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Walden University

College of Health Sciences

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Rebecca Day

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Walden University
2020

Abstract

Chronic Pain Management in the Primary Care Setting

by

Rebecca Ann Day

MS, Lincoln Memorial University, 2014

BS, Union College, 2012

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

May 2020

Abstract

Chronic pain is pain that lasts longer than 12 weeks, affects an individual physically in some mental or psychological way, influences an individual's job performance, and may create a social complication over time. Ensuring the best possible care for the patient's pain with the least possible complications is the responsibility of the health care provider, including nurse practitioners. Providing a clinical practice guideline (CPG) for the management of chronic pain in the primary care setting was the focus of this project. The comfort theory model was used as a framework for this project as well as the basis of nursing professional development regarding the management of chronic pain. The clinical guideline was shared with a local primary care practice in the rural south and presented to an expert panel made up of 4 participants for their review and approval to fully implement the guideline. The expert panel was comprised of 2 primary care providers, a pain management specialist and a medical doctor who specializes in older adults and medication. The AGREE II 23 item instrument and a qualitative process were used to evaluate the potential effectiveness of the CPG from the experts. The panel agreed that the CPG was soundly derived, based on latest research evidence, and is ready for implementation in a primary care clinic or office practice. Recommendations included the need for education at the practice level and an immediate implementation of the CPG. Potential positive social outcomes will be potentially realized by improved continuity of care, decreased adverse medication reactions, decreased use of opioid medications, increased compliance with patient medication regimen, and a stronger patient-provider relationship.

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Dedication

This project is dedicated to all the individuals who have suffered from colon cancer and have taken the time to encourage those patients who do not understand the importance of routine screening.

Acknowledgments

I would like to say thank you to my husband for all his encouragement during this process. Thank you for always believing in me, even when it meant not being able to go fishing because there was homework to do. Without you by my side, pushing me through the hard times, and praising me for even the smallest accomplishment I would not have made it through to the end.

I owe the greatest of gratitude to the Good Lord above, who gave me the strength and courage to continue even when the valley was deep. Without the Grace and Glory of our God I would not be where I am today.

Thank you to my family for always listening to me discuss the issue of chronic pain management, listened to my ideas and gave feedback whether it be positive or negative, and guiding me down the path to completion and success. Thank you, Charlene, Jobie, Felix, Brittany, Jennifer, Trae, Dylan, Winston, and Anniston for having faith in me even when I could not see the light at the end of the tunnel.

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Section 1: Nature of the Project

Introduction

Chronic pain is a growing concern among Americans, especially as individuals begin to live longer lives. According to the Centers for Disease Control and Management (2018), the average life expectancy for Americans is 78.6 years (Mortality in the United States, 2017, 2018). A decline in this number has been seen in the last 3 years, based on drug use, obesity, and illness, which, taken together, result in dying younger than projected (Khazan, 2018). Older individuals may have led a lifestyle during their younger years that causes additional compromise. Common causes of pain in older adults are related to arthritis, degenerative disc disease, peripheral vascular disorder, and osteoporosis (Peterson, 2010). Increased pain can affect several aspects of a person's life, including sleep, demeanor, attitude, self-help, and even the will to live. The purpose of this DNP project was to develop a clinical practice guideline (CPG) for the management of chronic pain in the primary care setting and present to the primary care practice's expert panel for approval.

Positive social change becomes possible when effectively managing chronic pain in the primary care setting. The CPG can potentially result in increased compliance of medication regimen, decreased adverse medication reactions, improvement in patient-provider relationship, decreased stress on the patient, increased control over controlled substances and assurance of patient compliance, and assurance that all individuals being treated for chronic pain will be treated identically when presenting to the clinic for care.

Chronic pain is pain that a person is affected by in some manner of physical, mental, or emotional strain that lasts more than 12 weeks (Acute vs. Chronic Pain, 2017). In the United States, chronic pain appointments account for 15% to 20% of office visits in the medical field (Treede et al., 2015). Upshur, Luckmann, and Savageau (2006) have shown that most practitioners do not believe sufficient training was received when dealing with chronic pain. Many providers fear the lack of training will be reflected through lower patient satisfaction (Upshur et al., 2006). When patients were asked their opinion about chronic pain management through primary care, the majority of patients reported decreased pain management because of the provider's focus on finding the underlying cause of the pain rather than treating the pain effectively (Upshur et al., 2006).

Chronic pain patients seek treatment from several provider types including primary care providers (PCPs) and tertiary providers such as pain management clinics. Because there is a shortage of tertiary clinics, the role of pain management is often defaulted back to the PCP, which is a preeminent gap in practice as many lack training to manage this challenging patient population (Peppin, Cheatle, Kirsh, & McCarberg, 2015; Upshur et al., 2006). Management of chronic pain is estimated to cost $560 to $600 billion in the United States annually, which includes health care costs and loss of individual productivity (Peppin et al., 2015). A large number of patients who seek management of chronic pain find the primary care setting to be substantial in achieving adequate pain relief due to the relationship that has been built over time; it has been reported by patients that the support and understanding of the PCP is essential as well as providing options for treatment in the management of pain (Dewar, Gregg, White, &

Lander, 2009). The positive interactions between the provider and the patient were noted to be a beneficial aspect of pain management.

In the practice that is the subject of this DNP project, more than 25% of the total enrollment of 563 patients had a chronic pain problem. These patients were typically referred to a pain management clinic that is more than 50 miles away from their homes. This may be a complication for some of the older population, which makes up approximately 18% or the 25% of chronic pain patients in the clinic, due to transportation or financial issues. Many of these patients do not follow through on the referral and instead rely on self-medication (sometimes illegally). Thus, the CPG was intended to improve the level of expertise in the PCP practice for the management of chronic pain that would preclude the need for referral and provide the patient with options that can help to reduce opioid dependency and to relieve the burden of pain. With the implementation of the CPG, the practice continues to serve the needs to those in the clinic in a more holistic manner, allowing the patients to receive care in a familiar setting with familiar staff, and provide for less need to find transportation to appointments, and extra cost for medications or visits that insurance may not deem medically necessary.

Purpose Statement

The purpose of this DNP project was to develop a CPG to manage chronic pain in the primary care setting and present it to the practice leadership for implementation in the primary care practice. Presently in this practice, management of the patient with chronic pain is dictated by past practice, experience, and habit, rather than by the latest published research evidence on what is effective treatment and what is not; this represents the most

significant gap in the primary care practice that served as the setting for the project. Reasons for the need for this guideline include patient comfort, financial reasoning for the patient, convenience of the patient, continuity of care, fewer medication interactions, and a decreased chance of medication error for the patient because all medications will be prescribed by the same provider. Thus, the practice-focused question that guided this DNP project was: Will a practice guideline that defines a plan of care for a patient with chronic pain who presents to a primary care practice be approved by a panel of experts for full implementation? When polled, a large majority of PCPs declared they did not feel adequate training was received to provide adequate pain management to individuals, resulting in sending patients an average of 50 miles or more to pain management clinics (Upshur, 2006). Patients who are referred a distance often do not follow up, which leads to a decrease in the management of the patient's pain, increased use of medications that are not prescribed to the patient that can cause adverse medication reactions, and an increase in accidental overdose occurrences (Van Dijk, et al., 2016). Without the follow up, the patient-specialist relationship is not established, leading to increased insecurity with the care plan provided by pain management. The CPG that was established for primary care settings outlined the regimen of medication and treatments that the patient is expected to undertake. Using nonpharmacologic methods such as physical therapy, aromatherapy, chiropractic, acupuncture, or cognitive behavioral therapy, there is the potential for positive social change by decreasing the number of individuals who are using opioid based medications for pain management (Hassett & Williams, 2011).

Nature of the Doctoral Project

The nature of the doctoral project was to develop a CPG, using peer-reviewed research studies developed within the past 5 to 7 years, that provides a practical approach to managing patients with chronic pain within a primary care setting. A comprehensive literature review was performed using several sources including peer-reviewed research studies using Medline and CINAHL. Selected evidence most relevant to the topic was used in the formulation of the guideline and is presented in Section 2.

The CPG for chronic pain management in the primary care setting was presented to a panel of several individuals at a primary care practice site and to an expert panel. These individuals included two nurse practitioners, three medical assistants, one receptionist, and a pain management specialist. The opinions of the panel were taken into consideration to revise the CPG resulting in changes that will create a better clinical experience for both the staff and the patients once the CPG is fully implemented. All changes that were recommended were reviewed by the panel with final approval for full implementation, which came from the nurse practitioners providing care for the patients. The CPG provided clinical staff as well as patients with a standard of care for individuals who present to the practice for the treatment of chronic pain. The CPG was established based on the recommendations of the Institute of Medicine (IOM, 2011), pertinent research and was evidence based. By providing a chronic pain management CPG to the PCP practice that is the subject of the DNP project, the practice is better able to manage these patients rather than simply referring them to a pain management clinic that is 50 miles away.

Significance

Pain management being performed in the primary care setting is a convenience for the patient as well as a clinical advantage for the provider. Inclusion of total patient care as far as the provider is concerned can decrease the risk of adverse events related to medication (MaSurveyMthias, et al., 2010). From the patient's perspective, increased comfort and decreased stress are important when receiving chronic pain management (Schram & Kohn, 2016). Managing chronic pain requires an agreement between the patient and the provider, as well as ensuring that the CPG is followed. Ensuring patient compliance with any type of requirements set forth by the PCP is imperative in the patient-client relationship, and to ensure there are no legal issues that arise with the prescribing process. Ensuring all patients who present for chronic pain management receive consistent use of the CPG is essential from the staff. Deviation from the CPG should be initiated only through the nurse practitioner caring for the patient and an explanation as to the variance from the CPG should be documented in the patient's chart (Rosenfeld & Shifman, 2010).

Sharing of the CPG will be available through local clinical settings in the area for use in other clinics as well. It will be important to ensure the CPG are current, and the most accurate evidence-based practice is used in the CPG. Methodology of ensuring that up-to-date information is given will be through continued education of chronic pain management, registration with the Drug Enforcement Agency (DEA) Task Force on Opiate Use and reviewing the information that is provided through this agency, following state and federal recommendations for chronic pain management, and attending

workshops and continued education seminars for chronic pain management. Any revisions to the CPG that are made based on best evidence will be presented to the clinics in the area that use the CPG to ensure the information is current.

Summary

Chronic pain management in the primary care setting is a controversial issue for some areas, even more in rural Kentucky. As a provider, it should be considered a responsibility to provide holistic care for a patient, which would include chronic pain. In rural Kentucky, the patients do not have ease of access to chronic pain management clinics. The timeline for a patient to obtain an appointment is usually a minimum of 6 months, and then requirements must be met before the patient is accepted into the practice. Situations that arise for the patient causing difficulty to attend chronic pain management clinic may include transportation, financial issues, and even trust issues with the provider. The ability for the PCP to ease some of these concerns for the patient should be taken into consideration.

The implementation of CPGs for chronic pain management in the primary care setting allowed a routine to be established for the clinic as well as the patients. Each patient was expected to comply with the established guidelines in the primary care setting for the continuation of chronic pain management in the primary care setting. Patients were first given the option to attend chronic pain management clinics, continue care at the primary care clinic, or discontinue to care for chronic pain. Once the decision was made, the patient was treated in the manner that was chosen. Compliance is a significant issue when looking at the treatment of chronic pain management in any setting. Within

the primary care setting, pain management is monitored closer to ensure there is no abuse of the system. The CPGs established the procedure that each patient was expected to abide by. Section 2 discusses the literature review performed to support the CPGs for chronic pain management in the primary care setting.

Section 2: Background and Context

Introduction

Chronic pain management in the primary care setting can be challenging for the provider as well as the patient and is the primary practice problem addressed in this DNP project. The practice-focused question that guided this DNP project was: Will a practice guideline that defines a plan of care for a patient with chronic pain who presents to a primary care practice be approved by a panel of experts for full implementation? Situations related to the patient include financial strain, time constraints, and compliance with medication regimen. From the provider's perspective, patient compliance, ensuring evidence-based practice was applied, and following state and federal recommendations for chronic pain management were key concepts. Guideline implementation assisted in ensuring these considerations were addressed with every patient who presents to the clinic for chronic pain management.

The purpose of the DNP project was to establish a CPG that will allow for continuing patient care in a setting that is comfortable for the patient, increases compliance with care, decreases the financial or personal stressors of the patient, decreases the risk of medication errors or adverse reactions from medication. Little consideration is taken into the personal life of the patient by outside caregivers due to the lack of personal connection with the patient. Thus, PCPs have the connection with the patients most of the time; as a result, the provider knows the patient, family, grandchildren, events in the life of the person, hardships, successes, trials, and even the desires for end of life care more than some family members may know. In this section, a

discussion of concepts, models, and theories for chronic pain management in the primary care setting using pharmacologic and alternative therapy, assessment, effective communication and Kolcaba's comfort theory will be presented.

Concepts, Models, and Theories

Nursing models are used as a basis for practice and the interactions with patients and family. Nursing practice is designed around a theory or model that pertains to the area of practice that is being studied or performed. Utilization of Kolcaba's Comfort Theory was the basis for the CPG in this project. Aspects of chronic pain management were used in the establishment of the CPG. Research evidence was presented in this section and is relative to the care of the patient with chronic pain was presented addressing the main concepts related to the management of chronic pain. Thus, the main components of the CPG emerged from this body of research evidence.

Chronic Pain Management

Chronic pain management is defined as symptomatic relief of pain having lasted longer than 12 weeks to the point which allows the individual to perform day to day activities as normal as possible. *Pain management* is not defined by the total relief of all pain as this may be an unrealistic goal. Methodologies of pain management include medications, physical therapy, medical procedures, complementary therapies, and lifestyle changes, and surgical options (Treede, et al., 2015). Understanding chronic pain is important when evaluating treatment methodologies. Understanding and approval of the care plan between the patient and provider will enhance the compliance throughout the process.

Cardarelli et al., (2017) conducted a quasi-experimental study on chronic pain management in the primary care setting in Appalachia. A chart review of 695 charts was performed to evaluate quality improvement tools used in eight clinics in eastern Appalachia. The findings of the study revealed an improvement in 10 of 16 practices among the clinics including drug screen testing and controlled substance contracts. Findings of the study exhibited standardization of work practices can improve the process for chronic pain management (Cardarelli et al., 2017). During the study, the Promoting Action on Research Implementation in Health Services (PARiSH) framework was used to provide guidance for team-based dynamics found to be proactive and productive (Cardarelli et al., 2017). An algorithm developed by American Pain Society guidelines was used to monitor for improvement potential in the clinical setting, using items for monitoring including risk assessment and urine drug screening (Cardarelli et al., 2017).

Assessment and Effective Communication

Pain assessment is easily performed through visualized pain scales using a scale of 1 to 10 or a variety of pain faces to correlate the level of pain, where 1 indicates no pain at all, and 10 represents the worst pain ever experienced. Health care providers should educate the patient there is no correct or incorrect answer when asked a level of pain, as pain is an individual concept. With the physical assessment of pain, it is important for the provider to understand that pain is what the person says it is when the person says it is (McCaffery & Beebe, 1989). Recognizing that not all person's experience pain in the same manner is an essential fact. Evaluation of the pain complaint is important for the provider to understand the personal limitations due to the increased

pain. The most common chronic pain complaints include back pain, joint pain, headaches, and fibromyalgia (Lamerato, et al., 2016). Assessment of the physical limitations, mental limitations, mood alterations, and psychological aspects of the individual are important when considering the methods of pain management.

Assessment of pain is based on the individual experiencing the pain, in that pain is what a person says it is and when he says it is (McCaffery & Beebe, 1989). Kumar and Tripathi (2014) evaluated the validity of the pain assessment tools. Comparisons were made using several tools including the FACES scale and the Numeric Rating Scale (NRS-11) as well as others. Kumar and Tripathi found the study showed limitations with the NSR-11 scale with children, otherwise a valid measurement tool for self-reporting pain. The use of the FACES for nonverbal or children was found to be a valid method of assessment in that the patient was able to report his pain with different faces related to a numerical value given to pain (Kumar & Tripathi, 2014).

The Joint Commission evaluates pain using screening versus assessment. Screening is merely asking the patient if he/she has pain and is answered with a yes or no question. On the other hand, assessment is the use of a tool to find more information about the location, quality, intensity, and other symptoms that are associated with the pain (Standards FAQ Details, 2018). Recommendations for pain management by The Joint Commission involved greater pain management through comprehensive pain assessment rather than screening for pain (Berry & Dahl, 2000).

Without reassessing pain there will be no advancement in the care plan, which may lead to relief of the pain and a better overall outlook for the patient. Reassessment of

the pain requires effective communication between the patient and the staff and provider. According to Cash and Glass (2017), primary care guidelines for the reassessment of pain including seeing the patient routinely every 4 to 6 weeks, ensuring the patient has access to the clinic via any method in case of questions or concerns. Each brief appointment should be scheduled on a regular visit, which allows the patient the perception of dependent care based on increase of symptoms (Cash & Glass, 2017).

Importance was placed on asking appropriate questions when facilitating pain management for the individual. Clark and Galati (2015) used the Patient Global Impression of Change instrument for the assessment of symptom change and adverse events through documentation of the frequency, duration, intensity, importance, and the impact of symptom and side effect of treatment on activities of daily living (ADL) (Clark & Galati, 2015). Ensuring the provider is aware of the reassessment of pain is an important aspect for the office staff as well.

Communication between the provider, staff, and patient and/or family is essential to ensure the patient has a control on the chronic pain issue. Effective communication between health care providers and patient/family have shown to increase patient satisfaction as well as decrease the likelihood of malpractice actions. Patient centered communication goals include understanding the patient's needs, perspectives, and values as an individual, to give the patient/family adequate information about the care plan to independently provide the care discussed, and to build a trusting and lasting relationship between the provider and patient/family (Levinson, Lesser, & Epstein, 2010).

A 4-week study that was performed in Finland in 1996 used the Visual Analog Scale (VAS) among 28 providers to evaluate pain among patients presenting to the clinic with chronic pain. In this study, the provider routinely rated the patien's pain levels as less intense than the patient itself. Patients in the study with musculoskeletal pain expressed decreased satisfaction with the care for chronic pain received than patients with other chronic disorders. The greatest level of dissatisfaction came from patients complaining of chronic pain rated as moderate- or high-intensity pain. The researcherws concluded that the provider should accept the patient's identification of pain and intensity that is self-reported. Provider-patient communication is important for the provider to understand fully the patient's understanding of his/her level as well as cause of pain (Mantyselka, Kumpusalo, Ahonen, & Takala, 2001).

Contracting for pain management is a tool that has grown in popularity with the increased use of controlled substances, especially opioids, in chronic pain management. When contemplating methodoligies to increase the likelihood of patient compliance with controlled substances, a retrospective study showed medication compliance using contracting. Hariharan, Lamb, and Neuner (2007) targeted all patients in a primary care practice seeking chronic pain management (Hariharan, Lamb, & Neuner, 2007). During the study, patients were given the option to continue current treatment for chronic pain, decline further treatment, or transfer treatment to another provider. A contract was presented to the patient, explained by the provider, and signed by both stating the patient understands what is expected of him including random pill counts, urine drug screening, confirmatory testing by an outside facility if warranted by the provider, and utilization of

medications via the patient's five rights. The contract also stated there will be no use of illegal substances while under treatment. Information was obtained during a period of 5 years with the end results providing evidence that pain contracting does optimize medication adherence (Hariharan, Lamb, & Neuner, 2007).

Pharmacologic Strategies

Medications are an important and useful component of the chronic pain management treatment plan either alone or with other modalities. Medications for pain management can be broken down into several categories including non-steroidal anti-inflammatory drugs (NSAIDs), acetaminophen, COX-2 inhibitors (which are a type of NSAID that targets an enzyme responsible for inflammation and pain), anti-depressant/anti-seizure medications, and opioids (Sarzi-Puttini, et al., 2012). The choice of medication to be used for the patient's pain is primarily the decision of the provider. Patients need to understand that medications that may work for one person to relieve pain may not work for another person (Sarzi-Puttini, et al., 2012). Guidelines for pain management are useful when looking for options to consider with patients. It is important to remember that each prescription should be patient and condition specific.

When evaluating pharmacological interventions of medications other than opioids it is important to consider in that opioids should be used as a last resort medication due to the damaging aspects of this class of medication. In 2018, a meta-analysis was performed using various types of non-opioid medication for osteoarthritis pain in individuals including NSAID, COX-2 inhibitors, vitamin D supplement among others (Gregori et al., 2018). There were 47 random controlled trials (RCT) included in the meta-analysis. The

results showed that across all studies, Glucosamine Sulfate provided the greatest relief of pain symptoms for the patients. COX-2 inhibitors also provided some relief in symptoms, but the gastrointestinal side effects resulted in significant contraindication. NSAIDs were found to be the most widely used pharmacological intervention, but only moderate relief was found from the medication (Gregori et al., 2018).

When considering pharmacological options for pain management, individualization should be used to provide the best pain management with minimal adverse effects. Pharmacological options currently used in primary care practice include opioid and non-opioid medications. Nonopioid medications include NSAID, seratonin-norepinephrine reutake inhibitors (SNRIs), tri-cyclic antidepressants (TCAs), anticonvulsant, musculoskeletal agents, biologics, topicals, and anxiolytics. The medication regimen should be prescribed either independently or conjointly based on the greatest management of pain relief for the patient with the least adverse reactions or limitations to daily lifestyle (Greenhalg, Howick, & Maskrey, 2014).

Understanding the use of medications should be specific to the patient, provide the greatest pain management with the fewest adverse events, and be prescribed guided by the recommendations of the Pain Management Task Force (Pillastrini, et al.. 2012) as well as the AAFP. The CPG provided guidance that each patient will be evaluated for the medication that creates the desired outcome while using opioids as a last resort and in the lowest possible dose for the patient and for the shortest amount of time possible. Evaluation of recommendations for chronic opiate use for chronic pain, there is no recommendations for the length of use, but states the least possible dose should be used

for the least possible time period allowing for adequate pain for the patient (Dowell, Haegerich, & Chou, 2016).

Alternative Treatments

Alternative treatments may be used through aromatherapy, physical therapy, chiropractic, exercise therapy, cognitive management through self-help and self-management, behavioral modifications, and vocational rehabilitation (Turk, Wilson, & Cahana, 2011). Becker et al., (2017) conducted a multi-stakeholder qualitative study to analyze issues relating to patients and non-pharmocologic treatments. The use of these modalities in pain management have barriers, as most individuals are not familiar with the interventions, have lack of transportation, or financial restraints which would prevent the patient from attending the treatments (Becker, et al., 2017). Findings included the recognition that an increase in effective communication between the patient/family and the provider allows for a mutual understanding of the desired outcome as well as the importance of the alternative therapies.

Sherman et al. (2004) interviewed patients who have experienced chronic back pain. Patients in the study reported chiropractic and massage therapy were the most popular modalities used for chronic pain, rating massage as the most helpful. The researchers also found that individuals would be likely to try other modalities such as acupuncture if there was no out-of-pocket cost and if there was agreement with the PCP (Sherman, et al., 2004).

Group medical visits are also an option for patients to educate individuals about alternative methods. A study performed in 2016 involved patients who attended group

medical visits to learn about alternative therapies for at least six months. During the study, patients agreed to participate in physival activity weekly in alternative modalities such as yoga, tai chi, exercise class, chiropractice therapy, osteopathic treatment, or qi gong. Findings of the study revealed no increase in medication use for treatment, with 17 people decreasing the amount of pharmacologic use, and seven participants stopping medication assistance completely for the management of chronic pain (Mehl-Madrona, Mainguy, & Plummer, 2016)

Alternative therapies for chronic pain management may be used with or without phamacologic interventions. Ensuring the patient understands the purpose of the intervention, the length of treatment, the benefits of the alternative therapy, and a timeline for the review of the effects of the alternative therapy will be used in the CPG. Studies presented support the use of non-pharmacologic and alternative therapies for the use of chronic pain management (Sarzi-Puttini, et al., 2012; Turk, Wilson, & Cahana, 2011; Gregori, et al., 2018).

Comfort Theory

Concept model and theories are nursing representation of assumptions that arise from practice and are reproducible through research. Theory/models should be used as a guideline for the project, providing a basis standard for the direction of the project and desired outcome. Within the nursing theory/model, there are a set of standards or concepts that must be relevant to the project in question prior to the theory being used as a framework by the planner. If the agreement is not present between the concepts and the project, then the theory is not a good fit and another theory should be selected.

Kolcaba (2011) defined *comfort theory* as a framework that was used in the project. Kolcaba's theory deals with the holistic care of the patient, from physical to mental to emotional. Comfort theory is based on the nursing process and following a CPG to create a care plan for chronic pain management fits to this model. Comfort theory was developed after performing a concept analysis of comfort and found it is a positive concept that relates to other portions of a patient's life such as physical, psychospiritual, environmental, and emotional aspects (Kolcaba, 2006; Petiprin, 2016). Comfort theory is relevant to the project of chronic pain management in the primary care setting in that the project takes into consideration a care plan for the patient allowing for an increase in comfort for the patient. Ng (2017) associated Kolcaba's Comfort Theory to a case of a 49-year-old male with hepatocellular carcinoma, assessing the overall comfort of the patient including physical, mental, social, environmental, and psychospiritual comfort (Ng, 2017). Findings revealed interventions can be planned, discussed, and evaluated for outcomes allowing the greatest possible comfort for the patient with chronic pain (Ng, 2017).

Relevance to Nursing Practice

CPG used in primary care for chronic pain management include definition of pain, effective communication, alternative therapy, pharmacological interventions, assessment and re-assessment of pain on a routine basis while using Kolcaba's Comfort Theory for the improvement of the patient's overall condition both physically and mentally. With the establishment of the clinical guideline, there was uniform treatment of patients that present to the clinic for chronic pain management. It is important for both

the provider and the patient understand the goal is for the greatest pain relief with the least interruption in the day to day life of the individual.

Dealing with prolonged unrelieved pain can cause a decrease in the immune system of a patient due to activation of the pituitary-adrenal axis, leading to increased acute illness as well as prolonged wound healing for individuals. Psychologically, it can increase anxiety and depression, leading to an increased feeling of hopelessness for the patient (Wells, Pasero, & McCaffery, 2008). Inadequate pain management may also lead to the resistance of the patient to seek medical treatment for other conditions. Cases of legal action have also been brought against providers as well as nurses for inadequate management of pain in a timely manner (D'Arcy, 2005). Thus, the evidence clearly supports the role of the nurse practitioner as a PCP to assure that the patient's chronic pain is actively managed.

Reassessment of pain at each interaction is an important aspect of nursing process to ensure there has been an effective intervention (Crooks, 2002). Options for the re-evaluation of pain may be used through the numerical pain scale or using VAS and FACES scales (Crooks, 2002). Understanding of pain scale given as an answer to the reassessment of pain is important in that pain is a relevant factor to the patient as what the patient says it is when the patient says it is (Scott & McCracken, 2019).

Treatment of chronic pain can be challenging, especially for family practice. As providers, it is expected that we will treat the patient's pain adequately through the use of pharmacologic and non-pharmacologic means. At the same time, we are aware that opiate medications are being overprescribed and the rates of addiction are skyrocketing. Chronic

pain management in the primary care setting should be tailored to the needs of the patient, with a level of compassion and understanding as well (O'Connor, 2003).

Medication contracts are used within practices for individuals who have the possibility of receiving controlled substances. Most contracts contain basic information which includes information about the pharmacologic agent considered for treatment, routine, random and confirmatory drug screening, random pill counts, information concerning the possible addiction to opiate medications,having one provider to write controlled substnaces and one pharmacy to fill medication, and the consequences of non-adherence to the contract (Collen, 2009).

Compliance tends to increase when the patient as well as the provider are held responsible for the use of the medication. Jamison, et al. (2016) performed a prospective study concerning strict adherence to patient opioid use and misuse. The study resulted in higher compliance with opiate medications with the use of strict guidelines via controlled substance contract, monthly contact with the provider, and drug monitoring through the use of urine drug screening tools (Jamison,et al., 2016). Jamison et al. (2016) evaluated the chronic pain patient over the period of one year, with the patients having contact with the primary care practice monthly. During these meetings, the patient's level of pain was re-asssessed, interactions or reactions to the medication was addressed, assurance the patient was taking the medication in complaince with the five rights of patients and medication, the use of only one pharmacy for opiate medications, and ensuring the patient was not receiving opiates from multiple providers. One third of the participants stated the monthly contact with the office assisted in greater complaince, while 41% of

individuals in the study felt the monthly contact assisted in diverting future complications with medication. Providers in the study were also found to have a greater confidence in prescribing opiate medications for pain management (Jamison, Scanlan, Matthews, Jurcik, & Ross, 2016)

Local Background and Context

Implementation of CPG for chronic pain management in the primary care setting was important when looking at total patient care. Settings based in the local area of Appalachia are important to me as a practitioner as that is the area of practice I am located. Individuals practice patterns in this geographic area are scrutinized through DEA regulation and investigation due to increased deaths related to opioid medications. Counties in Southeastern Kentucky have high prescription rates of opiate medications. Educating patients about the risks of opioid addiction has personal importance to me as a provider. It is essential the patient understands the risks and benefits of any intervention that is recommended or prescribed, and as a practitioner it is my role to ensure the patient understands those risks and benefits.

The practicum setting was a primary care clinic in the area of Southeastern Kentucky that is very rural. There is a large concern in this area of opioid addiction and abuse. Rolheiser, Cordes, and Subramanian (2018) researched the opioid overdose and prescription rates across the United States. Findings of the study reveal the number of overdoses related to opiate medications rose in conjunction with the rise of opiate prescriptions being written (Rolheiser, Cordes, & Subramanian, 2018). The study also revealed most opiate medications were being prescribed in the southeastern states.

Kentucky's 5th congressional district consisting of Eastern and Southeastern regions of the state rated second highest in prescriptions with 147 prescriptions per 100 individuals (Rolheiser, Cordes, & Subramanian, 2018). In the clinical setting for this project, approximately 60% of 400 patients present to the clinic for management of chronic pain. The number of pain management clinics across the state was not adequate to keep up with the rising demand of chronic pain management. Pain management clinics within an hour of the clinic location number less than 25. Of those clinics, only 2 or 3 were accepting new patients and the wait time for a new patient appointment ranges from 1 to 6 months. There are other clinics across the state that specialize in pain management, but the drive for most of the patients was long, expensive, and the appointment is not at a time when the patient has available provisions for transportation.

Role of the DNP Student

As a DNP student, it is important to understand the role of a practitioner whose practice is guided by the evidence to provide the best possible care for the patient exposing the patient to the smallest number of adverse events and maximizing positive outcomes. As the DNP student, I served as the project leader in scrutinizing the literature to surface the research evidence and published a practice guideline that addressed chronic pain management. I developed an algorithmic approach to the management of chronic pain in primary care, identified an expert panel to review the CPG, and discussed the pros and cons of the CPG with the health care professionals on the panel as well as the implementation ramifications. Although actual use of the CPG is out of scope of the DNP project, ensuring the CPG addressed the chronic pain patients' need is paramount. Thus,

the patient must be educated on the options for chronic pain management, including the pros and cons of the options, and agree to a care plan. Reflecting on the options, ensuring all options are listed, described, discussed, and evaluated with the patient is essential for an educated decision to be made. The CPG will include all these components.

Summary

Chronic pain management in the primary care setting requires a deep understanding of the patient's personal situation as well as beneficial aspects of the care recommended. Establishing a connectivity between the DNP and the patient was essential, allowing for the trust factor to bloom between the DNP and the patient. Understanding the locale of Appalachia and southeastern Kentucky and the rural area that is served was important as the number of primary care clinics managing chronic pain is decreasing. The patient-provider relationship was essential in the decision-making process for the patient in order to establish an effective care plan. Reassessment of pain with each interaction was important when looking at the effectiveness of pain management interventions, and continuation or changing of a current care plan.

The chronic pain CPG for primary care included the following components: (a) Patients should be afforded the option of pharmacological as well as nonpharmacological options for treatment (Greenhalg, Howick, & Maskrey, 2014; Sarzi-Puttini, et al., 2012; Turk, Wilson, & Cahana, 2011; Gregori, et al., 2018); (b) Effective communication between the provider and patient/family is required (Kumar & Tripathi, 2014; Levinson, Lesser, & Epstein, 2010); (c) An environment that fosters open communication including but not limited to, contracting, patient education, and ongoing monitoring is a key

component (Hariharan, Lamb, and Neuner ,2007; Cardarelli, et al., 2017); and (e) Comfort theory provides the overarching framework for the overall care provided to the patient (Kolcaba 2011; Ng, 2017). A CPG was developed to allow for uniformity with patient care as well as a providing a detailed understanding of what is expected from the patient as well as the provider. The CPG included a patient education component during which information was available for the patient concerning modalities and options, contracting, drug screening with confirmatory testing, and consequences that will result with non-compliance of therapy during the treatment of chronic pain at the primary care setting.

Section 3: Collection and Analysis of Evidence

Introduction

Chronic pain management in the primary care setting is controversial today, especially in the Appalachian region due to increased drug abuse in this area. When working with primary care patients, it is important for the provider to understand that the patient expects to be managed in a holistic manner as much as possible. Demarzo et al. (2015) examined the overall health improvement when individuals were treated holistically in the primary care setting. The results revealed there was improvement in the overall mental health and quality of life in the patients (Demarzo et al., 2015). Patients in the area of Appalachia may have concerns with trust, transportation, finances, and comprehension dealing with medications. PCPs are typically aware of these concerns, and are able to assist the patients in most situations. Drug interactions are also a concern for primary care patients when a patient is referred out to a specialist for care. When the PCP provides holistic care of the patient, potential drug interactions and other concerns typically will be decreased (Mathias, et al., 2010).

Guideline for chronic pain management in the primary care setting was essential to ensure that every patient and staff member understands the requirements and the regulations everyone involved in is expected to follow. Continuation of chronic pain management in the primary care setting is possible when ensuring the guidelines are followed. Carderelli et al. (2017) performed a study of PCPs who are treating chronic pain among patients in the practice.. Findings reveal the patient is comfortable with the

PCP, is more likely to follow the medication regimen set before them, and feels more confident in the care that is received (Cardarelli, et al., 2017).

This section of the paper provides a comprehensive overview of the method I used to formalize the CPG to provide it to an expert panel for their review, reaction, and recommendations for implementation. I will discuss the published outcomes and research, evidence generated for the doctoral project, who is involved in the process and the roles of the individuals, procedures involved in the guidelines, and the positive social change that is the outcome of the project.

Practice-Focused Question

The practice-focused question guiding the DNP project was: Will a practice guideline that defines a plan of care for a patient with chronic pain who presents to a primary care practice be approved by a panel of experts for full implementation? When considering pain management in the area of Appalachia, a major concern is the addiction and abuse of opioid medications. Using a CPG for the management of chronic pain in the primary care setting will provide a roadmap for the patients and staff during the process. The positive social outcome that was expected to arise from the implementation of guidelines included decreased abuse of controlled substances especially opioids by the primary care setting, increased confidence in the PCP, decreased drug interactions or side effects for the patient, and overall improvement of the symptoms of the patient.

Sources of Evidence

The development of a chronic pain CPG for use in the primary care setting in rural Appalachia Kentucky came about using resources from the academic, peer-

reviewed research body of evidence. The community need was identified based on number of patients needing chronic pain management and the amount of time needed to obtain an appointment with chronic pain management clinics, which are also located geographically distant from many patients in the rural Appalachia areas. This section will provide detailed information on the method used to compile evidence in support of the CPG, as well as its evaluation.

Published Outcomes and Research

Clinical trials and studies were used as the basis of evidence for the guidelines. Several studies were performed in the region of the country where this project will take place, and findings were consistent. Ernstzen, Louw, and Hilliero (2017); Manchikanti et al., (2013); McCann et al. (2018); and Peppin et al. (2015) are four of the studies that were reviewed and applied to the formation of the CPG for chronic pain management in the primary care setting developed for a rural primary care in Kentucky. Evidence obtained from the studies were instrumental in the formation of the guidelines.

A comprehensive and thorough review of the literature was performed using several databases including MedPlus, Cinahl, Medline, ProQuest, PubMed, Google Scholar, and Cochrane. Key words used included *primary care, chronic pain, management of chronic pain, practice guidelines, complications with pain management, Appalachia, reasons for non-compliance, recommendations of DEA for pain management and opioid use, recommendations of CDC for opioid use and prescribing, pharmaceutical and non-pharmaceutical recommendations for chronic pain management, medication concerns with controlled substances, physical therapy*

recommendations for chronic pain management, systemic review and *meta-analysis*. Peer-reviewed articles published between in the last 10 years were included in the literature review.

Evidence Generated for the Doctoral Project

This section will provide an overview of the way in which the CPG was reviewed by the expert panel and the way consensus and agreement among the experts was compiled. In addition, I discuss how the CPG was presented to the nurse practitioner run clinic that provides the setting for the DNP. Finally, I present a method for compiling recommendations from both the expert panel and the site as to full implementation.

Participants. Participants for the project included an expert panel of two nurse practitioners who focus on primary care, a nurse practitioner who specializes in pain management, a physician who specializes in care of the geriatric patient, as well as a physician who specializes in pain management. A second group of participants involved in the DNP project was the clinical staff at the clinic site. This group consisted of two medical assistants (MA) and one receptionist. One of the nurse practitioners on the expert panel is the owner/provider in the DNP practice project setting and serves both roles. An educational session was provided for each staff member which explained the responsibilities of each person throughout the guidelines. Once the information had been presented to the staff, a period of one week was be allotted to allow the staff to ask questions that arise. All questions were directed to the two clinical practitioners as well as the developer of the CPG.

Procedures. The fully developed CPG was presented to the members of the

expert panel. The chronic pain management CPG was based on the evidence from the literature summarized and evaluated based on the Fineout-Overholt, Melnyk, Stillwell, and Williamson (2010) framework (see Appendix A). The literature matrix was accompanied by a brief explanation of the CPG (see Appendix B).

The Appraisal of Guidelines for Research and Evaluation II (AGREE II) was the methodological framework used in the development of the CPG. Doniselli et al. (2018) performed a systematic review of eight CPGs developed to manage low back pain using the AGREE II tool and found after examining eight low back pain guidelines across the spectrum of care providers, all guidelines were considered improved from previous guidelines used (Cardarelli, et al., 2017). The AGREE II model posits to provide rigor in developing guidelines so that they are based on best evidence, so that they meet the needs of key stakeholders, and so that they are clear, applicable, and unbiased (Brouwers, et al., 2010). AGREE II is a tool used frequently to assist in the development of CPGs. AGREE II was composed of 23 questions which were divided into 6 categories. Each category involved an aspect of the CPG which range from the purpose of the guidelines to the applicability of the guidelines into practice (Brouwers, et al., 2010). The expert panel performed an assessment of the presentation using the AGREE II instrument, scoring to assess the likelihood of success of the CPG (see Appendix C). The AGREE II survey was administered through SurveyMonkey® to assist with the compiling of scores for the outcome of the presentation.

Materials related to the CPG were sent via email to the expert panel approximately 5 to 7 days prior to the deadline for the survey completion. Emails were

sent to the experts daily to remind them of the survey and the deadline for completion. Once the surveys were completed and the results were received, a face to face discussion was held to discuss the comments and suggestions concerning the CPG. An hour was allotted for this face to face meeting with lunch being provided for the panel. Prior to the discussion, the panel was informed the conversation will be recorded to ensure all suggestions and comments were conveyed in a word for word manner for consideration. Panel members who did not agree to the recording were asked to meet on a one on one basis later for the same purpose. Once completed, the comments, suggestions, and concerns were compiled anonymously, and the CPG was revised if deemed necessary.

As the DNP project manager, I provided an educational presentation (see Appendix D) of the CPG through handouts and power point presentation for the staff of the clinic where the CPG was implemented. The educational presentation provided background and explanation primarily regarding the roles of everyone at the clinic in implementing the CPG at the site. Once the presentation was completed, an open discussion took place to answer staff questions and to brainstorm solutions to any implementation barriers that they may have concerns about.

Protections. Protection of all individuals included in the project were guaranteed. No patient information was obtained throughout the project. Locations and name of the clinic remained protected throughout the project, and names of the individuals participating were revealed in any manner. As there was no institutional review board (IRB) at the site, all protections were secured through the Walden IRB, which was the IRB of record. I committed to adhering to the requirements in the Walden IRB manual

for CPG development. As such, the nurse practitioner and owner of the primary care site served as the DNP project setting, agreed to site the site approval consent.

Analysis and Synthesis

SurveyMonkey® is a software tool that was used to collect the AGREE II survey data. It allowed anonymity of the participants and provided complete lack of interference by an outside or influencing force as the site can only be accessed by the individuals who were sent requests to complete the survey. SurveyMonkey® compiled the results, providing descriptive statistics of the expert panel findings on the 23 items, to determine their overall agreement or disagreement on the chronic pain CPG. Each item was measured on a scale of 1 to 7, where 1 indicated no agreement and 7 indicated significant agreement to each statement. Thus, the scores had a potential to range from 23 to 161, higher scores indicated more significant agreement between experts. In addition to the data compiled through SurveyMonkey®, the discussion following the review of the CPG generated some debate on the expectations for implementation, and some discussion on implementation. Similarly, when the CPG was presented to the staff at the DNP project site, there was anticipation of barriers that they anticipate that need to be worked through. This qualitative data will also be summarized in Section 4.

Summary

Processing the CPGs for review and approval of the expert panel is the focus of this section. During the project, full anonymity was assured through no patient data being extracted, complete concealment of the names or staff and providers as well as clinics, no definitive location were named that would allow discovery of the locations, and no names

were applied to evaluations for identification. Only numbers were used for all staff and expert panel members to ensure anonymity.

The next section of this project provided the findings and the recommendations from the expert panel as well as the staff. Discussion of anticipated and unanticipated findings were brought to the forefront for discussion. Importance of the findings and the relationship to a positive social change were discussed. Recommendation from both groups were also be presented and discussed as to the affects for a positive social change and individual changes for the patients. Strengths and limitations of the project were examined as well as a personal reflection to me as a provider, scholar, and project manager. Connections between the CPG formation and my practice was reviewed. Completion of the project will be defined in the next section as well.

Section 4: Findings and Recommendations

Introduction

The treatment of chronic pain in the primary care setting is an essential tool for individuals who trust health care to the provider. Ensuring that the best possible care can be given to the patient is a necessary action for the provider to perform for each patient that is in his care. Referring patients outside of the primary care practice who have a low risk of addiction and a history of high compliance is not only doing an injustice for the patient and the provider, but also bombards pain management clinics when they are in short supply already. Creating clinical guidelines for individuals who seek chronic pain management through the primary care setting will not only allow the patient to know exactly what is expected of him, but also allows the provider a recommended policy to follow with each patient ensuring there is no difference in the care of every patient who meets the criteria.

Several studies have been performed to evaluate pain management in a primary care setting (Cardarelli et al., 2017; Demarzo et al., 2015; Hariharan et al., 2007). These have shown there are several providers who do not feel they are well educated enough to provide chronic pain management to the patient (Jamison, Scanlan, Matthews, Jurcik, & Ross, 2016). Others do not wish to take on the task due to fear of patients becoming addicted to medication or investigation by federal agencies if the clinic were to prescribe controlled substances (Jamison, Scanlan, Matthews, Jurcik, & Ross, 2016). Education for these providers using CPGs must stress the importance of alternative therapy, use of pharmacologic and non-pharmacologic methodologies for pain management, as well as

recommendations for the screening of patients who require controlled substances for pain management.

Findings and Implications

Each member of the expert panel was sent via email a copy of the CPG. After having several days to review the information, each member was emailed a link to a proprietary data collection device called SurveyMonkey® and asked to complete the AGREE II tool. Once all the surveys were completed, the results were compiled and reviewed for any discrepancies. Most of the scores on the survey questions were similar with scores of 7, indicating strong agreement across the board (see Table 1).

Table 1

Summary Scores on AGREE II Survey Domains and Selected Questions

	Average score
Scope and Purpose	6.3
Stakeholder Involvement	6.0
5. Guideline development group includes representative professionals	6.0
6. Views and preferences of target population have been sought	6.0
Rigor of Development	6.2
10. Methods were clearly described	6.2
12. Explicit link between recommendations and supporting evidence	6.2
14. A procedure for updating the guideline is provided	5.6
Clarity of Presentation	6.0
15. The recommendations are specific and unambiguous	5.6
17. Key Recommendations are easily identifiable	6.2
Applicability	6.5
Editorial Independence	6.2
23. Competing interests of guideline development have been addressed	6.2

Note. From AGREE II Permission to use and reprint from Brouwers et al. (2010) has been obtained.

However, there was some variation of responses in Questions 5, 6, 10, 12, 14, 15, 17, and 23 (see Table 1). During a luncheon that was set up as a discussion forum with

the panel, the questions were discussed. After consent was obtained from the panel, the conversation that was held was recorded and was transcribed by a third party, who did not participate in the discussion. Each panel member was recognized by a number, which was announced prior to that person speaking; this was done to ensure there were no errors in the members who participated in the discussion. Patient and panel confidentiality were upheld as no names were spoken throughout the luncheon.

In response to Question 5, which was stated as *the views and preferences of the target population (patients, public, etc.) have been sought,* and Question 6, which reads *the target users of the guideline are clearly defined,* the expert panel expressed an opinion that they would like to have seen more studies performed in the rural area where we live. Their attention was drawn to the study performed in rural Appalachia primary care offices by Cardarelli et al. (2017) with the findings expressing an increase in not only compliance of drug testing and use of medications, but also improvements in the overall condition of the patient as well as the relationship between the provider and the patient (Cardarelli et al., 2017). Concerns raised with Question 12, *there is an explicit link between the recommendations and the supporting evidence* correlated to once again the lack of studies that were provided as evidence based in the region of Appalachia in which the guideline is to be implemented.

Question 10, *the methods for formulating the recommendations are clearly described,* concerns were related to the implementation of guideline activities and variations that may be required due to patient health or other unforeseen events. Explanation was given that a guideline is a recommendation of how events should occur

with no variation of events. It is also understood that unforeseen events can occur and should be taken into consideration as to the actions the provider should take with each individual event. The issue discussed was a misunderstanding of the question. The issue was more of what would happen if an unforeseen event were to occur rather than how recommendations were formulated.

Questions 14, *a procedure for updating the guideline is provided* and 15*, the recommendations are specific and unambiguous* were raised as to the updating of the guideline. Inquiries were made as to adherence to changes in regulations that many individuals fear may come down from the government related to controlled substances. Information associated with this variation relies purely on speculation and should be taken into consideration should the government modify regulations. Emphasis was placed on the fact that the guideline would strongly adhere to federal regulations that are placed on providers and medications. Discussion was held with agreement that the CPG should be reviewed and revised every two years with the changes being published through dissemination.

Concerns related to Question 17; *key recommendations are easily identifiable* were discovered to be in error due to misreading the question. The expert panel members that had concerns about this question stated once they had reread the information there were no longer worried about key recommendations, but they were not able to changes answers once they survey had been submitted.

Question 23, *competing interests of guideline development group members have been recorded and addressed* was a concern for a few of the panel members strictly

because there were no conflicting interests that were represented in the formulation of the guideline. Discussion of the conflicting interests over the interest of writing prescriptions for controlled substances to relieve chronic pain was brought forth with regards to the regulations that are set forth by the government. The response to the concern that was raised included a reference to the guideline which included guidance that controlled substances should be used as a last resort for pain management and a care plan for the medication should be outlined prior to the administration of the medication. Also, in the conversation it was stated that no provider should do feel an increase in peer pressure to prescribe medications that may cause ethical dilemma for the provider. Discussion was held concerning the fact that practitioners should take into consideration the recommended patient screening of potential for opiate abuse or addiction, performance of drug screening and electronic records related to controlled substance prescriptions the patient has received prior to making a decision to prescribe a controlled substance. Recommendations were also verbalized to speak with the patient concerning the regulations that may be in place by the state and federal government related to the number of medications that can be written for the patient at one time, what the patient should do and what the provider will do if the medication is lost or stolen, and how the patient and provider are to communicate concerning questions or concerns for the prescription that was written. There was no discussion among the expert panel directed toward competition for the patient. The pain management specialist agreed there are a lack of appointments for all patients to be sent to pain management for chronic pain

management, and welcomed the PCP to assist in reducing the number of needed appointments through treatment of chronic pain in the primary care setting.

At the conclusion of the luncheon and discussion, consensus was reached an agreement that the expert panel would recommend the use of the clinical guideline for PCPs who choose to provide chronic pain management for primary care patients. All questions and concerns were addressed, and discussion was held with each question or concern that was presented. Once a copy of the transcript was completed, a copy was sent to each of the expert panel members for review and approval of accuracy.

A few days after the expert panel discussion was held, staff at the primary care site were gathered to discuss the guideline and the role that each person in the office would play in the new guideline implementation. Staff members reviewed the CPG considering their individual job role and the CPG elements were discussed. The number of job requirements for each position did not change greatly from the previous job requirements.

Case study scenarios were presented to the staff exemplifying each step in the CPG starting with a patient calling to schedule a new appointment for chronic pain management. Front desk staff explained what would happen from the time the call is answered until the time the patient walks into the office for the appointment. Next the medical assistants worked through the procedure until all information from the patient had been collected, urine sample had been provided and tested with results presented to the provider, and the medical staff completing charting on the patient. At that time, the providers began with an explanation of the duties according to the CPG, including

explanation of the guideline to the patient ensuring the patient's questions related to the guideline are addressed. Signature from the patient is acquired on the contract which states the patient is aware of the expectations of himself, the provider, and the clinical staff with each subsequent visit related to chronic pain management.

At the end of the case study scenario, each staff member was asked individually if there were any questions or concerns about what is expected of them once the CPG is implemented. No questions were raised during the luncheon. The staff was informed the nurse practitioners on staff at the clinic will be available should questions arise after the implementation of the CPG. Staff verbalized understanding of this fact, and still yet no questions were asked during the luncheon.

There were no findings of unexpected limitations or concerns throughout the course of the development, and evaluation process of forming the CPG. All questions that were verbalized were discussed by the members of the panel. Finally, all results were considered adequate for the clinical guideline.

Implications discovered throughout the process of development and evaluation would affect the community, individuals, and institutions in a variety of ways. Individually, the CPG will impact the individual patient in a financial manner as well as comfort level. The pain management clinics in the immediate area require the patient to pay a set fee prior to being seen by the provider. There are a few clinics that will accept certain forms of insurance, but those clinics require the patient to travel anywhere from 1 to 4 hours. Waiting lists for the clinics that do accept insurance are also long, which requires the patient to go for a period without pain management. Patient comfort is

increased when the patient is familiar with the staff, the provider, and the surroundings of the clinic, assisting the patient with control of other comorbid conditions that may be present such as hypertension and diabetes.

In the community, the use of the CPG to implement chronic pain management in the primary care setting would alleviate some of the tension and pressure for appointments with chronic pain management clinics. Stress from referrals to pain management clinic increases on the clinic sending the referral, as well as the patient due to the delay in obtaining an appointment as well as other stressors related to transportation and finance. The pain management clinics are also overwhelmed due to the vast number of individuals seeking appointments as such clinics. If the CPG does not produce positive improvement, the care plan must be revised, and a new method of treatment determined.

In the rural area of Appalachia, the number of privately-owned clinics is small versus the number of clinics that are owned by larger companies or corporations. With the private practice increasing the number of visits, the trust of the patient, and building a stronger relationship between the provider and the patient, the likelihood of increasing the number of patients has the potential to rise as well.

Positive social change that comes from the use of the CPG emerges through a positive working relationship between the provider, staff, and the patient. Increased compliance with medication can result in an overall improvement of the patient's mental and physical well-being. Increased patient numbers may be an indication of increased

trust between the provider and the patient which is a positive outcome for all the individuals involved.

Recommendations

With the implementation of the CPG, it is the recommended solution that there will be an increase in patient compliance with medications, a decrease in opiate medication abuse, a more confident relationship between the patient and the provider, well-educated staff on the duties and responsibilities of each clinical staff member, and increased income into the clinic to decrease a financial burden. With the implementation of the guideline, the patient should be well advised of the actions and methodologies expected of all individuals involved in the process. Changes expected with the patient to close the gap in practice include increased medication compliance, a stronger bond between the provider and the patient, decreased number of medication interactions which could lead to an adverse event for the patient, and an increase in knowledge of the different modalities for pain management other than medication, especially opiate medication.

The goal of the guideline is to provide the best possible care for chronic pain in a familiar setting using appropriate interventions and the least amount of controlled medications as possible. Once the guideline has been implemented for approximately six months, a QI plan will be developed to review progress to date at two local PCP practices. To evaluate the impact of the CPG, data will be collected on the number of referrals, number of patients that continue with chronic pain management at the primary care setting, the level of pain the patient is experiencing at that time versus the level of

pain prior to the guideline, the number of interventions that were used before the pain level decreased, and the number of patients who are taking opiate medications for pain relief. Keeping the CPG updated on the recommendations of the DEA, CDC, and other regulatory agencies as well as evidence-based practice changes will be studied every two years with recommendations of change to the CPG being established and forwarded to all individuals through dissemination to the public.

Strengths and Limitations of the Project

Strengths of the clinical guideline implementation include, as discussed above, stronger bond between patient and provider, increased income and patient count for the clinical staff, increased knowledge for the patient concerning the management of chronic pain, decreased financial burden on the patient, decreased stress on the system as the number of appointments referred to pain management would decrease, increased compliance with medications and methodologies for pain management, decreased drug to drug interactions and adverse events, and potential increase of income into local businesses in the community.

Strengths of creating the CPG include a strong literature review, implementation of the CPG at a clinic setting in rural Appalachia, a positive staff reaction to the CPG, acceptance of the CPG to be utilized with recommended amendments of updating the CPG every two years. The CPG presented to the expert panel and staff of the clinic where implementation will take place was accepted by both groups as a welcomed addition to the clinic protocols as well as for dissemination to local peers in the area.

Limitations to the CPG include a lack of resources that are related to chronic pain management in the primary care setting based in the Appalachian region. Recommendations would be for more studies to be evaluated in this region. Limitations to the research is since most of the information provided for this region relates to the number of overdoses related to opiate medications as well as the number of individuals that are addicted

Summary

Review of the CPG analysis from the expert panel as well as the staff of the clinic in which the CPG will be implemented were addition of update the clinical guideline every two years based on recommendations from the DEA, CDC, and evidence-based practice. The guideline was not implemented during this study but was used in a rural clinic in Appalachia Kentucky after my portion of the project was completed. Plans for using the CPG in my own private practice are also in process. Follow up to the implementation of the CPG will be using a quality improvement study six months after the implementation in both clinics. A comparison study will be performed compiling data and reviewing for both clinics. Dissemination will be achieved through sharing the CPG with peers in the region through an external communication method.

Section 5: Dissemination Plan

Dissemination of the CPG in the rural Appalachia will include use of the guideline in two local primary care practices. Plans of dissemination include publication in a journal that addresses chronic pain management. Future goals with the project include a comparison study reassessment of the clinics that have implemented the CPG to review the CPG for improvement in the patient symptoms, methodologies attempted for pain management, compliance with controlled substances that are used for pain management, and the overall contentment with the treatment of chronic pain management in the primary care setting.

Through the completion of this project, my goal remains to implement the use of the guideline in my clinical practice, as well as to share through the state nurse practitioner website the information contained in the guideline. I plan to ask any provider who implements the guideline to partner with me on the usefulness of the guideline and to evaluate need for upgrades and improvements to the CPG.

Analysis of Self

In the role of practitioner, it is my duty to provide the best possible care with the least invasive intervention. Using the guideline for chronic pain management in the primary care setting allows for this goal to be achieved. The guideline provides explanation as to what is expected of the patient, what the provider will do for the patient, and the steps required to reach the goal of decreased pain.

As a scholar it was a learning experience as I discovered that a lot of providers do not feel comfortable with the treatment of chronic pain of routine patients (Jamison,

Scanlan, Matthews, Jurcik, & Ross, 2016). Education provided by learning institutes do not address every issue that providers may be faced with; therefore, personal research and review of studies will assist in the growth of knowledge of the provider.

As the project manager, it was educational for me to recognize the variation of learning abilities of individuals not only in the office, but also in the practice from patients and family. Another insight came from the literature review performed for this project which revealed a paucity of research performed in rural Appalachia relating to the management of chronic pain. There was also a lack of information relating to the number of patients who were treated in the area who develop an addiction to opiate medications. The research that was found about chronic pain management in the primary care setting based in Appalachia was useful in the creation of the CPG in this project.

As a clinician, it was insightful to discover modalities of chronic pain management that are being found useful in other areas of the United States which I have personally not tried. The use of cognitive behavioral therapy was interesting in that this type of therapy is relatively learning to adjust the day to day life of the individual to the area of concern without the use of medications, similar to a mind over matter attitude of the patient. Understanding the variation of pain tolerance for each patient is essential in the modalities of treatment that I as a provider would implement for the patient.

There were challenges that presented throughout the project however, they were mainly personal in nature. For example, there were time constraints as well as competing demands from private and professional life that required sometimes creative time management skills. There will always be real life, no matter how much we plan for it in

advance, and learning to work through those struggles, modifying goals and deadlines, and learning flexibility with the project was a must for me during this time.

Summary

Chronic pain is a fact of life for many individuals across the nation. Many elderly populations suffer from chronic pain resulting from work responsibilities or other areas of life. PCPs take on the responsibility of treating the patient holistically, which means taking care of as many of the complaints the patient has to the best of the provider's ability without referring them to specialists. Many aspects of the patient's life may be affected by the patient being referred out such as finances, trust, transportation, and time. With the use of the CPG for chronic pain management in the primary care setting, every individual involved in the patient's treatment as well as the patient understands what is expected, establishes a care plan which provides an understanding of the types of treatment that will be tried prior to moving to a more intensive level of treatment. The CPG can enhance the provider's confidence level in the treatment of chronic pain through different modalities without referring the patient to a chronic pain clinic. By using the CPG, the patient becomes more comfortable with the treatment plan, reduces their stress, and modifies the need for a referral, improves the patient-provider relationship, decreases the wait time a patient may encounter when sent to a pain management clinic, and provides the best possible care for the patient in the end. Having a plan for the treatment of chronic pain establishes an understanding between the provider and the patient, allowing for the best possible treatment of the chronic pain through the least invasive

intervention and using the least amount of medication to reduce the possible adverse reactions and drug to drug interactions for the patient.

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Appendix A: Literature Review Matrix

Authors	Year	Name of Journal or Book	Title of Article	Brief summary	Evidence Level
Becker, W et al.	2017	*BMC Family Practice*	Barriers and Facilitators to Use of Non-Pharmacological Treatments in Chronic Pain	Reviewed a qualitative study related to barrier and facilitators of non-pharmacological treatment of chronic back pain with suggestions to increase the use of non-pharmacologic treatments with confidence from both the provider and the patient.	VI
Berry, P Dahl, J	2000	*Pain Management Nursing*	Evaluating practice at the population level	Review of unrelieved pain management with recommendations to Joint Commission on improvement to guidelines for pain management.	III
Cardarelli, R et al.	2017	*Journal of Patient Centered Research and Reviews*	Improving Chronic Pain Management Processes in Primary Care Using Practice Facilitation and Quality Improvement: The Central Appalachia Inter Professional Pain Education Collaborative	Review of patient compliance with controlled substance use for pain relief with a structured regimen for patient compliance including drug screening routinely, confirmation testing, random pill counts, and contract agreement between the provider and the patient. Improvement with compliance was found.	III

Cash, J Glass, C	2017	*Family Practice Guidelines, 4th Edition*	Pain Management Guidelines	Chronic pain definition and generalized information that is useful when treating chronic pain: includes diagnostic testing, physical exam, differential diagnoses, as well as treatment option recommendations for the provider	VII
Clark, M Galati, S	2015	*Practical Pain Management*	Guide to Chronic Pain Assessment Tools	Recommendations for the treatment, analysis, diagnosis, and continued monitoring methods for chronic pain management in the primary care setting.	VII
Collen, M	2009	*Journal of Law, Medicine, and Ethics*	Opioid Contracts and Random, Drug Testing for People with Chronic Pain Think Twice	Discussion concerning the legal aspects of chronic pain management contracting from the viewpoint of an outside party, cautions to be taken to prevent lawsuit, and methodologies for treating chronic pain other than family practice.	VII
Crooks, L	2002	*Allied Health*	Assessing Pain and the Joint Commission Pain Standards	Joint Commission standards and recommendations for controlling chronic pain in the primary care setting, including assessment and reassessment of chronic pain.	VII

D'Arcy, Y	2005	*Nursing*	Pain Management Standards, The Law, and You	Overview of treatment practices that should be performed in primary care for the treatment of chronic pain that will decrease the possibilities of lawsuit	VII
Dowell, D Haegerich, T Chou, R	2016	*Journal of American Medical Association*	CDC Guidelines for Prescribing Opioids for Chronic Pain United States	Recommendations from the CDC for treatment of chronic pain including non-opiate options, how to discuss pain management with a patient, topics of discussion for the provider to have with the patient, reminders to reevaluate pain at each visit, and discussion of terminating opiate use with non-compliance and non-improvement of pain.	V
Greenhalg, T Howick, J Maskrey, N	2014	*British Medical Journal*	Evidence Based Medicine: A movement in Crisis?	Discusses the issues of evidence-based practice and relates suggestions on how to overcome the issues and discrepancies of EBP in the clinical setting.	VII

Gregori, D et al.	2018	*Journal of American Medical Association*	Association of Pharmacological Treatments with Long Term Pain Control in Patients With Osteoarthritis: A Systemic Review and Meta-Analysis	A review of forty-seven random controlled trials which looked at long term use of opioid medications for the treatment of chronic pain. Findings were not definitive that there was effective pain management over a 12-month period in comparison to placebo medication.	V
Hariharan, J Lamb, G Neuner, J	2007	*Journal of General Internal Medicine*	Long Term Opioid Contract Use for Chronic Pain Management in Primary Care Practice	A study of 330 patients who were placed on contracts for controlled substances in the primary care setting to evaluate the issues with compliance through the contract. Findings reveal a small number of individuals were found to be non-complaint with the contract while the majority exhibited increase in compliance.	II

Jamison, R et al.	2016		Attitudes of Primary Care Practitioners in Managing Chronic Pain Patients Prescribed Opioids for Pain: A Prospective Longitudinal Controlled Trial	A 12-month study looking into the confidence of providers when prescribing opiate medications for chronic pain control. Finds were an increase in confidence in recognizing individuals who were potential to abuse medications, and an increase in confidence for prescribers related to this classification of medicine.	II
Kolcaba, K	2006	*The Journal of Nursing Administration*	Comfort Theory	Description of Kolcaba's Comfort Theory, how it is meant to be used, and her studies and research that led to the theory we are familiar with today.	VII
Kumar, P Tripathi, L	2014	*Indian Journal of Pain*	Challenges in Pain Assessment: Pain Intensity Tools	Evaluation of pain assessment tools, and recommendations for each. The complication with pain assessment is pain is subjective, and not everyone feels pain in the same manner. It is important to ensure the same pain assessment tool is used on an individual when reassessing his pain after treatment has been administered	V

Lamerato, L et al.	2016	*Pain Practice*	Prevalence of Chronic Pain in a Large Integrated Healthcare Delivery System in the U.S.A.	This study looked at a large medical facility to evaluate the number of patients who present with chronic pain and seek management of symptoms, demographic and diagnostic data which was used to assist with treatment programs	IV
Levinson, W Lesser, C Epstein, R.	2010	*Health Affairs*	Developing Physician Communication Skills for Patient-Centered Care	Assess methods of effective communication between a provider and patient. Enlightens to the fact that effective communication is not one of the major points of education, and discusses methods to improve the effective communication	VII
Mantyselka, P et al.	2001	*British Journal of General Practice*	Patients' Versus General Practitioners' Assessment of Pain Intensity in Primary Care Patients with Non-Cancer Pain	Discusses patient and provider communication about pain and the management of the symptoms. Evaluations were made of the pain assessment tools, chronic vs. non-chronic pain, and methodologies of evaluation of each, as well as the importance of open communication from the provider and the patient relating to pain	VI

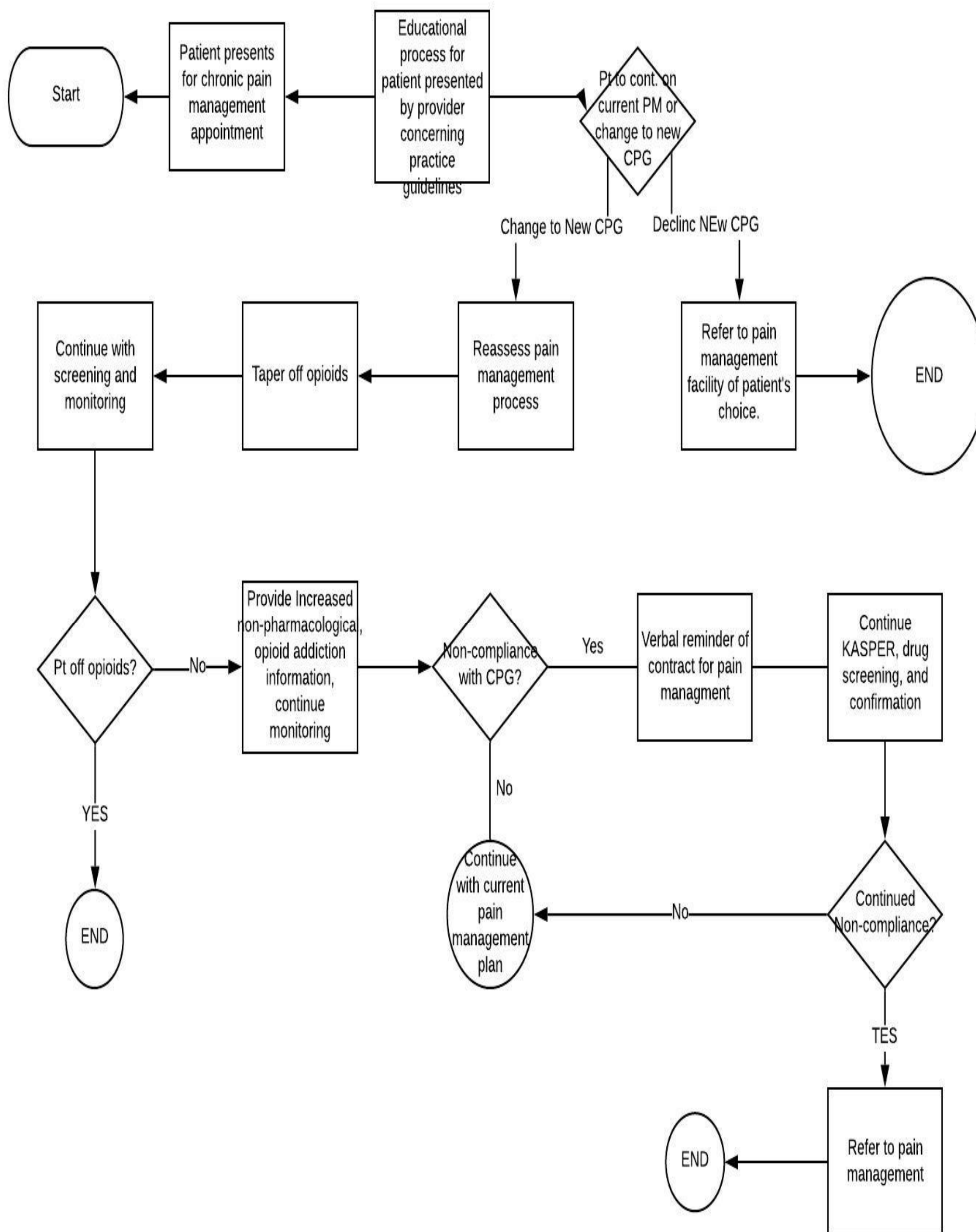
McCaffery, M Beebe, A	1989	*Journal of Pain and Symptom Management*	Pain: Clinical Manual for Nursing Practice	This manual was written with the nurse in mind with suggestions for non-pharmacological treatments, assessment and reassessment, and other avenues of pain management.	VII
Mehl-Madrona, L Mainguy, B Plummer, J	2016	*The Journal of Alternative and Complementary Medicine*	Integration of Complementary and Alternative Medicine Therapies into Primary Care Pain Management for Opiate Reduction in a Rural Setting	Evaluates different methodologies of pain management including alternative therapies, manipulation by chiropractor, acupuncture, pharmacologic and non-pharmacologic treatment methods, as well as the importance of assessment and reassessment	III
Ng, S	2017	*Singapore Nursing Journal*	Application of Kolcaba's Comfort Theory to the Management of a Patient with Hepatocellular Carcinoma	Discusses Kolcaba's comfort theory and places the theory into action when dealing with the pain of a patient undergoing hepatocellular carcinoma	I
O'Conner, P	2003	*Courtland Forum*	For Pain, Add Compassion and a Contract	Discusses the possibility and reliability of increased compliance of controlled substances medications with a contract between the provider and the patient in place.	VII

Pillastrani, P et al.	2012	*Joint Bone Spine*	An Updated Overview of Clinical Guidelines for Chronic Low Back Pain Management in Primary Care	A systemic review of patient who are seeking treatment for low back pain. Assessment, diagnostic, and treatment recommendations are reviewed, and findings for each category are discussed in the literature review	V
Sarzi-Puttini, P et al.	2012	*Clinical Drug Investigation*	The Appropriate Treatment of Chronic Pain	Discuss achieving effective pain management of chronic pain among patients with and without cancer, stressing the importance of assessment and reassessment of pain, methods of providing effective pain management, and provider knowledge increase when discussing and treating chronic pain	VII
Scott, W McCracken, L	2019	*The Cambridge Handbook of Psychology, Health, and Medicine, 3rd Edition*	Chronic Pain Management	Discusses the psychological vs. physical aspect of chronic pain, as well as methodologies in the psychological aspect for the treatment of chronic pain	IV

Sherman, K et al.	2004	*BMC Complementary and Alternative Medicine*	Complementary and Alternative Medical Therapies for Chronic Low Back Pain: What Treatments are Patients Willing to Try?	Evaluated the use of alternative therapies for the management of chronic pain. During the trials, it was evaluated the number of patients as well that were aware of the alternative therapies and the willingness of the patient to use those therapies.	II
Treede, R et al.	2015	*Pain*	A Classification of Pain for ICD 11	Defines the different types of chronic pain and assigns and ICD code for the billing of the pain.	VII
Turk, D Wilson, H Cahana, A	2011	*The Lancet*	Treatment of Chronic Non-Cancer Pain	Systemic Review of the recommendations for pain management of individuals who suffer from chronic pain, and the recommendations that appear to be the most effective for those individuals. The article also discusses the hardships that chronic pain presents on the lives of those who suffer	V

Evidence Level Key using Fineout-Overholt et al. (2010)
I=Synthesis of evidence
II=RCT
III=Quasi-experimental design
IV=Case studies
V=Systematic Review
VI=Qualitative or descriptive
VII=Expert opinion

Appendix B: Chronic Pain Management CPG



Using the Chronic Pain CPG: Tips and Techniques

- Chronic pain patients who present to the clinic are eligible to be followed using the CPG. This includes both patients who have been to the clinic and are already receiving pain management of some sort, and patients who are new to the clinic and are seeking pain management.
- Receptionist role:
  - For new chronic pain patients, schedule an appointment as a new patient.
  - For existing chronic pain patients, prepare a KASPER report one day prior to the scheduled appointment time.
  - When patient arrives for the appointment, prepare forms for patient sign-in and for the clinical team.
  - Make appointments for follow-up according to the instructions and the CPG
- Medical Assistant role:
  - Patient is directed to the treatment room by the medical assistant (MA), where triage is performed.
  - Vital signs are taken and recorded into the patient's chart
  - Assessment/Reassessment tool for chronic pain will be completed by the patient
  - Patient will be directed to the restroom where a urine sample will be left for urine drug screen testing
  - Patient will be instructed to write his/her name on the cup, and place the cup in a basket located on the back of the toilet prior to leaving the room
  - MA will obtain the urine, ensuring the urine temperature is greater than 90 degrees Fahrenheit, and will proceed to the lab for drug screen testing.
  - MA will record the results of the drug screen in the patient's chart for review by the provider.
  - MA will prepare the urine to be sent to reference laboratory for confirmatory testing.
  - MA will change the status of the chart to exhibit the patient is ready for the provider
- NP role
  - Provider will review the drug screen result and the pain assessment tool, as well as review the history of present illness (HPI) of patient prior to entering the room

- Upon entering the room, provider will clean hands and begin conversation with the patient.
- Patient drug screen results as well as pain tool will be reviewed, and the patient will be asked about the pain he/she is experiencing.
- Provider will explain the CPG to the patient, including the contracting, urine drug screening, KASPER results, and methodologies of pain management.
- Provider will inquire if the patient desires to continue pain management through the clinic or to be referred elsewhere for pain management
- If patient decides to be sent elsewhere, an appropriate referral will be made for the patient and no further actions will be needed for this complaint.
- Provider will determine if there is other testing that needs to be completed through radiology or laboratory work.
- Provider will assess the patient, and discuss the pain management treatment care plan, asking for the input of the patient as well to assist with the increase of compliance.
- A care plan will be worked out between the provider and patient and will be documented in the patients' chart.
- If medications or referrals need to be made, the provider will order these in the patient's chart for appropriate actions to be taken.
- Patient will be educated that he/she should plan to return to the clinic once monthly for follow up of chronic pain complaints.

Appendix C: Chronic Pain CPG in Primary Care Evaluation

Quantitative Agree II Instrument for use with Expert Panel
Agree II- will be used as a review of the CPG with the expert panel using SurveyMonkey®. Six categories will be address with a series of questions where the member of the expert panel will score each question from 1 to 7, with 1 being strongly disagree and 7 being strongly agree. The questions for section one pertaining to scope and purpose are:

1. The overall objectives of the guideline are specifically described.
2. The health questions covered by the guidelines are specifically described.
3. The population to whom the guideline is meant to apply is specifically described.

The questions for section two pertaining to stakeholder and involvement are:

4. The guidelines development group includes individuals from all relevant professional groups.
5. The views and preferences of the target population have been sought.
6. The target users of the guideline are clearly defined.

Questions for section three pertaining to rigor of development include:

7. Systematic methods were used to search for evidence.
8. The criteria for selecting the evidence are clearly described.
9. The strengths and limitations of the body of evidence are clearly described.
10. The methods for formulating the recommendations are clearly described.
11. The health benefits, side effects, and risks have been considered in formulating recommendations.
12. The is an explicit link between the recommendations and the supporting evidence.
13. The guideline has been externally reviewed by experts prior to its publication.
14. A procedure for updating the guideline is provided.

Section four relates to clarity of presentation, and the questions related to this section are:

15. The recommendations are specific and unambiguous.
16. The different options for management of the condition or health issue are clearly presented.
17. Key recommendations are easily identifiable.

Section five relates to applicability, and questions include:

18. The guideline describes facilitators and barriers to its application.
19. The guideline providers advise and/or tools on how the recommendations can be put into practice.
20. The potential resource implications of applying the recommendations have been considered.
21. The guideline presents monitoring and/or auditing criteria

The final section will relate to editorial independence and will be reviewed through:

22. The views of the funding body have not influenced the content of the guidelines.
23. Competing interests or guideline development group members have been recorded and addressed.

A final section of the survey will ask the evaluators overall impression of the quality of the guideline using the same rating scale of 1 (strongly disagree) to 7 (strongly agree).

Each member of the expert panel will be emailed the link for the above survey. Responses will be anonymous when received. All the scores will be used to compile for review by the entire group during the discussion period.

Qualitative Data Collection Expert Panel

After approval from the Walden IRB, a face to face meeting was scheduled with the expert panel where an open discussion concerning the CPG took place. Consent was secured. Open ended questions that were asked of the expert pertaining to their overall impression of the CPG, thoughts/concerns of barriers to implementation, obstacles the nurse practitioner will face in primary care using the CPG, items that may be missing in the CPG, and any further suggestions.

Appendix D: Curriculum Overview of Chronic Pain CPG Education

Learning Outcome(s): Apply the chronic pain management CPG to the primary care practice, according to role.			
Topical Content Outline	Time frame	References	Teaching method/learner engagement and evaluation method
Overview of the chronic pain CPG.	15"	Pain Management Best Practices Inter-Agency Task Force. (2019). *Pain Management Best Practice: Updates, Gaps, Inconsistencies, and Recommendations.* Department of Health and Human Services. Retrieved from https://www.hhs.gov/sites/default/files/pmtf-final-report-2019-05-23.pdf	Lecture/presentation using PowerPoint Algorithm a handout
Role review: MA, Receptionist, NP roles	20"	Sheridan, B., Chien, A., Peters, A., Rosenthal, M., Brooks, J., & Singer, S. (2018, April/June). Team-Based Primary Care: The Medical Assistant Perspective. *Health Care Management Review, 43*(2), 115-125. doi:10.1097/HMR.0000000000000136 Kawi, J. (2016, March 15). Managing Chronic Pain in Primary Care. *Nurse Practitioner, 41*(3), 14-32. doi:10.1097/01.NPR.0000460854.37363.37 Litchfield, I., Gale, N., Burrows, M., & Greenfield, S. (2017). The Future Role of Receptionists in Primary Care. *British Journal of General Practice, 67*(664), 523-524. doi:https://doi.org/10.3399/bjgp17X693401	Discussion Q&A Case Studies
Barriers to implementation	10"	Bauchemin, M., Cohn, E., & Shelton, R. (2019, October/December). Implementation of Clinical Practice Guidelines in the Health Care Setting: A Concept Analysis. *Advances in Nursing Science, 45*(2), 307-324. doi:10.1097/ANS.0000000000000263	Discussion Q&A Case Studies
Measuring successful outcomes at the practice	10"	Dragovich, A., Beltran, T., Baylor, G., Swanson, M., & Plunkett, A. (2017, November). Determinants of PAtient Satisfaction in a Private Practice Pain Management Clinic. *Pain Practice, 17*(8), 1015-1022. doi:10.1111/papr.1255	Lecture/discussion Q&A Review of logs/EHR reports
Agreements and next steps	5"	Bahrami, M., Karimi, T., Yadegarfar, G., & Norouzi, A. (2019, November 7). Assessing the Quality of Existing Clinical Practice Guidelines for Chenotherapy Drug Extravasation by Appraisal Guidelines for Research and Evaluation II. *Iranian Journal of Nursing and Midwifery Research, 24*(6), 410-416. doi:https://dx.doi.org/10.4103%2Fijnmr.IJNMR_80_19	Discussion