2012

Knowledge of and Attitude toward Pain Control among Hospice Nurses in a Southeastern State in the US

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by

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A thesis submitted to the faculty of
Gardner-Webb University School of Nursing
in partial fulfillment of the requirements for the
Degree of Master of Science in Nursing

Boiling Springs

2011-12

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Abstract

The hospice philosophy is based on pain and symptom management, comfort measures, and enhancement of quality of life at End-of-Life (EOL). Pain management at EOL requires advanced knowledge and understanding by the healthcare team caring for these patients. A primary concern for the nurse caring for a patient at EOL is to achieve adequate pain control, provide comfort measures and maximize the patient's quality of life. This descriptive correlation study examined the hospice RN's knowledge and attitude of pain control at end-of-life. Forty-nine nurses employed at a hospice facility in a Southeastern state in the US were surveyed. Findings of the study support that hospice nurses do have adequate knowledge of pain control and demonstrate a positive attitude toward the philosophy of pain control. Correlations of years of nursing experience, years of hospice experience, national Certification of Hospice and Palliative Nurse (CHPN), and End of Life Nursing Curriculum (ELNEC) training showed no statistical significance to the level of knowledge or attitude of pain management.

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Chapter I

Introduction

The hospice philosophy is based on pain and symptom management, comfort measures, and enhancement of quality of life at End-of-Life (EOL). Pain management at EOL requires advanced knowledge and understanding by the healthcare team caring for these patients. Determination of the level of knowledge and attitude toward the hospice philosophy is paramount in achieving the mission of EOL care.

End-of-life (EOL) care is defined as an active, compassionate approach that treats, comforts, and supports individuals who are living with, or dying from progressive or chronic life threatening conditions (Ross, 2000). One of the biggest concerns with EOL care for patients is the provision of pain management by nurses. "Pain and symptom management is fundamental to palliative care and critical to care decisions at end of life" (Fineberg, C. I., Wenger, N., & Brown-Saltzman, K. 2006, p. 873). In 1999, Schwarz found that nurses caring for patients who required strict regimented pain management did not have the basic knowledge to provide adequate treatment despite their ethical obligation to do so. Even though a nurse is motivated to control pain, a single fear may exist that the last dose of pain medication will kill the patient.

Hospice nurses are trained to care for patients with terminal diagnoses, such as cancer, Alzheimer's, cardiac and pulmonary diseases. Each patient requires individualized care and medication regimens. The hospice nurse is responsible for knowing what to anticipate and how to manage situations with the support of physicians. The autonomous nurse is responsible for knowing the advancements of pain medication, how to correctly assess a patient's pain level, and how to relay information to overseeing physicians. The ability to perform these tasks comes through professional growth and skill acquisition.

Statement of the Problem

The problem was identified after witnessing an experienced registered nurse question her ability to control a patient's pain at time of death. A RN with or without hospice experience should feel they are able to effectively manage a patient's pain with available resources. So, is there still a concern today with the hospice RNs knowledge to effectively manage pain control for these patients?

Adequate pain control is essential to achieve the quality of life expectations for the hospice patient. Hospice nurses responsible for the assessment and management of EOL pain must have advanced knowledge related to types of pain, specific medications indicated for pain control, and proper pain assessment skill.

Purpose

The purpose of this study was to identify the knowledge and attitude toward pain control among hospice nurses in a southeastern state in the US.

Theoretical Framework

Patricia Benner's novice to expert conceptual model provided the framework for this study. In the Benner nursing model, a nurse moves from the novice level to the expert level in clinical nursing practice through experience, skill acquisition, and teaching-learning experiences. The relevance of Benner's theory lies in her conclusion that "a nurse's clinical knowledge is relevant to the extent to which its manifestation in nursing skills makes a difference in patient care and patient outcomes" (Tomey & Alligood, 1998, p. 178).

Benner's theory is broken into 5 stages of skill achievement by the nurse clinician: (1) novice, (2) advanced beginner, (3) competent, (4) proficient, and (5) expert. The stages are achieved through actual practice situations described within the following 7 domains: (1) the

helping role, (2) the teaching-coaching function, (3) the diagnostic and patient-monitoring function, (4) managing effectively the rapid changing situations, (5) administering and monitoring therapeutic interventions and regiments, (6) monitoring and ensuring the quality of health care practices, and (7) maintaining organizational and work-role competencies (Tomey & Alligood, 1998).

The following concepts from Benner's theory were used to guide the study to examine the hospice RN's knowledge and attitude of pain control:

Aspects of a situation as defined by Benner refer to the characteristics of the situation recognized and understood in context because of prior experience. In this study, aspects of a situation refer to the number of years of experience with pain control at end of life.

Competency as originated from Benner's theory is the ability to perform a skill based upon its definition. In this study, competency refers to the attitude and perceived knowledge of RNs in the hospice setting.

Experience is defined within Benner's theory as the continued process of refining ones knowledge through actual situations. Experience relates to this study by exposing the years of experience as RNs, hospice nurses, and experience with pain at end of life.

Paradigm Case derived from Benner's theory refers to a clinical experience that transforms the way a nurse understands future clinical situations. "Paradigm cases create new clinical understanding and open new clinical perspectives and alternatives" (Tomey & Alligood, 1998, p. 173). In this study, the paradigm case will be viewed as previous relationships the nurse may have had with pain control at end of life that resulted in an increased or altered knowledge of pain control at end of life.

Research Question

What is the knowledge of and attitude toward pain control among hospice nurses in a southeastern state in the US?

Chapter II

Literature Review

A literature review was conducted utilizing the CINAHL database. The major topics of the review include pain control, nurses' knowledge and attitude related to pain control and EOL pain control.

Care at End-of-Life

A pilot project studied by John Lansdale and Mary Mahoney (2011) focused on the occurrence of suboptimal end-of-life care in care homes and ways to incorporate support from hospice agencies. The study took three years to complete and used qualitative research through the use of support groups, interviews, and feedback from care home managers. The researchers concluded at the end of the pilot project that there were several aspects of education and support that were valuable in ensuring continued competency. The information gathered included access and up-to-date education on end-of-life care; shadowing opportunities with hospice clinical staff to observe skills at end-of-life; in-services addressing end-of-life care as needed; regular feedback between care home staff and hospice staff regarding the care of residents at the end-of-life; and monthly meetings conducted by a Clinical Nurse Specialist for support and advice.

RN's Knowledge and Perception of Pain Control

A study performed by Beckstrand, Rawle, Callister, & Mandleco (2010) surveyed 1,047 pediatric intensive care RNs. The survey inquired about the size and frequency of obstacles and supportive behaviors in caring for children at end-of-life with supporting evidence showing the largest barrier being language and the highest supportive behavior was allowing time alone with child at time of death. Thirty-two obstacles were scored using the perceived obstacle magnitude which is determined by multiplying its mean size or intensity by its mean frequency and ranged

17.73 highest to lowest of 1.99. The highest scoring barrier was the language barrier (score, 17.73) with the next 3 highest scoring obstacles being parental discomfort at discontinuing mechanical ventilation (score, 17.69), discontinuity of care of the dying child due to lack of communication between team members (score, 13.49), and the nurse's opinion about the direction of the patient's care not being valued (score, 13.36). The supportive behaviors were ranked using a scale of 0 being no help and 5 extremely helpful and transferring to a recordable Perceived Supportive Behavior Magnitude (PSBM) score. The highest PSBM score was 21.15 for the question allowing family members' adequate time with deceased child. The other 3 highest scoring PSBM items included allowing the parent to hold the child upon discontinuation of ventilation (score, 18.47) and providing a peaceful, dignified bedside scene upon death of child (score, 18.14). The researchers concluded that even though hospice personnel are better equipped to handle end-of-life issues than hospital staff, education is a continued need in the expertise of caring for children at end-of-life, family support, and benefits of palliative care.

In a study conducted by Wilson (2007), 100 nurses were given a survey of 20 true/false questions addressing lifestyle factors of patients in pain, presumptions of physical pain, general knowledge and perceptions about pain management. The results of the study concluded that specialist nurses scored higher than general nurses in pain knowledge; however, there was no significant difference in nursing experience in years between specialist nurse and general nurse. A correlation existed between nursing experience in years and pain knowledge scores. The research concluded that while the specialist nurse has more comprehensive knowledge regarding pain, the generalist nurse gains more knowledge with each passing year despite formal education. Special consideration lies with the specialist nurse in that the specialized unit may evoke feelings of reduced self-efficacy. The researcher alluded to the existence of strategies

within systems to help nurses cope and survive but the strategies are short-term and can lead to stressful situations.

A study by Fineberg, Wenger, & Brown-Saltzman (2006) surveyed 381 providers in the hospital setting to evaluate the understanding of principles for treating refractory pain and suffering at end-of-life within the hospital setting, knowledge of policies implemented by the hospital on how to implement care, and perceptions about end-of-life care. Of the providers that responded to the survey, 12% identified the principle goal being to provide comfort; 66% of the participants felt unrestricted opiates were used too rarely, however 16% felt uncomfortable administering unrestricted opiates. Twenty one percent (21%) of nurses and physicians felt pressure to increase the dosing of restricted opiates. Knowledge deficits were common among healthcare professionals regarding appropriate candidates for unrestricted opiate use and the protocol for proper implementation. The researchers concluded clinician education is needed due to the possibility of inappropriate use of unrestricted opiates.

RN's Perception of End-of-Life Care

A qualitative study by Thompson, McClement, & Daeninck (2006) surveyed 10 acute care trained nurses on their perception of the quality of end-of-life care that is provided on acute care units within the hospital setting. The findings from this study revealed nurses on acute care units within hospitals feel overwhelmed when trying to provide quality care at end-of-life.

End-of-Life Care Perceptions

Kutner, Kassner, & Nowels (2001) performed a study to describe symptom prevalence, frequency, and severity among patients receiving community hospice care from the perspective of the hospice providers. Twenty two hospice facilities with a census between 2 and 213 patients participated in the study. Individual patients were analyzed during interdisciplinary group

meetings based on demographics and a modified version of the Memorial Symptom Assessment Scale that measures physical and psychological symptoms. The study revealed that each patient was perceived to be having frequent and severe symptom manifestation while receiving hospice care. The symptom burden experienced by the patient may be a lack of application of known pharmacological and non-pharmacological interventions and the lack of data to defining appropriate measures. The researchers concluded more widespread education is needed to make the management of symptom burden effective including comprehensive assessments that target symptom burden relief.

Steinhauser, Christakis, Clipp, McNeilly, McIntyre, & Tulsky (2000) performed a study on 2000 participants who had a connection to end-of-life situations. The participants included hospice healthcare providers, volunteers, patients, and recently bereaved family members. Twenty-six items were rated as being important including pain and symptom management, preparing for death, and being treated like a person instead of a treatment. Some items were considered important to patients and families but not to physicians such as coming to terms with God, preparation for death, and the desire to be mentally aware. From the entire study, freedom of pain was ranked as most important and least important was dying at home.

A second study was performed by Steinhauser, Christakis, Clipp, McNeilly, Grambow, Parker, & Tulsky (2001) using a qualitative/quantitative 2-phase study approach researched over 2000 participants, including healthcare providers, social workers, chaplains, hospice volunteers, patients, and those who recently lost family members that had some relationship with end-of-life. Two conclusions were surmised within this study. The first interpretation showed that even though participants support the importance of death preparation, actual discussions of the preparation for end-of-life are less frequent. The second interpretation of data showed the

discussions on the preparation for death and dying evoked discomfort due to the sense of failure or removal of hope. Three-quarters of physicians who were surveyed stated it was easier to give a more positive prognosis due to the fear of a self-fulfilling prophecy.

Conclusion

Gaps exist within the literature on pain management within the hospice industry. Studies reveal there are many perceptions and knowledge bases in the understanding of end-of-life. Research shows hospice personnel to be more adapt to handle end-of-life situations and hospital professionals sense a need for change. No literature exists specifically on the topic of pain management in hospice patients or how hospice nurses manage pain control.

Chapter III

Method

A descriptive research study of 49 hospice RN's was conducted to explore knowledge and perception regarding pain control for patients at end-of-life. A 38-item questionnaire developed by Dr. Betty Ferrell and Margo McCaffery was used to assess the RNs knowledge and attitudes toward pain control (see Appendix A). A demographic questionnaire was developed by researcher that included specific questions relating to years of hospice experience and nursing experience, education in the hospice field, and personal end-of-life experience (see Appendix B).

Sample

A convenience sample of 49 registered nurses employed in a Southeastern hospice organization participated in the study. At the time of the study, the current patient census was approximately 500. IRB approval was obtained from the student's university (see Appendix C) as well as and the Director of Quality, Compliance, and Education at the institute supporting the participation in the research.

Data Collection

Potential participants were contacted by the researcher in the workplace. Nurses were given an envelope containing the consent letter, demographic questionnaire and the research tool. The consent letter addressed anonymity, the right to refuse participation, and how to request information from the research project (see Appendix D). Anonymity was preserved by not using identifying information on the surveys. Surveys were returned to the researcher via United States Postal Service. Each questionnaire was coded for data entry input.

Measurement Tool

A 38-item questionnaire developed by Betty Ferrell, RN, PhD, FAAN and Margo McCaffery, RN, MS, FAAN was used for this study. Permission to use the assessment tool was

obtained from Ferrell and McCaffery and is noted within the cover letter of assessment tool (see Appendix E). The assessment tool was designed to assess nurses and other healthcare professional's knowledge and attitude regarding pain. Ferrell and McCaffery developed the survey tool for the research to support the City of Hope which is a National Cancer Institute-designated Comprehensive Cancer Center in Duarte, California. Construct validity has been established by comparing scores of nurses at various levels of expertise such as students, new graduates, oncology nurse, graduate students, and senior pain experts. The tool was identified as discriminating between levels of expertise. Test-retest reliability was established ($r>.80$) by repeat testing in a continuing education class of staff nurse ($n=60$). Internal consistency reliability was established (alpha $r>.70$) with items reflecting both knowledge and attitude domains. Once the data was collected, the data was entered into a personal computer and analyzed using the Statistical Package for the Social Science (SPSS, Version 14).

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Chapter IV

Results

The following demographic information is presented in Table 1. The majority of participants were between the age of 41-50 years of age (36.6%), female (98%), Caucasian (93.9%), and married (73.5%). Collected data revealed 28 (57.1%) were ADN prepared nurses and 15 (30.6%) were BSN prepared. Master's prepared nurses were the least represented at 2 (4.1%) holding an advanced degree. Twenty one nurses (42.8%) had between 11-20 years of nursing experience and 33 (67.2%) nurses having between 1-5 years of hospice experience and 7 (14.2%) nurses with less than 1 year hospice experience.

Additional demographic data was collected to show the Hospice RN's on-going education in the end-of-life field and personal relationships with end-of-life care. One area that is encouraged within the hospice industry is certification; however, hospice certification (CHPN) is not a requirement to work in hospice. The data that was collected to show how many nurses held Hospice certification within the sample size revealed that the majority of respondents held less than one year (85.7%). Participants were asked if any had received ELNEC training with 36.7% answering yes and 63.3% answered no. Nurses were asked if they felt they had adequate knowledge and attitude of pain control. Ninety-eight percent felt they had adequate knowledge and attitude toward pain control. When asked if the hospice nurse felt a responsibility to advocate for pain control at EOL, 100% of the respondents answered yes.

Table 1
Demographic Characteristics of Participants n=49

Variable		Frequency	%
Sex:			
	Male	1	2
	Female	48	98
Age:			
	20-30	2	4.0
	31-40	8	16.2
	41-50	18	36.6
	51-60	12	24.3
	61-70	9	18.2
Marital Status:			
	Married	36	73.5
	Divorced	8	16.3
	Widowed	1	2.0
	Separated	3	6.1
	Never Married	1	2.0
Ethnic Background:			
	African American	1	2.0
	Caucasian	46	93.9
	Hispanic	1	2.0
	Native American	1	2.0
Education Level:			
	ADN	28	57.1
	Diploma	4	8.2
	BSN	15	30.6
	MSN	2	4.1
Years of RN Experience:			
	1-10	11	22.3
	11-20	21	42.8
	21-30	6	12.1
	31-40	7	14.1
	41-50	4	8.1
Hospice RN Experience:			
	Less than 1 year	7	14.2
	1-5	33	67.2
	6-10	5	10.1
	11-15	3	6.0
	16-20	1	2.0
ELNEC			
	Yes	18	36.7
Perception	Appropriate	48	98
Responsibility	Yes	49	100

The Knowledge and Attitudes Survey Regarding Pain was given to all respondents to determine their knowledge level and attitude associated with pain control. Figure 1 breaks down respondent test scores (TAS) based upon percentage correct. Majority of respondents scored 63% and 68%. Figure 1 shows the frequency for the correct answers.

One hundred percent ($f = 49$) of the registered nurses answered correctly when asked if children less than 2 years old have decreased pain sensitivity and limited memory of painful experiences, if multiple analgesics or single analgesics provided optimal pain control, if elderly patients could tolerate opioids, correct route of drug administration for patients with persistent cancer-related pain, and the correct person to accurately judge intensity of a patient's pain.

Ninety-two percent of respondents scored incorrectly to one hospice related question meaning only four nurses answered correctly to knowing Morphine doesn't have a ceiling dose (see Table 2). Ten percent ($f = 5$) of nurses answered correctly in their understanding of the correct manifestations of physical dependence in the abrupt discontinuation of an opioid. One hundred percent ($f = 0$) of nurses answered 3 questions incorrectly regarding the judgment of pain status post surgery before and after medicating with the ordered analgesia. Table 2 reports the frequency of the correct response for each question in the survey.

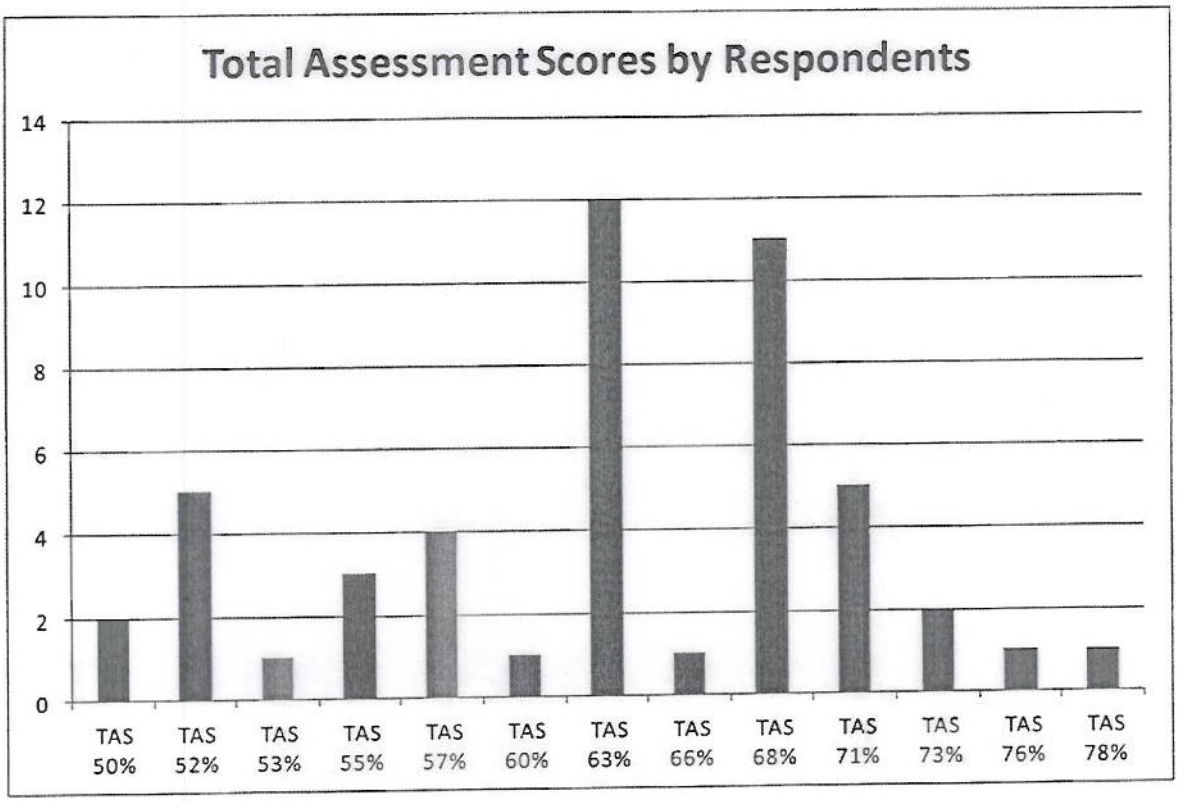

Figure 1. Total Assessment Scores (TAS) of Respondents showing the correct responses in percent and the frequency of occurrence.

Table 2
Knowledge and Attitudes Survey Regarding Pain - Correct Responses

Variable	F	%
V/S reliable indicator of intensity of pain	14	28.6
Children <2 decreased pain sensitivity	49	100
Distracted from = no severe pain	47	95.9
Pts may sleep in spite of severe pain	48	98.0
ASA/NSAIDS not effective in bone metastases	15	30.6
Resp. depression with stable doses of opioids	47	95.9
Multiple analgesics vs. single in pain control	49	100
1-2mg morphine IV 4-5 hours	25	51
Phenergan – hydroxyzine as potentiators	27	55.1
Opioids and substance abusers	29	59.2
Morphine has a dose ceiling	4	8.2
Elderly pts and opioids	49	100
Endurance of pain with opioids	47	95.9
Children <11 cannot report pain	47	95.9
Pt spiritual belief and pain tolerance	48	98
Initial and subsequent doses of opioid and	48	98
Sterile water placebo	47	95.9
Vicodin dose equivalent to Morphine	20	40.8
Unknown pain source and opioids	15	30.6
Anticonvulsants and pain relief	18	36.7
Benzodiazepines and pain relief	26	53.1
Narcotic/opioid addiction	28	57.1
Persistent CA-related pain	49	100
Severe pain of sudden onset	47	95.9
Prolonged moderate to severe pain	36	73.5
IV dose Morphine equivalent to PO	34	69.4
Analgesics for post-operative pain	48	98
Pt with persistent CA pain	28	57.1
Most likely reason for increased dose of pain med	28	57.1
Optimal medication for treatment of CA pain	48	98
Accurate judge of pain intensity	49	100
Cultural consideration	30	61.2
Pain development in alcohol/drug abuse	18	36.7
Peak effect for Morphine IV	21	42.9
Peak effect for Morphine PO	37	75.5
Discontinuation of opioid and physical dependence	5	10.2
Pt s/p abdominal surgery – rate pain	0	0
Rate pain after receipt of medication	0	0
Pt s/p abdominal surgery – rate pain	30	61.2
Rate pain after receipt of medication	0	0

Factors Related to Knowledge and Attitudes

Pearson Correlational statistics were used to determine the relationship between each of the following independent factors: years of experience, nursing degree, CHPN title, ELNEC training, and the total assessment scores of the "Knowledge and Attitudes Survey Regarding Pain". Very little correlation was found between the following independent factors (see Table 3):

- The years of experience had a weak association with the degree nurses held ($r(49) = .427$ $p < .01$).
- Correlation between CHPN and Years Experience held little relationship ($r(49) = -.017$ $p < .01$).
- CHPN title with ELNEC training had little to no association ($r(49) = .179 < .01$).
- The correlation was weak between total assessment score (TAS) and ELNEC training ($r(49) = .230 < .01$).

There was no significant correlation between the education of the nurses or years of experience to the knowledge and attitude towards pain control at end-of-life. This would point out there is no difference in the degree held or years of experience in how pain control at end-of-life is managed and the knowledge that is required to care for patients at end-of-life.

Table 3

Correlations between Knowledge and Attitudes TAS and Degree, Years of Experience, CHPN, and ELNEC

	Degree	Yrs Ex	CHPN	ELNEC
Years Experience	.427			
CHPN	-.011	-.017		
ELNEC	-.013	-.171	.179	
TAS	.047	-.100	.136	.230

Chapter V

Discussion

The Knowledge and Attitude Survey tool identified the population of nurses who were surveyed displayed strengths and weaknesses in areas of pain control. The strengths and weaknesses could be related to the tool or it could be there are areas that need improvement within the hospice field. The subheadings below interpret the results as they pertain to hospice nurses and pain control.

Significance of the Findings

The Knowledge and Attitude Survey tool revealed high and low areas of knowledge level. The areas identified with a low knowledge level were specific to pharmacology and pain indicators. Higher knowledge levels were specific to pharmacology related to the hospice field. The findings of this study revealed a nurse's knowledge related directly to the patient's pain control was appropriate to the hospice field but also indicated the knowledge regarding analgesia pharmacology was weak. Cultural considerations and history of abuse were perceived barriers as well.

Implications for Nursing Education

This study exploring the knowledge and attitudes of hospice nurses with pain control revealed a strong understanding of pain control and how the goal of hospice is related to pain control. The data showed 42% ($f = 21$) had between 11-20 years of nursing experience with 67% ($f = 33$) of nurses having between 1-5 years of hospice experience. Before a nurse can become hospice certified (CHPN), a year of experience is needed in the field of hospice. ELNEC training, which focuses on end-of-life scenarios and how to manage a patient during difficult situations, is too in-depth to review with a hospice nurse with less than one year of

experience. This could account for the lower assessment scores in the medication pharmacology portion of the assessment.

Patricia Benner's framework for the novice to expert model was supported by the data within this study. The data suggests the experiences with pain control and end-of-life whether personal or family, help to build a foundation for appropriate end-of-life pain management. Independent learning can help to foster the growth from novice to expert.

Limitations of the Study

Several limitations exist within this study. The uncontrolled environment in which individual nurses completed the questionnaires is a limitation. Because the sample size of 49 spanned over an entire state, the return rate was lower due to possible inconvenience of delivery method. The survey tool, created in 1987 with revisions in 2008, could be a limitation due to the advancements in pharmacological treatments of pain since 2008. More specifically, the drugs used within the tool, such as the Demerol for pain management status-post surgical procedure, are no longer used as a standard of care. Morphine is the gold standard in pain management for hospice patients.

Hospice nurses do not generally care for post-surgical patients, therefore, the sample of nurses used for the study could not relate to the surgical-based questions; the test assessment score was lower on these two two-part questions.

Recommendations for Future Research

This study reveals the need to help the hospice industry recognize the areas nurses need re-education in and which misconceptions need to be unveiled. Nurses need constant and consistent education in the pharmacology of hospice appropriate pain medications and not only in opioids but off-label used drugs as well. The influx of multi-cultural families within the

United States requires hospice organizations to step up their game and recognize the need for more cultural education and resources. Finally, the need to educate on the importance of pain and how nurses interpret pain levels shows the most needed area for education.

Future researchers would benefit from a larger sample size and a more diverse population when looking at hospice nurses and pain control. Because the survey tool could be considered out of date, the development of a pain management tool specifically for hospice patients would be beneficial in the assessment and control of pain.

Importance of the Findings for Nursing

The findings from this research are important in the field of nursing because hospice and palliative care resources are becoming more and more abundant in health care. Hospice nurses are responsible for pain and symptom management. The ability to control the pain comes from clinical practice and not solely from degree, age or years of experience. "Clinical practice embodies the notion of excellence; by studying practice, nurses can uncover new knowledge" (Tomey & Alligood, 2002, p. 167).

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Appendices

Knowledge and Attitudes Survey Regarding Pain

True/False – Circle the correct answer.

T F 1. Vital signs are always reliable indicators of the intensity of a patient's pain.

T F 2. Because their nervous system is underdeveloped, children under two years of age have decreased pain sensitivity and limited memory of painful experiences.

T F 3. Patients who can be distracted from pain usually do not have severe pain.

T F 4. Patients may sleep in spite of severe pain.

T F 5. Aspirin and other nonsteroidal anti-inflammatory agents are NOT effective analgesics for painful bone metastases.

T F 6. Respiratory depression rarely occurs in patients who have been receiving stable doses of opioids over a period of months.

T F 7. Combining analgesics that work by different mechanisms (e.g., combining an opioid with an NSAID) may result in better pain control with fewer side effects than using a single analgesic agent.

T F 8. The usual duration of analgesia of 1-2 mg morphine IV is 4-5 hours.

T F 9. Research shows that promethazine (Phenergan) and hydroxyzine (Vistaril) are reliable potentiators of opioid analgesics.

T F 10. Opioids should not be used in patients with a history of substance abuse.

T F 11. Morphine has a dose ceiling (i.e., a dose above which no greater pain relief can be obtained).

T F 12. Elderly patients cannot tolerate opioids for pain relief.

T F 13. Patients should be encouraged to endure as much pain as possible before using an opioid.

T F 14. Children less than 11 years old cannot reliably report pain so nurses should rely solely on the parent's assessment of the child's pain intensity.

T F 15. Patients' spiritual beliefs may lead them to think pain and suffering are necessary.

T F 16. After an initial dose of opioid analgesic is given, subsequent doses should be adjusted in accordance with the individual patient's response.

T F 17. Giving patients sterile water by injection (placebo) is a useful test to determine if the pain is real.

T F 18. Vicodin (hydrocodone 5 mg + acetaminophen 500 mg) PO is approximately equal to 5-10 mg of morphine PO.

T F 19. If the source of the patient's pain is unknown, opioids should not be used during the pain evaluation period, as this could mask the ability to correctly diagnose the cause of pain.

T F 20. Anticonvulsant drugs such as gabapentin (Neurontin) produce optimal pain relief after a single dose.

T F 21. Benzodiazepines are not effective pain relievers unless the pain is due to muscle spasm.

T F 22. Narcotic/opioid addiction is defined as a chronic neurobiologic disease, characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving.

Multiple Choice – Place a check by the correct answer.

23. The recommended route of administration of opioid analgesics for patients with persistent cancer-related pain is
_____ a. intravenous
_____ b. intramuscular
_____ c. subcutaneous
_____ d. oral
_____ e. rectal

24. The recommended route administration of opioid analgesics for patients with brief, severe pain of sudden onset such as trauma or postoperative pain is
_____ a. intravenous
_____ b. intramuscular
_____ c. subcutaneous
_____ d. oral
_____ e. rectal

25. Which of the following analgesic medications is considered the drug of choice for the treatment of prolonged moderate to severe pain for cancer patients?
_____ a. codeine
_____ b. morphine
_____ c. meperidine
_____ d. tramadol

26. Which of the following IV doses of morphine administered over a 4 hour period would be equivalent to 30 mg of oral morphine given q 4 hours?
_____ a. Morphine 5 mg IV
_____ b. Morphine 10 mg IV
_____ c. Morphine 30 mg IV
_____ d. Morphine 60 mg IV

27. Analgesics for post-operative pain should initially be given
_____ a. around the clock on a fixed schedule
_____ b. only when the patient asks for the medication
_____ c. only when the nurse determines that the patient has moderate or greater discomfort

28. A patient with persistent cancer pain has been receiving daily opioid analgesics for 2 months. Yesterday the patient was receiving morphine 200 mg/hour intravenously. Today he has been receiving 250 mg/hour intravenously. The likelihood of the patient developing clinically significant respiratory depression in the absence of new comorbidity is
_____ a. less than 1%
_____ b. 1-10%
_____ c. 11-20%
_____ d. 21-40%
_____ e. > 41%

29. The most likely reason a patient with pain would request increased doses of pain medication is
_____ a. The patient is experiencing increased pain.
_____ b. The patient is experiencing increased anxiety or depression.
_____ c. The patient is requesting more staff attention.
_____ d. The patient's requests are related to addiction.

30. Which of the following is useful for treatment of cancer pain?
_____ a. Ibuprofen (Motrin)
_____ b. Hydromorphone (Dilaudid).
_____ c. Gabapentin (Neurontin)
_____ d. All of the above

31. The most accurate judge of the intensity of the patient's pain is
_____ a. the treating physician
_____ b. the patient's primary nurse
_____ c. the patient
_____ d. the pharmacist
_____ e. the patient's spouse or family

32. Which of the following describes the best approach for cultural considerations in caring for patients in pain:
_____ a. There are no longer cultural influences in the U.S. due to the diversity of the population.
_____ b. Cultural influences can be determined by an individual's ethnicity (e.g., Asians are stoic, Italians are expressive, etc).
_____ c. Patients should be individually assessed to determine cultural influences.
_____ d. Cultural influences can be determined by an individual's socioeconomic status (e.g., blue collar workers report more pain than white collar workers).

33. How likely is it that patients who develop pain already have an alcohol and/or drug abuse problem?

< 1% 5 – 15% 25 - 50% 75 - 100%

34. The time to peak effect for morphine given IV is
_____ a. 15 min.
_____ b. 45 min.
_____ c. 1 hour
_____ d. 2 hours

35. The time to peak effect for morphine given orally is
_____ a. 5 min.
_____ b. 30 min.
_____ c. 1 – 2 hours
_____ d. 3 hours

36. Following abrupt discontinuation of an opioid, physical dependence is manifested by the following:
_____ a. sweating, yawning, diarrhea and agitation with patients when the opioid is abruptly discontinued
_____ b. Impaired control over drug use, compulsive use, and craving
_____ c. The need for higher doses to achieve the same effect.
_____ d. a and b

Case Studies

Two patient case studies are presented. For each patient you are asked to make decisions about pain and medication.

Directions: Please select one answer for each question.

37 Patient A: Andrew is 25 years old and this is his first day following abdominal surgery. As you enter his room, he smiles at you and continues talking and joking with his visitor. Your assessment reveals the following information: BP = 120/80; HR = 80; R = 18; on a scale of 0 to 10 (0 = no pain/discomfort, 10 = worst pain/discomfort) he rates his pain as 8.

A. On the patient's record you must mark his pain on the scale below. Circle the number that represents your assessment of Andrew's pain.

0 1 2 3 4 5 6 7 8 9 10

No pain/discomfort Worst Pain/discomfort

B. Your assessment, above, is made two hours after he received morphine 2 mg IV. Half hourly pain ratings following the injection ranged from 6 to 8 and he had no clinically significant respiratory depression, sedation, or other untoward side effects. He has identified 2/10 as an acceptable level of pain relief. His physician's order for analgesia is "morphine IV 1-3 mg q1h PRN pain relief." Check the action you will take at this time.

_____ 1. Administer no morphine at this time.
_____ 2. Administer morphine 1 mg IV now.
_____ 3. Administer morphine 2 mg IV now.
_____ 4. Administer morphine 3 mg IV now.

38. Patient B: Robert is 25 years old and this is his first day following abdominal surgery. As you enter his room, he is lying quietly in bed and grimaces as he turns in bed. Your assessment reveals the following information: BP = 120/80; HR = 80; R = 18; on a scale of 0 to 10 (0 = no pain/discomfort, 10 = worst pain/discomfort) he rates his pain as 8.

A. On the patient's record you must mark his pain on the scale below. Circle the number that represents your assessment of Robert's pain:

0 1 2 3 4 5 6 7 8 9 10

No pain/discomfort — Worst Pain/discomfort

B. Your assessment, above, is made two hours after he received morphine 2 mg IV. Half hourly pain ratings following the injection ranged from 6 to 8 and he had no clinically significant respiratory depression, sedation, or other untoward side effects. He has identified 2/10 as an acceptable level of pain relief. His physician's order for analgesia is "morphine IV 1-3 mg q1h PRN pain relief." Check the action you will take at this time:

_____ 1. Administer no morphine at this time.
_____ 2. Administer morphine 1 mg IV now.
_____ 3. Administer morphine 2 mg IV now.
_____ 4. Administer morphine 3 mg IV now.

The Hospice RN's Knowledge and Perception of Pain Control of Patients Who are at End-Of-Life
Background Information Survey

We would like to gather some personal information from you to help us in the evaluation of the research study. Of course, your answers will be held in the strictest confidence. Thank you for taking the time to complete the questionnaire.

Directions: Please indicate the best answer to the question by placing a ✓ in the appropriate box or fill in the blank with the correct answer.

1. What is your sex?
   - ☐ Male
   - ☐ Female

2. My age is _____years.

3. What is your present marital status?
   - ☐ Married
   - ☐ Divorced
   - ☐ Widowed
   - ☐ Separated
   - ☐ Never married
   - ☐ Other (living with partner)

4. Which of the following best describes your racial or ethnic background?
   - ☐ Asian
   - ☐ Black/African American
   - ☐ White/Caucasian
   - ☐ Hispanic
   - ☐ Native American
   - ☐ Other. Please specify: _____

5. What is your highest nursing degree earned?
   - ☐ Associate Degree
   - ☐ Diploma Degree
   - ☐ Baccalaureate Degree
   - ☐ Masters Degree
   - ☐ Doctoral Degree

6. I have _____years experience as an RN.

7. I have _____ years' experience as a Hospice RN.

8. I have held the credential of Certified Hospice and Palliative Care Nurse for _____years.

9. Have you received ELNEC Training?
   - ☐ Yes
   - ☐ No

10. Have you received any additional inservice on pain control at end-of-life?
   - ☐ Yes
   - ☐ No

11. .Have you received information about pain control at end of life from conferences, books, journals, or internet searchers?
   - ☐ Yes
   - ☐ No

12. Have any of your close family members experience pain control at end-of-life?
   - ☐ Yes
   - ☐ No

13. Have you had experience with pain control at end-of-life?
   - ☐ Yes
   - ☐ No

14. Have any of your close family members or friends received hospice care at end-of-life?
   - ☐ Yes
   - ☐ No

15. Which of the following in your opinion best describes the Hospice RN's perception of pain control at during end-of-life care?
   - ☐ Hospice RN's are reluctant to administer large doses of pain medication.
   - ☐ They lack knowledge of pain control at end-of-life.
   - ☐ They have the appropriate knowledge to recognize the symptoms of uncontrolled pain at end-of-life.
   - ☐ The lack the appropriate knowledge to recognize the symptoms of uncontrolled pain at end-of-life.

16. Hospice RN's feel a responsibility to advocate pain control at end-of-life for their patients.
   - ☐ Yes
   - ☐ No

Gardner-Webb University
Institutional Review Board
Application to Conduct Research with Human Subjects
(Researcher must complete this form before request can be submitted to IRB)

Name of Researcher: Brandy LeRoy **Date:** December 6, 2011

GWU ID#: 000855052 **Email Address:** bleroy@gardner-webb.edu
Mailing Address: 450 Holly Springs Church Road Inman SC 29349

Phone: 864-621-0891

Department: SON, MSN-Nursing Administration

Faculty Sponsor (if student research): Dr. Janie M. Carlton

Title of Research project: Knowledge of and attitude toward pain control among hospice nurses in a southeastern state in the US

What is your hypothesis/research question(s)? What is the knowledge of and attitude toward pain control among hospice nurses in a southeastern state in the US?

How many subjects do you expect to use, and how will you obtain this sample (describe population)? I expect to obtain data from 150 hospice nurses using questionnaires to be delivered via mail. . The population will include Registered Nurses employed across the state of South Carolina with Hospice Care of South Carolina. Registered Nurses can be full-time, part-time or per diem.

What is your research methodology? Attach any surveys, instruments, or tests to this form with the appropriate references: A demographic information form and the "Knowledge and Attitude Survey Regarding Pain" survey tool will be distributed via mail to each Registered Nurse employed with Hospice Care of South Carolina. See attached approval letter to conduct the research with Hospice Care of South Carolina, Background Information Form, permission letter to use the "Knowledge and Attitude Survey Regarding Pain" survey tool, and the answer key

Describe the research procedure. Attach a copy of the consent form and a copy of the debriefing statement. Describe how and when these will be used. The informed consent form will be a part of the mailed package and states that completed and returned survey tools indicate informed consent to participate in the study. The survey tool and demographic survey will be

returned via self –stamped envelope to the researcher with no identifying information. The debriefing statement is included in the consent form.

Does this research pose risk to the subject? If so, what protocol will be enacted to protect the subject? This research poses no risk to the subject.

Does this research involve deception of any kind? (If applicable, please explain) Will any incentives be used? If so, please explain. This research does not involve deception of any kind. No incentives will be used to persuade the results.

How will you protect the subject's right NOT to participate in your research? Within the consent form, the nurse is given advise that participation is voluntary, that it does not affect their employment, and they may stop participation at any time. The right to not participate is explained.

How will you protect the subject's confidentiality of results? No identifying information will be present on the research instrument or demographic survey.

How, when and where will the research results be reported? Research results will be reported after completion of research. A presentation made to the faculty of the MSN Program at Gardner-Webb University will contain all information concerning the research methodology and results will be reported as part of my degree requirements.
If this changes, be sure to contact the IRB with an update. If, for example, a faculty member publishes research results, he/she should forward this information to the IRB.

When do you anticipate completing this research? February 2012

Signatures:

Researcher: _____ **Date:** _____

Print Above Name: _____

Faculty Sponsor: _____ **Date:** _____

Print Above Name: _____

Required attachments:

- **Copy of Informed Consent Form**
- **Copy of Instruments, Surveys, Tests and Interview Question, etc**
- **Permission to use published instrument (if applicable)**
- **Signed IRB Approval Form (signatures verify current IRB Course Certification Status)**

Updated 4/12/2011

Consent Letter

I am a student in the Master of Science in Nursing Program at Gardner-Webb University, Boiling Springs, North Carolina. As a part of my program I am conducting a study concerning the hospice Registered Nurse's knowledge and attitude of pain control.

Your participation in this study is voluntary and you may terminate participation at any time. Returning the completed questionnaire will be considered your informed consent. The questionnaire can be completed in approximately 20 minutes and there will not be any identifying information on the survey to maintain anonymity.

Any information you submit will remain anonymous and confidential. Your participation does not affect your employment status. Please do not put your name on any part of the questionnaire.

At your request, results of this study will be made available to you upon completion of the study. If you feel you have experienced any harm from this study please contact Brandy LeRoy at 864-621-0891 or Dr. Janie Carlton, Gardner-Webb University, Boiling Springs, North Carolina, 28017, phone 704-406-4358.

If you elect to participate in this study please complete the questionnaire and return to me.

Thank you,

Brandy LeRoy, RN, BSN Phone: 864-621-0891

City of Hope

April 2008

Dear Colleague:

The "Knowledge and Attitudes Survey Regarding Pain" tool can be used to assess nurses and other professionals in your setting and as a pre and post test evaluation measure for educational programs. The tool was developed in 1987 and has been used extensively from 1987 - present. The tool was revised and is now being tested in pain education courses to conduct psychometric analysis on this updated version. There have been minor edits in April 2008.

Regarding issues of reliability and validity: This tool has been developed over several years. Content validity has been established by review of pain experts. The content of the tool is derived from current standards of pain management such as the American Pain Society, the World Health Organization, and the Agency for Health Care Policy and Research. Construct validity has been established by comparing scores of nurses at various levels of expertise such as students, new graduates, oncology nurses, graduate students, and senior pain experts. The tool was identified as discriminating between levels of expertise. Test-retest reliability was established ($r>.80$) by repeat testing in a continuing education class of staff nurses ($N=60$). Internal consistency reliability was established (alpha $r>.70$) with items reflecting both knowledge and attitude domains.

Regarding analysis of data: We have found that it is most helpful to avoid distinguishing items as measuring either knowledge or attitudes. Many items such as one measuring the incidence of addiction really measures both knowledge and attitude about addiction. Therefore, we have found the most benefit to be gained from analyzing the data in terms of the percentage of complete scores as well as in analyzing individual items. For example, we have found it very helpful to isolate those items with the least number of correct responses and those items with the best scores.

Enclosed for your use is a copy of our instrument and an answer key. You may use and duplicate the tool for any purpose you desire in whole or in part. References to some of our studies which have included this tool or similar versions are included below.

We also acknowledge the assistance of several of our pain colleagues including Pam Kedziera, Judy Paice, Deb Gordon, June Dahl, Hob Osterlund, Chris Pasero, Pat Coyne and Nessa Coyle in the current revisions. If using or publishing the tool results please cite the reference as **"Knowledge and Attitudes Survey Regarding Pain" developed by Betty Ferrell, RN, PhD, FAAN and Margo McCaffery, RN, MS, FAAN, (http://prc.coh.org), revised 2008.**

We hope that our tool will be a useful aid in your efforts to improve pain management in your setting.

Sincerely,

Betty R. Ferrell PhD, FAAN

Betty R. Ferrell, RN, PhD, FAAN
Research Scientist

Margo McCaffery

Margo McCaffery, RN, MS, FAAN
Lecturer and Consultant

References:

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