

Assessment of Nursing Knowledge in Palliative Care

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**Table of Contents**

Abstract .....	4
Introduction .....	5
Background .....	5
Stakeholders .....	6
Problem Statement .....	7
Purpose Statement .....	7
Anticipated Outcomes .....	7
Review of the Literature .....	7
Theoretical Framework .....	10
Organizational Assessment .....	11
Methodology .....	11
Setting .....	12
Sample.....	12
Implementation Procedures .....	12
Measurement Instrument .....	13
Data Collection Procedure .....	14

Ethical Considerations .....	14
Data Analysis .....	15
Timeline .....	15
Results .....	16
Discussion .....	16
Limitations .....	17
Plan for Sustainability .....	17
Implications for Practice .....	17
Conclusion .....	18
References .....	19
Appendix A: Literature Search .....	22
Appendix B: Reference Matrix .....	23
Appendix C: Palliative Care Education PowerPoint Outline .....	27
Appendix D: Project Information Form for Participation in an EBP Project .....	28
Appendix E: Demographic Information .....	30

## Abstract

*Background:* Acute care nurses are challenged in caring for chronically and terminally ill patients. Many nurses do not have the knowledge or comfort level in handling ethical challenges or palliative care (PC) discussions with patients and their families. Understanding the palliative care approach can help acute care nurses increase their palliative care knowledge and promote the use of the palliative care team.

*Purpose:* The purpose of this project is to assess palliative care knowledge in nurses at a Midwestern acute care hospital, prior to and after an educational intervention. By performing this comparison, a determination will be made on whether the educational intervention was successful in increasing nursing knowledge in palliative care.

*Methods:* Orthopedic and neurology nurses from a Midwestern acute care hospital were assessed on their palliative care knowledge using the Palliative Care Quiz for Nursing (PCQN). Participants were given the PCQN pretest and posttest to complete before and after a 15-minute educational intervention.

*Results:* PCQN scores for the total sample was 9-18/20 on the pretest and 13-20/20 on the posttest. Overall, the sample mean pretest score was 13.11 ( $SD = 2.54$ , 65.5%) and 17.11 ( $SD = 1.82$ , 85.5%) for the posttest, with  $p < .0001$ . Differences were considered significant if  $p < .05$ .

*Conclusion:* Statistically significant differences were noted in nursing knowledge pre and post education. Nurses had low-level baseline PC knowledge. After PC education, nurses scored higher on the posttest.

*Keywords:* Palliative care, nursing knowledge, palliative care education, acute care nurse

### Assessment of Nursing Knowledge in Palliative Care

As the population ages, expectations of new technology and drugs to extend life continues to grow. The Centers for Disease Control and Prevention (2017) reports an average life expectancy of 78.8 years in the United States. As healthcare costs are rising and new development of treatments to prolong life are expanding, nurses are challenged to use palliative care services as a means of chronic disease management with patients and their families. In addition, nurses have a responsibility of caring for the terminally ill and relying on palliative care to help manage patients' disease burden.

Palliative care is an approach to care that provides holistic health care; focusing on improving the quality of life in patients with life-threatening or chronic illnesses (Nagaviroj & Anothaisintawee, 2017). Palliative care plays an integral part in patients' plan of care to decrease disease burden while increasing quality of life (Casarett & Teno, 2016). Countless nurses do not feel comfortable or lack knowledge in caring for terminally ill patients; therefore, a need for further education in palliative care exists (Hui-Ju, Li-Ling, Suh-Ing, Tsung-Lan, and Wen-Pin, 2016).

### **Background**

In the United States, approximately 28% of deaths occur in the hospital setting (Price et al., 2017). Many times, a patients' death is viewed as a medical failure rather than resulting from natural causes. Hospitals tend to focus on curing patients to preserve life with the use of advanced medical technology and treatments, as compared to providing caring measures to increase quality of life (Kuebler, 2012). However, not every patient can sustain a prolonged quality life with the goal of curing the disease. It is important to consider the patient's wishes and goals for a dignified life and death, while improving quality of life.

Palliative care is rarely considered at the bedside until the patient receives a diagnosis of metastatic cancer or a terminal illness (Kuebler, 2012). Palliative care is available in situations when the patient desires the help of managing their chronic symptoms to better their quality of life as well as to discuss goals of care. Nurses play a pivotal role in managing patient care and as the primary caregiver to hospitalized patients. Death is sometimes unavoidable in the hospital setting making it crucial to integrate palliative care education into acute care nurses' preparation to enable them to care for terminally ill patients.

Hui-Ju et al. (2016) demonstrated acute care nurses are not adequately prepared for discussions about palliative care with patients or families. Not all nurses feel comfortable, or are knowledgeable, about caring for dying or terminally ill patients. Further knowledge is needed on communication techniques, handling ethical challenges, and physical suffering. If acute care nurses are exposed to palliative care education, then palliative care may be effectively and appropriately used to care for chronically ill and dying patients.

### **Stakeholders**

Stakeholders involved in increasing palliative care education for nurses include palliative care team members, clinical nurse specialists, nurse educators, nurses, physicians, clients, and family members. Stakeholders play an integral part in promoting and/or benefiting from increased nursing knowledge in palliative care. Nurses are the backbone of patient care and with increased understanding of palliative care, nurses can influence stakeholders to meet the needs of the patient and family.

Clinical nurse specialists and nurse educators work behind the scenes to find improvements that can be used to promote palliative care referrals and acknowledge palliative care needs in patients. Nurses, physicians, and palliative care team members bring awareness to

patients and families about quality of life options in palliative and end-of-life care. Overall, nurses are the patient's advocate and are the link of communication between stakeholders.

### **Problem Statement**

This project aims to answer the question, "In acute care nurses, how does implementation of palliative care education affect nursing knowledge in palliative care?"

### **Purpose Statement**

The purpose of this project is to assess palliative care knowledge in nurses at a Midwestern acute care hospital, prior to and after an educational intervention. By performing this comparison, a determination will be made on whether the educational intervention was successful in increasing nursing knowledge in palliative care.

### **Anticipated Outcomes**

It was anticipated that acute care nurses would score low on the palliative care pretest. After completing the educational intervention, it was believed that acute care nurses would obtain a higher score on the posttest due to increased knowledge in palliative care. The measured outcome is knowledge in palliative care in acute care nurses.

### **Review of Literature**

A literature review was done on topics pertaining to palliative care education and nurse knowledge. Search methods and criteria are discussed with a focus on nurse knowledge in palliative care and benefits of palliative care education.

### **Search Method**

Several search engines used, including CINAHL, PubMed, and MEDLINE, helped to gather relevant evidence-based research data to support the PICOT question (See Appendix A).

Full-text literature searches were limited to peer reviewed research articles, the English language, and human subjects from year 2012 through 2017 (See Appendix B). Search terms useful in nursing knowledge included palliative care teaching and palliative care education; nurse comprehension and nurse knowledge. Boolean operators such as ‘AND’ and ‘OR’ were used to combine search terms to provide a complete search.

### **Inclusion/Exclusion Criteria**

To ensure quality research was used, inclusion criteria for the articles included: (a) peer reviewed research articles, (b) focus on nursing knowledge with palliative care education, and (c) have measurable outcome data. Characteristics of excluded articles were: older than 5 years, non-peer-reviewed research articles, and topics unrelated to the PICOT question.

### **Synthesis of Evidence**

Palliative care delivery is significant in improving end-of-life and/or symptom management, but a question remains about the effectiveness and extent of palliative integration in nursing practice (White, Roczen, Coyne, & Wiencek, 2014). Broglio and Bookbinder (2014) reported several studies showing nurses’ lack of preparation, knowledge, and comfort with death and dying and incorporating palliative care practices for terminally ill patients. Nurses have reported inadequate palliative care preparation in their undergraduate curriculum (Broglio & Bookbinder, 2014). A combination of lack of palliative care knowledge and the emotional aspect of caring for terminally ill patients poses a challenge for nurses. This also challenges the quality of care patients receive if nurses are unable to identify the appropriate needs of the patients.

Several barriers prevent nurses from being able to adequately implement palliative care services. A leading barrier is lack of knowledge in palliative care due to inadequate training



opportunities (Harden, Price, Duffy, Galunas, & Rodgers, 2017). Prem et al. (2012) performed a study on nursing knowledge and attitudes of palliative care focusing on the philosophy and comfort measures of palliative care patients. A Palliative Care Knowledge Test (PCKT) was utilized and results showed inadequacies in knowledge on various subjects, such as opioid usage, pain management, and adverse drug events.

In another study done by Wilson, Avalos, and Dowling (2016), 61 nurses completed the Palliative Care Quiz for Nursing questionnaire. The results showed a mean score of 11.8 out of a possible high score of 18. This suggested moderate level of palliative care knowledge in nurses. Similarly, Ayed, Sayej, Harazneh, Fashafsheh, and Eqtait's (2015) study showed 30.5% of nurses had good knowledge in palliative care and 56.2% had moderate confidence in their knowledge in palliative care. Not only do many nurses feel inadequate in caring for terminally ill patients and their family members, they are not receiving the training and education needed to prepare themselves for situations requiring palliative care interventions.

Palliative care educational interventions have shown to improve nurse knowledge in the management and comfort of palliative care patients. When Fedel, Joosse, and Jeske (2014) performed a palliative care educational intervention with acute care nursing staff, the researchers found a statistically significant increase in nursing knowledge in palliative care using a pre and post survey ( $p$  value = 0.027). There was a statistically significant improvement in the comfort level of nurses in assessing the patients need for a palliative care consult ( $p$  value = 0.005). Harden et al. (2017) performed a similar study using a pre/posttest design to assess the knowledge, attitudes, and behaviors of nurses towards palliative care. The study found a statistically significant increase in the overall mean score from the preeducational intervention ( $X=3.5$ ,  $SD=0.64$ ) in comparison to post educational intervention ( $X=4.2$ ,

SD=0.54,  $p=0.000$ ). Statistically significant changes were noted in the nurses' attitudes on the impact of the education and their comfort in discussing advanced care planning ( $p=0.011$ ).

In summary, nursing knowledge levels were reported to be low with low to moderate attitudes about palliative care (Prem et al., 2012; Wilson, Avalos, & Dowling, 2016; Ayed, 2015; Harden et al., 2017). Educational palliative care interventions allowed nurses to feel more comfortable discussing palliative care with patients and families; plus promoted an overall increase in palliative care knowledge (Fedel, Joosse, & Jeske, 2014; Harden et al., 2017). With advancing disease and an aging population, palliative care continues to be an essential part of nursing practice.

### **Theoretical Framework**

The Johns Hopkins Nursing Evidenced-Based Practice Model promotes evidence in clinical application to translate into clinical practice (Melnik & Fineout-Overholt, 2015). A three-step process, called PET, is applied: practice question, evidence, and translation. Evidence-based practice is used alongside non-research evidence and nursing practice. Enhancement and limitations of this model can be influenced by internal and external factors such as staffing, standards, quality measures, and regulations. The goal of this model is to ensure the best research and practices are being effectively incorporated into patient care.

The Johns Hopkins Nursing Evidenced-Based Practice Model best fits this project through its implementation of evidence-based practice into nursing practice. Sawatzky et al. (2017) discussed the importance of implementing palliative education with nurses, focusing on knowledge translation, empowerment of the care delivery, and practice that supports the palliative care approach. The evidence-based practice questions focus on increasing nursing knowledge in palliative care using educational interventions. Understanding Sawatzky et al.

(2017) evidence about improving nursing knowledge allows nurses to be able to translate their knowledge into practice to improve patient outcomes.

### **Organizational Assessment**

Implementation of the proposed project took place at a Midwestern acute care hospital, specifically on the orthopedic neurology (ortho/neuro) unit. Goals of the ortho/neuro unit are to improve patients' pain, prevent falls, and prevent skin breakdown. Establishment of the goals were based on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) score for the hospital. HCAHPS is a patient satisfaction survey for inpatient adults. The ortho/neuro unit's goals to improve patient satisfaction and safety are met through unit based council (UBC) meetings and education lectures given by specialists. Staff members work together to provide education for the staff to improve knowledge and address patient satisfaction and safety.

In order to increase nursing knowledge in palliative care, change must occur; which is a process that takes time. Habits are formed on the ortho/neuro unit that may be difficult to change, even with repetitive education. There is a risk in creating change, knowing some nurses may resist or have different ideas about what is being taught. In this case, the unit is open to comments and suggestions that would promote the best interest of the patients.

### **Methodology**

This evidence-based practice project aimed to improve hospital nurses' level of knowledge in palliative care through an educational intervention about services provided by, and misconceptions of, palliative care. Along with the educational intervention, the project leader provided a pretest and posttest to assess for a change in knowledge.

**Setting**

A Midwestern acute care hospital was the setting for this project. It holds 423 beds, serving a metropolitan area of diverse people. Over 2,000 full-time employees and over 400 physicians are on active staff. Approximately 22,000 patients a year are admitted to the hospital. The Magnet® designated hospital provides care in cardiovascular surgery, neurosurgery, cancer care, gastroenterology, orthopedics, and comprehensive diagnostic services.

The project intervention was held on the 30 bed orthopedic neurology unit at the hospital. Seventy-two active staff members work on the unit including: 49 nurses and 23 certified nursing aides. Consent was given by the service leader of the orthopedic neurology unit to conduct this evidence-based practice project during the UBC meetings.

**Sample**

The sample included day and night shift nurses from the orthopedic neurology unit. Inclusion criteria included: (a) registered nurses, (b) participation in the UBC meeting, and (c) an agreement to participate in the educational intervention along with the pre and posttest. Exclusion criteria consisted of: (a) the failure to complete the pre and/or posttest and educational intervention, and (b) non-registered nursing staff.

**Implementation Procedures**

The goal of the project was to improve nurses' knowledge in palliative care. Participants were obtained through volunteers at the ortho/neuro's UBC meeting. During the meeting, a project description was reviewed by the project leader, along with inclusion and exclusion criteria. Nurses who volunteered to participate were given a pretest to complete prior to the educational intervention. The Palliative Care Quiz for Nursing (PCQN) tool was used to assess

nurse knowledge in palliative care for the pretest and posttest. Once the volunteers completed the pretest, the project leader presented an educational lecture in palliative care.

The educational presentation consisted of a 15-minute PowerPoint presentation that included information from the Center to Advance Palliative Care (CAPC) modules (CAPC, n.d.) (See Appendix C). The PCQN was then distributed to the participants as a posttest. Time was provided for questions and answers at the conclusion of the presentation.

### **Measurement Instruments**

Data collection was via the Palliative Care Quiz for Nursing, developed by Ross, McDonald, and McGuinness (1996) at the University of Ottawa, Canada. The PCQN assessed basic palliative care knowledge among nurses using 20 “True”, “False”, and “Don’t Know” objective questions. One point was awarded for each correct response. No points were awarded for each incorrect response and “Don’t Know” response. A maximum of 20 points could be earned.

Ross, McDonald, and McGuinness (1996) used the Canadian Palliative Care Curriculum as a conceptual framework to develop the PCQN. This instrument was designed to assess palliative care knowledge among nurses in an objective manner. An advisory committee and palliative care specialists reviewed the questions for validity, clarity, and relevance to clinical practice. Nursing students (n=200) and registered nurses (n=196) were sampled to assess for validity, with a pass rate of 61%.

An assessment of the PCQN’s reliability was made by using the Kuder Richardson Formula 20, with an internal consistency of 0.78 (Ross, McDonald, and McGuinness, 1996).

Reliability was directly assessed by comparing the participant's mean score from the first assessment in the first week to the second assessment in the third week. This allowed the project leader to assess for knowledge rather than from remembering responses to the questions.

Permission to use the PCQN was obtained by Dr. Fothergill-Bourbonnais, a representative for Dr. Ross, via electronic mail.

### **Data Collection Procedure**

**Pre-Intervention.** Project implementation was approved by the chairman of UBC and service leader of the ortho/neuro unit. A specified date and time was arranged with the UBC chairman to present the evidence-based practice project. A PowerPoint presentation was prepared along with the PCQN pretest and posttest to be distributed to the participants.

**Intervention.** Project implementation occurred during the ortho/neuro's UBC meeting. The purpose and goals of the project were discussed, along with risks and benefits of participating. Participation was reviewed prior to initiating the project (See Appendix D). A demographic form was distributed to the participants to complete (See Appendix E). The pretest was administered to determine the nurses' baseline knowledge in palliative care.

Once the pretest was completed, the project leader collected the pretest and provided the palliative care education. The posttest was then distributed to the participants for completion. Participant questions and answers followed the completion of the posttest along with distribution of the PCQN answers.

### **Ethical Considerations/Protection of Human Subjects**

Nebraska Methodist College Institutional Review Board (IRB) approval was obtained prior to initiating the evidence-based practice project. Approval from the Nebraska Methodist

Hospital IRB was also obtained prior to implementing the project. The project leader and mentor completed CITI training.

Participants who declined participation in the project were allowed to stay for the education or leave the session as they desired, but were not allowed to participate in the pretest and posttest. All documents and results of the evidence-based practice project were kept confidential by the project leader in a locked file cabinet that is not accessible to others. Data was reported in aggregate form to exclude any identifying information. Participants cannot be identified individually and information was shared with project partners and individuals of the project. Three years after the project has been completed, participant documentation will be discarded through paper shredding and deletion of project computer files. The project leader declares no conflict of interest.

### **Data Analysis**

In order to determine if the proposed outcome of an increase in nursing knowledge post palliative care education was met, an independent  $t$  test was performed using Microsoft Excel's t-test: Two-Sample Assuming Equal Variances. The  $t$  test was utilized to assess for a statistically significant difference in nursing knowledge pre and post palliative care education.

Data collected from the pre and posttests were systematically entered into Microsoft Excel and analyzed. Descriptive statistics such as age, gender, race, months worked as a nurse, day or night shift nurse, and perceived knowledge were used to assess the sample characteristics of the participants. Means were used to calculate each descriptive data.

### **Timeline**

Data was collected on April 10, 2018 during ortho/neuro's UBC meeting. Data analysis and interpretation was completed thereafter. On April 19, 2018, the project was disseminated during the health system's annual research day.

### **Results**

#### **Sample Demographics**

Of the 19 participants, the average age was 33.5 ( $SD = 8.31$ , age range: 25-58 years). Females ( $n = 17$ ) comprised a majority of the sample (89.5%), which is consistent with the higher proportion of females on the unit staff. A majority of the sample identified as Caucasian ( $n = 17$ , 89.5%), followed by Asian ( $n = 1$ , 5.3%), with one participant who did not report race.

Participants worked as nurses an average of 8.19 years, ranging from 9 months to 38 years. Day (52.6%) and night (42.1%) shift nurses participated, with one participant who did not report shift type. Prior to the educational presentation, nurses rated the perceived level of palliative care knowledge on a scale of 1 to 5 (1 = Low, 5 = High), with a mean score of 3.37.

#### **PCQN Statistics**

The PCQN scores for the total sample was nine to 18 out of 20 on the pretest and 13 to 20 out of 20 on the posttest. Overall, the sample mean pretest score was 13.11 ( $SD = 2.54$ , 65.5%) and 17.11 ( $SD = 1.82$ , 85.5%) for the posttest, with  $p < .0001$ . Differences were considered significant if  $p < .05$ .

### **Discussion**

The question posed in this project addressed how palliative education affects palliative care knowledge in nurses. A lower score on the pretest ( $M = 13.11$ ,  $SD = 2.54$ ) compared to the posttest ( $M = 17.11$ ,  $SD = 1.82$ ) was expected as it was anticipated that nurses would score lower



on the pretest due to less knowledge in palliative care. Results demonstrated a statistically significant difference between the pretest ( $M = 13.11$ ) and posttest ( $M = 17.11$ ) scores in palliative care knowledge ( $p < .0001$ ). A significant increase in nursing knowledge in palliative care was demonstrated with this population of nurses.

### **Limitations**

Convenience sampling was a limitation. All nurses who participated were sampled from the same hospital, working on the same unit. Limiting the sample population to only ortho/neuro nurses at an acute care hospital limits the variation of data in palliative care knowledge. Also, the sample size included only 19 participants. The results produced a low statistical power, meaning due to the small sample size, the results could produce false positives (Button et al., 2013). A small effect size can negatively affect the likelihood that a statistically significant result is actually a true effect. Sampling from various hospitals, in different units and states would provide a broad sample that is more likely to represent the palliative care knowledge base of registered nurses.

### **Plan for Sustainability**

Once the project was complete, palliative care education can continue annually during UBC meetings on the ortho/neuro unit. Nurses will frequently be exposed to palliative care materials to recap important subjects. Education may be given by a palliative care provider or by UBC leaders through lectures and real-life case studies. Electronic education can be sent out annually to the ortho/neuro staff as a continual reminder of the importance and usefulness of palliative care. Once a palliative care education plan has been established on the ortho/neuro unit, further steps can be incorporated to increase education to other units in the acute care facility.

**Implications for Practice**

Increasing nursing knowledge in palliative care allows nurses to understand how palliative care can increase patient quality of life and symptom management. Nurses can also appreciate the level of care being brought by the palliative care team. Nurses' awareness and understanding of palliative care improves their attitudes and behaviors towards palliative care (Harden et al., 2017). Eventually, this may allow nurses to translate their knowledge into practice to improve patient outcomes.

Recommendations for future research include recruiting a larger and more diverse sample. Studying nurses from various hospitals in different states increases variation in participant knowledge and background. A longitudinal study on palliative care knowledge in nurses could also help to advance understanding and retention of knowledge of palliative care in nurses.

**Conclusion**

The aim of this project was to assess palliative care knowledge in nurses. The PCQN was used to assess nursing knowledge in palliative care in 19 nursing volunteers, pre and post palliative care education. Statistically significant differences were noted in nursing knowledge pre and post education. Nurses had a low level of palliative care knowledge at baseline. After palliative care education, nurses scored higher on the posttest. Recommendations include incorporating palliative care education during nursing Unit Based Council meetings and expanding the education to other units and health care facilities.

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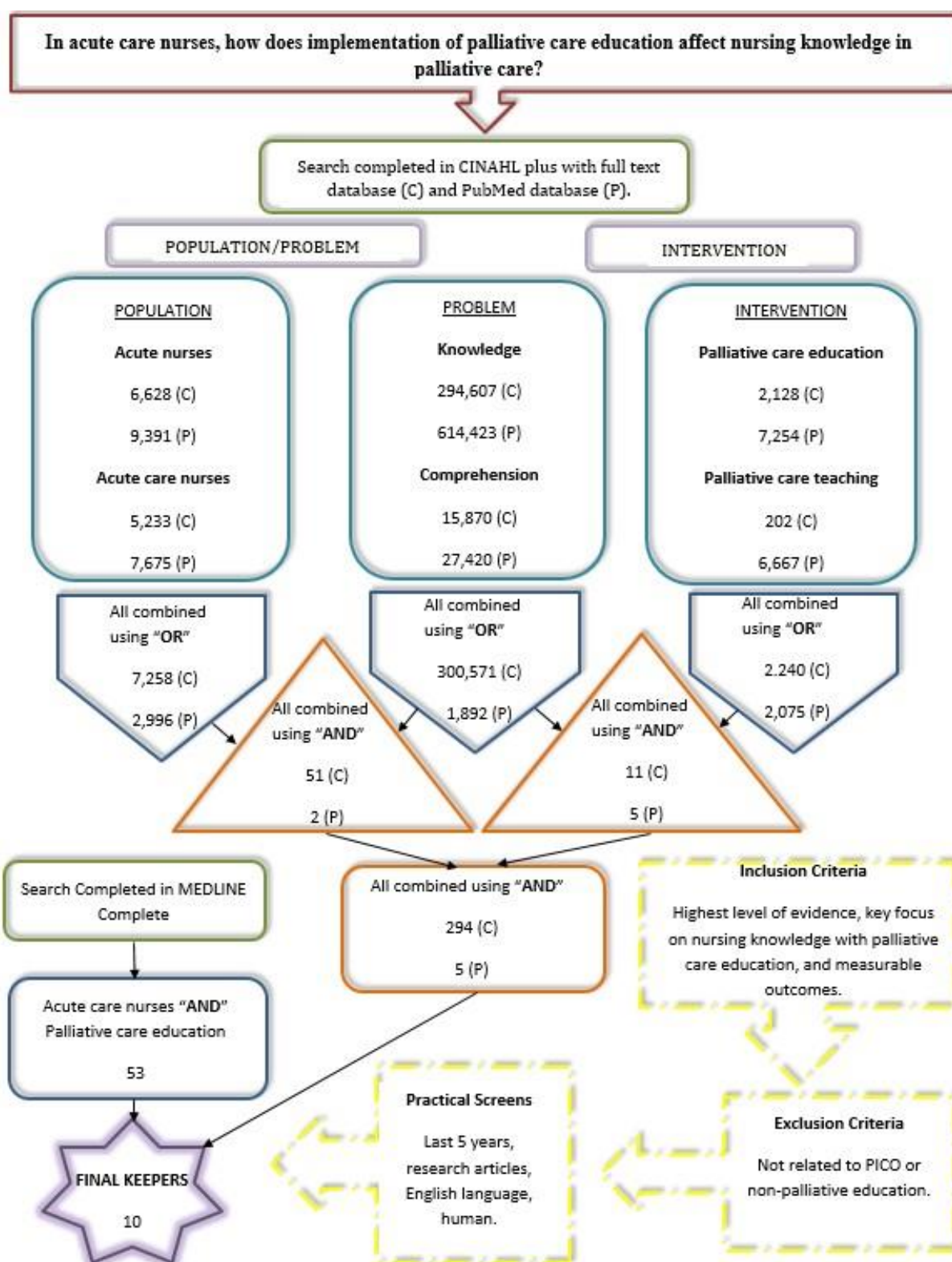
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Wilson, O., Avalos, G., & Dowling, M. (2016). Knowledge of palliative care and attitudes towards nursing the dying patient. *British Journal Of Nursing*, 25(11), 600-605.

## Appendix A

## Literature Search



**Appendix B**  
**Reference Matrix**

<p style="text-align: center;"><b><u>PICOT</u></b></p> <p style="text-align: center;"><b>In acute care nurses, how does implementation of palliative care education affect nursing knowledge in palliative care?</b></p>					
<b>Citation/ Level of Evidence</b>	<b>Participants/Setting/ Sample size</b>	<b>Purpose/Background</b>	<b>Methods/Design &amp; Limitations</b>	<b>Findings/Summary Strengths/Weakness</b>	<b>Applicability to Own Research</b>
Broglio, K., & Bookbinder, M. (2014). Pilot of an online introduction to palliative care for nurses. <i>Journal Of Hospice &amp; Palliative Nursing</i> , 16(7), 420-429.  <b>Level of evidence: Level II</b> – Well-designed experimental study	23 nurses at a Northeastern hospital.	To design an online introduction to PC and assess nurse knowledge post education and 3 weeks later.	A one group pretest/posttest design was used.	Nurses scored a 57.6% on the pretest, with the lowest scoring on the question asking about palliative care being compatible with aggressive care.  Results showed a brief online educational intervention can improve PC knowledge in the short term. Repeated educational programs have shown sustained benefit for nurses.	The research is similar to my own research in assessing nurse PC knowledge pre and post test.
White, K. R., Roczen, M. L., Coyne, P. J., & Wiencek, C. (2014). Acute and Critical Care Nurses' Perceptions of Palliative Care Competencies: A	Participants include 49 registered nurses in Virginia. Nurses comprise of critical care nurses and graduate nursing students in the acute care nurse	The purpose of the article is to assess knowledge differences among different groups of nurses.	Descriptive, exploratory design with a self-exploratory survey instrument.	Less than half of the participants reported no palliative care continuing education, even when the hospital provides palliative care services. Nurses reported a need	This article explains the feelings of nurses about palliative care education and their knowledge on PC

<p>Pilot Study. <i>Journal Of Continuing Education In Nursing</i>, 45(6), 265-277</p> <p><b>Level of evidence:</b> Level II – Well-designed experimental study</p>	practitioner program.			for increased palliative care education. The more experienced nurses found that pain management, symptom control, and ways to talk with the patient and family about death and dying was more important than the less experienced nurses. Less experienced nurses were more concerned about their own feelings about death and dying.	education.
<p>Prem, V., Karvannan, H., Kumar, S. P., Karthikbabu, S., Syed, N., Sisodia, V., &amp; Jaykumar, S. (2012). Study of nurses' knowledge about palliative care: A quantitative cross-sectional survey. <i>Indian Journal Of Palliative Care</i>, 18(2), 122127.</p> <p><b>Level of evidence:</b> Level II – Well-designed experimental study</p>	363 nurses in a multispecialty hospital.	To assess nurse knowledge about palliative care using the palliative care knowledge test (PCKT).	A self-report questionnaire was used using the PCKT.	Findings showed in inadequacy of knowledge, such as opioids usage and adverse drug events. Education and clinical experience influences nurse knowledge, attitude, and beliefs of palliative care. Nurse knowledge on pain was less than 35%. Nurses had more knowledge on psychiatric problems and philosophy than any other aspect.	This study looked at nursing knowledge and belief in palliative care.



<p>Ayed, A., Sayej, S., Harazneh, L., Fashafsheh, I., &amp; Eqtait, F. (2015). The nurses' knowledge and attitudes towards the palliative care. <i>Journal of Education and Practice</i>, 6(4), 9199.</p> <p><b>Level of evidence:</b> Level II – Well-designed experimental study</p>	<p>96 nurses in selected hospitals in Northern districts, Palenstine.</p>	<p>To assess nursing knowledge towards palliative care.</p>	<p>Descriptive, cross sectional study.</p>	<p>The study showed 20.8% of nurses had good knowledge on PC. There is a positive relationship between experience, qualification and training in palliative care and nursing knowledge.</p> <p>PC needs to become an integral part in nursing school curricula as well a continuing nursing education programs.</p>	<p>This study assesses nursing knowledge in palliative care.</p>
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<p>Wilson, O., Avalos, G., &amp; Dowling, M. (2016). Knowledge of palliative care and attitudes towards nursing the dying patient. <i>British Journal Of Nursing</i>, 25(11), 600-605.</p> <p><b>Level of evidence:</b> Level II – Well-designed experimental study</p>	<p>97 nurses in four private and three state-run older person care units.</p>	<p>The purpose is to exam palliative care knowledge and attitudes of nurses towards caring for dying patients.</p>	<p>A cross-sectional quiz was used using the palliative care quiz for nurses (PCQN) and the thanatophobia scale (TS).</p>	<p>The study showed that more nurses working in nursing homes (60%) received more PC education than nurses working in community hospitals (44%).</p> <p>There was a high degree of variability in PC nursing knowledge. The focus should be on the philosophy of PC, in regards to promotion of quality of life. A statistically significant correlation was found that the longer the nurse was registered, the</p>	<p>This study showed how PC education affects nursing knowledge and the correlation with seasonal nurses.</p>
				<p>higher their PC knowledge.</p>	

<p>Fedel, P., Joosse, L. L., &amp; Jeske, L. (2014). Use of the palliative performance scale version 2 in obtaining palliative care consults. <i>Journal Of Clinical Nursing</i>, 23(13/14), 2012-2021.</p> <p><b>Level of evidence:</b> Level II – Well-designed experimental study</p>	<p>23 nurses at a Midwest acute care tertiary hospital.</p>	<p>To examine the use of an educational intervention to assess PC knowledge in nurses and assess their comfort in determining the need for PC and requesting a PC consult.</p>	<p>A pretest-posttest design was used with Survey Monkey.</p>	<p>An educational intervention showed improvements in knowledge and comfort in consulting for PC.</p>	<p>This study provides support to my capstone showing positive results in knowledge in PC after educational interventions.</p>
<p>Harden, K., Price, D., Duffy, E., Galunas, L., &amp; Rodgers, C. (2017). Palliative care: Improving nursing knowledge, attitudes, and behaviors. <i>Clinical Journal Of Oncology Nursing</i>, 21(5), E232-E238.</p> <p><b>Level of evidence:</b> Level II – Well-designed experimental study</p>	<p>54 oncology nurses at Michigan Medicine in Ann Arbor.</p>	<p>To improve palliative care knowledge in oncology nurses and to increase conversations about PC to patients and their families.</p>	<p>A pretest-posttest design was used to assess the knowledge, attitudes, and behaviors of nurses at baseline and one month post education curriculum.</p>	<p>Results showed a significant increase in knowledge, attitudes, and behaviors in oncology nurses after participating in the educational program.</p>	<p>This article supports my capstone in agreement with an educational PC session.</p>

**Appendix C Palliative Care Education PowerPoint Outline**

- I. Introduction to Palliative Care
  - a. What is Palliative Care?
  - b. Importance of Palliative Care
- II. Pharmacological Management
  - a. Symptom management
- III. Non-pharmacological Management
  - a. Symptom management
- IV. Grief and Healing
- V. Conclusion VI. References **Appendix D**

**Project Information Form for Participation in an Evidence Based Practice Project**

Nebraska Methodist College

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**Project Leaders:** Yen Nguyen, BSN, RN and Hilary Applequist, DNP, APRN-NP

**Title:** Assessment of Nursing Knowledge in Palliative Care

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**WHY IS THE STUDY BEING DONE?**

The study looks at whether palliative care education helps to increase palliative care knowledge in nurses.

**WHAT DO I NEED TO DO IN THE STUDY?**

You will be given a demographic form to complete. You will then be given a quiz on 20 true and false questions on palliative care before being a part of a 15-minute educational session on palliative care topics. Following the program, you will answer the same 20 true and false questions.

**WHY MIGHT IT BE GOOD FOR ME TO BE IN THIS STUDY?**

This study may give you a better knowledge in palliative care and may help guide your nursing practice.

**WHAT ARE THE RISKS OF BEING IN THIS STUDY?**

There are no risks in being in this research beyond those possible in everyday life.

**HOW LONG WILL THIS TAKE?**

This session should take around 30 minutes.

**HOW DO I KNOW MY ANSWERS WILL BE KEPT PRIVATE?**

The quiz will not ask for any information that would identify you. Your answers will be kept private and there is no way your answers would be linked to you.

**IF I HAVE QUESTIONS, WHO DO I ASK?**

If you have questions about this project, you may ask the leader of this project, Yen Nguyen. If you have questions about your rights as a research subject, problems, or complaints, you may contact a member of the NMC Institutional Research Board at (402) 354-7116 and ask to speak with the IRB Chair.

**WILL I GET PAID?**

No, you will not receive payment for being in this study.

**Is this voluntary?**

Yes, it is voluntary to be in this project and you may choose not to participate in this project. You can refuse to be in the study at any time. You do not have to answer any questions you do not want to answer. Choosing not to participate will not cause any penalties or loss of benefits you are entitled to (i.e. dismissal from UBC).

For this study you must be a registered nurse working on an acute care unit.

Completion and return of the quiz implies that you have read this form and agree to be in the research.

Please keep this form for your records or future reference.

**Appendix E**  
**Demographic Information**

1. Age: \_\_\_\_\_

2. Gender:      Male    Female

3. Race/Ethnicity:      White    African American      Hispanic  
                         Asian            American Indian      Other: \_\_\_\_\_

4. Total years you have worked as a nurse: \_\_\_\_\_

5. Do you work as a:    Day RN            or            Night RN?

6. How knowledgeable do you consider yourself in palliative care?

1 = Not knowledgeable

5=Highly knowledgeable

1

2

3

4

5

