

THE EXPERIENCES, PERCEPTIONS AND PRACTICES OF NURSING FACULTY
TEACHING PAIN MANAGEMENT: A QUALITATIVE STUDY

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Western Connecticut State University

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Abstract

Pain management education is often threaded into various courses in pre-licensure nursing programs but the perspective of faculty teaching pain management, especially in the context of the current opioid epidemic, is relatively unexplored in the nursing literature. Pain management is a complex process and requires critical thinking and clinical reasoning. The changing paradigm of pain management and the current opioid crisis are of concern to nursing. In light of these factors, the major aim for the study was to discover through description and analyses, the experiences, perceptions and teaching practices of nursing faculty about teaching pain management content in pre-licensure nursing programs. The significance of exploring nursing faculty perspectives is related to evidence in the current professional literature that indicates a need to improve pain management education in pre-licensure nursing curricula. The qualitative descriptive approach allowed for a rich, detailed exploration of faculty perspectives. Content analysis indicated the need to approach pain management education from a perspective of relieving suffering and preventing harm to patients rather than focusing on the opioid crisis. Participants in this study viewed the opioid crisis as distinct from the legitimate use of pain medication. The findings indicate that participants teach the basics of pain management due to time and content constraints in nursing curricula. Participants' teaching practice was based on experiential learning rather than formal education and often was heavily influenced by a seminal event in their own nursing practice.

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TABLE OF CONTENTS

CHAPTER I: INTRODUCTION.....15

 Introduction to Pain Management Education and Faculty Perspectives.....18

 Rationale for Selecting the Topic.....19

 Significance.....21

 Problem Statement.....24

 Purpose Statement.....24

 Research Questions.....25

 Definition of Terms.....26

 Introduction to the Conceptual Framework.....27

 Knowles’s Adult Learning Conceptualization.....28

 Benner’s Novice to Expert Theory.....30

 Assumptions/Limitations.....31

 Summary.....32

CHAPTER II: REVIEW OF THE LITERATURE.....32

 Overview of the Literature Review.....34

 Organizational Framework.....32

 Review of the Literature.....34

 Further Education and Overall Improvements are Needed to Improve Knowledge
Pain Management through Curricular Reforms.....35

 Misconceptions Exist Among Faculty and Students about Pharmacological
Interventions to Manage Pain.....40

 There is a Need for Teaching Strategies that Bridge Theory and Practice

Regarding Pain Management Education.....	42
Summary.....	46
CHAPTER III: METHODOLOGY.....	50
Introduction to Methodology: Qualitative Description.....	50
Research Design Overview.....	51
Target Population.....	53
Sampling Method.....	54
Sample Size.....	55
Setting.....	57
Recruitment.....	57
Data Collection.....	58
Data Analysis.....	61
Limitations: Internal and External Threats.....	70
Ethical Considerations and Human Subjects Protection.....	72
Informed Consent.....	72
Storage of Data.....	73
Summary.....	74
CHAPTER IV: DATA ANALYSIS AND FINDINGS.....	76
Introduction.....	76
Description of the Sample.....	76
Summary of the Findings and Detailed Analysis Related to the Research Question.....	80
Theme 1: Basic Education About Pain Content.....	80

Sub-theme 1A: Controversy about pain assessment.....	84
Sub-theme 1B: Complementary and alternative therapies (CAM).....	86
Sub-theme 1C: Perceived lack of teaching resources.....	89
Theme 2: Pain Relief rather than the Opioid Crisis.....	93
Theme 3: Paradigm Shift regarding Opioids.....	105
Summary of the Findings.....	110
CHAPTER V: CONCLUSIONS AND DISCUSSION.....	111
Introduction.....	111
Summary of the Findings.....	111
Discussion of the Findings.....	113
Theme 1: Basic Education about Pain Content.....	115
Sub-theme 1A: Controversy about pain assessment.....	116
Sub-theme 1B: Complementary and alternative therapies (CAM).....	117
Sub-theme 1C: Perceived lack of teaching resources.....	118
Theme 2: Pain Relief rather than the Opioid Crisis.....	118
Theme 3: Paradigm Shift regarding Opioids.....	118
Unexpected Study Findings.....	119
Discussion of the Findings in Relation to the Literature Review.....	120
Assumptions.....	123
Limitations.....	123
Implications for Practice.....	125
Suggestions for Further Research.....	128
REFERENCES.....	130

Appendix A: Permission to Post to List Server.....	145
Appendix B: Announcement on List Server.....	146
Appendix C: Letter of Information.....	147
Appendix D: Flyer.....	149
Appendix E: Demographic Data Tool.....	150
Appendix F: Interview Guide.....	151
Human Subject Review Form A: Consent Form.....	153
Human Subject Review Form B: IRB Approval.....	154

LIST OF TABLES

Table 1. Demographic Data	79
Table 2. Themes and Sub-Themes.....	108

LIST OF FIGURES

Figure 1. Word Cloud.....	63
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LIST OF APPENDICES

A: Permission to Post to List Server.....	140
B: Announcement on List Server.....	140
C: Letter of Information.....	141
D: Flyer.....	143
E: Demographic Data Tool.....	144
F: Interview Guide.....	145

HUMAN SUBJECT REVIEW FORMS

A: CONSENT FORM.....	147
B: UNIVERSITY IRB APPROVAL.....	148

CHAPTER I: INTRODUCTION

Pain management is central to nursing practice and nurses because of their presence at the bedside manage pain for patients in healthcare settings (American Nurses Association [ANA], 2017). The state of the science of pain management is changing in response to evidence that there is an opioid epidemic (Centers for Disease Control and Prevention [CDC], 2016). Now, nurses are charged with alleviating suffering in the context of a recognized crisis involving the use of prescription opioids. More people died from drug overdoses in 2014 than in any other year on record and opioids were implicated in 6 out of 10 of those deaths (Rudd, Seth, & Scholl, 2016). Media reporting about the opioid crisis has been constant. The United States has experienced a 300% increase in opioid prescriptions since 1999 and there have been over 165,000 deaths related to pain management medications (Rudd et al., 2016). According to the National Institute on Drug Abuse 2.5 million Americans have a substance use disorder related to opioids. It is estimated that 44 people die every day from the use of opioids (U.S. Department of Health & Human Services, 2017). However, millions of Americans report living with chronic pain that interferes with the activities of daily living (Institute of Medicine, 2011). Pain is the most frequently reported symptom by hospitalized patients (ANA, 2017). Thus, there is a dilemma created by the need to adequately relieve pain, and the contrasting need to address the opioid crisis.

The use of opioids to manage pain evolved from a conservative approach that limited opioid treatment to a view that accepted that the use of opioids for both acute and chronic pain management was safe and beneficial to patients (Bourke, 2011). The state

of the science of pain management is evolving in a social context that is complicated by the current opioid epidemic and the response of both government and healthcare organizations to the epidemic (American Association for Pain Management Nursing & American Nurses Association [ASPMN and ANA], 2017). The paradigm shift towards increased use of opioids to manage both acute and chronic pain started in the late 1980s when research findings supported the use of opioids as a significant benefit for the treatment of patients with both acute and chronic persistent pain (Meldrum, 2016). At that time health care professionals were concerned that pain was undertreated (Ferrell, McCaffrey, & Rhiner, 1992). However, many practitioners were wary of using opioids to manage chronic persistent pain because of the perceived risk of harm related to opioids (Bourke, 2011). Portenoy (1986) published a study that generated attention among practitioners and provided support that there was minimal risk to using opioids for long term pain management in patients who did not have a history of prior substance dependency or abuse. Portenoy's (1986) study reported that among 38 patients who were treated with opioids for four to seven years, there were no reports of toxicity and that the only patients who had misuse problems were patients who had a history of a prior substance use disorder (Portenoy, 1986). Portenoy's study combined with the support of many in medicine led to the widespread view of the limited risk of using opioids, especially long acting opioids to treat chronic pain. Those involved in pain management were actively searching for effective and safe ways to alleviate pain (ASPMN, 2013).

In 2001, the Joint Commission released a standard for the treatment of pain that was interpreted by many in healthcare to mean that pain was the fifth vital sign (Joint

Commission on Accreditation of Healthcare Organizations [JCAHO], 2000). However, by 2010 many of the early advocates of long-term opioid therapy had reconsidered their positions in response to the escalating numbers of overdoses involving opioids and a growing consensus that there was an opioid epidemic (Katz, 2010). As the evidence base about the risks and benefits of opioid use has grown, pain management specialists have advocated for more research and a continued effort to find effective and safe methods to relieve the suffering of those in pain (ANA & ASPMN, 2016). The science of pain management is emerging and leaders in the field advocate for a balanced approach to the use of opioids (Institute of Medicine [IOM], 2011). Controversy about commercial support by pharmacology companies for studies concerning opioids has clouded the evidence base for the use of opioid therapy for pain management (Catan & Perez, 2012). An additional complicating factor in the relationship between pain management and opioid treatment is the use of patient satisfaction scores to drive reimbursement rates for hospitals (Adams, Bledsoe, & Armstrong, 2016). Patient satisfaction about how well pain is managed during inpatient hospitalization has become a factor in reimbursement for hospitals. Hospitals with Inpatient Prospective Payment Systems (IPPS) must collect and submit Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores. HCAHPS are also used to calculate value-based incentive programs. Changes in government and legislation may modify the format of the HCAHPS scores, but currently hospitals track and follow these scores (Centers for Medicare and Medicaid Services [CMS], 2017).

Included in the many initiatives to combat the growing epidemic related to opioids are the Centers for Disease Control (CDC) guidelines for prescribing opioids for

chronic pain (Dowell, Haegerich, & Chou, 2016). In addition, the United States Congress passed a bill in 2016 to help address the epidemic of opioid deaths. The aforementioned reports of escalating deaths related to opioids support the need to educate health care personnel, patients, and the general public about the safe and appropriate use of opioids.

Nurses, in addition to being responsible for the care of patients in pain are at the frontlines of the battle to stem the rising numbers of opioid related deaths. The National Council of the State Boards of Nursing (NCSBN) has made substance abuse courses free to nurses and nursing students (Haebler & Casey, 2016). The American Nurses Association has called on nurses to be leaders in educating patients about opioids (Haebler & Casey, 2016). One study reported that patients demonstrated better understanding of safe opioid use when nurses had a strong knowledge base about opioids and pain management (Costello, Thompson, Aurelien, & Luc, 2016). In fact, the American Association of Colleges of Nursing (AACN) has committed to improving education about opioids for students in graduate programs by offering free educational content and asking schools of nursing to sign a pledge to improve the education of graduate nurses about opioids (AACN, 2016).

Introduction to Pain Management Education and Faculty Perspectives

Pain management education is often threaded into various courses in pre-licensure baccalaureate nursing programs but the experiences, perceptions and teaching practices of faculty teaching pain management, especially in the context of the current opioid epidemic, is relatively unexplored in the nursing literature. Nurses care for patients in pain across all health care settings (Billings & Halstead, 2016). Nurses are educated to provide pain management care during their pre-licensure programs and nursing faculty

are charged with the responsibility of preparing students to practice competently in the area of pain management. Pain management is a complex process and requires both critical thinking and clinical reasoning (St. Marie, 2010). In light of these factors the research problem for the study was to discover through description and analyses, the experiences, perceptions and teaching practices of nursing faculty in pre-licensure baccalaureate nursing programs. In other words, the study sought to explore and describe the perspectives of faculty about teaching pain content to undergraduate nursing students. Although previous quantitative studies indicate a need to improve pain management education in pre-licensure baccalaureate programs, there is little in the literature to explain how pain management content is taught and what the experience and perceptions of faculty are about pain management teaching (Duke, Haas, Yarbrough, & Northam, 2013; Goodrich, 2006; Voshall, Dunn, & Shelestak, 2013).

Rationale for Selecting the Topic

Pain is a biophysical phenomenon that may cause both physical and psychological distress to individuals (McCaffery, 1968). The IOM estimates that over 100 million people are living with chronic pain in the United States (IOM, 2011). According to the American Pain Society over 80% of patients report moderate to severe pain after surgery (American Pain Society, 2013). Margo McCaffery, a widely-published expert in pain management, defined pain as a subjective experience that is “whatever the patient says it is” (McCaffery, 1968, p. 7). Pain has long been considered the fifth vital sign (Thomas, 2007). Changes in pain management practices are evolving rapidly and are not universally accepted among all disciplines. The foundation of pain as a fifth vital sign has been questioned in a variety of circles, including the media (Baker, 2017). Controversy

surrounding pain management prompted the Joint Commission to issue a Statement on Pain Management in 2016. In an effort to clarify the requirements of the standard, the Joint Commission reiterated that the standard requires that pain only be assessed and managed. In fact, national experts from the American Society of Pain Management Nursing issued an apology for stating in one of their guidelines that the Joint Commission had designated pain as a fifth vital sign (Pasero, Quinlan-Colwell, Rae, Broglio, & Drew, 2016).

The traditional approaches to treating pain with opioids and other pharmacological interventions are being challenged by many in healthcare (Okie, 2010). There is a persistent call from those in healthcare to educate nurses about the use of opioid pain medications for the treatment of non-malignant chronic pain. The ANA and the ASPMN issued a joint statement in 2016 that called for improvement in the education of nurses about pain management and opioid therapy (2016). These recommendations were incorporated into a guideline about the scope and standards of practice of Registered Nurses (RN) and pain management (ANA & ASPMN, 2016). A key tenet of this joint guideline is that it is within the role and scope of practice of every RN to provide competent pain management to patients. The guideline supports additional education of students at the baccalaureate level to improve current nursing practice.

The current crisis involving the misuse and abuse of opioid prescription medication has garnered much media attention (Compton & Volkow, 2010). The misuse and abuse of pain medications is defined as the use of medication without a prescription, in a way other than prescribed or in order to experience the feelings that the medication causes (United States Department of Health & Human Services, 2016). These factors

make it imperative that nursing faculty not only teach current pain management practices, but also address the emerging opioid crisis in the curriculum. This study provides a description and analysis of the experiences, perceptions and teaching practices of nursing faculty who teach pain management in the context of the current opioid crisis.

Significance

Pain and its treatment are of concern to both nursing faculty and nurses in general. One of the guiding ethical principles for nursing care is the treatment and prevention of suffering (ANA, 2015; ANA 2017). The Code of Ethics for nurses requires nurses to treat patients with respect for human dignity, autonomy and self-determination (ANA, 2015). In addition to the ethical demands, a core competency for academic nurse educators is to facilitate learning (National League for Nursing [NLN], 2010). The NLN has identified that pain and pain management are a research priority for nursing research (NLN/Chamberlain College of Nursing, 2016). Standards and guidelines have been published that outline the core expectations for the education of nurses at the baccalaureate level, and included in these guidelines is the ethical obligation for nurses to provide pain relief and the professional obligation to provide safe and competent care. (Hunt, 2012; NLN, 2010). The Quality and Safety Education for Nurses (QSEN) competencies endorse pain management as a fundamental competency for preparing pre-licensure students for entry into practice (Cronenwett et al., 2008).

For many years, the cornerstone of pain management has been the use of opioids to treat both acute and chronic pain. The pendulum has now swung from a benign view of opioids to a view that at times appears to border on opioid phobia (Okie, 2015; Compton & Volkow, 2010). Opioid phobia is the fear of the negative consequences of opioid use

especially the potential for addiction. While there is a documented epidemic of opioid misuse and abuse there is also the problem of chronic pain and how to manage non-malignant persistent pain (Hickey, Forbes, & Greenfield, 2010; Rudd, Seth, David, Scholl, 2016). According to the CDC the United States is experiencing an epidemic of drug overdose deaths. Since 2000, the rate of deaths from drug overdoses has increased 137%, including a 200% increase in the rate of overdose deaths involving opioids (Rudd et al., 2016).

Unrelieved pain affects both the physical, psychological and social domains for the individual experiencing pain and may lead to chronic pain syndromes (Giron, Griffis, & Burkard, 2015). Nurse researchers have shown that there is a significant gap in knowledge among nurses regarding pain management, especially in the area of opioid treatment (Briggs, 2010; Duke et al., 2013; Goodrich, 2006; Ferrell & McCaffrey, 1993, 2014).

Studies that examine both nursing student and nurse faculty knowledge about pain management reveal knowledge deficits and misconceptions by both students and faculty (Duke et al., 2013). While it is known that nursing faculty teach students about pain management, in order to assess the current state of the science of pain management education, it is necessary to explore what is specifically known about this process. In addition, the knowledge and attitudes of nurse faculty about pain management may be considered as an influencing factor in the future practice of nursing students as faculty would be expected to be an important influence in the practice of nursing students.

The current literature supports an urgent need to improve knowledge about pain management especially in regard to the use of opioids to manage chronic non-malignant

pain (Twycross, 2002; Voshall, Dunn, & Shelestak, 2013). The urgency of addressing this gap is underscored by the current epidemic of opioid abuse and overdose. The focus on opioids in the media has been on the abuse of prescription opioids both by patients and by those who obtain opioids from non-legitimate sources (Okie, 2010). There is growing concern that there is a need to consider the possibility of iatrogenic addiction in the current opioid epidemic (Beauchamp, Winstanley, Ryan, & Lyons, 2014). Adding to not only the complexity but the competing and diametrically opposed views of teaching about pain management is that many studies report that pain is undertreated (Briggs, 2010; Giron et al., 2015; Plaisance & Logan, 2006). The social climate today reinforces the negative aspects of opioid therapy, but there are many individuals who find relief from suffering through the use of opioid pain regimens. Thus, there are unaddressed issues and conflicting values and messages for those health care practitioners, including nurses, who participate in pain management.

Pain is a negative phenomenon, universally experienced as unpleasant and noxious (McCaffery, 1968). Nurses learn about pain management in pre-licensure programs and they use that knowledge in addition to experiential knowledge gained in the early years of practice to care for patients in pain (Duke, Haas, Yarbrough, & Northam, 2013). Knowledge of pain management principles has been studied among both physicians and nurses, and there is evidence to support that there are knowledge deficits in this area of practice (Duke et al., 2013; Ferrell & McCaffrey, 2008; Herr, 2011; Herr et al., 2015). Philosophies and beliefs about pain management have evolved over the past twenty-five years, and are changing at a rapid pace (Okie, 2010). Moreover, there is limited description in the nursing literature that provides information about the

experiences, perceptions and teaching practices of faculty teaching pain management in pre-licensure programs.

The amount of time dedicated to teaching about pain management in nursing programs is difficult to define as it is usually threaded through the nursing curriculum at the undergraduate level (Iwasiw & Goldenberg, 2015). The call to transform nursing education in order to close theory practice gaps has been made by many nursing leaders and organizations, and pain management represents one of those areas (Benner, Sutphen, Leonard, & Day, 2010). How students learn has been addressed in the literature and a variety of theories have been used to frame the concept of learning (Bandura, 1994; Knowles, Holton III, & Swanson, 2015; O'Connor, 2015).

Problem Statement

Pain management is often threaded into various courses in pre-licensure programs but the perceptions, experiences and teaching practices of nursing faculty about teaching pain management is relatively unexplored in the professional literature. Nursing faculty have the responsibility of preparing students to practice competently in the area of pain management. Thus, for this study it was important to explore the teaching of pain management content from the perspective of nursing faculty.

Purpose Statement

The purpose of the study was to describe and examine the experiences, perceptions and practices of nursing faculty who teach pain management in pre-licensure nursing baccalaureate programs. Pain management has evolved over the past twenty-five years and is rapidly changing (IOM, 2011; Pasero, 2015). Many of the changes in pain management practices are in response to an increase in the number of deaths associated

with opioid use (Rudd et al., 2016). The study contributes to the limited description in the professional literature that provides information about the experiences, perceptions and teaching practices of faculty teaching pain management in pre-licensure baccalaureate nursing programs.

Research Questions

The main research question that guided the study was: What are the experiences, perceptions and teaching practices of nursing faculty teaching pain management in pre-licensure undergraduate baccalaureate nursing programs? The study used a qualitative descriptive design. A semi-structured open-ended interview guide that included the following questions was used to further elucidate the phenomenon of interest and provide structure to participant interviews.

1. What are your experiences about teaching pain management content?
2. How much time do you devote to teaching pain management content?
3. Where else is pain content taught in the curriculum?
4. What are your perceptions or attitudes about teaching pain management content?
5. Do you use any specific guidelines or evidence based research when teaching pain management content?
6. How do you remain current in the area of pain management?
7. How do you perceive the current controversies surrounding opioid medications in relation to your teaching practices?
8. What are your perceptions about the use of opioids to treat chronic non-malignant pain?

9. What are your perceptions related to the responsibility to include content about the opioid crisis for pre-licensure nursing students?

Definition of Terms

Pain. A noxious, unpleasant stimulus that creates physical and psychological discomfort and distress (St. Marie, 2010; ASPMN, 2017).

Opioid. A chemical substance that binds to opioid receptors in the central nervous system resulting in rapid analgesia (ASPMN, 2017; St. Marie, 2010).

Opioid misuse and abuse. Intentional use of medication without a prescription, in a manner other than prescribed or for the experience or feeling that it causes (U.S. Department of Health & Human Services, 2016).

Opioid crisis. Overdose deaths involving opioids nearly quadrupled since 2000 (U.S. Department of Health & Human Services, 2016). More people died from drug overdoses in 2014 than in any other year on record and the majority of these overdoses involved an opioid (U.S. Department of Health & Human Services, 2016; CDC, 2016).

Opioid phobia. A fear of opioids that is based on the belief that even limited use of opioids may lead to addiction or negative consequences (ASPMN, 2017; St. Marie, 2010).

Baccalaureate nursing faculty. A masters or doctorally prepared nursing faculty member who teaches in a pre-licensure baccalaureate program (National Council State Boards of Nursing [NCSBN], 2008).

Introduction to the Conceptual Framework

The underlying theoretical framework that guided the study was Knowles's conceptualization and description of adult learning (1984). The topic of the study was concerned with teaching pain management to nursing students who are by definition adult learners. In addition, Benner's (1984) theory of knowledge acquisition in nursing practice was used to guide the study. Although both of these theoretical frameworks were used to guide the study, neither was used for data analysis. Data analysis employed qualitative content analysis methods to identify themes and patterns in the data. The content analysis was driven by the data collected during participant interviews.

Knowles's Adult Learning Conceptualization

Knowles (1984) described adult learning (andragogy) as the art and science of adult learning. He described five assumptions associated with adult learners. These assumptions were self-concept, experience, readiness to learn, orientation to learning and that motivation to learn is internal (Knowles, 1984). Using these five assumptions, Knowles offered four principles to guide adult learning; the adult learners' involvement in their own learning is critical, adult learners have experience that can provide the basis for future learning, adults are most interested in content that is important or has an impact on their current situation, and that adult learning is problem centered rather than content centered. Knowles posited four ways to apply the principles to adult learning and teaching: explain the reason for teaching content, avoid rote memorization by relating learning to activities, address different learning styles and allow learners to direct their own learning (Knowles, 1984). Knowles developed and expounded on the conceptualization of andragogy throughout his life, and came to view andragogy as a way

of teaching and learning that was inclusive, interactive and student centered. As faculty and students are by definition adult learners, the use of Knowles's principles provided a conceptual underpinning for the study. As adult learners students would be expected to benefit from teaching and learning strategies that build on previous knowledge. Students gain knowledge in both the classroom and clinical setting with each course adding to prior learning and pain management is one of the content areas that students learn about. Application of Knowles's (1984) conceptualization of learning would involve presenting pain management content in a structured manner, that scaffolded knowledge from one course to the next and that incorporated inclusive, interactive, student centered learning strategies. Students in early nursing courses would be expected to learn about basic pain management and as they progressed through the program they would learn about more complex pain management topics such as pain management for chronic pain and specialty populations.

The use of adult learning theory provided a conceptual lens for the study to examine the experiences, perceptions and practices of faculty teaching pain management. In addition, Knowles's (1984) conceptualization was used in the study to examine the teaching and learning strategies that faculty used to teach pain content.

Benner's Novice to Expert Theory

Benner describes five levels of knowledge and skill acquisition that nurses experience as they learn to become nurses and enter into practice. (Benner, 1984). The first stage is the Novice level where the novice is bound by rules and theories and is task oriented. A Novice may be a first-year nursing student, a new graduate nurse or an experienced nurse entering into a new field of practice. Novice student nurses are taught

to base decisions about clinical care on rules, theories, policies and procedures. These students acquire knowledge about the rules and theories during the didactic portions of their program and then use knowledge in guided, supervised clinical experiences. The second stage is the Advanced Beginner, who may include the student nurse in the final year of nursing school who has had many clinical experiences or the new graduate with six to twelve months experience (Benner, 1984). According to Benner (1984) this group is still bound by rules and situational context but these learners are starting to recognize patterns and perceive meaning in clinical situations. In stage three, the nurses have three to five years experience in their respective roles and use analytic processes to solve problems. In stage three the Competent nurse can manage varying and changing clinical situations. Stage four, the Proficient level, is according to Benner, marked by the ability to identify and recognize patterns based on prior experience. These nurses are able to respond to situations quickly and competently. In the final stage, described by Benner (1984) as the Expert stage, it is difficult to determine the linear analytic decision-making patterns of the nurse, because decisions are made so quickly that the process seems almost intuitive (Benner, 1984).

The use of Benner's theory provided a conceptual lens for the study to examine the faculty perspective of teaching pain management content that facilitates knowledge and skill acquisition by nursing students. Nurse faculty teach pain management content across the curriculum to students who are novices, but will eventually move through the stages of knowledge and skill acquisition to become expert nurses. The foundation of their knowledge is learned during their undergraduate nursing education programs. Nurses care for patients with pain in many different clinical settings with the

expectation that every licensed nurse will be equipped to provide competent and ethically sound care. Competencies related to appropriate care are endorsed by the NLN and the QSEN project (Cronenwett et al., 2008; NLN, 2010). Thus, the proposed study explored the faculty perspective of their experiences in preparing these novice students through the process of teaching the rules, theories and principles of pain management that will ultimately guide their practice.

Assumptions/Limitations

An underlying assumption of the study was that pain content was threaded through nursing curricula at the undergraduate level. An additional underlying assumption was that the current social context of an opioid crisis in this country requires the provision of education about pain management and opioid therapy to students in undergraduate pre-licensure programs. The study was limited to faculty participants who teach pain management content in pre-licensure baccalaureate nursing programs. The study sample was also limited to faculty participants who were identified as non-administrative faculty. Faculty who had dual responsibilities in both teaching and administrative roles were included in the study. As the research question sought to examine and describe the experience, perceptions and practices of faculty, the study utilized a qualitative descriptive design that used purposive sampling. An additional limitation of the study was the small sample size ($N=17$). Sample size was determined by the recognition of data saturation. No predetermined sample size was established prior to beginning data collection. Instead, the investigator used the concept of data saturation to determine sample size. Data saturation is considered to be the point in data collection when no new data emerges (Creswell, 2013). Data saturation was achieved after

17 participant interviews. The study also had geographical limitations. The initial geographic focus included the states of Connecticut, New York and New Jersey. As data collection progressed, participants from other states were included in the study, resulting in participants from the geographic areas of New England and the Central and Lower Atlantic states.

Summary

This study describes the experiences, perceptions and practices of nursing faculty engaged in teaching pain management in pre-licensure baccalaureate nursing programs using a qualitative descriptive design with a focus on the perspectives of faculty who are teaching in the current social environment of epidemic levels of opioid misuse, abuse and harm. The principal investigator recruited participants who were actively teaching pain management in pre-licensure baccalaureate courses. Evidence based teaching practice and pain management education in the current social context were underexplored in the nursing literature. Thus, there was a need to examine the teaching experience, perceptions and practices of faculty about pain management education in pre-licensure programs. The study describes, analyzes and provides insight into possible ways to improve the quality of pain management content in nursing curricula and knowledge for pre-licensure students in the current social context.

CHAPTER II: REVIEW OF THE LITERATURE

Overview of the Literature Review

This study explored and described the experiences, perceptions and pedagogical practices of nursing faculty teaching pain management content in pre-licensure baccalaureate undergraduate nursing programs. In preparation for conducting the study the literature review began by using various key words to search multiple data bases (including CINAHL, PubMed and Medline) to find research articles that related to faculty and pain management. The key terms used were “pain”; “pain management”; “teaching pain management”; “faculty knowledge”; “opioid therapy”; “nursing”; “teaching; and learning”. The first search resulted in over 17,000 results. Filters and delimiters were then applied to the search terms. The filters excluded non-research articles, a date limit of 10 years and included only peer reviewed articles. This delimiting activity resulted in over 200 articles. The abstracts were reviewed once more to remove any articles that did not include faculty as part of the research and this resulted in 40 articles. The university librarian was consulted to confirm that the search techniques used were appropriate and captured the maximum number of appropriate research studies. The university librarian suggested different search strategies and an additional 10 articles that included faculty and pain management were found. A medical librarian was also consulted to review the search techniques and no additional studies were identified. A limited number of studies included faculty and only one current study was identified that addressed faculty alone as the primary research focus (Voshall, Dunn, & Shelestak, 2013).

In addition to the computer data base search, an ancestral search was done using an article by Voshall and colleagues (2013) and another study by Duke and colleagues (2013). These two studies were chosen for the ancestral search because they were the most current and most frequently cited in other studies. The study by Duke and colleagues (2013) included nursing faculty and students as participants and examined the knowledge and attitudes of the participants about pain management as the primary research focus. An ancestral search was also done using Heye & Goddard's (1999) work as this study was cited in more than 10 of the other studies examined. No additional studies were found that explored only the faculty perspective. A re-exploration of the nursing literature was conducted at the end of data collection in July of 2017 and no new research about the faculty perspective was discovered. There was one article that proposed a new way of assessing knowledge of nurses about pain (Bernhofer, St. Marie, & Bena, 2017) and an additional article about nurses' knowledge of pain management and patient satisfaction (Brant, Mohr, Coombs, Finn, & Wilmarth, 2017).

The contracting and expansion of the date range provided a lens for exploration of the nursing literature about the state of the science of nursing education regarding pain management education in nursing programs in the past, present, and future. One of the earliest examinations of the inclusion of pain management content in nursing programs and faculty perspectives was a 1995 study by Zalon that called for a "pedagogically sound" (p. 266) approach to pain content in nursing curricula. Zalon (1995) was an early voice in the call to provide evidence based, learner centered pain content in nursing curricula. Zalon's (1995) study included the deans and directors of 177 associate degree nursing programs and 174 baccalaureate programs. The study sought to measure how

much time and to what degree pain management concepts were taught in nursing programs. Zalon (1995) cautioned that additional research was needed to clarify the faculty role in preparing students to care for patients with pain (p.267).

Organizational Framework

The organizing framework for the current study was an emerging, qualitative descriptive research design that was guided by the research question, “What are the experiences, perceptions and teaching practices of faculty who teach pain management in pre-licensure baccalaureate nursing programs?” The initial organizing framework for the review of the literature was guided by identifying the key participants and concepts that emerged. The key participants in the current study were nursing faculty who taught pain management content in pre-licensure baccalaureate programs, but studies that addressed the concerns of other stakeholders such as nursing students and practicing nurses were also examined for contextual information. The major concepts that were explored in the current study include the perceptions, experiences and teaching practices of nursing faculty. In light of the current social phenomenon of widespread opioid use, abuse and misuse, the literature review predominantly included studies published within the last ten years. However, because the study sought to explore faculty perspectives, and recognized the limited number of studies that addressed faculty perspectives, older studies that focused on faculty were also included.

Review of the Literature

A systematic approach to the literature review as described by Whittemore & Knafl (2005) was employed. This approach includes a series of steps: problem identification, literature search, data evaluation, data analysis and presentation

(Whittemore & Knafl, 2005). All studies included in the literature review were read in their entirety. A matrix summarizing key points of each article was developed to identify common themes and concepts found in the nursing literature. Evaluation of the articles included in the literature review was performed to identify any themes or commonalities. This evaluation included reading and rereading the studies and articles, then manually coding each article or study to discover inclusion of faculty perspectives. In addition, particular attention was given to the findings section of each study to determine if there were similar findings among and between studies. This type of content analysis, described by Bowen (2009), Schreier (2012) and Doherty (2015), is a research strategy to identify themes within documents.

Analysis of the literature revealed the following themes:

- Further education and overall improvements to existing education are needed to improve knowledge of pain management through curricular reforms.
- Misconceptions exist among faculty and students about pharmacological interventions to manage pain.
- There is a need for teaching strategies that bridge theory and practice regarding pain management education.

Further Education and Overall Improvements to Existing Education are Needed to Improve Knowledge of Pain Management through Curricular Reforms

A review of the literature revealed a long and persistent call for inclusion of pain content in nursing curricula. Assessing or measuring knowledge about pain management was a common thread in studies that explored the inclusion of pain content in nursing curricula. The literature review revealed that many studies sought to assess knowledge

and attitudes about pain through the use of a tool called the KASRP (Knowledge and Attitudes Survey Regarding Pain). The tool was developed by Betty Ferrell and Margo McCaffery (City of Hope, 2014) in the late 1980s, and, was most recently updated in 2014 to reflect changes in pain management practices (Ferrell & McCaffery, 2014). The KASRP is a 36-item survey that includes 14 true/false items and 22 multiple-choice items. The tool also includes four questions of a qualitative nature that are based on brief case studies. The survey authors have made the tool freely available to nurse educators and others interested in the study of pain management with the stipulation that it is cited as prescribed by the study authors and the website link to the survey is included in the citation as follows: <http://prc.coh.org> (City of Hope, 2014). The objective of the tool is to assess knowledge and attitudes about pain and pain management. The authors report that the survey has been used in many studies since 1987 (Ferrell & McCaffery, 2014). The survey has been reviewed by pain content experts to establish internal consistency and reliability for items that reflect both knowledge and attitude (Ferrell & McCaffery, 2014). The survey has been validated as being able to differentiate between novice and expert levels of nursing knowledge (Ferrell & McCaffery, 2014). The authors report internal consistency and test-retest reliability ($\alpha r > .70$) for test items that consider both knowledge and attitude (Ferrell & McCaffery, 2014).

According to the authors, content validity of the KASRP has been reviewed by pain experts (Ferrell & McCaffery, 2014). The actual content of the tool was based on guidelines and standards adapted from the American Pain Society, the World Health Organization and the National Comprehensive Cancer Network Pain Guidelines (Ferrell & McCaffery, 2014). The authors propose that the best use of the tool is to examine

global results to determine items with the least and best correct number of answers. The authors consider a score of 80% or above to be a “passing” score (Ferrell & McCaffery, 2014).

Voshall, et al. (2013) studied 96 nursing faculty from 16 different schools of nursing and found that nursing curricula needed to be strengthened in the area of pain management. The areas these researchers identified that required further development by faculty included, pain medication, interventions, and differentiating between dependence, tolerance and addiction. After the KASRP was administered to nursing faculty, the results indicated that less than half of the faculty achieved the passing score of 80%. This correlational descriptive study found that most faculty surveyed reported that they taught pain management content, yet less than half reported using formal pain management guidelines such as those published by the *American Society for Pain Management Nursing* (St. Marie, 2010). Voshall and colleagues (2013) also found that there was an inverse relationship between faculty age and knowledge about pain management; younger faculty scored better on the test than older faculty members. The authors propose that this may be a result of increased research into pain management (Institute of Medicine, 2011) and the publication of standards of pain management by the Joint Commission (Joint Commission, 2011). Voshall and colleagues (2013) acknowledge that the relatively small sample size may be a limitation of the study ($N=96$). In addition, effect size calculations were not performed and this may have impacted the power of the study. However, similar findings were reported by Duke, Haas, Yarbrough and Northram (2013). In this study, the researchers administered the KASRP to both nursing students ($n=162$) and faculty ($n=16$) and reported that the average score for faculty was 71%,

which is below the desired 80% passing threshold. Duke et al. reported that these results were surprising and “discouraging” (2013, p.17). They recommended that every school of nursing assess the knowledge and attitudes of both faculty and students about pain management. They also noted that there was a need to explore how pain management is presented within nursing curricula. Duke and colleagues (2013) reported the non-probability sampling from just one school of nursing and the performance of the KASRP tool itself may have been limitations in this study. Specifically, they reported that the consistency of the tool was lower than expected. In addition, effect size was not calculated. Despite these limitations, the study did echo the findings of Voshall et al. (2013). Both studies call for schools of nursing to examine how pain is taught in nursing curricula. Duke et al. (2010) in particular, described the need to evaluate the knowledge of pain management among nursing students, having found that nursing students in their senior semester were unable to achieve a passing score on the KASRP. In addition, faculty performance was only marginally better. Although these two studies provide valuable insight into the knowledge and attitudes of faculty, there is limited detail about how much pain content faculty taught and if they followed any specific education guidelines or used any specific teaching strategies.

Earlier, in 2006, Goodrich reported in a research brief the results of a study of nursing students and faculty and described similar findings to those of Voshall et al., (2013) and Duke et al. (2010). Areas of weakness for both faculty and students were described, including opioid therapy and differentiating between dependence, tolerance and addiction. Goodrich (2006) administered the KASRP and found knowledge gaps for faculty and cautioned that pain management needed to be addressed robustly in

undergraduate nursing curricula. According to the author students may model behaviors they see modeled by experienced staff (Goodrich, 2006).

Over 20 years ago, Ferrell, Donovan and McGuire (1993) reported that faculty had knowledge gaps regarding pain, medications, and, that there were myths and misconceptions regarding pain management. Many of the myths concerned addiction, tolerance and dependence and the misconceptions concerned equianalgesic dosing of opioids. In the limited number of studies available that focused on faculty, a knowledge deficit regarding pain and pain medication was reported based on the use of the KASRP tool for each study. Therefore, this perceived knowledge deficit among faculty has been reported in the literature for over twenty years.

The quest to improve and increase pain management content in undergraduate curricula continues today. A study by Carr and colleagues (2016) sought to identify the barriers and facilitators regarding improving pain content in undergraduate curricula (Carr et. al., 2016). The study used a menu style survey that included an open text box for comments, the sample included 57 multidisciplinary students in 19 different universities, and sought to identify insights into factors that would facilitate successful implementation of pain education in undergraduate education. This study found that challenges to improving pain management content included the difficulty in identifying the courses that included pain management content. The facilitators as reported by the students included multidimensional pain content and diverse teaching methods (Carr et al., 2016, p.100).

Misconceptions Exist Among Faculty and Students about Pharmacological Interventions to Manage Pain

The misconceptions and myths surrounding pain management have been identified in the literature for over twenty years. McCaffery and Pasero (1999) identified myths and misconceptions concerning pain assessment and treatment using opioid pain medications. They identified multiple misconceptions about pain and pain management, including inaccurate knowledge about addiction to opioids. The current literature review also identified themes in the literature that indicate that myths and misconceptions about pain persist.

In a study to explore the misconceptions of student nurses' about chronic pain, Shaw and Lee (2010) report widespread misconceptions among a convenience sample of 430 student nurses that only slightly improved as these students progressed through their nursing program. The authors called for changes in nursing curricula that would provide nursing students with accurate knowledge about pain and pain management. The researchers created a survey tool specifically for this study that tool used three vignettes related to misconceptions about chronic pain. The tool incorporated Likert scale responses to questions about the three vignettes. A limitation of this study was that this was the first time that the tool was being used, and, that the generalizability of the findings may be limited as this study took place in New Zealand. The researchers acknowledged that they used the findings of McCaffery and Pasero (1999) to guide the data collection and analysis. The findings of this study were similar to other studies

reviewed, and confirm that misconceptions and myths surrounding pain management persist.

Equianalgesic dosing of opioids was an identified area of concern in a number of studies (Al-Shaer, Hill & Anderson, 2011). Plaisance and Logan (2006), using the KASRP tool found misconceptions about pain medication administration and an “exaggerated fear” (p.166) about the incidence of addiction among patients. A concerning finding in this study was the low score that students achieved when asked to assess a patient after the administration of a pharmacologic intervention. The average score for students in this area was 64%. Neither of these studies included a calculation of effect size to calculate the sample size and this may have had an impact on the generalizability of the findings.

Deficits in knowledge among nursing students about pain medication administration, addiction, dependence and tolerance is not unique to the United States. A number of international studies have reported similar findings. An Iranian study of 146 nursing students found that a majority of students were unable to achieve a score of 80% on the KASRP (Rahimi-Madiseh, Tavadol & Dennick, 2010). Likewise, a Jordanian study of 144 nursing students reported low levels of knowledge about pain assessment, intervention and distinguishing between addiction, tolerance and dependence (Al Khalalileh & Al Qadire, 2013). A study of Intensive Care Unit (ICU) Nurses in Taiwan likewise reported poor performance on the KASRP (Wang & Tsai, 2009). While, there may have been limitations in these studies related to translation issues and small sample size, there is evidence from these studies of a knowledge gap among nursing students in general regarding pain management and that this may be a global phenomenon.

There is a Need for Teaching Strategies that Bridge Theory and Practice Regarding Pain Management Education

The call to close the gap between theory and practice has been made by nursing leaders for many years and the study of pain is not exempt from this call (Benner, 2012; Benner, Sutphen, Leonard, & Day, 2010; Tanner, 2006). In fact, the imperative to reform nursing curriculum has been the basis of two national initiatives at the collegiate level. The American Association of Colleges of Nursing (AACN) in a document titled *The Essentials of Baccalaureate Education for Professional Nursing Practice* (AACN, 2008) described the need for evidence based practice as a foundational element of undergraduate education. Given that much of what is known about managing pain has changed substantially over the past decade, this document supports the need for inclusion of the most current pain management research as an essential and foundational component of undergraduate education.

The QSEN project (Cronenwett et al., 2008) also defined competency in the area of pain management as an integral part of the educational preparation of baccalaureate undergraduate nurses. Pain management was clearly delineated in this initiative as a core competency. However, multiple studies have provided evidence of a gap in the education of nurses about pain management. To effectively meet this core QSEN competency, pain management curriculum requires additional focus in undergraduate nursing curricula.

Studies in this literature review indicated that nurses in practice often identify themselves as strong advocates for pain management for their patients (Jowers-Ware, Bruckenthal, Davis, & O'Connor-Von, 2011). In considering the correlation of

knowledge with years of experience, Stanley and Pollard (2013) reported that a statistically higher level of knowledge is associated with more years of practice. Bernhofer, Hosler and Karius (2016) reported on four themes that emerged after an evaluation of RNs written responses to an educational offering on pain management: 1) understanding the patient 2) importance of pain education 3) nurses' self-awareness and 4) interpretation of personal values. The participants' responses included the observation that pain management must consist of more than didactic information. While experiential learning about pain management may improve the *perception* of knowledge among practicing nurses, review of current research indicates that pain remains undermanaged in the acute care setting (Pellico, Gilliam, Lee, & Kerns, 2014). Many studies that used the KASRP tool to assess the knowledge and attitudes of nurses about pain point to an actual knowledge gap about pain management among practicing nurses (Carr et al., 2016; Duke et al., 2010; Goodrich, 2006; Voshall et al., 2013). During the 2015 Annual Meeting of the American Society for Pain Management Nurses, a recognized pain expert, Chris Pasero, MS, RN-BC, FAAN, called for additional research into evidence based practice regarding pain management and the need for nurses to be a strong voice in pain management decisions. Pasero (2015) reflected that the complexity of pain management is increasing and that "nurses are the primary pain managers by virtue of their 24 hour, 7 days-a-week bedside presence" (Pasero, 2015, Slide 64).

Nursing faculty are responsible for the educational preparation of nurses, (AACN 2008; Cronenwett et al., 2008; NLN, 2010) and the perceptions, experiences and practices of faculty who teach pain management content may offer insights into how pain management is taught in nursing programs. A report by the IOM described the need to

change the way pain is treated in America (IOM, 2011). As early as 1995, nurse researchers were implicating a lack of knowledge as the main reason for poor pain management (Briggs, 2010; Hatlevik, 2012; Heye & Goddard, 1999; Zalon, 1995).

Heye and Goddard (1999) presented a theoretical model for teaching pain management based on Greipp's (1992) model of ethical decision making. In 2002, Twycross (2002) called for evidence based teaching about pain to address misconceptions about pain and pain management. A qualitative study by Lasch et al. (2002) sought to identify the beliefs and attitudes of both medical and baccalaureate nursing students and faculty about pain. Lasch and colleagues (2002) reported multiple misconceptions and biases about pain among both faculty and students. The authors identified a grounded theoretical concept that they called "tensions in meaning" (p.67) to describe the subjectivity of the pain experience and "opioid-phobia" (p. 67). The authors defined opioid phobia as the fear of opioids related to the perception of high risk for negative consequences such as addiction (p. 65). The concept of "tensions in meaning" refers to the gap between the patients' perception of pain and the clinicians' attempt to gather objective data about the patients' pain level (p.67).

The call to close the gap between theory and practice in pain management content as a means of dispelling widespread misconceptions was the subject of a comprehensive literature review by Romero-Hall (2015). This study explored and described the role of innovative teaching strategies such as computer-based simulations to enhance student learning about pain assessment. A central proposal in Romero-Hall's literature review was that myths and misconceptions about pain can be addressed through learning interventions using computer-based simulations (Romero-Hall, 2015).

Likewise, Kulju (2013) explored the acquisition of knowledge by baccalaureate nursing students through the use of high fidelity patient simulation. Using Tanner's (2006) model of clinical judgment as a framework this randomized, quasi-experimental study used the KASRP tool as a pre and post test to evaluate a targeted pain management teaching intervention and found a significant improvement on test scores following the teaching intervention. This study was limited by a small sample size ($N=14$) but generated evidence that high fidelity simulation may be a way of improving the acquisition of knowledge about pain management teaching.

Despite Kulju's (2013) small sample size, the study provided support that simulation may be an effective teaching strategy to improve knowledge about pain. In contrast, Evans and Mixon (2015) found that simulation was not clearly associated with higher KASRP scores among nursing students who received simulation education about post-operative pain management in their one-time cross-sectional descriptive study of nursing students at different phases of their nursing program. However, because of the study's design, it was not sufficient to detect changes in KASRP scores among individual subjects, as would be more apparent with longitudinal approaches, and therefore the effectiveness of simulation in teaching post-operative pain management may not be inferred from this study.

In a two-year longitudinal study Mackintosh-Franklin (2016) found that student nurses had a general lack of interest in the study of pain. The author examined 71 higher education programs in the United Kingdom and found that there was little mention of the word pain across nursing programs in general (Mackintosh-Franklin, 2016). The author reported that pain continued to be an area of practice that requires improvement and

recommended that nursing programs in the United Kingdom review their curriculum to ensure that pain content was included in nursing education programs (Macintosh-Franklin, 2016).

Briggs (2010) used the KASRP tool to evaluate student learning about pain among 270 junior and senior baccalaureate nursing students in two schools of nursing and found that many students had inaccurate knowledge and misconceptions about pain assessment. The author sought to replicate some aspects of an earlier study by Chuk (2002), especially the qualitative case study questions. Briggs found that although students could accurately assess pain, they were influenced by patient behavior when documenting pain scores (2010). The author cautioned that the qualitative data that emerged from the study indicated that educators needed to be aware that although students may accurately assess pain, this may not prompt the student to administer the appropriate amount of pain medication (Briggs, 2010). This study echoed earlier findings that the qualitative questions at the end of the KASRP test may provide a way of addressing the myths and misconceptions about pain management.

Summary

Replete in the literature were three overarching concerns:

- Further education and overall improvements to existing education are needed to improve knowledge of pain management through curricular reforms.
- Misconceptions exist among nursing students and faculty about pharmacological interventions to manage pain.
- There is a need for teaching strategies that bridge theory and practice regarding pain management education.

The need for improvement or further education for nurses and faculty emerged in most of the studies. Of the 21 studies, 15 discussed the need for further education and the need for improvement in educational effectiveness. The specific areas of lack of knowledge that were identified in the studies were related to equianalgesic dosing and pain assessment. Prior studies confirm that there is a need to improve how nurses are educated about pain management in their pre-licensure programs. Falsely held beliefs about addiction, especially differentiating between addiction and tolerance was identified in 15 of the studies. Faculty and students struggled with distinguishing between addiction, tolerance and dependence. A variety of teaching strategies were reported in the studies. Innovative teaching methodologies such as Problem Based Learning and Simulation were identified in 5 of the studies.

The literature review validated that the perceptions of faculty about pain management teaching and pain management practices, including the use of long-term opioid regimens remains relatively unexplored in the current literature. It is evident from the literature that knowledge gaps among faculty have been identified by quantitative research utilizing the KASRP tool, but the nature and meaning of these gaps are unexplored. The faculty perspective regarding teaching and learning about pain management is germane to questions about how pain management is taught, especially in the current context of increasing attention to the opioid epidemic in the United States. While quantitative studies have demonstrated the existence of a problem, a qualitative study would add to the body of nursing science by exploring the underpinnings of the state of the science of nursing education and pain management by exploring and describing the experiences, perceptions, and teaching practices of nursing faculty.

Furthermore, no published studies specifically explored the effect of the opioid crisis on teaching and learning.

An analysis of the literature revealed limited research specific to faculty perspectives and these studies focused on the knowledge deficits and attitudes of faculty. The need for curricular improvement for pain management content was identified in multiple studies (Carr et al., 2016; Duke et al., 2013; Evans & Mixon, 2015; Mackintosh-Franklin, 2014, 2016; Voshall et al., 2013). An editorial by Willens (2014) summarized the current concerns about the state of pain content in nursing curricula by calling for nurse educators and researchers to use the results of prior studies to improve curricula about pain management. This call to improve and reform the way pain management content is taught echoes other voices in the nursing literature, including an early study by Zalon (1995) that reported the need to include pain content in nursing curricula that is evidence-based and includes appropriate teaching-learning theories and frameworks.

The review of the literature indicated that exploration and description of the experiences, perceptions and practices of nursing faculty would provide informative insights into the current state of the science of education regarding pain management. Previous research confirms a gap in the knowledge level of both faculty and students about pain management. Therefore, the current study sought to add additional description about faculty perspectives in today's social environment of the opioid crisis in order to contribute to the body of knowledge about teaching pain management content in undergraduate pre-licensure baccalaureate programs. The overall objective of this study was to reveal perspectives that contribute insights about the faculty perspective regarding

teaching pain management content in nursing curricula in order to enhance the teaching-learning process about this topic.

CHAPTER III: METHODOLOGY

Introduction to Methodology: Qualitative Description

The purpose of the current study was to explore and describe the experiences, perceptions and practices of faculty teaching pain content in undergraduate baccalaureate programs. Methodology can be described as the road map that the researcher uses to guide the research. A qualitative descriptive approach allowed for a rich, detailed exploration of the factors related to teaching pain management content.

The research question determines the research method (Creswell, 2013; Doherty, 2016; Krippendorff, 2013; Miles, Huberman, & Saldana, 2014; Patton, 2015; Piantanida & Garman, 2009). For example, if the researcher wants to know how much time nursing faculty spend teaching a particular topic, then a quantitative study may be the best approach, as the answer will be in numbers and percentages and numerical statistical analyses can be used to understand the data (Patton, 2015). Conversely, if a researcher wants to know how nursing faculty perceive the experience of teaching a particular topic, then a qualitative study may be the best approach (Creswell, 2013; Patton, 2015). Qualitative description as described by Sandelowski (2000, 2010) has critical characteristics that are suited to this study because the perspectives of faculty are relatively unexplored in the literature.

Qualitative research, is an exploratory approach that includes descriptive and inductive analysis (Creswell, 2013; Patton, 2015). This descriptive study was guided by Knowles's (1984) conceptualization of adult learning and Benner's (1984) theory of knowledge acquisition in nursing practice. These two frameworks fit with the phenomenon of interest and complement each other. Both frameworks were helpful in

examining the experiences, perceptions, and practices of nursing faculty teaching pain management.

Research Design Overview

The design for the study was a qualitative descriptive design as described by Sandelowski (2000, 2010). Roberts (2010) explored various reasons why a researcher chooses a design and many of the reasons are related to the topic being relatively unexplored in the literature. The method best suited for exploring human experiences and perceptions is a qualitative approach (Creswell, 2013; Doherty 2015; Patton 2015; Polit & Beck 2018). The qualitative approach focuses on the human experience and gathers data through in depth interviewing in a naturalistic setting instead of statistical analyses that are central to quantitative research (Streuberth & Carpenter, 2011).

One of the main reasons for choosing a qualitative descriptive design is to allow for flexibility that facilitates data collection (Patton, 2015). A qualitative descriptive design is characterized by closeness to the data (Polit & Beck, 2018) and this quality was chosen as a way to explore the experiences, perceptions and teaching practices of faculty teaching pain management in pre-licensure undergraduate baccalaureate nursing programs.

Creswell (2013) and Creswell and Both (2018) describe five approaches to qualitative research that are underpinned by different philosophical and theoretical schools of thought. These approaches are narrative, phenomenological, grounded theory, ethnographic, and, case study (Creswell & Both, 2018). However, there are other types of qualitative approaches described in the nursing research literature including simple descriptive designs. Patton (2015) described descriptive qualitative designs as generic;

however, Sandelowski (2010) clarified that qualitative descriptive design is not a formally defined category, but rather a naming convention to identify studies that are not clearly bounded by the traditional definitions of phenomenology, grounded theory, ethnography or case studies. Sandelowski (2000) described an approach to descriptive qualitative designs in 2000, and then ten years later revisited that description, to clarify that descriptive qualitative designs contain many of the elements of the traditional approaches as described by both Creswell (2013) and Patton (2015). Sandelowski (2010) reported that descriptive qualitative method may be described as a “distributed residual category” (Sandelowski, 2010, p. 82). Accordingly, as a distributed residual category, there may be overtones in descriptive qualitative studies of other traditions that are rooted in diverse philosophical schools of thought such as narrative, phenomenological or ethnographical approaches.

The qualitative descriptive approach that was used in this study sought to produce findings that were “close” to the data (Sandelowski, 2010). Sandelowski (2011) proposed that qualitative research may not be distinguished by conventional naming schema but rather on the “attitude taken toward the data generated in a study” (p.342). Sandelowski (2010) cautioned that while there is value in descriptive qualitative research design it must have a strong theoretical foundation and be supported by careful data analysis. The study used Knowles’s (1984) conceptualization of adult learning and Benner’s (1984) theory of knowledge acquisition in nursing practice as theoretical underpinnings and qualitative content analysis to identify themes and patterns for data analysis. The content analysis was driven by the data. Qualitative content analysis has been defined as a way to interpret the content of text data to identify themes (Doherty, 2015; Hsieh &

Shannon, 2005; Krippendorff, 2013; Schreier, 2012), as a systematic approach to analysis (Mayring, 2000), and as a method to identify the central meanings and themes of text data (Patton, 2015). Qualitative descriptive analysis has been used to summarize the content of data (Aronson, 2006; Doherty 2015, Miles, Huberman & Saldana, 2014).

Target Population

The study used a purposive sampling design. Criteria for inclusion in the study were nursing faculty members who had experience teaching pain management to undergraduate baccalaureate students, either in a didactic class or as part of a clinical rotation. An exclusion criterion included administrative faculty who were not engaged in teaching activities.

As pain management content is often threaded throughout nursing curricula (Iwasiw & Goldenberg, 2015), it was anticipated that the target population would include nursing faculty teaching across undergraduate curricula; therefore, the target population was faculty who taught in undergraduate baccalaureate nursing programs. After Institutional Review Board (IRB) approval was granted from the principal investigator's home university, the principal investigator obtained information about baccalaureate nursing programs in the Northeastern United States from publicly available data on schools' respective websites. Initially the focus was on three northeastern states (Connecticut, New York and New Jersey) but since a snowball sampling technique was used the geographic area was not limited to these states and other states from the Central and Lower Atlantic regions were included. In order to locate a seed participant to facilitate the snowball method, the principal investigator compiled a list of nursing faculty identified as teaching in undergraduate baccalaureate nursing programs through

the public websites of schools of nursing and sent an informational letter and flyer via email about the study to all faculty on the email list. Two hundred and fifty emails were sent to individuals who were identified on public websites as undergraduate teaching faculty.

After IRB approval had been granted from the investigator's home university (Human Subject Review Form A), the principal investigator obtained permission from the organization that maintains the list server (Appendix A). The principal investigator then announced the study on the private web based list server where the principal investigator is a member (Appendix B). This list server is a closed professional discussion forum, dedicated to professional nurses who are interested in pain management and many of the members of the list sever are also teaching faculty members. There are about 300 members subscribed to the list server. The announcement on the list server was a general informational announcement about the study and provided the contact information for the principal investigator. Respondents to the announcement were provided with an email that contained details about the study. The email included a letter of information about the study (Appendix C), a copy of the informed consent to participate in the research, an information flyer (Appendix D) and directions about how to contact the principal investigator.

Sampling Method

After IRB approval had been granted the principal investigator conducted an internet search to identify schools of nursing and faculty teaching at the undergraduate level. The principal investigator compiled a list of email addresses of faculty who were identified as teaching in undergraduate baccalaureate nursing programs by using

information available on the public websites of the schools in New England States. The sampling method used a combined or stratified method, using both snowball and sequential emergence techniques (Polit & Beck, 2018). Snowball or chain sampling involves identifying one participant, and then asking that participant to refer the researcher to another qualified participant (Patton, 2015). The referring participant is asked to check with the other person to ensure that the person desires to participate in the study. If the other person agrees then the person's contact information is given to the principal investigator. Sequential emergent techniques evolve during the course of data collection and can be broadly described as identifying multiple sources from one participant (Creswell, 2013). For this study, participants were given permission to share the investigator's contact information with potential participants. A flexible approach was planned and implemented to allow for the inclusion of participants who met the selection criteria and provided diversity with regard to age, gender, ethnicity, teaching experience and university location.

Sample Size

Determining sample size in qualitative research studies often is determined by the concept of saturation (Creswell, 2013; Krippendorff, 2013; Patton, 2015). A broad view of saturation is that quality is more important than quantity. Mason (2010) examined over 2,000 qualitative studies and reviewed sample sizes. Mason's (2010) study found that of the 500 studies that met inclusion criteria, the mean sample size was 31 and a disproportionate number of studies had sample sizes that were in multiples of 10. The concept of saturation reflects the idea that through meticulous data collection and analysis, common or important themes emerge (Patton, 2015; Saldana, 2014). Once the

researcher identifies that the same themes are emerging, then data saturation can be said to be reached (Creswell, 2013). Mason (2010) suggests that researchers need to be vigilant about understanding saturation and to avoid targeting pre-conceived sample size numbers. Glaser and Strauss (1967) describe data saturation as the point when data collection does not reveal any new information about the topic under study: in other words, no new information is revealed to the researcher.

In light of the aforementioned factors the investigator did not identify a preconceived sample size. The sample size for this study was identified as the number of participant interviews completed when data saturation was achieved. This occurred after 13 interviews, but additional interviews were completed to confirm saturation so that the final sample size was 17 participants. It was recognized that the sample size must be large enough to capture multiple views and perceptions but small enough to allow for careful, rigorous and systematic analysis (Sandelowski, 2000). The study sample was academic nurse educators who taught pain management content to pre-licensure nursing students in baccalaureate programs. These inclusion criteria did not preclude the participation of part-time faculty members. Roberts (2010) discusses the potential problems (power imbalances, appearance of coercion) when conducting research in a place where the researcher is employed and therefore the principal investigator did not include participants who actively worked or studied with the principal investigator, either in clinical practice or the academic setting. None of the participants were known to the investigator prior to the study. The two sampling strategies resulted in a possible sample pool of 550 participants. A total of 30 individuals contacted the investigator and expressed interest in participating. Further screening revealed that 20 of those

respondents met the inclusion criteria. Data saturation was achieved with 17 participants. The three remaining participants were invited to participate in the study but two declined because of conflicting commitments and one participant did not respond to the invitation.

Setting

The setting for the study included the geographical locations of pre-licensure baccalaureate nursing programs largely within New England States but also from the Central and Lower Atlantic States. The physical setting for data collection was guided by the participants' preferences and included measures to ensure privacy. The minimum requirements for the interviewing setting were a naturalistic setting that allowed for participant comfort, convenience, privacy and confidentiality. It is generally recommended that researchers interview their respondents in a naturalistic setting that is a neutral place, such as a coffee shop, park, or public library and not the respondents' nor the principal investigator's workplace (Creswell, 2013; Patton, 2015; Polit & Beck, 2018). In light of these recommendations, interviews were conducted in private conference rooms at libraries, coffee shops and parks. Audio and video interviews were conducted in a quiet, private environment that minimized the potential for disruptive noise and activity.

Recruitment

After IRB approval was obtained from the investigator's home university, participants were recruited using the following strategies:

- I. The public websites of schools of nursing located in New York, New Jersey, Connecticut and Massachusetts were reviewed to obtain contact information for faculty teaching in undergraduate nursing programs.

- II. An email list was created from the review of the websites and the investigator personally contacted each faculty member via email.
- III. An announcement on the American Society for Pain Management Nursing (APS) list server announced the study and invited interested participants to contact the principal investigator.
- IV. Seed participants or initial contacts were recruited from above mechanisms. After identification of the seed participants a snowball technique was used to recruit additional participants.

Data Collection

After IRB approval to conduct the study was granted from the principal investigator's home university, data collection was completed through in depth interviewing of nursing faculty who met the participation criteria. Data collection began in March 2017 and ended in July 2017. The principal investigator conducted all interviews in person; this included remote interviewing using audio and video technology. All interviews were recorded and transcribed by the principal investigator. The principal investigator obtained all necessary equipment for recording and transcribing telephone and video interviews. The equipment needed included a digital voice recorder with a telephone adapter, a backup voice recorder, a video recorder with audio recording capability and an external hard drive to store all the collected data. There were additional hardware and software requirements for facilitating transcribing and coding of data, which included the use of a qualitative software program to support data collection and analysis. The computer program NVIVO was chosen to support manual coding because the program allowed for the examination of transcripts in a visual and

text based way. A semi-structured interview guide for the interview process was used that included sub-questions related to teaching experiences, practices, and perceptions about pain management teaching in undergraduate programs (Appendix F).

The main research question that was posed to participants was, “Please describe your experiences, perceptions and teaching practices about pain management in your pre-licensure nursing program?” This broad question allowed for flexibility in the responses and allowed for the emergence of data from participants’ perspectives. Considering the current social context of a growing concern among health care practitioners and the media about opioid use (Okie, 2010), the following sub questions were also included in the interview guide to probe for additional information and seek further elucidation:

1. What are your experiences about teaching pain management content?
2. How much time do you devote to teaching pain management content?
3. Where else is pain content taught in the curriculum?
4. What are your perceptions or attitudes about teaching pain management content?
5. Do you use any specific guidelines or evidence based research when teaching pain management content?
6. How do you remain current in the area of pain management?
7. How do you perceive the current controversies surrounding opioid medications in relation to your teaching practices?
8. What are your perceptions about the use of opioids to treat chronic non-malignant pain?
9. What are your perceptions related to the responsibility to include content about

the opioid crisis for pre-licensure nursing students?

In addition to the semi-structured interview guide there were questions that arose through natural occurrence during the interview process. These questions included inquiries about specific teaching practices or perceptions about improving pain content teaching in undergraduate nursing curricula. During the early stage of data collection, participants spontaneously offered suggestions about how to improve pain content teaching and this question was asked in subsequent interviews if it did not arise spontaneously. If a participant answered multiple questions with one response then the redundant questions were not asked. The principal investigator stayed close to the data by listening carefully, conducting data transcription, coding, reading, rereading, and, performing data analysis as close to the time of data collection as possible. Interviews were transcribed within 24-48 hours after the interview. The principal investigator performed all data transcription. This allowed the investigator to stay close to the data. No outside transcription service was used. The interviews were transcribed using Microsoft Word 2013. A pseudonym was assigned to all participants and no personal identifying information or personal health information was included in the transcriptions. Inadvertent references to participants' identities, school names or geographical locations were not included in the transcripts.

Each interview lasted at least 30 minutes, and the average time was 45 minutes, with four interviews lasting 90 minutes or longer. The interview time was calculated using only the time of the actual interview. Ice-breaking conversation, introductions and review of the purpose of the study were not included in the actual amount of time calculated. According to Patton (2002) as cited in (Roberts, 2010, p. 144) "a one-hour

interview will yield 10 to 15 single-spaced pages of text". In this study, the average length of transcripts was 9 pages, two interviews were 20 pages long. The length of the interviews combined with the transcription process allowed for prolonged engagement with the participant data and yielded information that was rich in detail but allowed for a manageable amount of data handling. The process of transcribing the interviews facilitated coding and analysis.

Data Analysis

The method of data analysis was qualitative content analysis. Qualitative content analysis as described by Schreier (2012) and Krippendorff (2013) was used to identify common themes that emerged from the interview narratives. Data analysis occurred as closely to the time of data collection as possible, with most first cycle data analysis performed within 24 hours of the interview. Each interview was transcribed by the investigator and then manually coded. Transcription was performed either immediately after each interview or within 24 to 48 hours after each interview. Prior to coding the interviews, the transcript was reviewed to ensure that personal identifying information had been removed. This included removing specific geographical references that could reveal the location or name of the school of nursing where the participant was employed. Initial codes or units of analysis were developed from the ideas and concepts that emerged from the participants' responses. Each interview recording was listened to multiple times prior to coding. Each transcript was read, reread and hand coded multiple times. A list of the first round cycle coding was entered into an Excel Spreadsheet. This type of coding is commonly referred to as In vivo coding and allows the investigator to create multiple codes for data (Miles et al., 2014).

Second and third cycling coding involved identifying units of analysis and then categorizing the units into common themes. Once common themes had been identified, the investigator looked for patterns and categorized them according to the common concepts. The initial hand coding rounds produced 43 units of analysis, that were then condensed into 28 units. Next, the 28 units were categorized by theme. The themes were then sorted by category. During the final round of manual coding and analysis the categories were analyzed, condensed according to theme and mapped to the concepts of perception, experience and practice. These concepts were central to the main research question. Allowing the data to emerge naturally and then performing in depth and structured coding and analysis allowed for a logical and systematic approach to data analysis.

To confirm and support the accuracy of the coding and analysis process a variety of techniques in addition to manual *In vivo* coding and analysis were used, including the NVIVO (2017) computer software dedicated to qualitative data analysis. The term *In vivo* coding refers to the manual coding of data from the verbatim transcripts using phrases or words from the transcripts, while the term NVIVO refers to the software program used to perform further analysis and triangulation of data. In addition to uploading the transcripts and the results of manual coding to the NVIVO program, the investigator also uploaded the literature review to the NVIVO program as a separate text file. The software program provided the investigator with tools to visually analyze the data via text mapping and formation of a word cloud (Figure 1) and to confirm the existence of common themes through word frequency counts. The software also allowed for the examination of the codes by frequency in all of the interviews as well as by individual participant. The

Qualitative content analysis is a way to describe and recognize patterns and themes during data analysis. It is a form of inductive analysis (Doherty, 2015; Krippendorff, 2013; Miles & Huberman, 1994; Miles et al. 2014; Schreier 2012). The content analysis was driven by the data. Qualitative content analysis has been defined as a way to interpret the content of text data to identify themes (Hsieh & Shannon, 2005; Schreier, 2012), as a systematic approach to analysis (Mayring, 2000), and as a method to identify the central meanings and themes of text data (Creswell 2013; Patton, 2015). In conjunction with the content analysis, a systematic approach to data coding and analyses as described by Miles, Huberman and Saldana (2014) was incorporated into the data analysis.

The qualitative descriptive approach can be a way to present data in a rich clear manner. The main goal of qualitative description is to have a descriptive summary of the data (Aronson, 2006; Sandelowski, 2000, 2010). As with all qualitative approaches and specified by Sandelowski (2010) qualitative description must adhere to rigor and credibility criteria. The trustworthiness criteria described by Lincoln and Guba's (1985) criteria and qualitative content analysis (Schreier, 2012) were incorporated data analysis. The process included reading and rereading the transcription, identifying significant statements and grouping those statements into clusters to develop a coding scheme. The principal investigator looked for patterns and regularities that formulate themes. The data were coded to allow for the identification of common themes. Once themes had been identified, the investigator examined the themes for patterns. A coding log was maintained to allow for an audit trail of the data analysis and to facilitate replication of the study in the future.

The study used Lincoln and Guba's (1985) trustworthiness criteria to ensure rigor and credibility. In qualitative research, the researcher is the instrument (Creswell, 2013) and the trustworthiness of the data is intrinsic to the credibility of the researcher. Trustworthiness is the term used by Patton (2015) to describe the distinct credibility criteria that were posited by Lincoln and Guba (1985). The four criteria that Lincoln and Guba (1985) described are credibility, transferability, dependability, and confirmability. Patton (2015) asserts that these four criteria parallel the terms used in quantitative research, internal validity, external validity, reliability and objectivity. Lincoln and Guba (1985) also described a set of procedures that could be used to meet the four criteria. The procedures used in this current study that were most closely related to establishing credibility included auditing, member checking and reflective journaling. In addition, triangulating data across multiple sources including comparing participant interviews with relevant literature supported and validated coding and analysis (Miles et al., 2014). Creswell (2013) while acknowledging that the Lincoln & Guba (1985) criteria can be viewed as analogous to the corresponding quantitative criteria, also pointed out that in the realm of qualitative research there are qualitative researchers who believe that there is no need to compare any quantitative strategy when doing qualitative research (Patton, 2015; Creswell 2013). Qualitative research has its own methodology and part of its scientific base are the tenets of credibility. Therefore, credibility was achieved by member checking, specifically providing all participants with a copy of their interview transcripts to review and inviting them to provide feedback. All 17 participants were provided with an opportunity to contact the investigator after

reviewing the transcripts. Fifteen participants acknowledged receipt of the transcripts and there were no requests to change the transcripts in any way.

Debriefing was accomplished by ongoing communication with Dr. Susan Westrick who was the dissertation committee chairperson. Coding consistency was supported by initially using intercoder reliability. An experienced and widely published qualitative researcher, Dr. Mary Ellen Doherty, who was part of the dissertation committee was asked to review the coding schema. First and second round coding as described by Saldana (2014) was used to perform coding. Subsequently, the investigator used a qualitative software program to re-code the data to confirm the accuracy of first and second cycle coding. Final round coding involved reviewing both the manual coding results and using the computer software to generate coding queries. The use of two methods to support coding accuracy facilitated analysis of the coding to determine themes and then patterns in the data. This study documented the procedures used during the study in detail to create an audit trail.

One of the ways to address trustworthiness is through reflexivity (Lincoln & Guba, 1985). Reflexivity is the conscious reflection on personal experience, knowledge, point of view and awareness of the influence of those personal experiences during the research process (Polit & Beck, 2012). As suggested by Creswell (2013) the principal investigator identified through reflexivity (Creswell, 2015), how prior experience as an APRN practicing in pain management and as an academic nurse educator teaching in an undergraduate pre-licensure nursing program shaped the direction of the study. The investigator engaged in constant reflection about the investigator's own viewpoint and

experience with the topic of interest by completing analytic notes and reflective journaling after every interview and at other points in the analysis phase.

The central purpose of the study was to explore faculty perspectives to inform the science of nursing education about pain management education and it was important that the principal investigator remained vigilant about the potential for bias. Values clarification is an inherent part of reflexivity and the principal investigator engaged in ongoing reflexivity throughout the proposed study through reflection. The researcher consciously attempted to bracket personal values and beliefs when conducting interviews. The researcher described prior experience working in pain management and as an educator to all participants. While this closeness to the topic may have been a limitation as there was potential for bias, it was also a facilitating factor for the study as the investigator had insider knowledge about pain management and academic nursing education. The principal investigator kept a personal reflective journal in addition to analytic notes during the data collection and analysis phase to bracket personal and professional experiences through active thinking and writing about the experience of the research process. The insider knowledge gained through prior experience facilitated the interview process, but it was not used to assess participants' activities. The investigator remained vigilant about being the research instrument and refrained from commenting or providing advice to participants, especially when participants disclosed information that conflicted with the investigator's professional experience or personal values.

A semi-structured interview guide was used for data collection, but the data were allowed to emerge through the interview process with the participants. If a participant chose to elaborate or discuss a topic that was not included in the semi-

structured guide, the participant was allowed to do so. The rationale for this decision was that the purpose of the study was to explore faculty perspectives; therefore including data that emerged spontaneously reflected that perspective.

Creswell (2013, p.250-253) described eight validation activities that a qualitative researcher can do that will add to the trustworthiness of the study. These include, prolonged engagement, triangulation, peer review, negative case analysis, clarifying researcher bias, member checking, rich thick description and external audits. Creswell (2013) recommended that the qualitative researcher engage in at least two of these activities to enhance reliability. In addition, Creswell (2013, p. 201) recommended using at least two different strategies, such as transferability and dependability, to ensure the validity and reliability of qualitative research studies. Transferability refers to the degree that the results of qualitative research can be generalized or transferred to other settings (Creswell, 2013). To address transferability, the investigator consciously sought to elicit rich and detailed description throughout data collection. For example, it was important to note interview pauses and hesitations as well as non-verbal communication behaviors of the participants, and the investigator did this by using field notes during the interviews. The participants were free to either expound upon or to not answer the specific questions from the interview guide. Dependability refers to the accuracy or consistency of the research process. One of the ways to ensure dependability is to keep a log of all research activities during the research process, which is commonly referred to as an audit trail (Creswell, 2013). An audit trail allows for the verification of the researcher's activities and potentially creates a path for another researcher to duplicate the study. To address dependability, accurate accounts of the process of data

collection were documented through the use of verbatim transcripts of the interviews and detailed descriptions of the coding and analysis process.

The principal investigator sought to make sure that the research process was logical, traceable and documented. To address confirmability, the investigator used methods that speak to the authenticity of the data. The two most cost-effective and reasonably achieved methods involved checking back with the participants (member checking) and peer debriefing. Lincoln and Guba (1985) define the role of the peer debriefer as one “keeps the researcher honest” and acts as a “devil’s advocate” (Creswell, 2013, p. 251). The dissertation chairperson and qualitative content expert served as peer debriefers. Checking back in with the participants was achieved by providing the participants with a copy of their transcript and asking the participant to review the content for accuracy. All participants were given their transcripts and invited to review them for accuracy. Fifteen participants acknowledged receipt of the transcript and there were no requests for changes. In addition, the investigator engaged in real time member checking during the interviews by summarizing key content and asking the participant to confirm that the investigator had captured an accurate account of the interview. A summary of the responses provided by each participant was confirmed at the end of each interview. The debriefing method used in this study was facilitated by the investigator’s dissertation committee. All committee members were experienced researchers and provided input and feedback about the research process. One of the committee members, Dr. Mary Ellen Doherty, an experienced qualitative researcher, facilitated inter coder reliability by reviewing the coding and analysis. The

chair of the dissertation committee Dr. Susan Westrick, engaged in debriefing throughout the research process.

A qualitative descriptive study is often undergirded by a theoretical framework (Sandelowski, 2010; M. E. Doherty, personal communication, 12/13/2016). Such studies seek to synthesize data that is reported by the study participants. At times, descriptive studies are best served by the incorporation of more than one theoretical framework. The study was guided by Knowles's (1984) conceptualization of adult learning and Benner's (1984) theory of knowledge acquisition in nursing practice. These theories provided a lens to examine data about the experience of nursing faculty teaching pain management content to nursing students who are by definition adult learners.

Limitations: Internal and External Threats

Qualitative research has its own methodology and part of its scientific base are the tenets of credibility (Patton, 2015). In order to minimize threats to the study, the following strategies were used: provision of a quiet and private area for interviewing, active listening while interviewing participants, validating information by use of probing questions, audio recording all interviews, and transcribing interviews as close to the time of collection as possible. An underlying assumption of this study is that pain management content is threaded throughout nursing curricula and numerous nursing faculty may be responsible for teaching pain management in different courses. Therefore, the investigator may not have captured a complete picture of pain management content in a particular curriculum by only using information from the participants included in the current sample.

An additional limitation of this qualitative research design was the lack of generalizability of the study due to small sample size ($N=17$). Validity for qualitative research designs can be further assured through consideration of the Whitemore, Chase and Mandle (2001) framework in addition to the Lincoln and Guba (1985) criteria. Whitemore and colleagues (2002) add criticality, integrity, explicitness, vividness, creativity, thoroughness, congruence and sensitivity as attributes of rigorous qualitative research (Polit & Beck, 2018). Using the shared criteria of credibility and authenticity, both of these aforementioned frameworks allowed the researcher to identify threats to validity (Polit & Beck, 2018) related to the investigator's professional experience as an educator and as a pain management specialist.

In order to address confirmability, field notes, analytic notes and personal reflective journaling were used in addition to qualitative computer software to describe and analyze data and confirm that any findings are consistent with the data collected. Consistency was addressed through the use of the qualitative computer NVIVO software in addition to multiple cycles of manual coding to triangulate the data across multiple sources. Schatzman and Strauss (1973) described three types of field notes, including organizational, theoretical and methodological notes and this study used analytic notes as organizational field notes and reflective journaling as a way to limit threats to validity. To further address confirmability, participants were provided an opportunity to review their own transcripts to validate that the transcribed version of the interviews was congruent with the participant's perspective. This member checking was a way of confirming the authenticity of the data.

Ethical Considerations and Human Subjects Protection

In order to protect the participants in this study, Institutional Review Board (IRB) approval at the principal investigator's home university was obtained prior to the start of the study (Human Subject Review Form B). In the transcripts of the interviews pseudonyms were assigned to participants to protect participants' identity. Pseudonyms were given in alphabetical order to prevent any association between the pseudonym and the actual name of the participant. Personal identifying information such as place of employment or information that could lead to identification of a participant was not reported in the study. All audio recordings were transcribed by the principal investigator and any inadvertent mention of personal information was not included in the transcript. Demographic data were reported in the aggregate only.

Informed Consent

All potential participants were provided with a description of the proposed study including the purpose of the study prior to the start of the interview. An informed consent form (Human Subject Review Form A) was completed for each participant prior to the interview. In addition to the written materials, confirmation of consent was reviewed verbally prior to the start of the recording of the interview. All participants were informed that the interview was being recorded and that the participant could request to have the recorder turned off and the interview terminated at any time. The informed consent documented that the participant was free to leave the study at any time and that participation was entirely voluntary. In addition, the potential risks and benefits were identified. The risk of participating was estimated to be minimal, but during the planning phase of the research it was acknowledged by the investigator that reflecting on

teaching practices could have caused a participant to experience either negative or positive emotions. There were no reports of participants experiencing any negative consequences as a result of participating in the study. The informed consent also informed the participants that there would be no benefit other than contributing to the science of nursing education. The participants returned a signed copy of the informed consent to the principal investigator. A stamped addressed envelope was provided to those participants who for convenience purposes needed to mail the completed consent form. All informed consent forms were received and are retained by the principal investigator. All participants were provided with information about how to contact the investigator.

Storage of Data

All materials related to the study have been maintained on a personal computer that is password protected and that only the investigator has access to. The interviews were recorded on an encrypted recording device that only the investigator has access to. Transcripts of the interviews did not include any personal identifying information other than the pseudonym. The record of the actual names and contact information of the participants have been stored separately from the transcribed interview material in a locked box, in a locked filing cabinet in the office of the principal investigator. The names of the participants linking them to their pseudonym are not recorded on any electronic device; rather, the investigator has kept a handwritten list of names and pseudonyms separately and securely and the list does not contain the full name of the participant or contact information. A list of the e-mail addresses of participants has been kept separately from the list with the participants' names. Only the investigator

has access to this master list. The master email list for participants has been kept on an encrypted external drive that is secured by the researcher in a locked cabinet. The email list does not contain any personal identifying information about the participants other than the information that was available on public websites. All correspondence and study material have been kept in a locked file cabinet that principal investigator alone has access to. Once the dissertation process has been finalized, any documents that identify the participants will be stored for 3 years for compliance with university policy and procedure, and once that time limit has been reached the documents containing personal identifying information will be destroyed. Paper documentation will be shredded and external hard drive storage items will be destroyed.

Summary

The study describes the experiences, perceptions and practices of nursing faculty engaged in teaching pain management in pre-licensure baccalaureate nursing programs. The study identifies themes and issues among faculty about teaching pain management content. It is a qualitative descriptive study with a focus on faculty teaching about pain and pain management in the current social environment of increasing concern about reports in both health care research and public media about epidemic levels of opioid misuse, abuse and harm. Care was taken to provide for the privacy of the participants and data that could potentially identify either participants or their place of employment was not included in the study. Demographic information was reported in the aggregate only. The principal investigator recruited participants who were actively teaching in undergraduate baccalaureate programs. The interviews were recorded, transcribed and coded both manually and using computer software. Data analysis was ongoing

throughout the data collection process. In order to validate the data, all participants were contacted to review the transcriptions and verify accuracy. Consistent with standard conventions of qualitative methodology, numerous steps were employed to assure credibility, transferability, dependability and confirmability, including member checking, reflective journaling, analytic notations, and triangulating data.

CHAPTER IV: DATA ANALYSIS AND FINDINGS

Introduction

The purpose of this chapter is to provide a description and analysis of the experiences, perceptions and practices of nursing faculty who teach pain management in pre-licensure nursing baccalaureate programs. This chapter describes the themes and patterns that emerged through qualitative content analysis of the verbatim transcripts of the audio recorded interviews. Demographic characteristics of the sample, study results and a detailed report of the findings are also included in this chapter.

Description of the Sample

The sample was recruited using two purposive approaches. An announcement of the study was posted to the private List Server of American Pain Society and American Society for Pain Management Nursing (APS/ASPMN) (Appendix B). There were approximately 300 members of the list server at the time of the study. Six individuals responded to the announcement, representing a 2% response rate. Four of the six individuals met inclusion criteria. In addition to the announcement on the list server, introductory emails (Appendix C) describing the study were sent to 250 faculty from 40 schools of nursing in the Northeastern United States, 25 individuals responded to the email, representing a 10% response rate. Five of the individuals who responded to the introductory emails met inclusion criteria and were contacted to schedule an interview. A snowball technique was then used to recruit additional participants. Seventeen faculty members from 15 different schools of nursing were included in the final sample. The

sample included participants from New England and the Central and Lower Atlantic States.

Participants were provided an informational letter (Appendix C) and a flyer (Appendix D) that described the purpose of the study, study procedures, study risk and benefits and methods to safeguard privacy and confidentiality. Prior to the start of the interview participants were asked to sign a consent form (Human Subject Review Form A) that described the purpose, risk and benefits and measures to protect privacy and confidentiality. Participants were verbally asked to confirm consent prior to the start of audio recording. Participants were also encouraged to ask questions prior to the start of the interview and again at the end of the interview.

Demographic data using the demographic data tool (Appendix E) were collected during the interview. Participants were informed that they were free to decline to answer any of the demographic questions. Member checking was accomplished by providing all participants with a copy of the interview transcript and participants were invited to contact the principal investigator with any comments or feedback about the transcripts. Fifteen participants acknowledged receiving the transcripts. There were no requests to modify any of the transcripts.

Table 1 provides demographic data about the final sample. All participants were faculty members teaching in undergraduate baccalaureate programs. The average age range of participants was 45-75 ($n=13$). The youngest age group was 25-35 ($n=1$). Eight participants were between the ages of 45-65. The oldest age group was 65-75 ($n=5$). All the participants ($N=17$) were involved in teaching pain content to students either in lecture, clinical or both. All the participants had experience teaching either clinical or

lecture. The length of teaching experience for the sample ranged from 1 year to 40 years, with an average of 15 years of teaching experience at the undergraduate level. For the purposes of this study only teaching experience at the undergraduate level was included. Two participants who reported having one year of experience also had additional experience teaching in other types of nursing programs but only the teaching experience at the baccalaureate level was included in the study.

The length of experience as an RN ranged from 10 years to 51 years, with an average of 28 years of experience. Fifteen members held a doctorate as their highest degree, two participants reported a Master's degree as the highest degree earned. Four participants reported having a background in pain management as a specialty area, and the remaining participants identified a variety of clinical specialties that included pain content. These specialty areas included pediatrics, oncology, trauma and medical-surgical nursing. All participants reported teaching medical-surgical nursing. Most of the participants (n=15) reported teaching across the nursing curriculum. Eleven participants reported having earned and maintained a national certification. None of the participants were certified as pain management specialists. All of the participants reported either reading journals, attending conferences or using the internet to stay up to date on current practice. Seven participants engaged in clinical practice outside of academic teaching. There were 16 participants who identified as female and one participant who identified as male in the sample. All participants identified as white Caucasian.

Table 1

Demographic Information about Nursing Faculty in the Study (N=17)

Length of time teaching in Undergraduate Baccalaureate Nursing Programs	Mean=15 years Range=1-40 years
Length of time as a Registered Nurse	Mean= 28 years Range=10-51years
National Certification	<i>n</i> =11
Highest Degree Earned	Doctorate: <i>n</i> =15 Masters: <i>n</i> =2
Specialty Pain Management Experience	None: <i>n</i> =13 Experience: <i>n</i> =4
Gender	Female: <i>n</i> = 16 Male: <i>n</i> = 1
Age in Years	25-34: <i>n</i> =1 35-44: <i>n</i> =3 45-55: <i>n</i> =4 56-65: <i>n</i> =4 66-75: <i>n</i> =5

Summary of the Findings and Detailed Analysis Related to the Research Question

The findings of this qualitative descriptive study are organized according to the themes that emerged from the data. The themes that emerged transected the concepts identified in the research question, which examined the experiences, perceptions and practices of faculty teaching pain management content to undergraduate baccalaureate nursing students. Qualitative content analysis was used to analyze the data. Three themes and three sub-themes emerged from the study, as described below:

- Theme 1. Basic education about pain content
- Theme 2. Pain relief rather than the opioid crisis
- Theme 3. The paradigm shift regarding opioids

Three sub-themes emerged from Theme 1, which include:

- Subtheme 1A. Controversy about pain assessment
- Subtheme 1B. Complementary and alternative therapies (CAM)
- Subtheme 1C. Perceived lack of teaching resources

Theme 1: Basic Education about Pain Content

The first theme that emerged from the analysis of faculty experience of teaching pain content was that the nursing curriculum supports only a basic education about pain content and thus it was difficult to provide in-depth pain content in an already dense curriculum. As one faculty member phrased it, the basics are covered by giving the students “the nuts and bolts” of pain management with a focus on assessment. This idea of teaching students just the basics was echoed by other faculty participants. The theme that only basic education about teaching pain management is covered and that pain content is not structured or scaffolded into curriculum appeared throughout the interviews

and crossed over all the research question concepts. Participants described teaching basic assessment skills instead of more complex content because of time pressures related to dense curricular content. All of the participants reported teaching both clinical and didactic class content.

Irene: “I would say it is a basic level education, and in the physical assessment course, it is a vital sign because pain is the fifth vital sign” (Transcript 9, Faculty Interview, Personal Communication, May 26, 2017).

Anne: “I think staff teach the nuts and bolts, as far as- here are the medications, here are the side effects, here are the dosing, we always score them 0-10. They teach the pharmacological ways of dealing with pain.” (Transcript 1, Faculty Interview, Personal Communication, April 05, 2017).

Participants also described the experience of teaching pain management as limited by time and gaps in the state of the science of pain management. Participants consistently remarked that there was a lack of consensus across disciplines on how to manage pain. Participants reported that this lack of consensus contributed to an overall lack of knowledge about how to manage pain.

Beth: “I don’t think we do a good job teaching pain management. I have recently introduced how to assess patient pain. I have told the students to find out how the patients managed pain before they were in the hospital.” (Transcript 2, Faculty Interview, Personal Communication, April 06, 2017).

Cathy: Absolutely, they do not get enough, but it is not the fault of the faculty, I don’t think there is enough information out there. There is not a lot of information out there. Not even the physicians understand chronic pain. I was in hospice and

then worked in palliative. I don't think there is enough information about central sensitization or any of those things. I think we need a standard curriculum. It is overlooked. It is shoved into each class. I don't think it is well done. I think we need to teach it better because almost everyone who is in the hospital has pain (Transcript 3, Faculty Interview, Personal Communication, April 12, 2017).

Faculty described teaching experiences about pain content as occurring within courses discrete from other nursing courses. The focus as described by the participants was on basic education about pain content. The two areas that faculty frequently described were teaching assessment through the use of pain scales and the lack of time devoted to teaching the complexities of pain management; in particular, opioid pain management regimens.

Edward: It comes up in the patho [*sic*] course that I am teaching because we talk about drugs used to treat pain. I think they have been given adequate exposure, they certainly have been told about the various treatments and drugs for pain treatment, they have been told about pain scales, they know it's something you have to keep on top of ...but how high on their priority list it is as they start of as a new grad...ah...I am not too sure about that because I think there are so many competing concerns for them (Transcript 5, Faculty Interview, Personal Communication, May 15, 2017).

Fran: I am not sure that assessment is being taught. When I teach the pain scale... this is all based on McCaffery's work. Have you ever had a baby how would you rate that pain? What is the comfort function goal? Today, you have to get out of bed, can you do that at the 5 you tell me that you have? Articulating a

systematic approach to that rather than throwing a medication out there and hoping that it works. In some cases, its done very well but in other cases it could be done much better (Transcript 6, Faculty Interview, Personal Communication, May 19, 2017).

Grace: I always feel kind of rushed when I am trying to cover everything that falls under the topic of pain management. There is so much content. And, yet for our patients, they often care more about their pain management than their cholesterol management. So, admitting that cholesterol management is a very important thing, I wonder if we could reprioritize our coverage of some of that pain management content (Transcript 7, Faculty Interview, Personal Communication, May 22, 2017).

Irene: “It is not threaded through the curriculum and there is no course. I don’t really know if other people teach pain or not. I just know what I teach ” (Transcript 9, Faculty Interview, Personal Communication, May 26, 2017).

Faculty described being aware that there was a curricular gap about pain content but also described time constraints that limit how much pain content can be covered during undergraduate education.

Jane: It is not wonderfully done, not the way it used to be, that went away a while ago. The palliative care course that is only an elective. I do bring in a doctorally prepared pain management nurse practitioner but that is only an elective- not everyone gets that. It is not one of the hot topics, even when I started ... they had done a review of nursing textbooks, and found that less than 2% of textbooks dealt with death and dying and I bet if you reviewed the content of textbooks you

would probably find very small percentage about pain compared to other things. It's just little examples, like when I bring the pain expert to class and she says well if you use this... and it doesn't work you can change to this...and ...there are choices, and she is like wait you are seniors and you don't know this? (Transcript 7, Faculty Interview, Personal Communication, June 01, 2017).

Marie: I think that the curriculum is so packed that there is not enough time to teach the nuances of pain management unless you stay in clinical longer I don't know how you would get it into the classroom... it's hard (Transcript 12, Faculty Interview, Personal Communication, June 21, 2017).

Jane: I believe the pain management is addressed much more briefly in some of the other course areas like when they're talking about kidney disease or heart disease but I think the big piece of knowledge comes from the lectures about management and end-of-life issues that I give. That gives them the bigger picture (Transcript 10, Faculty Interview, Personal Communication, June 01, 2017)

Sub-theme 1A: Controversy about pain assessment. A sub-theme that emerged from Theme 1 was that the controversy surrounding pain as fifth vital sign contributes to the lack of consistency in teaching pain content.

Cathy: I think it has changed how I think and teach about pain especially since 2001, I think 2001 is when pain became the fifth vital sign I am not sure that is the year but I remember reading. Since that became the fifth vital sign, and I actually talk about this lecture, and I think that nursing should take some of the credit for overprescribing even though we don't prescribe, nursing pushed so hard for that to make pain the fifth vital sign. The adequate treatment of pain...and

when you have people saying they are an 8 out of 10 what do you do? Well what do you do with that information, it is the only vital sign that does not have an objective measure. Well the World Health Organization says that an 8 out of 10 is treated with opioids and that's what we do with the incremental ladder treatment of pain. There is a problem there because we are not understanding everything that goes on behind that number, it's not just a number, its physical, spiritual, there's just not enough information that goes behind that number. We just don't have enough information about what is going on behind that number...does it have to be treated with an opioid or could it be even treated with an NSAID (Transcript 3, Faculty Interview, Personal Communication, April 12, 2017).

Edward: Yeah, so things have really kind of changed over the years especially now with the recent opioid epidemic. I used to cover pain as the fifth vital sign but there is now a movement about not calling it a vital sign or that we are paying too much attention to it. Or at least, that is the message that is being received. I have seen swings about pain, in that at first, we didn't treat pain...to the point where we may have overtreated pain and I think that we are trying to find a new balance now (Transcript 6, Faculty Interview, Personal Communication, May 15, 2017).

Grace: I know when I learned pain in nursing school, I learned that pain is whatever the patient says it is and don't you dare question what the patient says it is. And treat the pain aggressively and it is not ok for a patient to be in any pain. And now we say, but...we still have no way to measure pain...it's still going to be whatever the patient says it is. We want to make sure that the pain is well

controlled so the rest of healing happens but know that there are side effects and risks with taking these opioids so if possible let's balance it with some other treatment modalities (Transcript 7, Faculty Interview, Personal Communication, May 22, 2017).

The participants' narratives consistently described inconsistencies and confusion about how to assess and treat pain that impact how pain content is taught in undergraduate pre-licensure baccalaureate programs. Participants frequently referred to the controversy about pain as a vital sign as being a specific source of confusion across disciplines.

Sub-theme 1B: Complementary and alternative therapies (CAM). Faculty described wanting to include complementary and alternative therapies in their practice. Faculty identified alternative pain treatment modalities as part of the changing science of pain management but many described challenges in implementing complementary or alternative therapies in practice. The participants described the benefits of complementary and alternative therapies but consistently reported that it is not widely used in clinical practice therefore students do not see it once they are in the clinical setting.

Tracey: We do teach about alternative therapies and complementary therapies and the students do try to initiate it but they don't see anyone else in the clinical setting doing that. They don't see that being introduced by anyone else in the hospital. I have had students try to work with alternative therapies (Transcript 17, Faculty Interview, Personal Communication, July 21, 2017).

Fran: “The literature tells us that even though we learn non-pharmacological interventions, we don’t use them. Like, massage and distraction and you know things like that” (Transcript 6, Faculty Interview, Personal Communication, May 19, 2017).

Cathy: I also think that we are going to have to teach about non-pharmacological measures to treat pain because nurses are leading that change, toward more holistic non-pharmacological approaches...like integrative medicine. The more we learn and teach the more we can advocate for getting those alternative modalities for our patients” (Transcript 3, Faculty Interview, Personal Communication, April 12, 2017).

Diane: I show them the research, if we want other treatments and interventions to succeed, we have to let the patients know that we are going to work with them. We have to let patients know that the successful management of pain is one of our primary goals (Transcript 4, Faculty Interview, Personal Communication, May 15, 2017).

Karen: Letting the students know that it is not just one thing that will work that usually it is a combination of things that will help the patient. So, we can use either a pharmacological way or pharmacological way with a nonpharmacological way to deal with the pain. It is important for me to get the students to understand that we don’t just go to an opioid, that we explore other modalities. There’re other things that we can try in conjunction with or instead of opioids (Transcript 11, Faculty Interview, Personal Communication, June 09, 2017).

Anne: That's why I start off with the CAM. I start the fundamental students by telling them if you have a patient with pain and you don't have orders, so what else can you do, that you don't need orders for. I approach it that way (Transcript 1, Faculty Interview, Personal Communication, May 05, 2017.)

There were some participants who did not see a place for complementary and alternative therapies in the context of teaching acute pain management. This view was contrary to most of the participants reported perceptions and attitudes about complementary and alternative therapies. One participant commented on the gap between what was taught and what was effective in clinical practice.

Irene: The students don't think of medication, they think of the non-pharmacological ways, so, that's what they tend to put in their care plans. But I emphasize in an acute care hospital that those interventions are not likely to help much as the patients is already anxious or depressed more... and you know that I think they need to focus first on medication that's what I tell them (Transcript 9, Faculty Interview, Personal Communication, May 26, 2017).

Another participant related going to a lecture about alternative health care modalities and describes the experience as troubling.

Karen: I remember that the professor touched on the one (nursing diagnosis) about energy disturbance which is one that I believe in and is a recognized nursing diagnosis and I remember her (the professor) stopping in the middle of her lecture and she (the professor) said, "you know I wish that I could think of these things because I would be sitting on a beach somewhere instead of teaching this class. Even though they are hogwash and they don't mean anything we still

have to teach them and I would be sitting on a beach somewhere sipping Mai Tais just for talking about something such as energy fields”, and I thought to myself well that’s a really crappy thing to teach students (Transcript 7, Faculty Interview, Personal Communication, June 09, 2017).

Faculty described their perceptions as having been heavily influenced by their own prior education about pain management and past clinical experience. The faculty perspective about pain management in the current social context of the opioid epidemic spoke to the perceived lack of resources and time to teach anything but basic pain management skills such as pain assessment. Although faculty reported wanting to include teaching about complementary and alternative therapies, most faculty reported not having the time nor the resources to do so.

Sub-theme 1C: Perceived lack of teaching resources. The semi-structured interview included a question specific to what type of resources faculty used to teach pain management. Faculty described using mainly course textbooks to teach pain content. Few participants used sources outside of the course required textbook. Faculty described the method of teaching pain content as primarily didactic lecture based teaching. Few participants described using strategies outside of traditional lecture.

Cathy: We have a textbook for med-surg... we don’t really have anything devoted to pain and pain management. We want patients to have pain controlled. Right and what I try and say in my lectures is that we should be assessing the function. The doctors are not around all the time, you should be saying this is what I am seeing (Transcript 3, Faculty Interview, Personal Communication, April 12, 2017).

Edward: “So, it is broad span about pain and really what is a survey course. Maybe a lot of breath but not a lot of depth” (Transcript 5, Faculty Interview, Personal Communication, May 15, 2017).

Grace: We actually have several textbooks that they use, they have a med-surg [*sic*] textbook, a fundamentals textbook and a concepts book- the Jean Gibbons book, that addresses pain. Other than that, I am trying to think, no print resources but we do have a simulation written that we do with our students (Transcript 7, Faculty Interview, Personal Communication, May 22, 2017).

Helen: I would say that early in the program, pain assessment is introduced but the specific medications are not focused on until midway through the program. So early on they are taught how to assess the pain in one of their first physical assessment classes and then about midway into their surgical course the different medications are introduced and then as a junior in the BSN program, gerontology is taught their junior year that is when we talk about it as well (Transcript 8, Faculty Interview, Personal Communication, May 26, 2017).

Irene: Their textbook talks about McCaffery. No, I don't use any other resources or guidelines. The textbook covers it well on a very basic level. It talks about assessing pain in children, cultural competent pain assessment and non-verbal signs of pain which I think is very good. I am really impressed with the fundamentals book at how it covers pain at this level (Transcript 9, Faculty Interview, Personal Communication, May 26, 2017).

Jane: What an individual faculty would do, I am not sure. I know that in general we are pretty much focused on the textbook. We teach our students to be opioid

phobic so to speak worry about the patient getting over sedated in falling you know because those are the things in Maslow's hierarchy of needs that we need to impress upon the student. We want to impress upon our students not give too much opioids to the new student to the novice to the newbie. I think that when I was a novice educator I was very focused on that about what they needed to know to keep their patients safe and I was also focused on what they needed to know about pain management to be focused on the NCLEX exam. As I've evolved as a nurse and have evolved as an educator I have had the discussions differently with my students such as discussing what pain management really means (Transcript 10, Faculty Interview, Personal Communication, June 01, 2017).

Pat: We lecture, but then the students go to clinical, and the faculty tries to bridge the gap between what was in the lecture and what they see in reality. Lecture is always the ideal theoretically, the ideal and then the clinical is really much more reality-based. Initially we used to use a small book on pain management but it's quite old now maybe 20 years ago but we try not to get the students to buy too many books so we primarily use the MedSurg [*sic*] book (Transcript 7, Faculty Interview, Personal Communication, July 07, 2017).

To supplement material from text books, participants describe using anecdotes from their own practice as clinical vignettes to teach students about pain content. Participants reported the use of personal anecdotes as case studies that were intended to contextualize the content presented in the textbook.

Rita: I tend to use a lot of anecdotes from practice or at least from my practice as a trauma nurse and as a pediatric trauma unit, pain was a big issue and I tell a lot

of stories. The students report in their evaluation that the stories help them remember and make the content real. Now- they say that about all the content not just the pain content. I do not think they are prepared and I think really where that comes is in clinical... is seeing patients and seeing different patients. I'm seeing patients in pain and actually working with people in pain. I am a big proponent of real teaching not of Sim I am kind of old school. The more simulation we put in because we don't have enough clinical placement of the hospital contracts we're really missing some of that experiential learning which is why the gurus are now coordinating internships which is huge. The students are not ready to titrate ...they're not ready to take in all the complex factors that go into pain assessment.

Sarah: So, I teach them how to figure out if the pain is a five or is it really a seven. It's easier for students to do the exercise on a piece of paper, that's easier than doing it in the clinical setting. I think that has to be really role modelled. They need a good preceptor or a residency program where you have those opportunities to watch those experienced nurses say she's saying it's a three but because of this this and this I am going to chart higher and still feel comfortable with a higher level of analgesia (Transcript 16, Faculty Interview, Personal Communication, July 18, 2017).

Faculty described being aware of teaching methodologies that are student centered but participants' descriptions of innovative teaching methodologies focused mostly on case studies or clinical vignettes. These case studies or vignettes were often drawn from the participant's own learning and clinical experience. When innovative

teaching strategies such as simulation was described, participants were hesitant to use it to teach pain content.

Tracey: “I am not a big fan of simulation. I think it can be very helpful in quick decision making for students to really put them in the moment to put them at the bedside.” (Transcript 17, Faculty Interview, Personal Communication, July 21, 2017)

Sarah: There are lectures on it, there are books on it but I think critical thinking has to be role modelled. You have to get that first year under your belt with a good preceptor who asks the grad how are you going to do this? (Transcript 16, Faculty Interview, Personal Communication, July 18, 2017).

The perceived lack of resources to teach pain management influenced how faculty taught. Most faculty relied on personal experience rather than on textbooks specific to pain management or practice guidelines issued by pain management organizations. The participants’ narratives indicated that the way to learn pain management for undergraduate nursing students was by experiential learning in clinical practice after graduation rather than during pre-licensure baccalaureate programs.

Theme 2: Pain Relief rather than the Opioid Crisis

A second theme that emerged was that pain relief rather than the opioid crisis was the central concern of academic nurse educators. As one of the participants, Anne put it “students are jaded about pain and pain management because of all the media coverage.” Participants also described their experience of the paradigm shift because of the opioid crisis as manifesting in clinical practice, but, not widely addressed in the textbooks that the students use. All participants referenced the opioid crisis and described being familiar with the current media coverage of the opioid crisis. However, the theme

that emerged from data analysis was that pain relief is the chief concern of academic nurse educators and the opioid crisis is a secondary concern for educators. Participants described growing concern that the real impact of the opioid crisis would be a further deterioration in effective pain management for patients, especially patients with chronic or persistent pain.

Anne: “Oh, I would say so, you know, interestingly enough, all..., well...I don’t want to say all nurses but many nurses in practice and teaching the students are jaded. They say the patients are drug seeking” (Transcript 1, Faculty Interview, Personal Communication, April 05, 2017).

Helen: “The change, the thing with the opioid epidemic and opioid abuse now a days, I myself worry, worry, that our clients are not getting adequate or the pain control that they need due to the opioid abuse” (Transcript 8, Faculty Interview, Personal Communication, May 26, 2017).

Irene: “I think that and I don’t have research to support this but I think that nurses and doctors are reluctant to administer appropriate pain management medication, including opioids. I am not sure why, maybe they never had pain” (Transcript 9, Faculty Interview, Personal Communication, May 26, 2017).

Jane: We are seeing something, the students and not just nursing but general practitioners it’s more a lack of knowledge about opioids, how to administer the opioids, what to watch out for. But also, overcoming those stereotypes that certain populations abuse opioids and that certain populations that use opioids are weak. I think those sorts of myths that surround opioids are probably more of a deterrent (Transcript 9, Faculty Interview, Personal Communication, May 26, 2017).

Nancy: ... you know we have the wonderful unfortunate opioid crisis that's going on so we are cautious with pain medications and obviously, I tend to teach students that that patients may have an opioid ordered but will also need a gradual decrease that may include Tylenol. We try to wean the patient over a period of time so that they are not constantly on the opioid you know we wean them. Sometimes that can be a challenge for the students to decipher what type of pain the patient is telling the students about, it can be hard for the student to figure out which medication to give the patient (Transcript 13, Faculty Interview, Personal Communication, July 06, 2017).

Jane: In our program, it depends on who is teaching the course. It may be listed in the topics but whether it is touched on briefly or spoken about in depth, I think depends on who is teaching the course. Just recently a student told me that an instructor told them about Demerol and I told the student, no you don't use Demerol (Transcript 10, Faculty Interview, Personal Communication, June 01, 2017).

Pat: The students still don't understand that opioids don't have an upper limit so we're talking about pain management in an end-of-life care situation and the student thought that they should start with maybe 5 mg of morphine they really don't understand about titrating the medication to the pain level that we need to titrate up because these people have been in pain already and it's been titrated up. So, they never get out of class that these patients who are dying have had so much

pain that they're going to need a lot more pain medication (Transcript 14, Faculty Interview, Personal Communication, July 10, 2017).

Rita: For instance, in one of my clinicals, it was in an urban area and when patients with sickle cell came in the staff would make them wait really be kind of judgmental and they would actually go as far as to say that they're actually drug seeking. And I would say yeah, they are seeking something they are seeking some sort of intervention, it happens to be pharmacological because they're in pain because they're in this major vaso-occlusive crisis. Could some of those people actually be addicted or drugs seeking...sure but how do you know how do you know what's going on? A lot of studies looking at adults with sickle cell find that they are not treated adequately for pain and they have been checking out early or leaving against medical advice and a number of them... I forget the percent ...and a number of them have tested positive for street drugs (Transcript 7, Faculty Interview, Personal Communication, July 18, 2017).

Faculty often reported using their own personal or professional experience not only as source of their own beliefs about pain management but also as clinical vignette or exemplar for students. Participants in this study frequently described a pivotal moment in clinical practice that influenced their view of pain management. For example, Fran described an epiphany after hearing a lecture by a prominent pain specialist nurse and author.

Fran: ...and as I sat there listening to her, I realized that I had left a lot of patients in pain...not intentionally but I had, thinking I was doing then at least the best job I could but after hearing her, I thought that nursing education needs to do a better job with pain

management education. I used to say it myself...I'd rather my patient be in pain and breathe. I said I need to go into deep repentance because when I first went into nursing they would order placebo, you know like Saline IM. And now we know that's deception and unless you have signed on the dotted line it is not ethical, unless you are part of a study and know that you are part of a study and consent to it. I have seen a patient get over sedated and needing Narcan and nobody noticed until they need the Narcan. And this was an expert nurse, and I asked were you happy with that outcome and she said, well the patient didn't die. Well, that's not good, because Narcan is not benign, it can put you into rebound hypertensive state or CHF and then you are chasing the pain again. I think there are things that the nurse should think about rather than saying I can just give Narcan. I think we live in a world where we say well if that happens I can go to Narcan. We can prevent that by being intentional and strategic in what we are doing. The literature says that nursing faculty aren't up to speed with pain science either. Based on my own experiences as a clinician, what I learned as a clinician stayed with me my whole career (Transcript 6, Faculty Interview, Personal Communication, May 19, 2017).

The stories that the participants described about their own learning experiences contextualized their experience of teaching pain management. Many of the participants related experiences that continued to frame their teaching many years after the initial experience. These experiences of caring for patients with unrelieved pain were often emotional and participants were able to clearly recall details of these events long after the event.

Edward: I have seen swings about pain, in that at first, we didn't treat pain, I have had arguments and I will tell the students this, that I have had arguments

with surgeons who have operated on babies and had not provided for any analgesia afterwards. They say that babies don't feel pain, the surgeon said there were no pain nerve endings in the gut and it was only when I said but you had to cut through healthy tissue to get to the gut and if we did that to you then you would feel pain (Transcript 5, Faculty Interview, Personal Communication, May 15, 2017).

Marie: A classic story that I still use to teach my students and that still makes me cry was when I was in nursing school I was taking care of a patient who had third-degree burns, I was a very new nurse. In fact, I was with the preceptor so I must've been very, very new and the patient had burns over 90% of his body and I was with my preceptor and this was back in the day when we still had graduate nurses and I was talking to my preceptor in the room about how we were going to talk to the patient's wife and what we should be doing for him and because he had so much of his body surface area burned. I don't think that we recognized that he was still awake and I certainly didn't as a new nurse. And as we were speaking about him in the room he started to shake his side rails. It still haunts me to this day, I could actually cry thinking about it. I relate this story to my students but really what the big thing was, was related to remembering that your patient may still be awake even though there are pain meds on board but I really forgot about him as far as comfort. He wasn't going to survive and actually they wouldn't even take him in the burn unit. There was a massive fire and we had to triage patients and they can only take so many and because of his age and because of the percentage of his body burned he was not considered a candidate for the burn

unit. Because he was not going to survive. I really forgot about being comforting to him whether that was through pain medication or something else. And I was speaking about him in the room with my preceptor and I trying bring that story to my students (Transcript 12, Faculty Interview, Personal Communication, June 21, 2017).

Diane: I have to tell you a little story – I actually went to a conference and about teaching pain and the nurse sitting next to me, told me that she is the nurse for a retirement home for nuns and priests. And she told me that one of the most difficult things that she deals with is getting them to admit to pain, because for them pain is a good thing, pain is suffering, its’ the thing that will get them into heaven, so they don’t want it necessarily relieved. She finds it very difficult to assess them and admit to it. I discuss this with the students and I tell them if you come from a background, where it is keep a stiff upper lip, keep it to yourself, don’t complain, that kind of thing you may not be willing to discuss pain, where if you come from an ethnic background where you have been taught to talk about pain so that we can help you, it is totally different. You have to realize that you are coming at it from a bias whether you realize it or not (Transcript 4, Faculty Interview, Personal Communication, May 22, 2017).

Nancy: I find myself trying to make the students more aware about what could potentially happen a potential addiction down the road. I give the students specific examples when I’m teaching about pain. I think that the experience that sticks out the most for me are about patients who are nonverbal and trying to assess their

pain levels (Transcript 13, Faculty Interview, Personal Communication, July 06, 2017).

The descriptions from the participants about the perceptions of nursing faculty revealed that pain relief was their primary concern rather than a focus on the current opioid crisis. The narratives speak to the perception of faculty that there is a need to balance the opioid crisis with the needs of patients who are in pain. This focus on pain relief was echoed by most of the participants and indicated that pain relief was the focus of not only clinical practice but also of teaching practice.

Beth: I don't think we do a good job teaching pain management. I have recently introduced how to assess patient pain. ...students can't put two and two together, how to focus on pain beforehand and how the pain has changed since they were in the hospital. All the nursing students do is just use the pain scale, the 0 to 10 but we are trying change that but I still don't think they get it (Transcript 2, Faculty Interview, Personal Communication, April 05, 2017).

Cathy: Yes, well, the science has changed and also my comfort level in teaching it has changed, so, yes, I do think in that respective... so I think my perspective has changed. Yes, I think it has changed how I think and teach about pain especially since 2001, I think 2001 is when pain became the fifth vital sign, I am not sure that is the year but I remember reading. Since that became the fifth vital sign, and I actually talk about this in lecture, and I think that nursing should take some of the credit for overprescribing even though we don't prescribe, nursing pushed so hard for that- to make pain the fifth vital sign. Put function and pain scale together I would like to see that happen immediately. It is hard to get things

changed...I don't know if anywhere is doing that (Transcript 4, Faculty Interview, Personal Communication, April 12, 2017).

Edward: I think they have been given adequate exposure, they certainly have been told about the various treatments and drugs for pain treatment, they have been told about pain scales, they know it's something you have to keep on top of. How high on their priority list it is as they start of as a new grad...ah...I am not too sure about that because I think there are so many competing concerns for them (Transcript 5, Faculty Interview, Personal Communication, May 15, 2017).

Fran: I thought that nursing education needs to do a better job with pain management education. It is found throughout the literature that nursing faculty and even experienced clinicians, need to know the pain science as part of their background, and physicians as well, and McCaffery quoted at that time that physicians got maybe one hour of pain class in their curriculum (Transcript 6, Faculty Interview, Personal Communication, May 22, 2017).

Grace: "It's like a pendulum, we were giving opioids all the time and now we are swinging back to maybe we don't want them at all" (Transcript 7, Faculty Interview, Personal Communication, May 22, 2017).

Helen: New graduates are often skeptical to administer pain management at the end of the life. Even in dealing with end of life or previous oncology patients that may be one of the situations that sometimes, new graduates or even nursing students may observe or run into. I feel that they are prepared as they are going to be, they have many different clinical rotations, pediatric through geriatric to

prepare them for pain management in addition to their surgical rotation
(Transcript 8, Faculty Interview, Personal Communication, May 26, 2017).

Irene: I would say it is a basic level education, and in the physical assessment course, it is a vital sign because pain is the fifth vital sign. And in the fundamentals, course the basic nursing interventions for pain...it has always been an issue for doctors, they never want to medicate for pain and I tell my students that if they have an issue to look for a pain consult. I think that the people who work in pain management are really the ones who know how to take care of pain
(Transcript 9, Faculty Interview, Personal Communication, May 26, 2017).

Jane: The textbook used to be an inch and now it is twelve inches in width. We are asking them to know so much more too. Try to teach them to ask the questions that you don't know. You don't know about pain management so who can you call to find out. I still think that all of that content, not just the pain but the death and dying is all instructor dependent. Dependent on if they are comfortable and if they have experience (Transcript 10, Faculty Interview, Personal Communication, June 01, 2017).

Karen: I believe the pain management is addressed much more briefly some of the other course areas like when they're talking about kidney disease or heart disease but I think the big piece of knowledge comes from the lectures about management and end-of-life issues that I give. That gives them the bigger picture
(Transcript 11, Faculty Interview, Personal Communication, June 09, 2017).

Marie: We are really teaching our students how to be safe practitioners I think that sometimes we are very cautious about how we teach pain management, at least that's what I think. I think pain content is included in most courses but it is not threaded into the curriculum in a structured way I think as we move more towards the concept based curriculum that is getting better (Transcript 12, Faculty Interview, Personal Communication, June 21, 2017).

Rita: I don't believe it is threaded through, it's nowhere near where it should really be and I think that is just the battle that nurse educators face there is so much to cover and there is so little time you know and then there's a whole piece of incorporating more active learning strategy which puts the onus on the students to come prepared for interactive you know type activities in class and that takes even more time again if they come really prepared it's fabulous but they don't always come prepared (Transcript 15, Faculty Interview, Personal Communication, July 18, 2017).

Rita continued to describe what she saw as a general decline in the educational preparedness of new graduates for entry into practice. While Rita's point of view was considered to be an outlier early in data analysis, other participants echoed her view that students' perceptions about pain management are not reality or evidence based.

Rita: I am little critical with what new grads know in general I don't think we are pushing, we are getting so many students in and we are going to get them all out but sometimes I think we are biting off more than we can chew you know with numbers. Sometimes, we hire instructors, clinical instructors who just, just fell out of their own BSN programs and they just started their first masters class so now

they can teach clinical. That was not the original plan, you were supposed to be a clinical expert but now we have them coming back because they get tuition discounts. We are completely missing the boat in some of this stuff. But nobody wants to hear that. I am old school (Transcript 15, Faculty Interview, Personal Communication, July 18, 2017).

Sara: I don't know if it's that my perceptions have changed but I think what I have tried to emphasize more is the patient centered pain experience and also the patient expectation that they are going to be relieved of pain (Transcript 16, Faculty Interview, Personal Communication, July 18, 2017).

Tracey: The students have a perception that patient should always be pain-free and that is not always realistic. So, I've had a lot of beginning students and this is their first experience in the hospital and they will get upset and uncomfortable if they have a patient who is having pain and they can't get rid of the pain. And even though the patients have been treated with medicine the students still have the perception that the patient should not be in any pain. Realistically that's not always possible (Transcript 17, Faculty Interview, Personal Communication, July 21, 2017).

Participants consistently focused on pain relief and the lack of preparation of nursing students in pre-licensure programs but at the same time participants described curriculum as only offering a basic level of education about pain management.

Throughout the narratives participants described a basic level of education about pain content in undergraduate nursing programs. The dichotomy between what the participants felt the graduate nurse should know and the reality of the actual preparation during

undergraduate education was evident in the narratives and pointed to a gap between theory and practice.

Theme 3: Paradigm Shift regarding Opioids

The semi-structured interview included a question about how the opioid crisis may have influenced faculty perception or practice in nursing education. The responses from participants revealed that while pain relief was their primary concern, participants also acknowledged the knowledge gap for students about opioid based pain management regimens. All participants discussed the opioid crisis but the data revealed that faculty often considered the opioid crisis as being distinct from pain content education. The theme that emerged from data analysis was that the paradigm shift regarding opioids has not been integrated into nursing curricula. The theme of under treatment of pain permeated the participants' responses. The third theme also reflected that how and what faculty taught was dependent on the faculty member's own personal or professional experience. Participants often reported using their own personal or professional experience not only as a source of their own beliefs about pain management, but also as a clinical vignette or clinical exemplar for teaching students.

Anne: It is not the people who need the medication that are having the problems. They are a certain number of people who are at risk of becoming addicted, but because they are not being followed, not being treated appropriately, they were not treated appropriately from the beginning. The ones who are using it on the streets are causing all of the issues. They are the ones who are becoming addicted (Transcript 1, Faculty Interview, Personal Communication, April 05, 2017).

Beth: I tell the students, the patients need the pain medication....so, if you give it as prescribed, they will not get addicted. You are going to try and alleviate their pain. I tell the students that you are not going to be able to totally relieve pain. At discharge, I don't focus on the opioid crisis and the patients go home on pain medication but unfortunately, we don't follow them (Transcript 2, Faculty Interview, Personal Communication, May 06, 2017)

Edward: Yeah, so things have really kind of changed over the years especially now with the recent opioid epidemic. I used to cover pain as the fifth vital sign but there is now a movement about not calling it a vital sign or that we are paying too much attention to it. Or at least, that is the message that is being received. I like to talk about challenges and pitfalls with opioids, about the risks of addiction and tolerance, talk about resetting mu receptors with ketamine" (Transcript 5, Faculty Interview, Personal Communication, May 15, 2017).

Fran: Yes, there is a crisis but that is going to influence how patients with chronic and acute conditions are going to be treated. But you see it but when you go to the Joint Commission website and I think that sometimes the physicians are trying to say, that you know, that everybody needs to be assessed but they (the Joint Commission) didn't say that you have to give everyone opioids. But... from what I read the Joint Commission says yes pain is undertreated and my fear is that the opioid crisis will only contribute more to that (Transcript 6, Faculty Interview, Personal Communication, May 19, 2017).

Helen: The change, the thing with the opioid epidemic and opioid abuse now.... I myself worry, worry, that our clients are not getting adequate or the pain control that they need due to the opioid abuse. I would like to go back to the question about opioid abuse, I also share that the opioid crisis where I am currently teaching, where I teach in this town of XXXXX, it is one of the highest in the nation for opioid abuse. So that is another reason I have decided to really talk about that in class. We talk a lot of caregiver strain and signs that we can recognize in the caregiver. I find the students are very interested in the topic because it is so much where we live. I read that surgeons were being asked to cut back on the number of opioid prescriptions that they were writing and I thought oh my goodness, what if a patient really needs the pain management or what about the potential for caregiver susceptibility to opioid abuse (Transcript 8, Faculty Interview, Personal Communication, May 26, 2017).

Irene: I don't think the students are impacted about the opioid epidemic. I talk about the possibility of someone becoming dependent is small...Yes, there is a significant problem with opioid addiction, and I don't know the specific percentage of addicts who started out with pain medication for a pain problem because of an injury or something like that. But I think the opioid epidemic definitely affects prescribing the narcotics (Transcript 9, Faculty Interview, Personal Communication, May 26, 2017)

Karen: I have the same approach to teaching about pain management and opioids as I did before the current opioid crisis. I understand what's going on with the opioid crisis...there was a lot of discussion about disposing of medications

appropriately and making sure that the medications were kept safe, other family members may diverge the medications. I would be teaching a lot of that which I don't teach nursing students. But the opioid crisis the overuse, the prescriptions I don't see it I didn't see it clinically when I was practicing and I don't see it now (Transcript 11, Faculty Interview, Personal Communication, June 09, 2017)

Marie: I think we have I think we have always been paranoid in nursing about opioids and pain management. I don't know if we necessarily talk about the opioid crisis or anything to do with opioids in faculty meetings or if we even talk about the crisis to students. In my State, we have some of the strictest guidelines regarding pain management prescribing so it is definitely comes up among faculty I don't know if it's come up in the curriculum (Transcript 12, Faculty Interview, Personal Communication, May 21, 2017).

Nancy: We have the wonderful, unfortunate opioid crisis that's going on, so we are cautious with pain medications and obviously, I tend to teach students that patients may have an opioid ordered but will also have a gradual decrease that may include Tylenol. Oh, yes, I have always taught about opioids and I told (the students) about pain management the different medications depending on what's ordered for the patient, the patient post operatively. I would say that I am much more cognizant about opioids because of what is going on in society with all the overdoses. I really talk about it a lot more that I probably used to before and educate on it more than I did before (Transcript 7, Faculty Interview, Personal Communication, July 06, 2017).

Rita: ...but with the news flooded with somebody overdosing every day left and right I worry that it might be harder to work with kids who were in pain and we have a huge arsenal of pain meds, we have room- it doesn't have to be opioids. We have all kinds of NSAIDs, we have Ketamine we have things that work on different mechanisms. What we use is irrelevant to me as long as we manage pain (Transcript 15, Faculty Interview, Personal Communication, July 18, 2017).

Sarah: At this point we really haven't addressed it with our students other than to say this is what is out there both in the research and in the mainstream media keep your eye on it, it's going to be part of your practice. Because really at this point I don't really know what to say to them. It is a crisis but what is the alternative. How is pain going to be managed? I don't know if anyone has a really good handle on it, everyone is talking about it but I don't know if we really know what to do about it yet. Just that it is there and it is a crisis and I don't think we really know what to do about it. Maybe we need to go back to the multimodalities, the physical therapy, the TENS units that are now over the counter, ibuprofen, acetaminophen and then gradually increasing. I think we are fighting against a consumer mentality that says I am here to get rid of my pain and if you don't do it then I will find somebody else (Transcript 16, Faculty Interview, Personal Communication, 16, 2017)

Faculty consistently described the opioid crisis as distinct from pain management for patients with legitimate pain management needs. The narratives reflected a concern with diversion, illicit use and the misuse of opioids. Faculty advocated for multi-modal treatment regimens that were not totally reliant on opioids but the theme that emerged

was that the opioid crisis had changed pain management practice for providers in a way that negatively impacted the treatment of patients with legitimate pain. The idea of a return to the days when pain was not effectively managed was a concern for faculty and this was reflected in what they reported teaching about opioids.

Summary of the Findings

The findings of this qualitative descriptive study are organized according to the themes that emerged from the data. The themes transected the concepts identified in the research question i.e. the experiences, perceptions and practices of faculty teaching pain management content to undergraduate baccalaureate nursing students. Qualitative content analysis was used to analyze the data. The main themes are:

- Theme 1. Basic education about pain content
- Theme 2. Pain relief rather than the opioid crisis
- Theme 3. The paradigm shift regarding opioids

Three sub-themes emerged from Theme 1, and these include:

- Subtheme 1A. Controversy about pain assessment
- Subtheme 1B. Complementary and Alternative Therapies (CAM)
- Subtheme 1C. Perceived lack of teaching resources

CHAPTER V: CONCLUSIONS AND DISCUSSION

Introduction

The purpose of this qualitative descriptive study was to explore, describe and analyze the experiences, perceptions and practices of faculty teaching pain management content to undergraduate baccalaureate nursing students in order to understand and further inform the science of nursing education about pain management teaching in the context of the current opioid epidemic. The research question that framed the study asked participants to describe their experiences, perceptions and practices regarding teaching pain management to undergraduate baccalaureate pre-licensure nursing students. A semi-structured interview guide was used to probe and further explore participants' perspectives. Knowles' (1984) adult learning conceptualization and Benner's (1984) novice to expert theory were used to provide a conceptual lens and structure to the study. A qualitative descriptive design as described by Sandelowski (2000) was used for the study. An open-ended interview guide was used for interviews with 17 undergraduate nursing faculty members at 15 different schools of nursing. Qualitative content analysis (Krippendorff, 2013) was used to analyze the data from the verbatim transcripts. This chapter provides a summary of the results, a discussion of the results as they relate to pain content teaching and current literature, limitations of the study, implications of the results to teaching practice and suggestions for further research.

Summary of the Findings

Qualitative content analysis revealed three main themes 1) the nursing curriculum supports only a basic education about pain content thus it is difficult to provide in-depth pain content, 2) pain relief rather than the opioid crisis is the central concern of academic

nurse educators and 3) the paradigm shift regarding opioids has not been integrated into nursing curricula. Three sub-themes emerged from Theme 1 they are: A) there is controversy about the assessment of pain especially the designation of pain as a fifth vital sign. This controversy about the fundamental assessment of pain contributes to the lack of consistency in pain management education, B) there is a need to include content about Complementary and Alternative Therapies (CAM) in the nursing curriculum and C) there is a perceived lack of teaching resources among participants in this study about pain management (Table 2).

Table 2

Themes and Sub-themes regarding Faculty Perspectives about Pain Management Content in Pre-Licensure Baccalaureate Nursing Programs

Theme 1	Basic education about pain content
Sub-theme	1A. Controversy about pain assessment
Sub-theme	1B. Complementary and Alternative (CAM)
Sub-theme	1C. Perceived lack of teaching resources
Theme 2	Pain Relief rather than the opioid crisis
Theme 3	The paradigm shift regarding opioids

Discussion of the Findings

Qualitative content analysis revealed that participants' perspective about teaching pain content is heavily influenced by their own educational preparation and experience as educators and clinical practitioners rather than by the current opioid crisis. Participants' experiences with patients and inadequate pain relief were central themes that transected all three of the research question concepts of experience, perception and practice. Many of the participants described pivotal and emotional experiences in their early practice that influenced their perception about pain and pain management education. These early experiences continued to guide teaching practice well after the initial experience and into the present time of a documented and well publicized opioid crisis. The experience of caring for patients with unrelieved pain was an influencing factor in both the clinical and academic practice of the participants.

The perception that the nursing curriculum is overloaded and that there is not enough time or resources to increase or develop pain content education contributes to faculty's perceptions about barriers to teaching pain content. Participants described their primary concern was teaching students how to provide pain relief to patients. Participants were aware and reported current knowledge about the opioid crisis, but the findings of this study suggest that they view the opioid crisis as distinct from the problem of adequate pain relief and pain management. The study also found that the view of faculty about the opioid crisis is a view that the opioid crisis is a problem of illicit use rather than a problem for patients with legitimate pain. In other words, faculty perspectives suggest that the current opioid crisis was not caused by patients with legitimate pain, but rather by illicit users of street drugs. Participants in this study frequently

described concerns about the possible negative implications of the current opioid crisis on patients, especially patients with chronic or persistent pain.

The lack of consensus among many in healthcare about the very definition of pain was of concern to participants. The recent Joint Commission (2016) statement about pain not being the fifth vital sign was viewed as particularly confusing and added another layer of complexity to teaching pain management. The changing paradigm of pain management in the context of the current opioid crisis was viewed by participants as not influencing their teaching practice because their primary focus was to teach students how to assess pain and avoid the undertreatment of pain. The findings suggest that participants perceive that a balance is needed between concerns about the risks of opioids and the need to provide pain relief for patients. However, participants in this study acknowledged that this is not knowledge that is present in current curricula.

Despite the ongoing opioid epidemic, the study found that teaching practice had not changed. As one participant stated she had not changed her teaching because she did not know how to change it. This participant summed up the state of pain management education as being something that everyone is talking about yet little is being done to change nursing curriculum to include teaching and learning about pain management in the current social climate of growing concern about the use of opioids. The findings in the study indicate that pain management education in the nursing curriculum is at a basic level and education about the opioid crisis is not explicitly or uniformly integrated into nursing curricula. These findings suggest that there is an urgent need to integrate current evidence based guidelines about pain management and practices into the nursing curriculum.

Theme 1: Basic Education about Pain Content

Participants consistently reported that pain content is presented at a basic level, in their respective programs. Participants reflected that there were many variables that influenced the delivery of content but the main barrier to providing in depth pain content education was the lack of time in an already dense curriculum. The findings of the study indicate that pain management education in nursing curriculum is at a basic level and education about the opioid crisis is not explicitly or uniformly integrated into nursing curricula. Faculty teaching pain content described being constrained by time and curriculum design. The undertreatment of pain was a foundational experience that influenced teaching practice for participants. On the surface, it appeared that participants' experience teaching pain management were aligned with both Knowles' (1984) conceptualization of adult learning and Benner's (2001) conceptualization of experiential learning. Participants acknowledged teaching what the students need to know to pass the licensure exam and this is a factor in adult learning theory; however, building on knowledge by scaffolding information or using previous experience to build on knowledge was not reflected in the data. Likewise, the study found that faculty teach the basics of pain management with a focus on pain assessment. The idea of teaching the basics aligns with Benner's theory (2001) of novice to expert development; however, the data revealed that rather than evolve from the novice level, students at the end of their program are still at the novice level and will need considerable time in the nursing role before they become competent in pain management.

Participants' experiences also reflected that they used their own knowledge based on clinical experience to teach pain management. A seminal experience for participants

was caring for a patient with pain that was not addressed or believed. Many participants described multiple encounters of caring for patients with unrelieved or unbelievably pain. These past experiences were described by the participants as profoundly moving emotional experiences, and the source of ethical and moral conflict. Participants reported focusing on teaching pain assessment skills as their primary educational goal. These participants would be considered proficient or expert clinicians according to Benner's (1984) theory because of their clinical experience and length of clinical experience. Yet, many faculty described working with other faculty members who had little or no experience as clinicians. Participants described learning pain management through experiential learning rather than formal training in the topic. This finding points to a gap in the professional development of academic educators regarding continuing education in pain management.

Sub-theme 1A: Controversy about pain assessment. The lack of consensus among many in healthcare about the very definition of pain was of concern to participants. The recent Joint Commission (2016) statement about pain not being the fifth vital sign was viewed as particularly confusing and added another layer of complexity to pain management teaching. The changing paradigm of pain management in the context of the current opioid crisis was viewed by participants as not influencing their teaching practice because their primary focus was to teach students how to assess pain and avoid the undertreatment of pain. The findings suggest that participants perceive that a balance is needed between concerns about the risks of opioids and the need to provide pain relief for patients. However, participants in this study acknowledged that this is not knowledge that is present in current curriculum.

Sub-theme 1B: Complementary and alternative therapy (CAM). Participants described barriers to introducing adjuvant therapies in the clinical setting. Despite the ongoing opioid epidemic, the study found that teaching practice had not changed. As one participant stated, she had not changed her teaching because she did not know how to change it. This participant summed up the state of pain management education as being something that everyone is talking about; yet, little is being done to change nursing curriculum to include teaching and learning about pain management in the current social climate of growing concern about the use of opioids. The findings in the current study indicate that pain management education in nursing curriculum is at a basic level and education about the opioid crisis is not uniformly integrated into nursing curricula. This finding suggests that there is an urgent need to integrate current evidence based guidelines about pain management and practices into nursing curriculum.

Sub-theme 1C: Perceived lack of teaching resources. An additional perception that emerged in the study was that participants felt that there were not enough resources to teach pain management content. This was a surprising finding in light of all the media coverage on the opioid crisis, the CDC recommendations and the availability of content specific guidelines issued by nursing organizations such as ASPMN and the ANA (American Nurses Association & American Society for Pain Management Nursing, 2016). Participants mostly reported using a Medical-Surgical text book for teaching pain management. Two participants reported using websites. The implication about this perceived lack of resources may speak to a lack of specific resources that could be readily adapted to fit within an already dense nursing curriculum. An overloaded curriculum and the drive to achieve passing scores on the NCLEX exam may have influenced the

perceptions of faculty about the availability of teaching resources. The time constraints that faculty describe preclude devoting additional content to current curriculum. In addition, participants described teaching multiple courses across curriculum that left little time to further their own education about how to teach pain management content.

Theme 2: Pain Relief rather than the Opioid Crisis

The participants' perspective about teaching pain content is more heavily influenced by their own educational preparation and past experience as educators and clinical practitioners than by the current opioid crisis. Participants' experiences with patients and inadequate pain relief were central themes that transected all three of the research question concepts of experience, perception and practice. Many of the participants described pivotal and emotional experiences in their early practice that influenced their perception about pain and pain management education. These early experiences continued to guide teaching practice well after the initial experience and into the present time of a documented and well publicized opioid crisis. The experience of caring for patients with unrelieved pain was an influencing factor in both the clinical and academic practice of the participants. Many participants used vignettes or clinical exemplars to teach about pain content but many of these exemplars focused on unrelieved pain.

Theme 3: The Paradigm Shift regarding Opioids

The changing paradigm of pain management in the context of the current opioid crisis was viewed by participants as not influencing their teaching practice because their primary focus was to teach students how to assess pain and how to avoid the undertreatment of pain. Further, while participants were aware and reported knowledge

about the opioid crisis, the findings of this study suggest that participants view the opioid crisis as distinct from the problems of adequate pain relief and management and this view may inform their teaching. The study also indicated that faculty view the opioid crisis as a problem of illicit drug use rather than as a problem for patients with legitimate pain.

The findings suggest that participants perceive that a balance is needed between concerns about the risks of opioids and the need to provide pain relief for patients. However, participants in this study acknowledged that this is not knowledge that is present in current curricula. Despite the ongoing opioid epidemic, the study found that teaching practice had not changed. As one participant stated she had not changed her teaching because she did not know how to change it. This participant summed up the state of pain management education as being something that everyone is talking about yet little is being done to change nursing curriculum to include teaching and learning about pain management in the current social climate of growing concern about the use of opioids. The findings of this study indicate that pain management education in nursing curriculum is at a basic level and education about the opioid crisis is not explicitly or uniformly integrated into nursing curricula. The findings of this study point to an urgent need to integrate current evidence based guidelines about pain management and practices into nursing curriculum.

Unexpected Study Findings

During the course of data collection many participants queried the investigator about future plans and work in the area of pain management education. Participants in this study spontaneously suggested strategies that could improve pain content education in nursing curricula. Most of the suggestions concerned structuring and scaffolding pain

content in courses as students' progress through their programs. Participants voiced the desire to improve pain education but also reported that the barriers of time and curriculum overload prevented a comprehensive approach to teaching pain content. One participant suggested that what is needed is a short, structured modular format that could be incorporated into every undergraduate nursing course.

Discussion of the Findings in Relation to the Literature Review

The literature review revealed that there were few studies that focused on the perspective of faculty and teaching pain content. Most studies focused on the knowledge and attitudes of students about pain management (Briggs, 2010; Carr et al., 2016; Chuk, 2002; Duke et al., 2013; Goodrich, 2006; Lash, 2008). The literature review supported the need to improve education about pain content (Costello et al., 2016; Duke et al., 2013; Herr et al., 2015), to correct misconceptions about pharmacological therapeutic regimens (Hall, 2015) and that there was a great need to bridge theory and practice (Ferrell et al., 1992; Hickey et al., (2010). The findings of this study support the evidence presented in the literature review but also point to a growing need to include teaching about the opioid crisis into nursing curricula at the undergraduate level. The literature review revealed consistent concern about misconceptions about opioids and pain management, especially concerning the concepts of tolerance, dependence and addiction. Yet, this study also revealed that emerging evidence about the opioid crisis has not been explicitly integrated into nursing curricula.

The findings of this study support the need to improve the teaching of pain content in nursing curricula but the findings also suggest that the approach to changing the curriculum may need to focus on the primary concern of nursing as patient comfort.

Further, participants were not uniformly aware of current guidelines and resources to inform their teaching. The findings in this study indicate that the relief of pain for patients was the primary teaching concern of faculty and teaching about the opioid epidemic was secondary to that concern. This perspective may minimize the risks of harm from opioids and may not provide for the education of students to provide patient teaching about the use, benefits and risks of opioids. Faculty described being aware of the opioid epidemic but reported that they did not include this content in their teaching. In fact, participants reported that the opioid crisis was a problem of illicit drug use discrete from the use of opioids to treat pain. Voshall et al. (2013) studied nursing faculty and found knowledge deficits among nursing faculty about interventions for pain management and differentiating between dependence, tolerance and addiction. Studies included in the literature review pointed to knowledge deficits based on the use of the KASRP tool (Duke, Haas, Yarbrough, & Northam, 2013). The findings in this study seem to indicate that the concepts of opioid misuse and addiction are viewed by faculty as distinct from pain management. While the findings did support the evidence found in the nursing literature regarding a knowledge gap, the fact that these participants taught pain management as distinct from the opioid crisis was not found in the literature review. This points to a need to direct educational and research efforts about the science of pain management to faculty.

The literature review revealed that there were misconceptions about pain management, especially about pharmacological interventions. However, this study revealed that faculty view the current opioid epidemic as unrelated to the use of opioids to treat pain. Current research indicates that the risk of harm with the use of

opioids is much greater than previously thought (CDC, 2016; Katz, 2010). The findings of this study indicate that participants do not teach about the link between therapeutic opioid use and the potential for abuse, misuse and addiction. Current evidence based practice guidelines (Institute of Medicine, 2011) support the use of multi-modal pain regimens for pain relief; yet, few participants reported the use of these modalities in teaching practice, although many participants were supportive of alternative and complementary therapies. Multi-modal pain regimens and the use of alternative therapies could be the basis for a teaching intervention. This study also found that participants were not uniformly aware of current evidence based guidelines about pain management especially in the areas of opioid based therapeutic pain management regimens. The importance of integrating current evidence based guidelines into practice underscores the need for explicit and uniform education about opioids at the undergraduate level. The literature review also supported the need to identify misconceptions regarding opioid pain management regimens and this study found that participants felt constrained by time to teach only the basics. The participants' views pointed to a lack of time and resources to teach the complexity of pain management including risk mitigation strategies for opioid pain management regimens. In addition, most participants reported that they continued to teach that pain is a fifth vital sign, while acknowledging that this concept is controversial and not supported by many in healthcare (Joint Commission, 2016). The lack of consensus and conflicting views about the very definition of pain presented a dilemma for participants in teaching pain content.

The literature review supported the need to improve education for nursing students and indicated that there is also a need for innovative teaching strategies

(Romero-Hall, 2015) in order for students to engage in deep and meaningful learning. This study found that the primary teaching methodology was the use of lecture based methodology and the use of a Medical-Surgical text book as the main reference and resource for teaching pain content. The findings of this study indicate that the reason for the reliance on lecture to teach are related to the barriers created by an overloaded curriculum and the constraints of preparing to students for the licensure exam.

Assumptions

An underlying assumption of the study was that pain content was threaded through nursing curricula at the undergraduate level, and the study does support that faculty do include pain content teaching in many courses. However, this study found little evidence to support that pain content is threaded through nursing courses in a meaningful way that scaffolded knowledge or built on knowledge from prior courses. The findings of the study indicated that pain may be covered in each course but not in a structured way or in a way that scaffolds knowledge. An additional underlying assumption was that the current social context of the opioid crisis in this country requires the provision of education about pain management and opioid therapy to students in undergraduate pre-licensure programs and that current nursing curriculum does not address this need. This assumption was supported by the findings of this study, as participants did not describe teaching content specific to the opioid crisis.

Limitations

The current study explored the perspectives of nursing faculty who taught pain management at the undergraduate level, and therefore the perception of those who teach at other levels was not explored. The study sample was also limited to faculty participants

who were identified as non-administrative faculty. Faculty who had dual responsibilities in both teaching and administrative roles were included in the study. As additional faculty may teach pain content, it is possible that the investigator did not capture a full picture of any given curriculum. As the research questions sought to examine and describe the experience and perceptions of faculty, the study was a qualitative descriptive study that used purposive sampling. A two-prong snowball approach to purposive sampling was used. Participants were recruited through two primary mechanisms, an announcement on a private list server and by contacting potential participants through public information that was available on the websites of schools of nursing. This approach may have resulted in a biased sample, as by definition, subscribers to the list server had a particular interest in pain management.

An additional limitation of the study was the small sample size. The sample size was 17 participants. Sample size was determined by the recognition of data saturation. No predetermined sample size was established prior to beginning data collection. Instead, the investigator used the concept of data saturation to determine sample size. Data saturation is considered to be the point in data collection when no new data (thematic information) emerges (Patton, 2015; Polit & Beck, 2018). Data saturation was initially recognized with 13 participant interviews but four additional interviews were conducted to confirm data saturation. The study also had geographical limitations because it took place in the Northeast and Central and Lower Atlantic States. The initial geographic focus included the states of Connecticut, New York and New Jersey. As data collection progressed, participants from other states were included in the study.

The study was also limited by a homogenous sample. All participants were white and only one male was included in the sample. Furthermore, the sample was purposive and included a recruiting announcement on a private list server dedicated to nursing professionals interested in pain management; therefore, there was a potential for bias as those who chose to participate may have had a special interest in the topic and may not be representative of the general faculty population. In addition, the primary investigator has prior experience in pain management and education and although every effort was made to bracket that personal knowledge and experience, it is possible that investigator's own experience may be a limitation in the study. The majority of participants in this study were over the age of 45 and 9 of the participants were between the ages of 55-75; therefore, the findings may not capture a full picture of younger faculty.

Implication for Practice

The findings of this study indicate that faculty perceive pain relief as the chief concern of nursing education and that the opioid epidemic or crisis is an important but secondary and distinct concern. Many participants had clinical experience during a time when pain was poorly controlled for patients and participants had no wish to return to those days. Faculty perceived their primary role as nurse educators as teaching the next generation of nurses how to provide ethical and competent care for patients and this includes the professional obligation of relieving pain. In order to improve the state of the science of pain education, curricular change initiatives that include the professional and ethical obligations of the nurse to provide competent care may be more successful.

The findings of this study indicate that faculty perceived the current opioid crisis as separate from legitimate pain management and a potential negative factor for the

treatment of patients with pain. This finding suggests that there is a need to provide education about the relationship between the therapeutic use of opioid regimens and the potential for abuse, misuse and addiction. The paradigm change in pain management is well documented in the literature but for those (including faculty) who work with patients, the priority is still pain relief. Bridging the gap between theory and practice is critical to improving the state of pain management education science. Participants identified barriers to improving education about pain management including a lack of time to teach the content, curricular overload and a lack of time for faculty to further their own education about pain management education or the science of pain management. One of the participants captured the essence of the dilemma by saying that educators and students are “jaded” by the constant media reporting on the opioid crisis. The media reporting of the opioid crisis focuses on illicit use while faculty are exposed to the realities of patient suffering in the clinical setting.

Guidelines and resources exist that could be used to improve pain education in the undergraduate nursing curriculum. Incorporating the ASPMN (2017) *Pain Management Nursing: Scope and Standards of Practice* into undergraduate nursing curricula could advance the science of nursing by providing a comprehensive view of the role of the nurse in both relieving pain and preventing harm from the use of opioid pain regimens. In addition, using existing resources such as St. Marie’s (2010) text book on Pain Management Nursing may provide a way to educate students consistently, explicitly and uniformly throughout their programs. Further, a new edition of the *Core Curriculum for Pain Management Nursing* has been published in 2017 (ASPMN, 2017). This resource provides a structured, explicit and comprehensive guide to pain management nursing and

includes specific coverage about opioids, substance use disorders and pain. This text could be a foundational resource that academic nurse educators could use in foundational courses up to senior level courses.

An important strategy to improving pain education at the undergraduate level is the examination and design of nursing curricula to ensure alignment with the QSEN competencies (Cronenwett et al., 2008). The QSEN competencies provide a map for ensuring that nursing curricula are evidence-based. Curricular redesign is a time and labor intensive strategy but examining individual courses within a particular program could be achieved by ongoing evaluation by the faculty charged with teaching those courses. Providing faculty with information about the QSEN competencies and ongoing education about how to implement them into current courses could help improve the state of the science of nursing education. Furthermore, scaffolding knowledge and building on content from course to course is essential to providing students with the knowledge and skills necessary for entry into practice. It is critical that nursing programs engage in reviewing courses from the paradigm of scaffolding knowledge to promote both cognitive and skill development.

The findings of this study indicate that in order to improve pain content education in the context of a current opioid epidemic, faculty need to be provided with the time and resources to engage in educational activities to optimally provide current evidence based teaching to students. Nursing faculty need to be provided with the time and financial support to develop their teaching practices about pain management education. While there has been an initiative by the AACN (AACN, 2016) to improve education for

students preparing for Advanced Practice (APRN) roles, this study indicates a great need to support undergraduate baccalaureate faculty to improve pain education.

The findings of this study also indicate that one of greatest barriers to effective teaching are the constraints of an overloaded curriculum. Faculty by necessity resort to teaching in a way that maximizes their use of time and this is a barrier to implementing teaching and learning strategies that support deep learning about complex topics such as pain management and the opioid crisis. Furthermore, the lack of time and resources prevent faculty from learning and developing the skills to teach with innovative learning strategies.

Suggestions for Further Research

The findings of this study point to a need to improve pain management content to reflect current evidence based guidelines in the undergraduate curriculum specifically in the context of the current opioid epidemic. Further study that includes research designs that are interventional and incorporate active student centered learning activities to promote deeper learning about the complexities of pain management are needed to improve curricular content about opioids and pain management at the undergraduate level. An intervention study may be the next step to improving the state of the science of pain management education.

This was a small qualitative descriptive study and a larger study with greater diversity in the sample is needed to further explore the faculty perspective about pain management education. Although this study included participants from 15 schools of nursing and included a wide geographic area, a national study may further inform the science of nursing education regarding pain management. The concept of the opioid crisis

as separate from pain management is an area of research that needs further exploration. The perception among faculty that there are not enough resources available to teach pain management content is another area that needs to be explored and an intervention study may be needed in this area. The science of pain management is changing and more research is needed to develop this field of study within nursing, especially in the area of alternatives to opioid regimens and complementary and alternative therapies.

The call to improve pain management education and address the opioid crisis has been long but the consequences of the current opioid crisis point to an urgent need to improve education and research about pain management science and education for faculty in undergraduate pre-licensure baccalaureate programs. Zalon's (1995) call for a pedagogically sound approach to pain management education is as relevant today as it was over 20 years ago. An approach that balances the role of nursing in providing patients pain relief and preventing harm through education about the risks of opioids may address some of the ethical concerns of educators. A pedagogically sound approach would also need to include innovative teaching-learning strategies that are student centered (Aljezawi & Albashtawy, 2015; Hall, 2015), recognize students as adult learners (Knowles, 1984) and incorporate the principles of student growth from novice to expert (Benner, 2012). Further research is needed that explores how to improve access for faculty to evidence based guidelines about teaching pain management.

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Appendix A: Permission to Post to List Server

From: ASPMN [<mailto:ASPMN@kellencompany.com>]
Sent: Wednesday, March 01, 2017 12:23 PM
To: Campbell, Eileen B.
Subject: RE: Query

Good morning Eileen,

I have received confirmation that you can post an announcement on the ASPMN®/APS Nursing List Serve. When you have it ready, just send the post to APSNursingSIG@listserve.com from the email address that you subscribed with.

If I can assist with anything else, please let me know.

Thank you and have a wonderful day.

Candice Miller
Staff Associate

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www.aspmn.org

Appendix B: Announcement on List Server

I am working on a doctorate in Nursing Education and as part of my studies, I am doing a qualitative research study about the perceptions, experiences and practices of nursing faculty teaching pain management in pre-licensure undergraduate Baccalaureate nursing programs. If you are a nursing faculty member and are interested in participating in my study please email me directly at campbelle@wcsu.edu.

Many thanks,
Eileen Campbell, APRN, ACNS-BC

Appendix C: Letter of Information

Dear Undergraduate Nursing Faculty Member,

My name is Eileen Campbell and I am currently a doctoral student pursuing an Ed.D in Nursing Education at Western Connecticut State University (WCSU) in Danbury, CT. As part of the requirements for the doctorate in Nursing Education, I am conducting a qualitative research study on “The Perceptions, Experiences and Practices of Nursing Faculty Teaching Pain Management Content to Pre-Licensure Undergraduate Baccalaureate Nursing Students”. I am recruiting nursing faculty who teach pain content in undergraduate baccalaureate nursing programs. The study will focus on faculty perceptions, experiences and practices about teaching pain management content.

Participation in the study will involve 30 to 60 minute audio-recorded interview with me, the researcher, at a location that is convenient to you, outside of your workplace. If you prefer an audio video conference call this can also be arranged. You will be asked to describe your perceptions, experiences and practices about teaching pain management content to undergraduate baccalaureate nursing students.

You have been selected as a potential study participant because my sample includes undergraduate nursing faculty in pre-licensure baccalaureate nursing programs. If you do not teach pain content to undergraduate students, I would appreciate it if you would forward this email to any undergraduate nursing faculty in CT, NY or NJ that you believe may be interested in participating.

Participation is entirely voluntary and informed consent is attached for your review. A copy of the informed consent will be signed at our meeting and I will provide you with a copy of the signed informed consent. If you are only available for interview by phone or video conference I will mail you the informed consent materials and a postage paid envelope to return them to me. Participants have the option to withdraw from the study at any time. If you choose to withdraw from the study after data have been collected, all data including audiotapes will be destroyed. If you have any questions about your rights as a research participant, please contact the Institutional Review Board at Western Connecticut State University at irb@wcsu.edu.

Confidentiality will be maintained at all times. Your name will not be used on any forms or submissions. You will be assigned a code and a pseudonym that will be used when reporting data. I will ensure that there are no clues to your identity in the dissertation. Any quotes used in the dissertation will use a pseudonym. Any demographic data collected will be reported in the aggregate only, without any potentially personal identifying information. All materials related to data collection will be stored in a secure location, in a locked filing cabinet that only the researcher has access to.

The data will be kept confidential and secured for the duration of the study. On completion of the dissertation, the data will be securely retained for a further three years and then destroyed.

I do not anticipate any negative consequences of participation in this study, other than the potential inconvenience of participating in a personal interview. While there may be no direct benefit to you personally by participating in the study, I hope to inform and advance the state of the science of nursing education by studying the perceptions, experiences and practice of faculty teaching pain management content in pre-licensure Baccalaureate nursing programs.

If you would like to be included in this study please email me at campbelle@wcsu.edu or call me directly (203) 837-8558. Please feel free to contact me with any additional questions or concerns.

Sincerely,

Eileen Campbell

Eileen Campbell, MSN, APRN, ACNS-BC, CNS-CP
Doctoral Student, Nursing Ed.D Program
Western Connecticut State University

Appendix D: Flyer

*****Attention Nursing Faculty*****



***Are you teaching undergraduate Baccalaureate nursing students?**

****Do you include pain management content in your teaching?**

*****Are you willing to share your perceptions, experiences, and practices with a doctoral student in a confidential interview that should last 30-60 minutes?**

If yes to all of the above,

Please contact:

Eileen Campbell, MSN, APRN, ACNS-BC

campbelle@wcsu.edu

Appendix E: Demographic Data Tool

Demographic Data Tool

Pseudonym for Faculty Member: _____

Date of Interview: _____ Location of Interview: _____

Age: _____ Gender: _____ Race/Ethnicity _____

Highest
Degree: _____ Certification: _____

How long have you been teaching? _____

How long have you been a Registered Nurse? _____

Are you working in a clinical setting in addition to your academic position? _____

If yes, please describe the setting _____

How many courses do you teach? _____

How many include pain content? _____

Appendix F: Interview Guide

My name is Eileen Campbell and I am a doctoral student in nursing education at Western Connecticut State University. My dissertation topic is on the experiences, perceptions and practices of nursing faculty teaching pain management content in undergraduate Baccalaureate nursing programs. I am interviewing you today to describe your experiences, perceptions and practices about teaching pain management content.

The first four questions are general questions about your academic and nursing experience. The main question is followed by questions that relate specifically to the main research question. As indicated in the consent letter, this interview will be audio recorded and then transcribed. I will start audio recording now. If you wish me to stop or pause recording at any point, please raise your hand or let me know verbally.

Part 1: Demographic

1. How long have you been teaching?
2. What is your area of specialty?
3. What do you currently teach?
4. Have you taken any continuing education about pain management?

Part 2: Main question:

What are your experiences, perceptions, and practices about teaching pain management content?

Part 3: Experiences

1. Please describe your overall experiences in teaching pain management content?

2. Is there any particular experience that stands out or is particularly memorable for you?
3. Do you have any experiences about teaching about pain management regimens that include opioids?

Part 4: Perceptions

1. What are some of your perceptions about teaching pain management teaching?
2. Have your perceptions changed in the past five years?
3. What are your perceptions regarding pain management regimens that include opioids?

Part 5: Practices

1. Do you teach in the clinical and classroom setting?
2. What do you base your teaching on?
3. Do you use any specific guidelines?
4. Do you use any content specific to pain management, text-books, research articles or other material?

HUMAN SUBJECT REVIEW FORM A: CONSENT FORM

Consent Form

Title of Study: The Experiences, Perceptions and Practices of Faculty Teaching Pain Management

I have been asked to participate in a qualitative research study describing the experiences, perception and practices of nursing faculty teaching pain management content to undergraduate nursing students in pre-licensure undergraduate baccalaureate nursing programs. The purpose of the study is to describe and explore the current state of the education science regarding teaching pain management content from the perspective of nursing faculty.

This study is being conducted by Eileen Campbell, APRN, ACNS-BC, as partial fulfillment of the requirements for the Ed.D in Nursing Education at Western Connecticut State University. Eileen will be the sole interviewer and has explained that the interview will be confidential and occur in a setting that is agreeable to me. The recorded interview is expected to take approximately 30-60 minutes. The recorded interview will be transcribed and the transcripts will be kept in a secured area in the researcher's office to ensure confidentiality and privacy. I understand that I may be contacted after the initial interview to review the information in the transcript. Confidentiality will be assured through the use of only a pseudonym during data collection and analysis and no personal identifying information will be included or reported in the study.

I understand that my participation is entirely voluntary and I may stop/withdraw from the interview and study at any time without any negative consequence. If I decide to withdraw after data collection has been started then all the records, including audiotapes, regarding my participation will be destroyed. I understand that there will be no direct personal benefit to me for participating. I understand that the risk related to participating includes the inconvenience of participating in a personal interview.

I understand that a signed statement of informed consent is required of all participants in the study and my signature indicates that I voluntarily agree to the conditions of participation. I have received a copy of the informed consent form and have had all my questions and concerns addressed in satisfactory manner. I have been provided the phone number and email address to contact the researcher if I should have any further questions about the study.

This research project has been reviewed and approved by the WCSU Institutional Review Board. If you have questions concerning the rights of the subjects involved in research studies please contact the WCSU IRB Chair at irb@wcsu.edu and mention Protocol # 1617-134.

This study is valid until March 29, 2018

I agree to the following:

I have read and understand the above consent form and agree to participate in this study.

Signature

B: UNIVERSITY IRB APPROVAL

Wednesday, March 29, 2017 at 10:07 AM

Hello Eileen Campbell,

I am pleased to inform you that your I.R.B. protocol number 1617-134 has been approved by expedited review. This email is documentation of your official approval to start your research. If you need a copy of this official approval for funding purposes, please let me know oonorc@wcsu.edu. The WCSU I.R.B. wishes you the best with your research.

You have 1 year from the date of this email to complete your research; if you are still conducting that date, you will need to fill out a renewal application. When are you finished with your study please fill out and return via email a Termination/Completion Report (available here: <http://wcsu.edu/irb/forms.asp>) so we know your study is complete.

Finally – and most importantly! – we have recently learned that current BOR technology policies do *not* guarantee privacy of *any* info stored on work computers physically, remotely, or otherwise (i.e., laptop, Dropbox, etc.). As such, to maintain the truth of any anonymity or confidentiality promises you make to participants (consent form, for example), you will need to store all electronic data obtained from those human subjects on a system/computer/file *not* connected to any CSU system. It is your responsibility as the primary researcher to make sure personal data of participants remains securely private – something not guaranteed in the currently existing CSU system. *Rest assured, (because it's ridiculous to expect faculty to store work-related research on non-work-related systems and/or to conduct research where participants are not guaranteed anonymity/confidentiality), we are working to gain an exception for research purposes to this policy. But until then, it's technically and legally possible for anyone in the system office to access your participants' data at any time – without your consent or knowledge before doing so... which makes any guarantees made on research documents (e.g., consent forms) deceptive unless info is stored elsewhere.*

Thanks,
Jessica Eckstein, Ph.D.
Chair, Institutional Review Board
Western Connecticut State University
www.wcsu.edu/irb

Phone: 203-837-8470
Fax: 203-837-8905