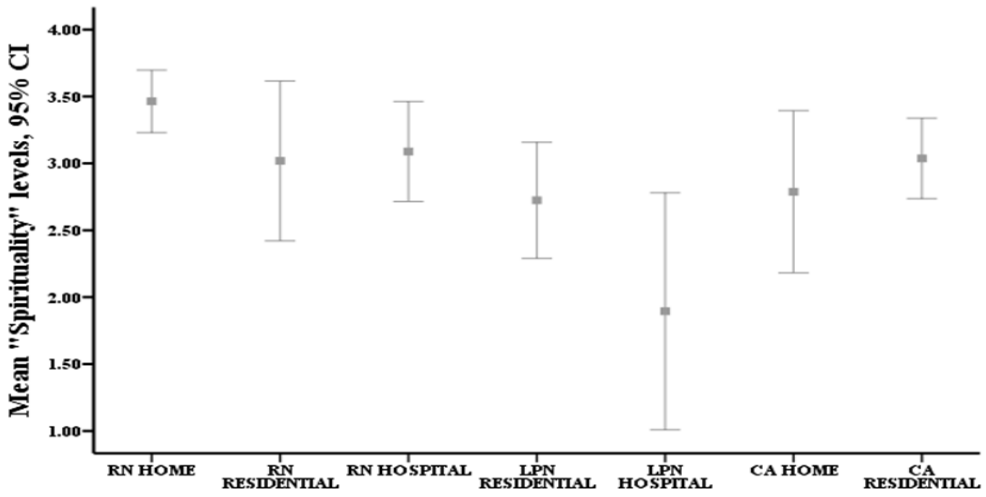
	RN* (N=83)	LPN (N=40)	CA (N=67)	Total
Assess spiritual needs	73.5	**86.3**	64.8	72.9
$\chi^2(2, N=177) = 4.40$, df = 2, $p = .11$				
Recognize spiritual distress	66	**76**	53.7	63.9
$\chi^2(2, N=177) = 4.40$, df = 2, $p = .11$				
Explore sources of hope	68.4	**79.3**	56.3	66.5
$\chi^2(2, N=179) = 4.83$, df = 2, $p = .09$				
Explore meaning of illness	59.6	**72.4**	50.9	59
$\chi^2(2, N=178) = 3.66$, df = 2, $p = .16$				
Adapt the nursing care	86.1	**89.8**	67.9	65.9
$\chi^2(2, N=176) = 9.02$, df = 2, $p = .01$*,				

Note. *% confident. These values represent percentages of self-perceived competence level greater than 2.All questions are related to patients with life-limiting conditions and their families. Bolded values suggest highest percentage within the group.

A Pearson chi-square test was conducted and the results revealed that there were no significant differences for each of the self-perceived competence items across care provider groups. The only significant relationship existed between the item on "adapting the nursing care" and the type of care setting ($\chi^2 = 9.02$, $df = 2$, $p < .01$). A significantly larger percentage of staff working in residential care (86.1%), Home Care (89.8%) and Hospital (67.9%) perceive themselves confident in adapting the nursing care in comparison with those who are less or not confident in the same settings. Even though the results did not reveal statistical significance in

comparison to the two other settings, HCC had the highest percentage of staff who perceived themselves "confident" in all five parts of addressing the spiritual needs of patients.

The following part of the results section addresses the comparison of the spiritual needs subscale scores amongst RNS, LPNs and CAs in the hospital, home care and residential care settings. The level of self- perceived competence of RNs, LPNs and CAs in the three care settings revealed that the highest level of self-perceived competence in addressing the spiritual needs of the patients was amongst the RNs in the HCC [*M*=3.46, *SD*=.66 with a 95% CI=(3.23-3.70)]. The lowest level of self-perceived competence was amongst the LPNs in hospital [*M*=1.90, *SD*= 1.48; with a 95% CI= (1.01-2.78)]. In analyzing the type of setting, the HCC setting has the staff with the highest level of self-perceived competence [*M*=3.24, *SD*=.89 with a 95% CI= (2.99-3.50)], followed by Residential Care settings at [*M*=2.94, *SD*= 1.05 with a CI= (2.72-3.17)] and Hospital settings [*M*=2.72, *SD*=1.28 with a 95% CI= (2.35-3.10)]. The LPNs had the lowest level of self-perceived competence [*M*=2.44, *SD*=1.27 with a 95% CI= (2.03-2.85)] while the RNs expressed the highest level of self- perceived competence [*M*=3.23, *SD*=.92 with a 95% CI= (3.02-3.43)]. More details are presented below in Graph 8.



.

Note. Sample sizes: RN Home (*N*=33), RN Residential (*N*=16), RN Hospital (*N*=32), LPN Residential (*N*=26), LPN Hospital (*N*=13), CA Home (*N*=16), CA Residential (*N*=46).

Figure 4. Graph 6. Mean values for the level of self-perceived competence of RNs, LPNs, CAs in Residential, Home and Community Care and Hospital settings.

ANOVA and post-hoc analyses. Overall, the above differences between nursing care setting and provider groups regarding the self-perceived competence to address spiritual needs were statistically significant [$F(6,180) = 4.09$, $p < 0.001$]. A post–hoc comparisons Tukey's HSD test indicated that there was a statistically significant difference at $p < 0.00$ between the level of self-perceived competence of LPNs working in hospital from RNs working in HCC [*M*=-1.57, *SE*=0.33 with a 95% CI= (-2.57, -0.57)] and RNs working in hospital [*M*=-1.19, *SE*=0.33 with a 95% CI= (-2.20, -0.19)] and CAs working in residential care [*M*=-0.31, *SE*=0.25 with a 95% CI= (-1.07-0.44)] was statistically significant at $p< 0 .01$. The effect size for this result, $\eta^2 =0.12$, indicating a large effect. The Levene's test of significance score was 3.09, *df* (6,174) with $p <$

0.01, therefore the test for a null hypothesis, that the variances were equal is violated. The ANOVA results have to be interpreted with caution; the population group in the distributions was less than 20 per group, and group sizes are not equal.

Research Question II

To address the second research question and examine to what extent the differences in self- perceived competence are explained by professional roles, clinical context, work environment and demographic factors a multiple regression analysis was conducted. First, the results of the bivariate associations will be presented, followed by the hierarchical and multiple regression analysis results.

Bivariate analysis. Bivariate associations were evaluated via separate linear regression analyses for each independent variable. For each nominal variable the dummy-coded variables were combined in the same analysis. There were ten variables that had statistically significant correlations with "Spirituality": being born in Canada (β= 0 .15, $p < 0.05$), being an RN in relation to LPN (β= 0.36, $p < 0.00$), a CA in relation to LPN (β= 0.23, $p < 0.01$), working in HCC in relation to Hospital (β= 0.20, $p < 0.01$), having a LPN diploma in relation to a Degree (β= -0.21, $p < 0.05$) or RN diploma in relation to a Degree (β= 0.27, $p < 0.01$), autonomy in practice (β= 0.15, $p < 0.05$), having "less" knowledge and education in relation to "adequate" (β= -0.37, $p < 0.00$), and "more" knowledge and education in relation to "adequate" (β= 0.32, $p <$ 0.00). Details of the bivariate associations are presented in Table 5 below.

Table 5

Bivariate regression with dependent variable "Spirituality" and individual independent variables

Variable	*B*	*SE B*	*β*	*p*	R^2
Age (189) *****	-0.01	0.01	-0.06	-0.42	0.00
Language (English) (183)	0.00	0.00	0.12	0.10	0.01
Place of birth (Canada) (183)	0.00	0.00	0.15	**0.04****	0.02
"Years of practice" (referent = 2009-2012) (42)					0.02
1974-1996 (38)	-0.11	0.25	-0.04	-0.65	
1997-2004 (43)	0.04	0.24	0.02	0.87	
2005-2008 (36)	0.33	0.25	0.13	1.30	
Care provider type (referent = LPN) (40)					0.08
RN (83)	0.78	0.20	0.36	**0.00*****	
CA (67)	0.53	0.21	0.23	**0.01****	
Care setting type (referent = Hospital) (49)					0.03
Residential (91)	0.20	0.20	0.09	0.31	
Home (49)	0.50	0.22	0.20	**0.02***	
"Level of education" (referent = Degree) (31)					0.16
Certificate (56)	0.13	0.25	0.06	0.60	
Diploma (40)	-0.55	0.26	-0.21	**0.04***	
RN/RPN (51)	0.66	0.25	0.27	**0.01****	
"Knowledge and education" (KE) level (referent= adequate) (72)					0.32
KE (0-1) (56)	-0.83	0.16	-0.37	**0.00*****	
KE (3-4) (42)	0.80	0.18	0.32	**0.00*****	
Autonomy (168)	0.25	0.13	0.15	**0.05***	0.02

Number of patients out of 10, with LLC (referent 10 of 10) (36)					0.01
0-4 patients (44)	-1.16	0.24	-0.06	0.52	
5-7 patients (42)	0.08	0.24	0.03	0.74	
8-9 patients (42)	0.19	0.25	0.07	0.46	
Number of patients out of 10, who would benefit from a PA (referent 10 of 10) (52)					0.04
0-4 patients (39)	-0.41	0.23	-0.16	0.07	
5-7 patients (43	-0.40	0.22	-0.16	0.07	
8-9 patients (31)	0.08	0.25	0.02	0.75	

Note**. ***Number in parenthesis represents *N*=Sample size.

Multivariate analysis. The hierarchical multiple regression analysis for the "Spirituality" variable was used to predict the outcome of addressing the spiritual needs of patients with life-limiting conditions from several independent variables. The independent variables were chosen based on their bivariate associations with the dependent variable. The variable "years of practice" was included because of its theoretical relevant to self-perceived competence (Benner, 1982), even though it was not found to be statistically significant in the currently sample. The analysis of the first set of dummy-coded predictor variables ("knowledge and education"," level of education" and "years of practice") was statistically significant with an R^2 of .46, F (8,137) =13.86, $p < 0.00$.

An inspection of the individual predictors revealed that having "less" or "more" adequacy of knowledge and education on spiritual needs is significantly associated with self-perceived competence in addressing the spiritual needs ($p < 0.00$). In the first model, "less than adequate" knowledge and education on spiritual needs was associated with a relative decrease of 0.40 units the "Spirituality needs" subscale, whereas "more than adequate" was associated with a relative increase of .32.

In the second model, which included the type of care provider dummy variables (RN, CA and LPN as a referent group), the demographic variables (age, place of birth and primary language) were statistically significant at a $p < 0.00$. The R^2 value increased from 0.46 to R^2 =0 .52, F (13,136) = 10.28) when these variables were added to the multivariate model. The additional significant predictor was speaking English (β= -0.14, $p < 0.05$), signifying that care providers whose first language is English perceived themselves to be more competent in addressing the spiritual needs of patients than those whose first language was not English. The variable having RN education in relation to BSc became statistically significant in the second model (β= .24, $p < 0.01$). In other words, having an RN qualification in relation to having a BSc was associated with greater self-perceived competence in addressing the spiritual needs of patients with life-limiting conditions.

The third model revealed that the added variables, which included the type of care setting dummy variables (Residential, Home and Hospital as referent group), the autonomy in practice, and the dummy variables representing the number of people identified with life-limiting conditions and the number of people who would benefit from a palliative approach, predicted in total 57.8 % of the variability in the "Spirituality" variable. The model was statistically significant F (22,132) = 6.86, $p < 0.00$. Several of the predictors from the first and second models maintained their statistical significance ("knowledge and education" dummy variables, having an RN education in relation to a BSc, English language). The predictor age became significant in this final model at (β= -0 .24, $p < 0.01$). None of the additional added independent variables were statistically significant in the prediction.

Table 6

Hierarchical Multiple Regression Analysis for "Spirituality" variable

		Beta weights		
Step	Predictor	Step 1	Step 2	Step 3
1	**Knowledge, education, years of practice**			
	"Knowledge and education" (KE) level (referent adequate)			
	KE (0-1)	**-0.40*****	**-0.43*****	**-0.32*****
	KE (3-4)	**0.32*****	**0.29*****	**0.35*****
	"Level of education" referent BSc			
	Education (certificate)	0.10	-0.12	-0.09
	Education (diploma)	-0.12	0.04	0.13
	Education (RN)	0.15	**0.24****	**0.32****
	"Years of practice" (referent 2009-2012)			
	"Years of practice" (1974-1996)	-0.04	0.04	
				.46
	"Years of practice" (1997-2004)	-0.03	0.04	
				.06
	"Years of practice" (2005-2008)	-0.11	-0.09	-0.06
2	**Type of provider, demographics**			
	Type of provider (referent LPN)			
	Provider RN		0.13	0.19
	Provider CA		0.44	0.41

Age		-0.16	**-0.24****
Place of birth (Canada)		-0.34	-0.05
Language (English)		**-0.14***	**-0.15***
3 Type of care setting, autonomy, identification of patients with life-limiting conditions (LLC) and those who would benefit from a palliative approach (PA)			
Type of care setting (referent Hospital)			
Setting Residential			0.20
Setting Home Care			0.17
Autonomy			-0.22
Number of patients out of ten with LLC (referent 10 of 10)			
1-4 patients			-0.01
5-7 patients			0.03
8-9 patients			0.00
Number of patients who would benefit from a PA (referent 10 of 10)			
1-4 patients			-0.10
5-7 patients			-0.17
8-9 patients			0.00
R^2 Change	0.46***	0.06***	**0.12*****
Cumulative R^2	0.46***	0.52***	**0.58*****
N	138	137	133

Note. *p < 0 .05, ** p <0 .01, *** p <0 .00.

In the final model all the independent variables were added in the multivariate linear regression model. The results of the multivariate regression revealed that the independent

variables explain a significant proportion of variance (see Table 7) and have a significant combined effect on the level of self-perceived competence in addressing the spiritual needs of the patients, F (21, 133) = 7.41, $p < 0.00$. The overall model explains about 58 percent of variance in self-perceived competence levels which was revealed to be statistically significant. An inspection of the individual predictors revealed that age (β= -0.24, $p < 0.01$), language (β= -0.15, $p < 0.05$), having an RN/RPN diploma in comparison to a BSc Degree (β= 0.32, $p < 0.05$), "less" adequate knowledge and education (β= -0.32, $p < 0.00$) and "more" adequate knowledge and education (β= 0.35, $p < 0.00$) in comparison to "adequate", maintained their statistical significance. The negative β coefficient score suggests that in comparison to having "adequate" knowledge and education, people who have "less adequate" knowledge have a 0.32 point lower score on the "Spirituality" scale. Similarly, the positive coefficient suggests that in comparison to those who have adequate knowledge and education, those who have more knowledge and education have an increase of 0.35 points on the "Spirituality" scale for each unit. Similarly, the self-perceived competence scores of RNs with a diploma in comparison to nurses with a degree are on average 0.32 higher. Nurses who are older or those whose language is not English have a corresponding 0.24 and respectively 0.15 lower score.

Even though several of the variables were statistically significant in the bivariate associations, these variables (RN or CA in relation to LPN, having a LPN diploma in relation to BSc, autonomy, working in HCC in relation to Hospital) did not maintain their statistical significance level in the final regression model; some of the variables added to the model may have had a confounding effect.

The parameters of this regression were used to calculate the Pratt index score for the relative importance of each of the independent variables in the variance of the "Spirituality"

score (Thomas, Hughes, & Zumbo, 1998). Relative to the other variables in the model the most important variables are "knowledge and education" in addressing the spiritual needs of the patients, which account for 61% percent of the variation. Next, the variable having an RN Diploma in relation to BSc and type of care provider (RN and CA in relation to LPN) accounts for about 17% and 13% of the explained variance. Taken together, "knowledge and education" levels, being an RN in comparison to having a BSc, and type of care provider account for 91% of the explained variance.

Table 7

Regression with dependent variable "Spirituality" and independent predictors

Variable	*B*	*SE B*	*β*	*p*	*r*	*Pratt %*
Age	-0.02	0.01	-0.24	**0.00****	-0.14	6
Language (English)	- 0.00	0.00	-0.15	**0.03** **	-0.10	1
Place of birth (Canada)	0.00	0.00	- 0.05	0.53	0.06	-1
"Years of practice" (referent 2009-2012)						
1974-1996	0.13	0.27	0.05	0.64	0.04	-1
1997-2004	0.14	0.23	0.06	0.60	0.55	4
2005-2008	-0.14	0.24	-0.06	-0.59	0.56	0
Care provider type (referent LPN)						
RN	0.42	0.64	0.19	0.51	0.20	7
CA	0.97	0.60	0.41	0.11	0.09	6
Care setting type (referent Hospital)						
Residential	0.44	0.25	0.20	0.08	0.01	0
Home	0.43	0.27	0.17	0.12	0.19	6

Education (referent Degree)						
Certificate	-0.21	0.47	-0.09	0.66	0.06	-1
Diploma	0.33	0.66	0.13	0.61	-0.31	-7
RN/RPN	0.80	0.28	0.32	0.01**	0.30	17
"Knowledge and education" (KE) level (referent adequate)						
KE (0-1)	-0.75	0.19	-0.32	0.00***	-0.55	30
KE (3-4)	0.88	0.19	0.35	0.00***	0.51	31
Autonomy	-0.03	0.15	-0.02	0.81	0.10	0
Identified patients out of 10, with LLC (referent 10)						
0-4 patients	-0.02	0.27	-0.01	0.95	0.15	0
5-7 patients	0.08	0.25	0.03	0.76	0.08	0
8-9 patients	0.00	0.24	0.00	0.10	0.12	0
Number of patients out of 10, who would benefit from PA (referent 10)						
0-4 patients	-0.25	0.23	-0.10	0.28	-0.14	2
5-7 patients	-0.40	0.21	-0.17	0.07	-0.08	0
8-9 patients	0.01	0.27	0.00	0.98	0.13	0
R^2	.58					
F	6.86					

Note: *$p < 0$ .05, ** $p < 0$ .01, *** $p < 0$ *.00, N*=133.

Assumptions of variable normality, independence of errors, homoscedasticity and normality of residuals. In order to perform the linear regression test, the underlying assumptions for multivariate regression were checked (Polit, 2010). From a conceptual perspective each independent variable was expected to be related to the "Spirituality" variable. Assumptions of linear regression were carefully examined. The Normal Probability Plot of the regression standardized residuals of the "Spirituality" variable, revealed scatter that was relatively homogeneously distributed along a reasonably straight line from bottom left to top

right, showing relatively constant variance (Figure 5). The homoscedasticity was assessed by analyzing the residual scatter plot. The distribution was concentrated around the 0 value; therefore, there was no severe violation of the assumptions. The outliers, with only a few exceptions, were not too far from the cluster of scores which suggests that they did not contribute too much to the result (Figure 6). The assumption of multicolinearity was checked after the regression was completed, using the value of tolerance. The tolerance values were below the score 1 for all independent variables (Polit, 2010).

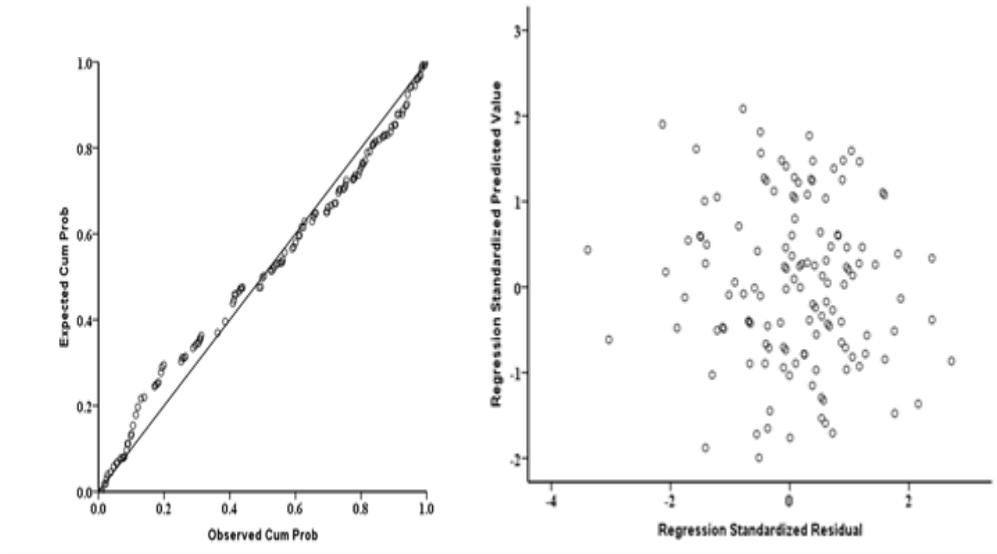


Figure 5. P-Plot representation of normality of residuals. Dependent variable "Spirituality"

Figure 6. Scatterplot comparing regression standardized predicted values with standardized residual values.

Conclusion

Several analyses were conducted in an attempt to identify the most predictors affecting the variance in the scores of the self- perceived competence levels in addressing the spiritual

needs of the patients. Although not presented, other analyses were conducted by using different combinations of dummy variables in relation to the type of care provider and care setting (e.g. RN or Home Care as referent groups). Despite various referent group combinations, the final results were not influenced significantly by these model changes.

Following the hierarchical multivariate analysis, the conclusion is that in this particular model, the 22 independent variables explain about a two thirds (58%) of the variability in the "Spirituality" variable in the subpopulation of the NHA. These results leave 42% variance unaccounted for by the choice of the independent variables. Therefore, there are other factors that affect the variability in the nurses' self-perceived competence in addressing the spiritual needs of the patients with a life-limiting condition, factors which were not included in this analysis. This could be influenced by the fact that in the data set there was a limited number of socio-demographic variables. The sets of variables were introduced in stages, and across the various models the dominant predictor was the "knowledge and education" variable. Other variables which were statistically significant were age, place of birth, and the" level of education".

Chapter Five: Discussions, Limitations, Implications to Nursing Practice and Recommendations for Future Research.

Introduction

This research project is relevant to the nursing profession as it describes the level of self-perceived competence and what factors may promote or inhibit the self-perceived competence of northern rural BC nurses and care-aides (CAs) in addressing spiritual needs of patients with life-limiting conditions, who require a palliative care approach, in residential, home and acute care settings. This study also highlights the associations between the level of self-perceived competence and factors such as adequacy of knowledge and education in addressing the spiritual needs, professional background "years of practice" in nursing, and demographic factors (primary language and place of birth). The study aimed to address the above purpose via the following research questions:

1. In addressing the spiritual needs of patients with chronic life-limiting illness, what is the self-perceived competence of RNs, LPNs and CAs in home care, residential care, and hospital medical units in rural areas?
2. To what extent are differences in self-perceived competence explained by professional role (RN, LPN or CA), clinical context (residential, home, hospital), demographic factors, adequacy of knowledge and education on spiritual needs, number patients with life-limiting condition, nurses' self-perceived number of patients who would benefit from a palliative approach and work environment?

This final chapter addressed the research questions by summarizing the results, comparing the results to current literature, discussing limitations, and providing recommendations.

Summary of Results

Spirituality has been an increasingly discussed topic in nursing, especially with regards to spiritual needs of patients who are dying. Most previous studies have been completed in palliative care contexts and did not explore the nurses' self-perceived levels of competence. Furthermore, no studies to date have explored northern rural nurses' self-perceived competence in addressing spiritual needs of patients in medical, residential and home care settings. This study aimed to fill this knowledge gap. The results revealed that the levels of self-perceived competence varied among care providers. Differences were also observed based on the type of clinical care setting. The level of self-perceived competence in addressing the spiritual needs was associated with healthcare providers' self-perceived adequacy of knowledge and education on spiritual needs, their "level of education" in nursing, their age, and whether their first language was English.

In addressing the first research question, the analyses revealed that the type of care provider and care setting explained about 12 percent of the variance in the level of self-perceived competence in addressing the spiritual needs of the patients. The highest levels of self-perceived competence were among Home and Community Care (HCC) healthcare providers and lowest in hospital units. In particular, LPNs in hospital units perceived their level of self-competence in addressing spiritual needs at a much lower level than LPNs in residential care units. Relative to RNs and CAs, LPNs had the lowest levels of self- perceived competence, regardless of setting. While the highest levels of self-perceived competence were among RNs in HCC, the mean scores for RNs in all three types of healthcare settings were above the midpoint of "3", signifying that overall, RNs as a provider group, considered themselves relatively capable at addressing the spiritual needs of the patients.

Overall, in the current northern rural nurses study most healthcare providers perceived themselves "adequately capable" "to assess spiritual needs of persons with life-limiting conditions and their families", "to recognize signs of spiritual distress" and "to help persons explore sources of hope when they demonstrate signs of hopelessness". A significantly larger percentage of providers felt that they were confident in "adapting the nursing care in accordance with the spiritual beliefs of persons with life-limiting conditions and their families". The question with the highest percentage of healthcare providers reporting "not being at all capable" was "assisting persons with life-limiting conditions to explore the meaning of their illness".

In regards to the second research question, at the bivariate level, the main differences in self-perceived competence in addressing the spiritual needs of patients with life-limiting conditions were explained by the adequacy of knowledge and education on spiritual needs. The bivariate associations remained statistically significant in the multivariate regression. The most relevant predictors of RNs, LPNs and CAs levels of self-perceived competence in addressing the spiritual needs of patients with life-limiting conditions were adequacy of knowledge and education on spiritual needs. "More adequate" self-perceived levels of knowledge and education predicted higher levels of self-perceived competence. Other statistically significant predictors were the levels of education in nursing, RN diploma relative to BSN degree, age, and speaking English as first language.

The combined set of all factors explained about 58% of the variation in the level of self-perceived competence in addressing the spiritual needs of patients with life-limiting conditions of RNs, LPNs and CAs who work in hospital, residential and HCC settings. However, there may be other factors unidentified that explain the remaining 42% of the variance. Relative to all other variables in the model, 61% of the explained variance in the level of self-perceived competence

in addressing spiritual needs could be attributed to levels of knowledge and education on spiritual needs. There may be some confounding with other variables, such as "level of education", as self-efficacy is a predictor of both individual and professional behaviours that can be positively influenced by education (Bandurra, 2006).

Relation to Literature

Although much has been written on the theme of spirituality and spiritual needs of patients, the literature review conducted provided limited insight into rural nurses' self-perceived competence in addressing the spiritual needs of patients with life-limiting conditions. Most of the existing literature addressed factors related to the provision of spiritual care rather than nurses' self-perceived competence. First, the findings from this study were incorporated in the broader relevant literature on provision of spiritual care in the context of palliative approach, with a specific focus on the self-perceived competence in addressing spiritual needs. The significance of the adequacy of self-perceived knowledge and education on spiritual needs of patients, the association of having an RN diploma relative to a BSN degree, age and speaking English as the primary language were discussed next. The last part describes the potential implication of not addressing the spiritual needs when working in acute care, as well as observations about the nurses' self-perceived identification of patients with life-limiting conditions who would benefit from a palliative approach.

Addressing the spiritual needs of patients. The question of accountability in addressing the spiritual needs of patients has been discussed by various authors. A recent systematic review highlighted that most literature placed the responsibility of assessing and providing spiritual care "firmly with the nurse" (Pike, 2011, p. 748). Despite such findings, this domain of care remains probably least understood by generalist nurses and most neglected, in particular, in non-palliative

care settings. The provincial iPANEL study found that in addressing the needs of patients with life-limiting conditions, when considering all ten dimensions of palliative approaches to care, nurses and CAs in BC tend to score the highest in the physical aspects of care such as end of life pain management. However, they felt least confident in areas related to the spiritual, social and ethical needs (iPANEL, unpublished literature). Similarly, a study of 870 nurses in Quebec, revealed that of all the dimensions of holistic care in palliative care context, nurses identified that their lowest level of competence was in addressing the spiritual needs of the patients (*M*=2.66, *SD*= 1.21) (Desbiens & Fillion, 2011a). In comparison to the Desbiens & Fillion study, the sampling of this research included LPNs and CAs in addition to the RNs; the majority of the represented RN sample had a Diploma and not a Bachelor's degree; and the practice setting was entirely not in specialized care units. The literature is unclear about the possible reasons for why nurses and care aides, in various care settings, may have different levels of self-perceived knowledge and competence in addressing spiritual needs at the end-of-life. Australian studies in residential care settings revealed that differences in the level of self-efficacy in applying palliative care competencies had noteworthy differences between RNs and CAs; RNs had relatively more self-efficacy in addressing the psychosocial aspects of end of life care needs, while both CAs and enrolled nurses (Australian nursing equivalent of an LPN), had high levels of self-efficacy in the area of symptom management (Phillips, Salamonson, & Davidson, 2011). Other studies showed that of all 20 items of a palliative care quiz for nursing of 97 Australian participants (RNs= 36, Assistants in nursing=61) both nursing care aides and RNs had not only similar but also the highest percentage of correct answers in responding to questions related to the conceptual category of 'Psychosocial and Spiritual Care' in comparison to the other two conceptual categories: 'Philosophy' and 'Principles of palliative care' (Ronaldson, Hayes, Carey,

& Agar, 2008). In Ontario, Canada, a study by Brazil et al., (2012) found that RNs and registered practical nurses in residential care settings had similar levels of perceived self-efficacy in patient management, communication and teamwork in palliative care. The authors accounted the similarities to the idiosyncrasies of working in a tightly connected team based environment, with multiple collaborative interactions between the RNs and CAs.

The previously mentioned studies were conducted primarily in urban settings. The results of this current study revealed different results between the level of self-perceived competence (an important aspect of self-efficacy) of rural northern RNs, LPNs and CAs and the studies by Ronaldson et al., (2008) and Brazil et al., (2012). Although addressing spiritual needs is an aspect of palliative approach and palliative care, there are significant gaps in the nurses' (in particular the LPNs) levels of self-perceived competence in addressing them. Despite emphasis on providing holistic approaches in the nursing care, medical models tend to dominate nursing in non-hospice environments (CNA, 2010). There is an identified need for further clarification of the role nurses have in directly addressing the spiritual needs of patients as part of the multidisciplinary team. In addition, Kaasalainen et al., (2011) found that rural nurses reported significantly higher self-efficacy than the urban nurses in palliative care in particular around communication and patient management issues, which included aspects of addressing spiritual needs. Interestingly, differences were observed between urban and rural nurses' perceptions on the need to facilitate the provision of spiritual care. In the study, 53 of the 84 (63%) rural nurses acknowledged that they assist clients and families to meet the spiritual needs by facilitating support services of pastoral care/ spiritual advisor, while 46 of 75 (61.3%) of urban nurses stated similar activities. Most rural nurses (45.2%) in this study identified that they felt they should be the ones performing these activities, but only about 7.9% of urban nurses felt that they should.

Both rural and urban nurses report feeling that they would like to be more involved in assisting the clients and family members to meet spiritual needs; however, the nurses tended to feel that their role is mainly to facilitate support services and bereavement for families (Kaasalainen et al., 2011). Because of the lack of specialized units and the perception of access to guidance from a specialized spiritual care provider, the rural areas present additional challenges and opportunities to be more involved, in comparison to urban centres. In developing competence in addressing the spiritual needs of patients, it is important to consider the need for further education; rural clinicians expressed that the most challenging aspects of palliative care are usually related to psychosocial needs, and that they were least well- prepared in these aspects of care (Robinson et al., 2009). Increasing the "knowledge and education" on spiritual needs is particularly significant in the light of the findings of this research study.

Adequacy of knowledge and education on spiritual needs. The most significant predictors in addressing the spiritual needs of patients were the self-perceived levels of knowledge and education on spiritual needs of patients with life-limiting conditions and their families ("knowledge and education"). Although no studies addressed explicitly the level of self-perceived competence in addressing the spiritual needs of patients (in relation to self-perceived levels of knowledge and education of RNs, LPNs and CAs in rural northern acute, residential and HCC settings), many studies alluded to the relationship between education on spiritual issues and addressing spiritual needs in practice environments. In a UK survey of 4,054 nurses (including students and CAs) many expressed that they lacked sufficient educational preparation related to addressing the spiritual needs of patients and advocated for integration of spiritual care in their nursing education (McSherry & Jamieson, 2011). Other studies concluded that lack of education was one of the most common barriers preventing nurses from to providing spiritual

care (Chan, 2009; Vance, 2001). However, it is encouraging that a recent multinational European study of 618 undergraduate nurses found that students consider themselves to be marginally more competent than not in spiritual care (Ross et al., 2014). Education in the development of nursing spiritual awareness is a significant pre-requisite for improved holistic caring. Since nurses who receive more education are more likely to address the spiritual needs (McSherry, 2008; Ross, 2006), it is recommended that basic undergraduate nursing education be reinforced with continuing programs after graduation (Baldacchino, 2011; Johnston Taylor, Marnier, Bahihiri, Anton, & Petersen, 2008). The current research study findings were congruent with Bandura's self-efficacy theory: if nurses did not perceive themselves sufficiently prepared in an area of practice they would be less likely to act, especially in situations which are ambiguous, such as addressing spiritual needs of patients. In other words, those nurses and CAs with perceived levels of knowledge and education "less adequate" to "adequate" would also be less capable to address the spiritual needs of the patients with higher levels of confidence.

"Level of education" in nursing and age. In this study, RNs who held a diploma and who were younger had a statistically significant higher level of confidence in addressing spiritual needs of patients than RNs with a BSN. There were no relevant studies identified which addressed self-perceived competence in addressing spiritual needs in relation to "level of education" in nursing and age, however several studies explained the effect of education and age on the provision of spiritual care. When identifying and comparing spiritual caring practices by palliative care RNs (N=42) and acute care RNs (N=50), a study conducted in seven urban settings in Sydney, Australia, found that the delivery of spiritual care of RNs with a diploma was higher than that of nurses with a degree (Ronaldson, Hayes, Carey, Green, & Aggar, 2012). This difference was explained by the fact that RNs with a degree tended to be younger; therefore, they

attended university for their undergraduate nursing, which meant that they had less practical experience. Meanwhile, RNs who were older did not have the degree option available at the time of their basic nursing qualification, but they were further on their career path. Other authors in the literature highlighted that older nurses have more life experience and may, therefore, have greater ease to address issues related to death and dying; or perhaps older nurses also may ponder more about existential questions, as they are more advanced in age and hence, coming closer to death (Gielen, van den Branden, van Iersel, & Broeckaert, 2009; White & Coyne, 2011).

However, the current study of northern rural nurses did not have similar findings in relation to age; overall RNs in all three care settings who were older had 0.24 points lower confidence ratings in addressing the spiritual needs of patients than their younger colleagues. "Age" was accountable for about 6% of the variation in the "Spirituality" variable. In addition, most of the nurses were employed in rural, rather than urban, settings; and in the surveyed rural settings a significant number of nurses had limited work experience or "years of practice". However, it is notable that by isolating the findings to a particular setting, there are some similarities for a portion of this research study with findings from the literature. When isolating the results to RNs in HCC who expressed the highest levels of self-perceived competence in addressing spiritual needs, their mean age was highest among the group of care providers, and they were further in their career paths; only 2.5 % were new graduates and about 70 % of the HCC providers had between eight to thirty-eight years of practice. At the HCC level, more experienced nurses had higher levels of self-perceived competence, which may confirm the assumption that experience is an important factor in the development of competence (Benner, 1982). However, overall the study results did not confirm this assumption.

Primary language. This study identified that speaking English as primary language was a significant predictor in increasing the self-perceived competence in addressing the spiritual needs. Spiritual care is "being" as opposed to "doing" therefore it is oriented towards therapeutic communication (Baldacchino, 2010, cited in Baldacchino, 2011, p. 48). Although the literature search did not reveal any studies on the level of self-perceived competence in addressing the spiritual needs of patients in relation to speaking English as the primary language, one study found that nurses from an English speaker background had a significantly higher score than their counterparts in the level of knowledge of a palliative approach (Ronaldson et al., 2008). Other studies emphasized the role of language in relation to communication skills regarding sensitive subjects, and highlighted that nurses may lack the vocabulary to express spiritual issues (Abbas & Dein, 2011). The data resulting from this study is limited and cannot inform the author about the proficiency in English.

Acute care work environment. The level of self-perceived competence in addressing spiritual needs was the lowest amongst staff working in acute care units. McCourt, Power, and Glackin's (2013) literature review of general nurses' experiences of end of life care in the acute hospital settings identified that a common barrier to the care for spiritual needs among various studies is the lack of privacy, and that the combination of care for dying patients with curative patients on the same unit or room affects care negatively. As previously acknowledged, no studies in the literature made similar comparisons across acute, residential and community care settings. Florin, Ehrenberg, and Ehnfors' (2005) study compared Swedish intensive care nurses, emergency nurses or acute care nurses with specialized palliative care teams. The authors identified that about thirty-five nurses in acute care were less likely to identify emotional and spiritual needs of about eighty patients, which resulted in patients having more unmet spiritual

and psychosocial needs than in the realm of physical health. These findings were related to the short stay of patients and work experience in nursing. The findings of this current study revealed that nurses across settings perceived themselves as relatively competent in identifying spiritual needs of patients with the exception of LPNs in acute care settings, who had the lowest scores. It is possible that the differences in the scores were related to type and length of education in nursing, but could also be due to other factors, such as specific cultures of acute care units. Other potential explanations could be related to the differences in tasks assigned to the RNs and LPNs and the perceptions of whose role it is to address spiritual needs.

Additional considerations may be related to the results of the studies emerging from urban acute care settings. Acute care departments in urban settings are relatively small units of care in hospitals with multiple specialized departments. In rural settings the acute care ward is the main hub of care, and often nurses provide simultaneous care for a heterogeneous group of patients: from maternity to long term care and surgical care under the medical guidance of a primary care physician who is not always present on the unit. Normally, rural acute care nurses work independently in generalists' roles and provide care for a broad diversity of patients. Nurses are often in charge of the care of the patients and may perceive their physical nursing care as irreplaceable by another healthcare practitioner, while spiritual care can be addressed by a hospital chaplain or by volunteers, given the close community ties and volunteerism in rural areas.

Exploring the meaning of the illness experience. In this research, nurses and CAs identified that their lowest self-perceived competence was in "assisting the persons with life-limiting conditions to explore the meaning of their illness experience". Finding meaning in illness is linked to existentialism. In general, nurses in the acute, residential and HCC

environments are predominantly focused on physical aspects of care and tend to lack time for philosophical reflections. Having a degree of comfort in addressing existential questions is important to being able to provide holistic care, as many people with serious illnesses engage in a process of reflection on the meaning of life and on the major spiritual and existential questions of life (Charon, 2006; Remen, 2006, cited in Molzan et al., 2012, p. 2347). Studies highlight that patients identify thoughts about the meaning of life as an important spiritual need, and also, that finding meaning to illness is related to the improvement of the quality of patient care (Edwards, Pang, Shiu, & Chan, 2010; Johnston Taylor, 2003b; Nixon & Narayanasamy, 2009). The results of this current study suggest a need for knowledge and education of nurses and CAs on finding meaning in illness because low levels of self-perceived competence of nurses and CAs in addressing this topic may limit the quality of the care provided to patients.

Palliative approach. Although several factors (nurses' self-perceived number of patients who have life-limiting conditions and who would benefit from a palliative approach) were not statistically significant predictors, the interpretation of the descriptive analysis could have significant practical implications to the implementation of a palliative approach to care. The descriptive analyses revealed that in rural hospital units a relatively low number of patients identified by nurses who have a life-limiting illness were identified by healthcare providers as ones who would benefit from a palliative approach. In hospitals, 50% of staff reported that five to seven patients out of ten on their unit had a life-limiting condition, and 40% reported that less than five out of ten patients had a life-limiting condition, while the majority of healthcare providers believed that only 10% to 40% of patients who have a life-limiting condition would benefit from a palliative approach. Possible explanations could be that staff in hospitals may not have the opportunity to apply such an approach when caring for patients. According to Bloomer,

Moss, and Cross's (2011) integrative literature review for end-of-life in acute hospitals findings, the nature of acute care settings is such that caring for patients takes place over a short time frame: the providers tend to have little time between diagnosis and death. Death is recognizably imminent; thus, it hinders a planned palliative care approach to dying.

In contrast, over 40% of providers in residential care units identified that 100% of their residents had life-limiting conditions and that 100% of these patients would benefit from a palliative approach. Given the strict admission criteria to facility care, residents upon admission tend to be frail, with multiple chronic conditions and comorbidities, and with short and declining life-expectancy. The residential homes, therefore, are an environment of care in which palliative approaches to care should be promoted and applied routinely. These findings could indicate that healthcare providers in residential care may have greater understanding of the benefits of incorporating a palliative approach in their practice. Research conducted in four Ontario residential care settings found that healthcare providers (RNs and Registered Practical Nurses) had high levels of perceived self-efficacy in patient management skills, which included aspects of palliative care such as assessing physical, emotional, and spiritual needs, and providing culturally sensitive care (Brazil et al., 2012).

The rural HCC providers identified that under their care a relatively low proportion of patients (10% to 25 %) have life-limiting conditions. Meanwhile, about 40% of providers considered that 100% of their patients would benefit from a palliative approach. Rural HCC providers care for patients with life-limiting conditions on a continuum, from early stages of disease to the end of life. In a study by Kaasalainem et al., (2011), rural HCC nurses reported spending most of their time caring for people with chronic illnesses, while urban counterparts mostly provided care for patients with acute illnesses. Due to the lack of specialized palliative

care teams generally, healthcare providers in rural HCC units are knowledgeable in both curative treatments (e.g., early symptom identification) and quality of life principles (e.g., advance care planning). This possibility is substantiated by findings from the literature which highlight that nurses and nurses' aides who had oncology or palliative experience tended to have higher scores in their knowledge of a palliative approach than other RNs who did not have such backgrounds (Hayes, Carey, & Agar, 2008; Proctor et al., 2000). Possibly, considering the broad knowledge and practice, healthcare providers in HCC have a greater appreciation of the benefits of applying a palliative approach when caring for their patients.

Limitations of the Study

This study was a secondary analysis and the researcher did not play a role in designing the collection of the original data. According to Polit and Beck (2012), whenever conducting a secondary analysis there is a high chance that the data is deficient in one or more ways, such as the sample used or the variables measured. In this study the results were limited by the aim, primary data collected, and original study methods of the iPANEL survey, which was more broadly focused on a palliative approach.

Primary data limitations. The primary intent of the iPANEL survey was not specifically designed to research spirituality. It is noted in the literature that one of the strongest components of addressing spirituality in the context of nursing is the nurses' own spiritual views. Awareness of nurses' personal spirituality positively influences the implementation of spiritual care in the context of providing holistic patient centred care (Baldacchino, 2011). The iPANEL questionnaire did not ask nurses to disclose any information about their own spiritual perspectives or their religious background.

The literature emphasized the terminology confusion about the meaning of spirituality and spiritual care (Carr, 2008; McSherry & Draper, 1998; Sawatzky & Pesut, 2005). The primary survey did not include a definition of spirituality, and the lack of definitions was perceived to be a barrier to addressing and understanding what spiritual care was. English as the primary language was a statistically significant predictor in the regression analysis. Communication about sensitive issues requires good verbal skills, at the same time the literature emphasized the importance of communicating through non-verbal expressions of care (presence and active listening). When considering communication about end-of-life issues and spirituality, both verbal and non-verbal languages are important. The primary survey did not provide detailed information about the proficiency in using the English language, nor did it explore nurses' perceived ability to address spiritual needs by being an active presence and listener. These considerations limit the conclusions that the author could draw about having English as the primary language and the level of self-perceived competence in addressing spiritual needs.

The iPANEL study did not investigate the connections to other members of the multidisciplinary team in relation to addressing the spiritual needs. Ross (2004) highlighted that even at an undergraduate level, when spirituality was integrated in the curriculum of nursing programs, the emphasis tended to be on the referral to others, such as chaplains. Nurses or CAs also appear to see their role in the multidisciplinary team as referral agents; this is a significant limitation in the context of rural care. As studies in rural nursing suggest, nurses have a perception that psychosocial issues can reasonably be addressed by other healthcare professionals such as counselors or social workers while their nursing skills were not interchangeable unlike pain management for example (Robinson, Pesut, & Bottorff, 2010).

Methodological limitations. This study is based on data collected via a cross sectional survey and the results form the basis of a correlation study; they do not represent a causal model. The iPANEL study was based on a self-assessment tool. According to Polit and Beck (2012) the most serious issue with self-reporting concerns the validity and accuracy of the scores. Some limitations related to the self-assessment of competence are as follows: the perceptions of participants were captured only at one point in time; there is a potential bias that the participants wanted to present themselves in a positive light, and people who responded were possibly more interested in the theme of the study. The response rate could also introduce a selection bias. Furthermore, the secondary analysis excluded about 30% of the participants in the regression analysis due to missing data in one variable or more.

Implications to Nursing Practice

The results of this research contributed new information to the nursing knowledge in relation to addressing the spiritual needs of patients with life-limiting conditions in rural residential, hospital units and HCC settings. The results of this study have implications at the individual and organizational level. Consistent findings in this research revealed that increased levels of self-perceived education and knowledge on spiritual needs of patients were associated with higher levels of self-perceived competence. Nurses' consideration of their knowledge and skills is one of the several factors which promote or hamper the practice of spiritual care (Cetinkaya, Dundar, & Azak, 2013).

At the individual level, the framework of the PCNSC questionnaire may be utilized to establish a basis for continuing self-assessment in improving the level of competence in applying a palliative approach to care and to measure and compare subsequent results. When revisiting the questionnaire, nurses and CAs with lower self-perceived competence could improve their

personal scores, and healthcare providers who expressed confidence in addressing the spiritual needs may also experience a new sense of empowerment. Adriaansen and Van Achterberg (2004) note that self-efficacy is critical for clinicians' behaviour change and can be increased through a combination of education and tuition (instruction and coaching); therefore, it is vital to professional development. At the organizational level, the neglect of spiritual dimensions in care inhibits delivery of holistic care, contributing to hidden costs to the system (Ross, 2006). In rural areas, nurses and CAs play a critical role in the care of the patients with life-limiting conditions at the end of their lives. To continue supporting the patients and their families there is an urgent need to provide education and support to rural nursing providers (Pesut et al., 2012). The spiritual needs subscale of the PCNSC tool can be used to stimulate discussions about the provision of spiritual care and also address misconceptions about addressing the spiritual needs of patients in a multicultural environment. Furthermore, regular self-assessments have the potential to raise the profile of spiritual care and promote spiritual wellbeing in residential, hospital and HCC settings.

Education and support strategies need to be developed at all levels to further enhance self-perceived competence in addressing spiritual needs. At the individual level, RNs in HCC may act as role models to all healthcare providers, as role modeling and mentoring are cost effective ways for organizations to invest in their own staff's development (Bradshaw, 1997; Pike, 2011). At the organizational level, nurse educators and managers must consider the proportion of newly graduated nurses and their competing priorities in developing their practice skills. In the surveyed NHA hospital and residential care settings, 35.9% and 35.1% respectively had less than three years' experience. In the context of competing priorities for education and professional development, outside of specialized palliative areas, psychosocial and spiritual

domains of care tend to be less emphasized. Even in palliative care contexts, most nurses consider symptom management as the number one core competency (White & Coyne, 2011).To facilitate the shifting of balance and the overwhelming emphasis on physical aspects of care for patients with life-limiting conditions, clinical nurse educators need to be deliberate in their efforts to increase education opportunities on spirituality, particularly in acute care settings.

To respond to the requests for further education and training, the clinical educators need to develop awareness of some of the various models of teaching about spirituality and end-of-life issues, as well be aware of unique challenges of rural education. Several examples of effective and less effective modes of education are presented. Studies validated that demonstration and observation are less effective than journaling or role modeling; using simulation exercises to teach increased self-efficacy in the areas of physiologic changes as nurses are task-oriented, but it decreased self-efficacy in addressing the psychosocial needs (Carr, 2008; Moreland, Lemieux, & Myers, 2012). Furthermore, rural nurses often feel that they cannot participate in formal educational sessions because of geographical distance and the awareness that their roles cannot be filled in their absence for lack of staff (Robinson, Pesut, & Bottorff, 2010). However, blended online learning with live interactive simulations on interprofessional teams (medicine, nursing, chaplaincy, social work, and palliative care) has been successful in other places (Ellman et al., 2012). The length of the education sessions may vary, and as Roberts and Gaspard (2013) demonstrated, a focused one-time, four hour workshop led to increased confidence and awareness, and enabled providers to adopt a palliative approach in care.

Education on spiritual issues is relevant to front line staff level and at all levels of leadership. At the individual level, nurses who are spiritually aware are more likely to address the spiritual needs of patients. Reflection on one's values and spirituality may shape leadership

and, as Reimer-Kirkham,Pesut, Sawatzky, Cochrane, & Redmond (2012) noted, nurse managers who are spiritually aware could be in a position to promote the effectiveness of spiritual care resources by various modes (chaplains, faith communities). At an organizational level, nurse leaders could endorse the knowledge that spiritual wellbeing is associated with better quality of life, and that addressing the spiritual needs of patients is important for high quality of care (Edwards et al., 2010).

Recommendations for Further Research

The literature highlighted that nurses who have a personal spiritual understanding were more likely to address the spiritual needs of their patients. However, the survey questionnaire did not ask nurses and CAs to share any information on their spiritual background. Interviewing nurses or CAs and asking them questions about their personal spiritual understanding, could deepen our understanding of how their personal spiritual beliefs, and religious or cultural backgrounds relate to their interpretation of the PCNSC items on self-perceived competence in addressing spiritual needs. Although speaking English as the primary language impacted the level of self-perceived competence in addressing the spiritual needs of the patients, the contribution of the demographic factors (age at graduation, previous related experience in working in palliative care settings, years in rural practice, number of patients with life-limiting conditions cared for in a day) needs to be further researched. Further exploration is needed in understanding the role of LPNs in addressing the spiritual needs of patients in the context of the multidisciplinary team, in particular in HCC settings. Also future studies are needed to better understand the scope of practice and the level of responsibility of CAs, as studies have identified a gap in the formal preparation of CAs in end-of-life care (Denham, Meyer, Rathburn, Toborg, & Thornton, 2006; Phillips, Salamonson, & Davidson, 2011). CAs, particularly, play an integral

role in rural community end-of-life care, yet most of their learning is through the socialization process on the job (Pesut et al., 2012).

Future research is recommended to develop competencies for palliative approaches to care which include addressing spiritual needs. Similarly, future research is recommended to identify the most relevant gaps in education on palliative approaches to care and spiritual competence and to ascertain the most effective methods of delivery in order to meet the needs of northern rural healthcare providers, who work in a variety of settings. One of the limitations in the literature on spirituality is that most of the researched perspectives that highlight the positive role of the nurse in providing spiritual care were collected from the perspective of the healthcare provider, whereas the patient voice is missing at large (Pike, 2011). Future research is recommended in revealing the patients' perspectives on what constitutes spirituality and how to mend the gap between definitions and practice. Based on Cetinkaya, Dundar, and Azak's (2013) findings, the author recognized that there are other unexplored aspects which influence this practice: management support, workload, and cultural awareness. Therefore, further explorations are recommended.

Conclusion

The BC population and health demographics are rapidly changing, and especially in the northern rural communities the end-of-life services are very limited. People live with multiple life-limiting conditions. Their conditions do not always have an identified terminal phase, and often their spiritual and psychosocial needs go unaddressed in acute, residential and HCC environments. During the course of their illness people have longer experiences in interacting with the healthcare system. Each interaction holds the potential not only to respond to medical needs, but also to improve the quality of life of the individual living with illness. Those affected

by major life changes in their ability to function are more open to explore spiritual aspects of their lives. Spirituality is recognized as an element of quality nursing care (McEven, 2005). Nurses who work in non-palliative care environments are in a unique position to care for patients holistically, and address their spiritual needs; therefore, they need to have a level of confidence in their skills in this dimension of care.

This study has provided a unique perspective and further insight into the factors that influenced the level of self-perceived competence of RNs, LPNs, CAs in acute, residential, and home and community care to address the spiritual needs of patients with life-limiting conditions in rural contexts. The most significant factor in predicting the levels of self-perceived competence was the self-perceived levels of knowledge and education on spiritual needs. Further education and training is recommended for nurses and CAs on aspects of addressing the spiritual needs of their patients. According to Baldacchino (2011), learning about spiritual dimensions of care has a positive impact on learners' personal life and professional care, and it may help professionals acknowledge the level and quality of their care, which may motivate them to become change agents in meeting the holistic needs of their patients. There is a greater demand for providing quality end of life care in the community settings. Developing and sustaining educational resources for end of life care for nurses working in non-hospice units is vital, considering the rapid changes in medical technology and longer span of life and survivorship of patients with life-limiting conditions. Providing nurses with the education, skills, and knowledge to build relationships across ethnic, cultural and demographic differences could increase nurses' skills for supporting diverse families when their loved one is having an end of life experience.

References

Abbas, S. Q., & Dein, S. (2011). The difficulties assessing spiritual distress in palliative care patients: A qualitative study. *Mental Health Religion Culture, 14*(4): 341-352.

Adriaansen, M. J. M., & Van Achterberg, T. (2004). A test instrument for palliative care. *International Journal of Nursing Studies, 41*(1):107-117.

Baldacchino, D. (2006). Nursing competencies for spiritual care. *Journal compilation*: 885-896. doi: 10.111/j.1365-2702.2—6.01643.x

Baldacchino, D. (2011). Teaching on spiritual care: The perceived impact on qualified nurses. *Nurse Education in Practice, 11*(1): 47-53.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, New Jersey: Prentice-Hall.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.). *Self-efficacy beliefs of adolescents*, 5: 307-337. Greenwich, CT: Information Age Publishing. Retrieved from http://www.uky.edu/~eushe2/Bandura/BanduraGuide2006.pdf

Bandura, A., & Cervone, D. (1983). Self evaluation and self-efficacy mechanism governing the motivational effects of goal systems. *Journal of Personality and Social Psychology, 45*(5): 1017-1028.

Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self efficacy, and intrinsic interest through proximal self motivation. *Journal of Personality and Social Psychology, 41*(3): 586-598.

Benner, P (1982). From novice to expert. *American Journal of Nursing 82*(3): 402-407.

Birch, D., & Draper J. (2008). A critical literature review exploring the challenges of delivering effective palliative care to older people with dementia. *Journal of Clinical Nursing 17*(9): 1144–1163.

Bradshaw, A. (1997). Teaching spiritual care to nurses: An alternative approach. *International Journal of Palliative Nursing 3* (1): 51-57.

Brazil, K., Brink, P., Kaasalainen, S., Kelly., M. L.,& McAiney, C. (2012). Knowledge and perceived competence among nurses caring for the dying in long-term care homes. *International Journal of Palliative Nursing, 18*(2): 77-83.

BC Statistics (2011). *Overview of the BC and regional population projections 2011-2036*. Retrieved from http://starcanada.ca/wp-content/uploads/2012/07/Overview-of-the-BC-and-Regional-Population-Projections-2011-2036.pdf

Bloomer, M. J., Moss, C., & Cross, W. (2011). End-of-life care in acute hospitals: an integrative literature review. *Journal of Nursing and Healthcare of Chronic Illness, 3:*165-173. doi: 10.111/j.1752-9824.2011.01094.x

Brownhill, S., Chang, E., Bidewell, J., Johnson, A. (2013). A decision model for community nurses providing bereavement care. *British Journal of Community Nursing, 18* (3): 133-139.

Canadian Institute for Health Information (CIHI) (2006). How healthy are rural Canadians? An assessment of their health status and health determinants. Retrieved from http://www.phac-aspc.gc.ca/publicat/rural06/pdf/rural_canadians_2006_report_e.pdf

Canadian Institute for Health Information (CIHI) (2011). Health care in Canada, 2011. A focus on seniors and aging. Retrieved from https://secure.cihi.ca/free_products/HCIC_2011_seniors_report_en.pdf

Canadian Nurses Association (2010). *Spirituality, health and nursing practice*. Position statement. Canadian Nurses Association: Ottawa. Retrieved from http://www.cna-aiic.ca/CNA/documents/pdf/publications/PS111_Spirituality_2010_e.pdf

Carr, T. (2008). Mapping the process and qualities of spiritual nursing care. *Qualitative Health Research. 18:* 686-700. doi: 10.1177/1049732307308979.

Charon, R .(2006). *Narrative medicine: Honoring the stories of illness.* New York: Oxford University Press.

Chan, M. F. (2009). Factors affecting nursing staff in practicing spiritual care. *Journal of Clinical Nursing*, *19*: 2128-2136.

Chocinov, H. M., Hassard, T., McClement, S., Hack, T., Kristjanson, L. J., Harlos, M., Sinclair, S., & Murray, A. (2009). The landscape of distress in the terminally ill. *Journal of Pain and Symptom Management. 38*(5): 641-649.

Cetinkaya, B., Dundar, S. A., & Azak, A. (2013). Nurses' perceptions of spirituality and spiritual care. *Australian Journal of Advanced Nursing 31*(1):5-10.

Cockell, N., & McSherry, W. (2012). Spiritual care in nursing: An overview of published international research. *Journal of Nursing Management 20*: 958-969.

Cooper, M., Gambles, M., Mason, S., McGlinchey, T. (2014). How confident are nurses that they can provide good care? *Learning Disability Practice 17* (2): 34-39.

Dandy K., & Bollman R., D. (2009). *Seniors in rural Canada.* Ottawa, ON: Statistics Canada.

Denham, S.A., Meyer, M. G., Rathburn, A., Toborg, M.A., & Thornton, I. (2006). Knowledge of rural nurses' aides about end-of-life care. *Family Community Health. 29*(3): 229-241.

Davies, E., & Higginson, I. J. (Eds.). (2004). P*alliative Care. The solid facts*. World Health Organization. Retrieved from website URL www.euro.who.int/__data/assets/pdf_file/0003/98418/E82931.pdf

Desbiens, J. F., & Fillion, L. (2011a). Comment les infirmières du Québec perçoivent-elles leur compétence en soins palliatifs et quels sont leurs besoins de formation? *Cahiers Francophones de Soins Palliatifs, 11*(2): 31-42.

Desbiens, J. F., & Fillion, L. (2011b). Development of a Palliative Care Nursing Self-Competence Scale. *Journal of Hospice and Palliative Nursing, 13*(4): 230-241.

Desbiens, J. F., Gagnon, J., & Fillion, L. (2011). Development of a shared theory in palliative care to enhance nursing competence. *Journal of Advanced Nursing, 13*(4): 2113-2124.

Disler, R.T., Currow, D. C., Phillips, J., Smith, T., Johnson, M. J., & Davidson, P. (2012). Interventions to support a palliative care approach in patients with chronic obstructive pulmonary disease: An integrative review. *International Journal of Nursing Studies 49*: 1143-1458.

Edwards, A., Pang, N., Shiu, V., & Chan, C. (2010). The understanding of spirituality and the potential role of spiritual care in end-of life and palliative care: A meta-study of qualitative research. *Palliative Medicine, 24*(8): 753–770. doi: 10.1177/0269216310375860.

Eisenhauer, C.M., Hunter, J. L., & Pullen, C. H. (2010). Deep roots support new branches: The impact of dynamic, cross-generational rural culture on older women's response to formal healthcare. *Journal of Rural Nursing & Health Care, 10*(1): 48-59.

Ellman, M. S, Schulman-Green, D., Blatt, L., Asher, S., Viveros, D., Clark, J., & Bia, M. (2012). Using online learning and interactive simulation to teach spiritual and cultural aspects of

palliative care to interprofessional students. *Journal of Palliative Medicine, 15(2):* 1240-1247. doi: 10.1089/jpm.2012.0038

Florin, J., Ehrenberg, A., & Ehnfors, M. (2005). Patients' and nurses' perceptions of nursing problems in an acute care setting. *Journal of Advanced Nursing 51*(2*)*: 140-149.

Frankl, V. E. (1987). *Men's search for meaning: An introduction to logotherapy*. London: Hodder and Stoughton.

Gelfman, L. P., Meier, D. E., Morrison, R. S. (2008). Does palliative care improve quality? A survey of bereaved family members. *Journal of Pain Symptom Management 36*(1): 22-28. doi: 10.1016/j.jpainsymman.2007.09.008.

Gielen, J., van den Branden, S., van Iersel, T., & Broeckaert, B. (2009). Religion, world view and the nurse: Results of a quantitative survey among Flemish palliative care nurses. *International Journal of Palliative Nursing, 15*(12): 590-600.

Gilliland, I. (2011). *The Effects of a Community-Based Hospice Experience on Attitudes and Self Perceived Competencies of Senior Nursing Students* (Doctoral dissertation, The University of Texas).

Health Canada (2005). *Findings from the 2005 National Survey of the Work and Health of Nurses.* Available from http://www.hc-sc.gc.ca/hcs-sss/pubs/nurs-infirm/2005-nurse-infirm/index-eng.php.

Hermann, C. P., & Looney, S. W. (2011). Determinants of Quality of Life in patients near the end of life: A longitudinal perspective. *Oncology Nursing Forum 38*(1):23.

Johnston Taylor, E. (2003a). Nurses caring for the spirit: Patients with cancer and family caregiver expectations. *Oncology Nursing Forum, 30*(4), 585-590. doi:10.1188/03 ONF.585-590.

Johnston Taylor, E. (2003b). Spiritual needs of patients with cancer and family caregivers. *Cancer Nursing, 26*(4)*:* 260-266.

Johnston Taylor, E. (2008). Promoting spiritual health in home health care. *Home Health Nurse. 26* (6)*:* 367-374

Johnston Taylor, E., Marnier, I., Bahijri, K., Anton, T., & Petersen, F. (2008). Efficacy of a self-study programme to teach spiritual care. *Journal of Clinical Nursing. 18* (8): 1131-1140. doi: 10.1111/j.1365-2702.2008.02526.x

King, M. B., & Koening, H. G. (2009). Conceptualising spirituality for medical research and health services provision. *BMC Health Services Research. 9:* 116. doi: 10.1186/1472-6963-9-116. Retrieved from http://www.biomedcentral.com/1472-6963/9/116/

Kaasalainen, S., Brazil, K., Wilson, D., Willison, K., Marshall, D., Taniguchi, A., & Williams, A. (2011). Palliative care nursing in rural and urban community settings: A comparative analysis. *International Journal of Palliative Nursing*, 17(7): 344-352.

Kisvetrova, H., Klugar, M., Kalbelka, L. (2013). Spiritual support interventions in nursing care for patients suffering death anxiety in the final phase of life. *Journal of Palliative Nursing 19* (12): 599-605.

Kristjanson, L. J., Walton, J., & Toye, C. (2005). End-of-life challenges in residential aged care facilities: A case for a palliative approach to care. *International Journal of Palliative Nursing, 11*(3): 127-129.

Lundmark, M. (2006). Attitudes to spiritual care among nursing staff in a Swedish oncology clinic. *Journal of Clinical Nursing, 15*(7): 863-874. doi/10.1111/j.1365-2702.2006.01664.x

Lynn, J. (2005). Living long in fragile health: The new demographics shape end of life care. Improving end of life care: Why has it been so difficult*? Hastings Center Report Special Report, 35*(6): S14-S18.

MacKinlay, E., B. (2006). *Aging, spirituality and palliative care.* New York, NY: Haworth Pastoral Press.

MacKinlay, E. (2008). Practice development in aged care nursing of older people: The perspective of ageing and spiritual care. *Journal of Advance Nursing, 3*(2): 151-158. doi: 10.1111/j.1748-3743.2008.00119.x

MacLaren, J. (2004). A kaleidoscope of understandings: Spiritual nursing in a multi-faith society. *Journal of Advanced Nursing, 45*(5), 457-462. doi: 10.1111/j.1365-2648.2004.2929_1.x

MacLeod, M. L, Kulig, J.C., Stewart, N.J., Pitblado, J. R., & Knock, M. (2004). The nature of nursing practice in rural and remote Canada. *Canadian Nurse, 100(*6): 27-31.

Meador, K. G. (2006). Spirituality and care at the end of life. *Southern Medical Association, 99*(10): 1184.

McEven, M. (2005). Spiritual nursing care. *Holistic Nursing Practice, 19*(4): 161-168.

McCourt, R., Power, J., & Glackin, M. (2013). General nurses' experiences of end-of-life care in the acute hospital setting: A literature review. *International Journal of Palliative Nursing, 19*(10): 510-516.

McSherry, W. (2008). *Making sense of spirituality in nursing and healthcare practice. An interactive approach.* (2nd ed.). London: Jessica Kingsley Publishers.

McSherry, W. & Draper, P. (2008). The debates emerging from the literature surrounding the concept of spirituality as applied to nursing. *Journal of Advanced Nursing 27* (4): 683-691.

McSherry, W., & Jamieson, S. (2011). An online survey of nurses' perceptions of spirituality and spiritual care. *Journal of Clinical Nursing 20*(11-12): 1757-1767. doi: 10.111/j.1365-2702.2010.03547.x.

McSherry, W., & Ross, L.A. (Eds.). (2010). *Spiritual assessment in health care practice*. Keswick: M&K Update Ltd.

Milligan, S. (2011). Addressing the spiritual care needs of people near the end of life. *Nursing Standard 26* (4): 47-56.

Ministry of Health. (2006). *A provincial framework for end-of-life-care.* Victoria: Ministry of Health. Retrieved from http://www.health.gov.bc/library/publications/year/2006/framework.pdf

Mitchell, D. L., Bennett, M. J., Manfrin-Ledet, L. (2006). Spiritual development of nursing students: developing competence to provide spiritual care to patients at the end of life. *Journal of Nursing Education. 45*(9): 365-370.

Molzahn, A., Sheilds, L., Bruce, A., Stajduhar, K., Makaroff, K., Beuthin, R. & Shermak, S (2012). People living with serious illness: stories of spirituality. *Journal of Clinical Nursing, 21:* 2347-2356, Doi: 10.111/j.1365-2702.2012.04196.x

Moreland, S. S., Lemieux, M. L., & Myers, A. (2012). End-of-life care and the use of simulation in a baccalaureate nursing program. *International Journal of Nursing Education Scholarship, 9*(1):1-16. doi:10.1515/1548-923X.2405.

Nixon, A., & Narayanasamy, A., (2010). The spiritual needs of neuro-oncology patients from patients' perspective. *Journal of Clinical Nursing, 19*(15-16):2259-2270. doi: 10.111/j.1365-2702.2009.03112.x.

Northern Health Authority (NHA). (2009). *Northern Health Strategic Plan (2009-2015).* Northern Health. Retrieved from https://iportal.northernhealth.ca/clinicalresources/pophealthdata/Document%20Repository/4%20Health%20Services/Vision%202009/Northern%20Health%20Strategic%20Plan%20March%202009.pdf

Otis-Green, S., Yan, E., Lynne, L. (2013). ACE Project-advocating for clinical excellence: creating change in the delivery of palliative care. *Omega (Westport). 67*(1-2): 5-19.

Paley, J. (2008). Spirituality and secularization: Nursing and the sociology of religion. *Journal of Clinical Nursing, 17*(2):175-86

Pesut, B., Fowler, M., Taylor, E. J., Reimer-Kirkham, S., & Sawatzky, R. (2008). Conceptualising spirituality and religion for healthcare. *Journal of Clinical Nursing, 17*(21): 2803-2810.

Pesut, B., & Thorne, S. (2007). From private to public: Negotiating professional and personal identities in spiritual care. *Journal of Advanced Nursing, 58*(4): 396-403. doi: 10. 1111/j.1365-2648.2007.04254.x

Pesut, B., McLeod, B., Hole, R. , & Dalhuisen, M. (2012). Rural nursing and quality end of life care. Palliative care…Palliative approach…or somewhere in-between? *Advances in Nursing Science, 35*(4). 288-304. doi: 10.1097/ANS.0b013e31826b8687.

Phillips, J., Salamonson, Y., & Davidson, P. (2011). An instrument to assess nurses and care assistants' self-efficacy to provide a palliative approach to older people in residential

aged care: A validation study. *International Journal of Nursing Studies, 48* (9): 1096-1100.

Pike, J. (2011). Spirituality in nursing: A systematic review of literature from 2006-10. *British Journal of Nursing, 20*(12): 743-749.

Polit, D.F. (2010). *Statistics and data analysis for nursing research* (2nd ed.). Upper Saddle River: Pearson Education Inc.

Polit, D. F., & Beck, C. T. (2012). *Nursing research: Generating and assessing evidence for nursing practice* (9th ed.). Philadelphia: Lippincott Williams & Wilkins.

Proctor, M., Grealish, L., Coates, M., & Sears, P. (2000). Nurses' knowledge of palliative care in the Australian Capital Territory. *International Journal of Palliative Nursing, 6*: 421-428.

Reimer-Kirkham, S., Pesut, B., Sawatzky, R., Cochrane, M., & Redmond, A. (2012). Discourses of spirituality and leadership in nursing: A mixed methods analysis. *Journal of Nursing Management, 20*: 1029-1038. doi: 10.111/j.1365-2834.2012.01480.x.

Roberts, D., & Gaspard, G. (2013). A palliative approach to care of residents with dementia. *Nursing Older People ,25*(2): 32-36.

Robinson, C. A., Pesut, B., & Bottorff, J. L. (2010). Issues in rural palliative care: Views from the countryside. *The Journal of Rural Health 26,* 78-84. doi:10.111/j. 1748-0361.2009.00268.x.

Robinson, C. A., Pesut, B., Bottorff, J. L., Mowry, A., & Broughton, S. (2009). Rural palliative care: A comprehensive review. *Journal of Palliative Medicine, 12*(3): 253-258. doi:10.1089/jpm.2008.0228.

Ronaldson, S., Hayes, L., Carey, M., & Aggar, C. (2008). A study of nurses' knowledge of a palliative approach in residential care facilities. *International Journal of Older People Nursing, 3*(4): 258-267.

Ronaldson, S., Hayes, L., Aggar, C., Green, J., & Carey, M. (2012). Spirituality and spiritual caring: Nurses' perspectives and practice in palliative and acute care environments. *Journal of Clinical Nursing, 21*(15-16): 2126-2135. doi: 10.1111/j.1365-2702.2012.04180.x

Ross, L. A. (1994). Spiritual aspects of nursing. *Journal of Advanced Nursing, 19*: 439-447.

Ross, L. A. (2006). Spiritual care in nursing: An overview of the research to date. University of Glamorgan, *15*(7): 852-862. doi:10.1111/j.1365-2702.2006.01617.x

Ross, L., van Leeuwen, R., Baldacchino, D., Giske, T., McSherry, W., Narayanasamy, A., Downes, C., Jarvis, P., & Schep-Akkerman, A. (2014). Student nurses' perceptions of spirituality and competence in delivering spiritual care: A European pilot study. *Nurse Education Today, 34*(5): 697-702.

Ruder, S. (2008). Incorporating spirituality into Homecare and the end-of-life. *Home Healthcare Nurse, 26*(2):158-163.

Sawatzky, R., & Pesut, B. (2005). Attributes of spiritual care in nursing practice. *Journal of Holistic Nursing, 23*(1): 19-33.

Shad, J. D., Burge, F., Stajduhar, K. I., Cohen, S. R., Kelley, M. L., & Pesut, B. (2013). Defining and measuring a palliative approach in primary care. *Canadian Family Physician, 59*(11): 1149-1150.

Smetanin, P., Kobak, P., Briante, C., Stiff, C., Sherman, G., & Ahmad, S. (2009). Rising tide: The impact of dementia in Manitoba 2008 to 2038. *RiskAnalytica*. Retrieved from: http://www.gov.mb.ca/health/documents/alzframework.pdf

Sneesby, L., Satchell, R., Good, P., van der Riet, P. (2011). Death and dying in Australia: perceptions of a Sudanese community. *Journal of Advanced Nursing 67* (12): 2696-2702.

Swinton, J., & Pattison S. (2001). Spirituality. Come all ye faithful. *Health Service Journal*, *111*(5786): 24-25.

Statistics Canada (2009). *Table 102-0509 - Deaths in hospital and elsewhere, Canada, provinces and territories, annual.* CANSIM (database). Retrieved from http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1020509&pattern=1020501..1020511&tabMode=dataTable&srchLan=-1&p1=-1&p2=-1

Thompson, G., McClement S., & Daeninck, P. (2006). 'Changing lanes'. Facilitating the transition from curative to palliative care. *Journal of Palliative Care, 22*(2): 91-98.

van Leeuwen, R. (2008). *Towards nursing competencies in spiritual care*. ("Unpublished thesis"). University of Groningen, The Netherlands. Retrieved from: irs.ub.rug.nl/dbi/479080122009b

van Leeuwen, R., & Cusveller, B. (2004). Nursing competencies for spiritual care. *Journal of Advanced Nursing, 48*, 234-246.

van Leeuwen, R., Tiesinga. L. J., & Jochemsen, H. (2006). Spiritual care: Implications for nurses' professional responsibility. *Journal of Advanced Nursing, 15*(7): 875-884. doi: 10.111/j.1365-2702.01615.x

van Leeuwen, R., Tiesing, L. J., Middel, B., Post, D., & Jochemsen, H. (2009). The validity and reliability of an educational programme for nursing students on developing competence in the provision of spiritual care. *Journal of Clinical Nursing, 18*(20):2857-2869. doi: 10.1111/j.1365-2702.2008.02594.x

Vachon, M., Fillion, L., & Achille, M. (2009). A conceptual analysis of spirituality at the end of life. *Journal of Palliative Medicine, 12*(1):53-59. doi:10.1089.JPM.2008.0189.

Vance, D.L. (2001). Nurse's attitudes towards spirituality and patient care. *MEDSURG Nursing, 10*(5): 264-278.

White, M. L. (2013). Spirituality self-care effects on quality of life for patients diagnosed with chronic illness. *Self-Care, Dependent-Care & Nursing, 20(*1): 23-32.

White, K.R., & Coyne, P. J. (2011). Nurses' perceptions of educational gaps in delivering end-of-life care. *Oncology Nurse Forum 38*(6): 711-717. Doi; 10.1188/11.ONF.711-717.

World Health Organization. (2004). *Better palliative care for older people.* WHO. Retrieved from: www.euro.who.int/__data/assets/pdf_file/0009/98235/E82933.pdf

Appendix A

Literature search. Major concept 'Spirituality'

	Major concept Keyword **CINAHL**	MeSH **PubMed**
1.Spirituality	Total 8,148 Research articles: 3,449	Total: 7,041 Journal articles etc: 6,571 of which 2593 from 2009-2014
2. Religion/Spirituality	Total: 8,763 Research articles: 4,234	Total: 37,674 Journal articles etc: 34,714 of which 7, 405 from 2009-2014
3. Spiritual needs	Total: 637 Research articles: 317	Total: 775 Journal articles etc: 759 of which 272 from 2009-2014
4. Spiritual distress	Total: 140 Research articles: 61	Total: 167 Journal articles etc: 163 of which 59 from 2009-2014
1 OR 2 OR 3 OR 4	Total 6,947 Research articles: 6,945	Total journal articles etc: 34,714
(1 OR 2 OR 3 OR 4) AND Nursing	Total: 1,470 Research articles: 1,470	Total journal articles etc: 4,066
SP: (1 OR 2 OR 3 OR 4) AND Nursing AND Adult	Total: 549 Research articles: 549 of which 213 from 2009-2014	Total 1,234 Of which 358 (2009- 2014)

SP AND **PA**	Total 151 of which 48 (2009-2014)

SP: Spirituality, PA: Palliative Approach

Appendix B

Literature search. Major concept 'Palliative Approach' (PA)

	Major concept Keyword **CINAHL**	MeSH: **PubMed**
1.Palliative approach	Total 97: Research articles: 35	Total: 271 Journal articles, clinical trial, review: 265 Of which 103 (2009-2014)
2. Palliative care	Total 8,314: Research articles: 7,218	Total: 48,036 Journal articles, etc: 43,579 Of which 12, 082 (2009-2014)
3. Chronic disease	Total: 31,130 Research articles: 12,902	Total: 236,601 Journal articles, etc : 224,798 of which 37,417 (2009-2014)
4. End of life	Total: 8,763 Research articles: 3,817	Total 12,451 Journal articles etc: 11,475 of which 5,548 (2009-2014)
5. Life-limiting condition	Total: 77 Research article: 41	Total: 45 Journal articles, etc: 45 of which 27 (2009-2014)
PA: (1 OR 2 OR 3 OR 4 OR 5)	21, 089	Total journal articles etc: 274,153
1 OR 2 AND 3 OR 4 OR 5	119	Total journal articles etc: 12,463

PA AND Nursing	2, 150	15,070
PA: AND Nursing AND Adult	640 of which 329 from 2009-2014	3,617 of which 1,137 from (2009-2014)

PA: Palliative Approach

Appendix C

Literature search. Major concept 'Self-Perceived Competence'(SPC)

	Major concept Keyword **CINAHL**	MeSH **PubMed**
1.Self-perceived competence	Total: 40 Research articles: 37	Total 97 Journal articles etc: 97
2. Self-efficacy	Total: 11, 332 Research articles : 9,730	Total: 19,945 Journal articles etc: 19,720
3. Competence	Total: 39,486 Research articles: 15,802	Total: 116,561 Journal articles etc: 104,747
1 OR 2 OR 3	Total: 9,765 Research articles: 9,724	Total: 134,296 Journal articles: 122,299
(1 OR 2 OR 3) AND Nursing	Research articles: 6,821	Total journal articles: 28,522
SPC: (1 OR 2) AND Nursing AND 'Adult'	Research articles: 2,159 of which 261 (2009-2014)	Total journal articles: 6,045
SPC AND **SP**	52 of which 32 (2009-2014)	Total journal articles: 67 of which 25 (2009-2014)
SPC AND **SP** AND **PA**	5	3

SPS: Self-Perceived Competence, SP: Spirituality, PA: Palliative Approach

Appendix D

Literature search. CINAHL articles review summary

Authors	Title	Findings
1. Brownhill, S., Chang, E., Bidewell, J., Johnson, A. (2013)	A decision model for community nurses providing bereavement care	Community nurses are involved with the families, providing emotional support at the most vulnerable times, whether families experience normal or complicated grief. The nurses also can feel the effect of grief at the same time they need to act in a professional manner. Students and graduates need to develop skills for bereavement and providing psychological support after the death experience.
2. Sneesby, L., Satchell, R., Good, P., van der Riet, P. (2011)	Death and dying in Australia: perceptions of a Sudanese community	The paper provides insight into attitudes and cultural norms in relation to death and dying of Sudanese society. Cultural differences need to be considered in acknowledging that the value for autonomy of the individual is not universally shared, and as the Sudanese reflect on "relational autonomy". Death, grief and support are managed in the community without seeking external support. Recognizing the cultural differences helps understand the barriers in applying principles related to palliative approach (e.g., advance care planning)
3. Kisvetrova, H., Klugar, M., Kabelka,	Spiritual support interventions in	A compassionate and caring environment, together with supportive nursing activities

L. (2013)	nursing care for patients suffering anxiety in the final phase of life	(such as active listening, presence with patient, showing respect and dignity) have an effect on spiritual care. Spiritual support helps protect against death anxiety and concerns regarding dignity. Czech nurses report that these spiritual activities are the duties of clinical psychologists and chaplains, religious nuns and hospice nurses. The study revealed that it is necessary to make changes to contemporary undergraduate and postgraduate education to integrate teaching of spiritual support skills, and define competences in spiritual care.
4. Cooper, M., Gambles, M., Mason, S., McGlinchey, T. (2014)	How confident are nurses that they can provide good care?	The study focused on providing care to people who have learning disabilities and are in need of palliative care. The respondents in various care settings (acute, residential, specialized care) indicated that they had less confidence in their abilities to provide psychosocial and spiritual aspects of care. As a response a series of education sessions we going to be launched by the

		Marie Currie Palliative Care Institute's specialist palliative care team.
5.Gililand, I. (2011)	The Effects of a community based hospice experience on attitudes and self-perceived competencies of senior nursing students	Thesis dissertation. Death is a universal phenomenon. The school curricula was not did not require mandatory clinical experience with death. Many new graduates expressed low self-perceived confidence in dealing with death and dying. Through utilizing Transformational Learning Theory teaching models, students may be better prepared when they encounter death and dying situations in their clinical practice.

Appendix E

Literature search. PubMed articles review summary

Authors	Title	Findings
1. Otis-Green, S. Yang, E., Lynne, L. (2013)	ACE Project-advocating for clinical excellence: creating change in the delivery of palliative care	An overview of a National Cancer Institute comprehensive quality of life model guided curriculum development, focused on improving trans disciplinary palliative care education programs. The educational project lasted over a five year span and aimed at advancing the delivery of palliative care, end of life and bereavement care by enhancing the leadership and advocacy skills of 301 participants: 14% psychologists, 51 % social workers and 35% spiritual care professionals. Participants were asked to report on their five years goals and anecdotal reports indicated that the majority of participants submitted their ACE abstracts for presentations at professional meetings, used posters as teaching tools and published their work.
2. Gelfman, L. P., Meier, D. E., Morrison, R. S. (2008)	Does palliative care improve quality? A survey of bereaved family members.	The study analyzed the impact of hospital palliative care programs on bereaved families. About 65 % of palliative care patients' families who received palliative care consultations reported that their emotional and spiritual needs were met as compared to 35 % of usual care patients' family members. Palliative care

		consultations were associated with increased patients satisfaction and enhanced self-efficacy for family members.
3. Mitchell, D. L., Bennett, M. J., Manfrin-Ledet, L. (2006)	Spiritual development of nursing students: developing competence to provide spiritual care to patients at the end of life.	Spiritual care needs of patients must be recognized as a domain of nursing care. The article focused on presenting tools that may be used with nursing students to overcome barriers in addressing spiritual needs of patients. The purposes of the article is to present self-assessment spiritual exercises aimed at gaining self-awareness, enhance spiritual assessment skills and assist nursing students to develop plans of care which address spiritual needs by using care mapping skills. The use of the tools is demonstrated in three case studies.

Appendix F

Dependent and independent variables to measure and their rationale

Variables to measure	Instrument used to measure	Rationale
Dependent: self-perception of level of competence in addressing the spiritual needs of patients	1. Assess the spiritual needs of persons with life-limiting conditions and their families. (The version for care aids and CHWs reads: "Observe and report …) 2. Recognize signs of spiritual distress in persons with life-limiting conditions and their families 3. Help persons with life-limiting conditions and their families to explore various sources of hope when they demonstrate signs of hopelessness. 4. Assist persons with life-limiting conditions to explore the meaning of their illness experience. 5. Adapt the nursing care in accordance with the spiritual beliefs of persons with life-limiting conditions and their families.	Asking these questions resulted in understanding the level of self-perceive measures of competence in addressing the spiritual needs of the patients with life-limiting conditions, amongst the various care provider groups in the various settings.

Independent variables		
1. Demographic factors	Age, gender, place of birth, primary language	This indicated if there are any variations between different demographic groups of RNs, LPNs and CAs.
2. Professional background ("years of practice")	Length of experience in the current professional role	The length of time in the professional role affected the nurses' and care aids' ability to critically appraise and respond to a situation
3. Education background	What is your highest educational qualification? High School Diploma/Certificate Licensed/Registered Practical Nurse Diploma Registered Psychiatric Nurse Diploma Registered Nurse Diploma Bachelor in Nursing	Educational background and the number of years in formal education potentially influenced the nurses' ability to critically appraise and respond to a situation

	Bachelor in Psychiatric Nursing/ Mental Health Nursing Masters in Nursing PhD in Nursing Other, please specify	
4. Clinical context	What unit or department do you work in? (hospital units in the NHA include medical- surgical or rehab units; residential care; home care)	Units where nurses develop a lengthier relationship with the patient/client may have had more opportunities for meaningful interactions and feel more competent
5. Adequacy of knowledge on spiritual needs	How adequate your knowledge is for your care of persons with life-limiting conditions and their families on spiritual needs?	The majority of both nurses and care aids groups would have seen their knowledge on spiritual needs inadequate despite differences in education preparation
6. Patients out of ten with	In your setting how many patients out	This indicated if were

life-limiting conditions	of ten have life-limiting conditions?	there any variations in the type of setting or care provider level of self-perceived competence, based on the nurses' self-perceived number of patients identified with life-limiting conditions
7. Patients out of ten who would benefit from a palliative approach	In your setting how many patients out of ten would benefit from a palliative approach?	Identifying patients who would benefit from a palliative approach increased the likelihood for the nurses to apply a palliative approach
8. Work environment-autonomy in practice.	1. The supervisory staff is supportive of nurses. 2. Nursing controls its own practice. 3. I have the freedom to make important patient care and work decisions	Nurses and care aids who scored higher in the levels of autonomy in their practice could also score higher in their level of self-

	4. I am not placed in a position of having to do things that are against my nursing judgement	perceived competence
	5. I am a nurse manager or immediate supervisor who backs up the nursing staff in decision making, even if the conflict is with a physician	

Appendix G

Sample of RN, LPN Provincial Survey about a Palliative Approach Questionnaire

iPANEL
INITIATIVE FOR A PALLIATIVE APPROACH IN NURSING: EVIDENCE & LEADERSHIP

<< Site URL >>

Provincial Nurse Survey about a Palliative Approach

iPANEL's research — by nurses for nurses — contributes to understanding how those providing nursing care can help more people in BC benefit from palliative care philosophies and services. **Offering a palliative approach** in settings like residential care facilities, hospital units and at home, will result in patients and families being better supported through the many transitions in the latter part of their lives. Given our aging population and the growing epidemic of life-limiting chronic conditions such as dementia, lung, kidney and heart diseases, and cancer, research about a palliative approach is more important than ever.

Our ultimate goal is to advance the integration of a palliative approach into all settings where nurses care for people with life-limiting chronic conditions. We know this takes the support and cooperation of many parties including health professionals, employers and health care consumers, but we believe that nurses can and will contribute to a better and more supported experience for British Columbians toward the end of their lives.

Now comes your part. **We need to understand your perspective to help develop a health care system in British Columbia that supports a palliative approach**. The purpose of this survey is to gather information relevant to a palliative approach from care aides, LPNs, RPNs and RNs, across our province in hospital, residential and home care settings. The survey will take about 30-40 minutes to complete.

Please take the time to familiarize yourself with the following terms that are used frequently in the survey:

> **Life-Limiting Conditions:** Chronic conditions expected to limit how long a person has to live, including dementia, lung, kidney and heart diseases, and cancer.
>
> **Palliative Approach:** An approach to care focused on improving the quality of life of persons with life-limiting conditions and their family. It is provided in all health care settings. It involves physical, psychological, social and spiritual care. The palliative approach is not delayed until the end stages of an illness but is applied earlier to provide active comfort-focused care and a positive approach to reducing suffering. It also promotes understanding of loss and bereavement.

Please read the enclosed consent form and keep a copy for your records. Note that as this is a survey, when you submit your response (whether online, by mail, or over the phone) this action implies consent.

Mark your responses by filling in the circle as follows: ● (not like this: ⊗ ✓ ⊖)

This survey is about your work at the following practice setting:

[NAME OF SITE]

1. What best describes your current professional role at this setting?

- ○ Registered Nurse
- ○ Licensed Practical Nurse
- ○ Registered Psychiatric Nurse
- ○ Nurse Practitioner (Extended Class Nurse)
- ○ Not currently registered
- ○ Other, please specify: _____

2. In what year did you start working in your current position at this setting?

_____

3. Are you working full-time, part-time or casual/on call at this setting?

- ○ Full-time (30 or more hours per week)
- ○ Part-time (less than 30 hours per week)
- ○ Casual/ on call

4. Do you usually work at other units, facilities or settings?

- ○ No
- ○ Yes, full-time
- ○ Yes, part-time
- ○ Yes, casual

Section A: CARE OF PERSONS WITH LIFE-LIMITING CONDITIONS

We would like to know how confident you presently are in addressing the needs of persons with life-limiting conditions and their families. For each of the following items, please rate your confidence in providing a palliative approach by choosing a number from 0 to 5.

Physical Needs: Pain

		not at all capable 0	1	2	3	4	highly capable 5	don't know
1.	Assess pain in persons with life-limiting conditions.	O	O	O	O	O	O	O
2.	Assess pain for persons with life-limiting conditions who are unable to communicate.	O	O	O	O	O	O	O
3.	Effectively use medication to relieve pain in persons with life-limiting conditions.	O	O	O	O	O	O	O
4.	Use non-pharmacological and complementary interventions to relieve pain in persons with life-limiting conditions.	O	O	O	O	O	O	O
5.	Provide early detection of side effects related to pain medication.	O	O	O	O	O	O	O

Physical Needs: Other Symptoms

		not at all capable 0	1	2	3	4	highly capable 5	don't know
6.	Provide effective care to relieve nausea and vomiting in persons with life-limiting conditions.	O	O	O	O	O	O	O
7.	Provide effective care to alleviate constipation in persons with life-limiting conditions.	O	O	O	O	O	O	O
8.	Provide effective care to relieve fatigue in persons with life-limiting conditions.	O	O	O	O	O	O	O
9.	Provide effective care to relieve dyspnea (shortness of breath) in persons with life-limiting conditions.	O	O	O	O	O	O	O
10.	Provide proper mouth care to promote comfort in persons with life-limiting conditions.	O	O	O	O	O	O	O

Psychological Needs

		not at all capable 0	1	2	3	4	highly capable 5	don't know
11.	Provide early detection of delirium in persons with life-limiting conditions.	O	O	O	O	O	O	O
12.	Assess depression in persons with life-limiting conditions and their families.	O	O	O	O	O	O	O
13.	Provide effective care to reduce psychological distress in persons with life-limiting conditions and their families.	O	O	O	O	O	O	O
14.	Assist persons with life-limiting conditions and their families to cope with stressors related to illness.	O	O	O	O	O	O	O
15.	Provide support to persons with life-limiting conditions and their families when they experience grief.	O	O	O	O	O	O	O

Social Needs

		not at all capable 0	1	2	3	4	highly capable 5	don't know
16.	Assess the impact of life-limiting conditions on family dynamics.	O	O	O	O	O	O	O
17.	Assist persons with life-limiting conditions and their families in maintaining cultural traditions despite illness.	O	O	O	O	O	O	O
18.	Assist persons with life-limiting conditions and their families in identifying personal resources in order to cope with problems related to illness.	O	O	O	O	O	O	O
19.	Promote communication between persons with life-limiting conditions and their family members when a conflict occurs.	O	O	O	O	O	O	O
20.	Refer persons with life-limiting conditions and their families to appropriate resources in order to meet their social needs.	O	O	O	O	O	O	O

Spiritual Needs

		not at all capable 0	1	2	3	4	highly capable 5	don't know
21.	Assess the spiritual needs of persons with life-limiting conditions and their families.	O	O	O	O	O	O	O
22.	Recognize signs of spiritual distress in persons with life-limiting conditions and their families.	O	O	O	O	O	O	O
23.	Help persons with life-limiting conditions and their families to explore various sources of hope when they demonstrate signs of hopelessness.	O	O	O	O	O	O	O
24.	Assist persons with life-limiting conditions to explore the meaning of their illness experience.	O	O	O	O	O	O	O
25.	Adapt the nursing care in accordance with the spiritual beliefs of persons with life-limiting conditions and their families.	O	O	O	O	O	O	O

Needs Related to Functional Status

		not at all capable 0	1	2	3	4	highly capable 5	don't know
26.	Assess the needs associated with activities of daily living in persons with life-limiting conditions.	O	O	O	O	O	O	O
27.	Assess the need for practical support in order to prevent burnout in family members caring for persons with life-limiting conditions.	O	O	O	O	O	O	O
28.	Assist persons with life-limiting conditions to maintain their functional independence for as long as possible.	O	O	O	O	O	O	O
29.	Empower family members to provide care to persons with life-limiting conditions.	O	O	O	O	O	O	O
30.	Implement appropriate interventions to help relieve burden on family members caring for persons with life-limiting conditions.	O	O	O	O	O	O	O

Ethical and Legal Issues

		not at all capable 0	1	2	3	4	highly capable 5	don't know
31.	Identify ethical issues related to the care of persons with life-limiting conditions.	○	○	○	○	○	○	○
32.	Provide information to persons with life-limiting conditions concerning the legal issues associated with illness.	○	○	○	○	○	○	○
33.	Assist persons with life-limiting conditions to make informed decisions regarding end of life care.	○	○	○	○	○	○	○
34.	Advocate for persons with life-limiting conditions and their families with other members of the healthcare team.	○	○	○	○	○	○	○
35.	Advocate for persons with life-limiting conditions when there is a difference in perspective with their family on a care issue.	○	○	○	○	○	○	○

Inter-professional Collaboration and Communication

		not at all capable 0	1	2	3	4	highly capable 5	don't know
36.	Actively participate in discussions regarding the needs of persons with life-limiting conditions during interdisciplinary team meetings.	○	○	○	○	○	○	○
37.	Promote communication between healthcare professionals regarding persons with life-limiting conditions in order to support continuity of care.	○	○	○	○	○	○	○
38.	Promote communication between persons with life-limiting conditions, their families, and health care professionals in order to ensure information sharing.	○	○	○	○	○	○	○
39.	Promote communication between health care professionals when conflicts arise in the care of persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
40.	Promote the collaboration of various healthcare professionals in the care of persons with life-limiting conditions and their families.	○	○	○	○	○	○	○

Personal and Professional Issues Related to Nursing Care

		not at all capable 0	1	2	3	4	highly capable 5	don't know
41.	Recognize how my own personal and professional beliefs may influence the care I provide to persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
42.	Cope with loss and grief related to the care of persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
43.	Identify which stressors affect me when I provide care to persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
44.	Identify my own personal resources to manage stress related to caring for persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
45.	Discuss death and dying with persons with life-limiting conditions and their families.	○	○	○	○	○	○	○

Last Hours of Life

		not at all capable 0	1	2	3	4	highly capable 5	don't know
46.	Provide effective care to relieve pain in persons with life-limiting conditions during the last hours of life.	○	○	○	○	○	○	○
47.	Provide effective care to relieve respiratory distress during the last hours of life.	○	○	○	○	○	○	○
48.	Identify the signs and symptoms of imminent death in persons with life-limiting conditions.	○	○	○	○	○	○	○
49.	Provide an authentic presence during the last hours of life to persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
50.	Encourage expression of cultural and religious traditions for persons with life-limiting conditions and their families during the last hours of life.	○	○	○	○	○	○	○

Section B: INTEGRATION OF A PALLIATIVE APPROACH IN YOUR PRACTICE SETTING

We would like to know to what extent you apply a palliative approach in the practice setting where you work.

1. Please indicate how often you apply each of the following dimensions of a palliative approach in your practice setting. (See section A if you are unsure about what a dimension is)

	None of the time	Some of the time	Half of the time	Most of the time	All of the time
Disease management	O	O	O	O	O
Physical needs: Pain	O	O	O	O	O
Physical needs: Other symptoms	O	O	O	O	O
Psychological needs	O	O	O	O	O
Loss and grief support	O	O	O	O	O
Social needs	O	O	O	O	O
Spiritual needs	O	O	O	O	O
Needs related to functional status	O	O	O	O	O
Ethical and legal issues	O	O	O	O	O
Inter-professional collaboration and communication	O	O	O	O	O
Personal and professional issues related to nursing care	O	O	O	O	O
Last hours of life	O	O	O	O	O
Overall, how often do you apply a palliative approach in your practice setting?	O	O	O	O	O

		none of the patients					half of the patients					all of the patients
		0	1	2	3	4	5	6	7	8	9	10
2.	In your practice setting, how many patients out of ten have life-limiting conditions?	O	O	O	O	O	O	O	O	O	O	O
3.	In your practice setting, how many out of ten patients with life-limiting conditions would benefit from a palliative approach to care?	O	O	O	O	O	O	O	O	O	O	O

		never					half					always
		0	1	2	3	4	5	6	7	8	9	10
4.	How often do you apply a palliative approach to your care of persons with life-limiting conditions?	O	O	O	O	O	O	O	O	O	O	O

5. Consider the following statement for 10 typical patients at your setting with a life-limiting condition (such as COPD, CHF, dementia):
"I would <u>not</u> be surprised if [x number] of these patients died within the next year."

	none of the patients					half of the patients					all of the patients
	0	1	2	3	4	5	6	7	8	9	10
Indicate the most appropriate number for the above statement:	O	O	O	O	O	O	O	O	O	O	O

6. **Please let us know if there is anything else you would like to tell us about the integration of a palliative approach in your setting. Feel free to consider the following questions:**

   In your practice setting, are there any strategies that are used to support a palliative approach?

   Are there any strategies you think could be used to better support a palliative approach in your practice setting?

   Are there any barriers to using a palliative approach where you work? If so, what are they?

Section C: KNOWLEDGE AND EDUCTION

We would like to know what and how you have learned about caring for persons with life-limiting conditions. We also would like to know what methods would help you learn more.

1. For each of the following dimensions of a palliative approach, rate how <u>adequate</u> your knowledge is for your care of persons with life-limiting conditions and their families. (See section A if you are unsure about what a dimension is)

	inadequate		adequate		more than adequate
	0	1	2	3	4
Disease management	O	O	O	O	O
Physical needs: Pain	O	O	O	O	O
Physical needs: Other symptoms	O	O	O	O	O
Psychological needs	O	O	O	O	O
Loss and grief support	O	O	O	O	O
Social needs	O	O	O	O	O
Spiritual needs	O	O	O	O	O
Needs related to functional status	O	O	O	O	O
Ethical and legal issues	O	O	O	O	O
Inter-professional collaboration and communication	O	O	O	O	O
Personal and professional issues related to nursing care	O	O	O	O	O
Last hours of life	O	O	O	O	O

2. If in your practice there was something that you did not know about a palliative approach, which of the following would you use to find the knowledge that you require?

	not at all	seldom	sometimes	often	not available in my workplace
Colleagues at your practice setting (RNs, LPNs, care aides, or community health workers)	O	O	O	O	O
A nurse manager or patient care coordinator	O	O	O	O	O
A clinical nurse specialist or nurse educator	O	O	O	O	O
Other health care professional(s) (please specify below)	O	O	O	O	O
Institutional policies and procedures (either online or in print)	O	O	O	O	O
Print materials (e.g. textbooks, journals)	O	O	O	O	O
Internet (such as Google or other internet resources)	O	O	O	O	O
Please specify other health care professionals:					

3. **Please let us know if there is anything else you would like to tell us about knowledge and education in a palliative approach. Feel free to consider the following questions:**

   How is education about caring for persons with life-limiting conditions and their families currently offered in your practice setting?

   Are there any barriers or limitations in gaining more knowledge and education about the care of persons with life-limiting conditions and their families?

Section D: WORK ENVIRONMENT

We are interested about how your current work environment influences your ability to apply a palliative approach to the care of persons with life-limiting conditions and their families.

Below are some general statements about your work environment. Please tell us the extent to which you agree or disagree with each statement.

		Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
1.	The supervisory staff is supportive of nurses.	O	O	O	O
2.	Nursing controls its own practice.	O	O	O	O
3.	I have the freedom to make important patient care and work decisions.	O	O	O	O
4.	I am not placed in a position of having to do things that are against my nursing judgment.	O	O	O	O
5.	I have a nurse manager or immediate supervisor who backs up the nursing staff in decision making, even if the conflict is with a physician.	O	O	O	O
6.	Adequate support services allow me to spend time with my patients.	O	O	O	O
7.	There is enough time and opportunity to discuss patient care.	O	O	O	O
8.	There are enough nurses on staff to provide quality patient care.	O	O	O	O
9.	I have a nurse manager or immediate supervisor who is a good manager and leader.	O	O	O	O

		Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
10.	There is enough staff to get the work done.	O	O	O	O
11.	I am given assignments that foster continuity of care, that is, I continue to care for the same patient one day to the next.	O	O	O	O
12.	Physicians and nurses have good working relations.	O	O	O	O
13.	There is a lot of team work between nurses and physicians.	O	O	O	O
14.	There is collaboration between nurses and physicians.	O	O	O	O
15.	I can decide on my own how to go about doing my work.	O	O	O	O
16.	I am involved in challenging work.	O	O	O	O
17.	I have a chance to gain new skills and knowledge on the job.	O	O	O	O
18.	The organization at my facility supports the work I do.	O	O	O	O

19. Please let us know if there is anything else you would like to tell us about how your work environment influences your ability to apply a palliative approach.

Section E: DEMOGRAPHICS

Finally, we would like to know a bit more about you.

1. **What is your age?**

2. **What is your gender?**
   - O Male
   - O Female
   - O Other - please specify:

3. **Where were you born?**

4. **What is your primary language?**

5. **In what year did you first begin working in your current professional role?**

6. **What unit or department do you work in? (e.g., renal, medical, cardiac, residential care, home care, etc.)?**

7. **What is your highest educational qualification?**
   - O High School Diploma
   - O Certificate
   - O Licensed/Registered Practical Nurse Diploma
   - O Registered Psychiatric Nurse Diploma
   - O Registered Nurse Diploma
   - O Bachelor in Nursing
   - O Bachelor in Psychiatric Nursing/ Mental Health Nursing
   - O Masters in Nursing
   - O PhD in Nursing
   - O Other, please specify:

8 a. Have you obtained a degree or diploma in a discipline other than nursing?

- O Yes
- O No

8 b. If you answered yes to question 8 a), please answer the following: What is the highest degree or diploma you have obtained?

- O Certificate
- O Diploma
- O Bachelor's degree
- O Master's degree
- O PhD

9. Let us know if there is anything else you would like to tell us about your experiences in caring for persons with life-limiting conditions.

10. Please use this space to provide any additional comments about this survey.

iPANEL
INITIATIVE FOR A PALLIATIVE APPROACH IN NURSING: EVIDENCE & LEADERSHIP

Thank you for providing us with this valuable information.

Your answers will help to inform care for persons with life-limiting conditions and their families across British Columbia.

FURTHER PARTICIPATION

We will be conducting webinars and commencing a community of practice via an INSPIRENET Action Team. If you would like to be included in our distribution list around upcoming iPANEL projects, discussions, or events please indicate below.

☐ **YES** ☐ **NO**

If you have indicated YES, please provide us with your email in one of the following ways:

1) Calling the following toll-free number: 1-866-788-4898
2) Emailing us at: survey@ipanel.ca
3) Using the attached consent to contact form.

Thank you for considering further participation in the iPANEL project.

Visit us at our website: www.ipanel.ca .

Appendix H

Sample of CA Provincial Nurse Survey about Palliative Approach Questionnaire

iPANEL
INITIATIVE FOR A PALLIATIVE APPROACH IN NURSING: EVIDENCE & LEADERSHIP

Provincial Nurse Survey about a Palliative Approach

iPANEL's research — by nurses for nurses — contributes to understanding how those providing nursing care can help more people in BC benefit from palliative care philosophies and services. **Offering a palliative approach** in settings like residential care facilities, hospital units and at home, will result in patients and families being better supported through the many transitions in the latter part of their lives. Given our aging population and the growing epidemic of life-limiting chronic conditions such as dementia, lung, kidney and heart diseases, and cancer, research about a palliative approach is more important than ever.

Our ultimate goal is to advance the integration of a palliative approach into all settings where care aides and nurses care for people with life-limiting chronic conditions. We know this takes the support and cooperation of many parties including health professionals, employers and health care consumers, but we believe that care aides and nurses can and will contribute to a better and more supported experience for British Columbians toward the end of their lives.

Now comes your part. **We need to understand your perspective to help develop a health care system in British Columbia that supports a palliative approach**. The purpose of this survey is to gather information relevant to a palliative approach from care aides, LPNs, RPNs and RNs, across our province in hospital, residential and home care settings. The survey will take about 30-40 minutes to complete.

Please take the time to familiarize yourself with the following terms that are used frequently in the survey:

> **Life-Limiting Conditions:** Chronic conditions expected to limit how long a person has to live, including dementia, lung, kidney and heart diseases, and cancer.
>
> **Palliative Approach:** An approach to care focused on improving the quality of life of persons with life-limiting conditions and their families. It is provided in all health care settings. It involves physical, psychological, social and spiritual care. The palliative approach is not delayed until the end stages of an illness but is applied earlier to provide active comfort-focused care and a positive approach to reducing suffering. It also promotes understanding of loss and bereavement.

Please read the enclosed consent form and keep a copy for your records. Note that as this is a survey, when you submit your response (whether online, by mail, or over the phone) this action implies consent.

Mark your responses by filling in the circle as follows: ● (not like this: ⊗ ⊘ ⊖)

This survey is about your work at the following practice setting:

[NAME OF SITE]

1. What best describes your current professional role at this setting?

- ○ Care Aide in Hospital
- ○ Community Health Worker / Home Support Worker
- ○ Residential Care Attendant
- ○ Other, please specify: _____

2. In what year did you start working in your current position at this setting?

_____

3. Are you working full-time, part-time or casual/on call at this setting?

- ○ Full-time (30 or more hours per week)
- ○ Part-time (less than 30 hours per week)
- ○ Casual/ on call

4. Do you usually work at other units, facilities or settings?

- ○ No
- ○ Yes, full-time
- ○ Yes, part-time
- ○ Yes, casual

Section A: CARE OF PERSONS WITH LIFE-LIMITING CONDITIONS

We would like to know how confident you presently are in addressing the needs of persons with life-limiting conditions and their families. For each of the following items, please rate your confidence in providing a palliative approach by choosing a number from 0 to 5.

Physical Needs: Pain

		not at all capable 0	1	2	3	4	highly capable 5	don't know
1.	Observe and report pain in persons with life-limiting conditions.	O	O	O	O	O	O	O
2.	Observe and report pain for persons with life-limiting conditions who are unable to communicate.	O	O	O	O	O	O	O
3.	Observe and report the need for medication to relieve pain in persons with life-limiting conditions.	O	O	O	O	O	O	O
4.	Use non-pharmacological and complementary interventions to relieve pain in persons with life-limiting conditions.	O	O	O	O	O	O	O
5.	Observe and report side effects related to pain medication.	O	O	O	O	O	O	O

Physical Needs: Other Symptoms

		not at all capable 0	1	2	3	4	highly capable 5	don't know
6.	Provide effective care to relieve nausea and vomiting in persons with life-limiting conditions.	O	O	O	O	O	O	O
7.	Provide effective care to relieve constipation in persons with life-limiting conditions.	O	O	O	O	O	O	O
8.	Provide effective care to relieve fatigue in persons with life-limiting conditions.	O	O	O	O	O	O	O
9.	Observe and report dyspnea (shortness of breath) in persons with life-limiting conditions.	O	O	O	O	O	O	O
10.	Provide proper mouth care to promote comfort in persons with life-limiting conditions.	O	O	O	O	O	O	O

Psychological Needs

		not at all capable 0	1	2	3	4	highly capable 5	don't know
11.	Observe and report delirium in persons with life-limiting conditions.	O	O	O	O	O	O	O
12.	Observe and report depression in persons with life-limiting conditions and their families.	O	O	O	O	O	O	O
13.	Provide effective care to reduce psychological distress in persons with life-limiting conditions and their families.	O	O	O	O	O	O	O
14.	Assist persons with life-limiting conditions and their families to cope with stressors related to illness.	O	O	O	O	O	O	O
15.	Provide support to persons with life-limiting conditions and their families when they experience grief.	O	O	O	O	O	O	O

Social Needs

		not at all capable 0	1	2	3	4	highly capable 5	don't know
16.	Observe and report the impact of life-limiting conditions on family dynamics.	O	O	O	O	O	O	O
17.	Assist persons with life-limiting conditions and their families in maintaining cultural traditions despite illness.	O	O	O	O	O	O	O
18.	Assist persons with life-limiting conditions and their families in identifying personal resources in order to cope with problems related to illness.	O	O	O	O	O	O	O
19.	Promote communication between persons with life-limiting conditions and their family members when a conflict occurs.	O	O	O	O	O	O	O
20.	Refer persons with life-limiting conditions and their families to appropriate resources in order to meet their social needs.	O	O	O	O	O	O	O

Spiritual Needs

		not at all capable 0	1	2	3	4	highly capable 5	don't know
21.	Observe and report the spiritual needs of persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
22.	Recognize signs of spiritual distress in persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
23.	Help persons with life-limiting conditions and their families to explore various sources of hope when they demonstrate signs of hopelessness.	○	○	○	○	○	○	○
24.	Assist persons with life-limiting conditions to explore the meaning of their illness experience.	○	○	○	○	○	○	○
25.	Adapt care in accordance with the spiritual beliefs of persons with life-limiting conditions and their families.	○	○	○	○	○	○	○

Needs Related to Functional Status

		not at all capable 0	1	2	3	4	highly capable 5	don't know
26.	Observe and report the needs associated with activities of daily living in persons with life-limiting conditions.	○	○	○	○	○	○	○
27.	Observe and report the need for practical support in order to prevent burnout in family members caring for persons with life-limiting conditions.	○	○	○	○	○	○	○
28.	Assist persons with life-limiting conditions to maintain their functional independence for as long as possible.	○	○	○	○	○	○	○
29.	Empower family members to provide care to persons with life-limiting conditions.	○	○	○	○	○	○	○
30.	Implement appropriate interventions to help relieve burden on family members caring for persons with life-limiting conditions.	○	○	○	○	○	○	○

Ethical and Legal Issues

		not at all capable 0	1	2	3	4	highly capable 5	don't know
31.	Observe and report ethical issues related to the care of persons with life-limiting conditions.	O	O	O	O	O	O	O
32.	Consult other team members when persons with life-limiting conditions express concern about the legal issues associated with illness.	O	O	O	O	O	O	O
33.	Consult with other team members when persons with life-limiting conditions need assistance with informed decisions regarding end of life care.	O	O	O	O	O	O	O
34.	Advocate for persons with life-limiting conditions and their families with other members of the healthcare team.	O	O	O	O	O	O	O
35.	Advocate for persons with life-limiting conditions when there is a difference in perspective with their family on a care issue.	O	O	O	O	O	O	O

Inter-professional Collaboration and Communication

		not at all capable 0	1	2	3	4	highly capable 5	don't know
36.	Actively participate in discussions regarding the needs of persons with life-limiting conditions during interdisciplinary team meetings.	O	O	O	O	O	O	O
37.	Participate in communication between healthcare professionals regarding persons with life-limiting conditions in order to support continuity of care.	O	O	O	O	O	O	O
38.	Participate in communication between persons with life-limiting conditions, their family, and health care professionals in order to ensure information sharing.	O	O	O	O	O	O	O
39.	Participate in communication between health care professionals when conflicts arise in the care of persons with life-limiting conditions and their families.	O	O	O	O	O	O	O
40.	Participate in the collaboration of various healthcare professionals in the care of persons with life-limiting conditions and their families.	O	O	O	O	O	O	O

Personal and Professional Issues Related to Nursing Care

		not at all capable 0	1	2	3	4	highly capable 5	don't know
41.	Recognize how my own personal and professional beliefs may influence the care I provide to persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
42.	Cope with loss and grief related to the care of persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
43.	Identify which stressors affect me when I provide care to persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
44.	Identify my own personal resources to manage stress related to caring for persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
45.	Discuss death and dying with persons with life-limiting conditions and their families.	○	○	○	○	○	○	○

Last Hours of Life

		not at all capable 0	1	2	3	4	highly capable 5	don't know
46.	Provide effective care as planned to relieve pain in persons with life-limiting conditions during the last hours of life.	○	○	○	○	○	○	○
47.	Provide effective care as planned to relieve respiratory distress during the last hours of life.	○	○	○	○	○	○	○
48.	Identify the signs and symptoms of imminent death in persons with life-limiting conditions.	○	○	○	○	○	○	○
49.	Provide an authentic presence during the last hours of life to persons with life-limiting conditions and their families.	○	○	○	○	○	○	○
50.	Encourage expression of cultural and religious traditions for persons with life-limiting conditions and their families during the last hours of life.	○	○	○	○	○	○	○

Section B: INTEGRATION OF A PALLIATIVE APPROACH IN YOUR PRACTICE SETTING

We would like to know to what extent you apply a palliative approach in the practice setting where you work.

1. Please indicate how often you apply each of the following dimensions of a palliative approach in your practice setting. (See section A if you are unsure about what a dimension is)

	None of the time	Some of the time	Half of the time	Most of the time	All of the time
Disease management	O	O	O	O	O
Physical needs: Pain	O	O	O	O	O
Physical needs: Other symptoms	O	O	O	O	O
Psychological needs	O	O	O	O	O
Loss and grief support	O	O	O	O	O
Social needs	O	O	O	O	O
Spiritual needs	O	O	O	O	O
Needs related to functional status	O	O	O	O	O
Ethical and legal issues	O	O	O	O	O
Inter-professional collaboration and communication	O	O	O	O	O
Personal and professional issues related to nursing care	O	O	O	O	O
Last hours of life	O	O	O	O	O
Overall, how often do you apply a palliative approach in your practice setting?	O	O	O	O	O

		none of the patients					half of the patients					all of the patients
		0	1	2	3	4	5	6	7	8	9	10
2.	In your practice setting, how many patients out of ten have life-limiting conditions?	○	○	○	○	○	○	○	○	○	○	○
3.	In your practice setting, how many out of ten patients with life-limiting conditions would benefit from a palliative approach to care?	○	○	○	○	○	○	○	○	○	○	○

		never					half					always
		0	1	2	3	4	5	6	7	8	9	10
4.	How often do you apply a palliative approach to your care of persons with life-limiting conditions?	○	○	○	○	○	○	○	○	○	○	○

5. Consider the following statement for 10 typical patients at your setting with a life-limiting condition (such as COPD, CHF, dementia):
"I would <u>not</u> be surprised if [x number] of these patients died within the next year."

	none of the patients					half of the patients					all of the patients
	0	1	2	3	4	5	6	7	8	9	10
Indicate the most appropriate number for the above statement:	○	○	○	○	○	○	○	○	○	○	○

6. **Please let us know if there is anything else you would like to tell us about the integration of a palliative approach in your setting. Feel free to consider the following questions:**

   In your practice setting, are there any strategies that are used to support a palliative approach?

   Are there any strategies you think could be used to better support a palliative approach in your practice setting?

   Are there any barriers to using a palliative approach where you work? If so, what are they?

Section C: KNOWLEDGE AND EDUCTION

We would like to know what and how you have learned about caring for persons with life-limiting conditions. We also would like to know what methods would help you learn more.

1. For each of the following dimensions of a palliative approach, rate how <u>adequate</u> your knowledge is for your care of persons with life-limiting conditions and their families. (See section A if you are unsure about what a dimension is)

	inadequate		adequate		more than adequate
	0	1	2	3	4
Disease management	O	O	O	O	O
Physical needs: Pain	O	O	O	O	O
Physical needs: Other symptoms	O	O	O	O	O
Psychological needs	O	O	O	O	O
Loss and grief support	O	O	O	O	O
Social needs	O	O	O	O	O
Spiritual needs	O	O	O	O	O
Needs related to functional status	O	O	O	O	O
Ethical and legal issues	O	O	O	O	O
Inter-professional collaboration and communication	O	O	O	O	O
Personal and professional issues related to nursing care	O	O	O	O	O
Last hours of life	O	O	O	O	O

2. If in your practice there was something that you did not know about a palliative approach, which of the following would you use to find the knowledge that you require?

	not at all	seldom	sometimes	often	not available in my workplace
Colleagues at your practice setting (RNs, LPNs, care aides, or community health workers)	O	O	O	O	O
A nurse manager or patient care coordinator	O	O	O	O	O
A clinical nurse specialist or nurse educator	O	O	O	O	O
Other health care professional(s) (please specify below)	O	O	O	O	O
Institutional policies and procedures (either online or in print)	O	O	O	O	O
Print materials (e.g. textbooks, journals)	O	O	O	O	O
Internet (such as Google or other internet resources)	O	O	O	O	O
Please specify other health care professionals:					

3. **Please let us know if there is anything else you would like to tell us about knowledge and education in a palliative approach. Feel free to consider the following questions:**

   How is education about caring for persons with life-limiting conditions and their families currently offered in your practice setting?

   Are there any barriers or limitations in gaining more knowledge and education about the care of persons with life-limiting conditions and their families?

Section D: WORK ENVIRONMENT

We are interested about how your current work environment influences your ability to apply a palliative approach to the care of persons with life-limiting conditions and their families.

Below are some general statements about your work environment. Please tell us the extent to which you agree or disagree with each statement.

		Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
1.	The supervisory staff is supportive of care aides and community health workers.	O	O	O	O
2.	Care aides and community health workers control their own practice.	O	O	O	O
3.	I have the freedom to make important patient care and work decisions.	O	O	O	O
4.	I am not placed in a position of having to do things that are against my judgment.	O	O	O	O
5.	I have a nurse manager or immediate supervisor who backs up the staff in decision making, even if the conflict is with a physician.	O	O	O	O
6.	Adequate support services allow me to spend time with my patients.	O	O	O	O
7.	There is enough time and opportunity to discuss patient care.	O	O	O	O
8.	There is enough staff to provide quality patient care.	O	O	O	O
9.	I have a nurse manager or immediate supervisor who is a good manager and leader.	O	O	O	O

		Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
10.	There is enough staff to get the work done.	O	O	O	O
11.	I am given assignments that foster continuity of care, that is, I continue to care for the same patient one day to the next.	O	O	O	O
12.	Care aides or community health workers and nurses have good working relations.	O	O	O	O
13.	There is a lot of team work between nurses and care aides or community health workers.	O	O	O	O
14.	There is collaboration between nurses and care aides or community health workers.	O	O	O	O
15.	I can decide on my own how to go about doing my work.	O	O	O	O
16.	I am involved in challenging work.	O	O	O	O
17.	I have a chance to gain new skills and knowledge on the job.	O	O	O	O
18.	The organization at my facility supports the work I do.	O	O	O	O

19. Please let us know if there is anything else you would like to tell us about how your work environment influences your ability to apply a palliative approach.

Section E: DEMOGRAPHICS

Finally, we would like to know a bit more about you.

1. **What is your age?**

2. **What is your gender?**
   - O Male
   - O Female
   - O Other - please specify:

3. **Where were you born?**

4. **What is your primary language?**

5. **In what year did you first begin working in your current professional role?**

6. **What unit or department do you work in? (e.g., renal, medical, cardiac, residential care, home care, etc.)?**

7. **What is your highest educational qualification?**
   - O High School Diploma
   - O Certificate
   - O Licensed/Registered Practical Nurse Diploma
   - O Registered Psychiatric Nurse Diploma
   - O Registered Nurse Diploma
   - O Bachelor in Nursing
   - O Bachelor in Psychiatric Nursing/ Mental Health Nursing
   - O Masters in Nursing
   - O PhD in Nursing
   - O Other, please specify:

8 a. Have you obtained a degree or diploma in a discipline other than nursing?

- O Yes
- O No

8 b. If you answered yes to question 8 a), please answer the following: What is the highest degree or diploma you have obtained?

- O Certificate
- O Diploma
- O Bachelor's degree
- O Master's degree
- O PhD

9. Let us know if there is anything else you would like to tell us about your experiences in caring for persons with life-limiting conditions.

10. Please use this space to provide any additional comments about this survey.

iPANEL
INITIATIVE FOR A PALLIATIVE APPROACH IN NURSING: EVIDENCE & LEADERSHIP

Thank you for providing us with this valuable information.

Your answers will help to inform care for persons with life-limiting conditions and their families across British Columbia.

FURTHER PARTICIPATION

We will be conducting webinars and commencing a community of practice via an INSPIRENET Action Team. If you would like to be included in our distribution list around upcoming iPANEL projects, discussion, or events please indicate below.

☐ **YES** ☐ **NO**

If you have indicated YES, please provide us with your email in one of the following ways:

1) Calling the following toll-free number: 1-866-788-4898
2) Emailing us at: survey@ipanel.ca
3) Using the attached consent to contact form.

Thank you for considering further participation in the iPANEL project.

Visit us at our website: www.ipanel.ca.

Appendix I

Research Ethics Board Application Approvals

TRINITY WESTERN UNIVERSITY
Research Ethics Board (REB)
CERTIFICATE OF APPROVAL

Principal Investigator: Ibolya Agoston

Department: Master of Science in Nursing

Supervisor (if student research): Richard Sawatzky

Co-Investigators: Dr. Jean-François Desbiens, Université Laval

Title: Rural northern nurses' self perceived competencies in addressing the spiritual needs of the patients with life limiting conditions

REB File No.: 13ED05

Start Date: February 18, 2013

End Date: February 15, 2014

Approval Date: February 18, 2013

Certification

This is to certify that Trinity Western University Research Ethics Board (REB) has examined the research proposal and concludes that, in all respects, the proposed research meets appropriate standards of ethics as outlined by the "Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans".

Sue Funk, B.A. for Bill Badke, M.Th., M.L.S.
REB Coordinator REB Chair

This Certificate of Approval is valid for one year and may be renewed.
The REB must be notified of *all* changes in protocol, procedures or consent forms.
A final project form must be submitted upon completion.

TRINITY WESTERN UNIVERSITY
Research Ethics Board (REB)
CERTIFICATE OF APPROVAL

Principal Investigator: Ibolya Agoston

Department: Master of Science in Nursing

Supervisor (if student research): Richard Sawatzky

Co-Investigators: None

Title: Rural northern nurses' self perceived competencies in addressing the spiritual needs of the patients with life limiting conditions

REB File No.: 13G09

Start Date: July 8, 2013

End Date: May 1, 2014

Approval Date: July 8, 2013

Certification

This is to certify that Trinity Western University Research Ethics Board (REB) has examined the research proposal and concludes that, in all respects, the proposed research meets appropriate standards of ethics as outlined by the "Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans".

Sue Funk, B.A. — REB Coordinator
for
Bill Badke, M.Th., M.L.S. — REB Chair

This Certificate of Approval is valid for one year and may be renewed.
The REB must be notified of *all* changes in protocol, procedures or consent forms.
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