

2023

Nurse Practitioner Education on Caring for Patients Using Medical Marijuana

Zainab Kalokoh Mansaray
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [Nursing Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Nursing

This is to certify that the doctoral study by

Zainab K. Mansaray

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Francisca Farrar, Committee Chairperson, Nursing Faculty

Dr. Anita Manns, Committee Member, Nursing Faculty

Chief Academic Officer and Provost

Sue Subocz, Ph.D.

Walden University

2023

Abstract

Nurse Practitioner Education on Caring for Patients Using Medical Marijuana

by

Zainab K. Mansaray

MSN, Walden University, 2019

BSN, Chamberlain College of Nursing, 2013

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2023

Abstract

Nurse practitioners are crucial components of community health care because they treat and manage individuals who use medical marijuana. Overuse of medical marijuana without proper examination and certification may result in undesirable patient outcomes, such as increased patient dependency and death, which may have a severe impact on society. The medical marijuana primary care clinic for which this Doctor of Nursing Practice project was developed lacked the information required to certify and evaluate qualifying conditions for medicinal marijuana users. The practice-focused questions investigated how nurse practitioners caring for patients using medical marijuana education based on the National Council of State Boards of Nursing guidelines may improve knowledge and confidence ratings on using medical marijuana. Medline, PubMed, CINAHL, the Joanna Briggs Institute, the Cochrane Database, Google Scholar, and the Walden Library were among the data sources used. Expert panel responses to a nine-item anonymous survey questionnaire were used and supported content for the program. PowerPoint presentation instruction was delivered in the clinic conference room with a four-digit code for each of the 15 nurse practitioners who took the pre- and posttests. Statistical analysis ($N = 15$) revealed that pretest scores varied from a low of 30 to a high of 68 ($M = 50.0$); posttest scores varied from a mean low of 80 to a mean high of 92 ($M = 87.7$), with a 3.7 change in total mean score, suggesting that knowledge was gained. The project will have a beneficial influence on social transformation by boosting nurse practitioners' expertise, resulting in safe, quality treatment that will enhance health and reduce morbidity for vulnerable patients.

Nurse Practitioner Education on Caring for Patients Using Medical Marijuana

by

Zainab K. Mansaray

MSN, Walden University, 2019

BSN, Chamberlain College of Nursing, 2013

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2023

Dedication

This project is dedicated to my deceased parents, Dauda Kalokoh and Alimatu Turay of Station Road, Makeni, Sierra Leone. Also, to my husband, Professor Nabie Yayah Swaray, who taught me the art of writing and to believe in myself. Most importantly, he taught me that education is the only way one can free themselves. Additionally, I am indebted to my uncles, aunts, cousins, and sisters, especially Mariama, who has never doubted my dreams and is always proud of me, and my two beautiful sisters Amina and Mariatu Kalokoh, who made it possible for me to come to the United States. They believed in me and noted I had prospects and that one day I would make a difference in society. Thank you, my beautiful sisters. To my colleagues at Medstar Washington Hospital Center, especially the 1C team and its leadership, all of whom I am eternally glad to have in my life. I could not ask for more of your unflinching support, which braced me and kept me going smoothly through this journey. This project is also dedicated to my uncle, who has always loved me unconditionally and has taught me via his example to work hard for the things I aim to accomplish. And it has also inspired me to build a clinic in my country of origin to help the underserved population. This idea has inspired me so much that I cannot wait to institute this dream.

Acknowledgments

First, I want to thank God for graciously providing me with the grace, strength, and peace to navigate this academic road. My parents, Dauda and Alimatu Kalokoh, gave me everything the world no longer values but desperately needs: love, patience, understanding, fresh veggies, and electrolytes in the town where I grew up. When I am anxious, I do not do much without preparing my African foods, which have been a part of my life since I was a child. Moreover, this work would not have been possible without the unwavering support of my husband, Professor Nabie Yahya Swaray. Our time together has been the most enriching experience of my existence; thank you for choosing to face life's most challenging obstacles with me, teaching me what true love is, and offering me a future worth living for.

I also wanted to thank my committee members for their unwavering support during this complicated process. And for also giving me sick time off while I took my extremely ill husband to Africa in November of 2021. My heartfelt gratitude to Dr. Francesca Farrar, my mentor, for discovering this initiative and believing in me and for strength and faith that I have relied on as I have navigated the project's difficulties. Dr. Joan Moon, whose persistence has helped me realize the significance of this initiative and the advantages it will bring to society. To Dr. Anita Manns, whose guidance paved the way, to ensure this work retains its authenticity and value, and many thanks to Dr Joan E. Hahn and Mary Terese Verklan, who has constantly been on hand to ensure that all work remains scholarly, and to Dr. Geri Schmotzer, whom I have relied on as I have run through this marathon.

Thank you to all my medical doctors who ensured that I remained healthy throughout this course. A special thanks to Dr. Obi and the staff at the clinic, who made my stay for the practicum worthwhile and productive. I could never ask for more.

To my family, coworkers, friends, and advisers, thank you for your unwavering support, direction, and unconditional love over the last 2 years of my road to the DNP program. Without your encouragement, guidance, and unconditional love, my dream of receiving my DNP would not have been a reality. Thank you Mariama and Abubakarr in Amsterdam for keeping an eye on me and keeping me on the mountain. Alicia Mousa, my little niece who was with me, saw it all. She would pick up my manuscripts from the basement desktop when I was up from midnight to morning working on my assignments. Thank you for being a great support when I needed you most. Thank you, Rhoadia Davis, for the drive-byes, calls, and texts from Aminata, and her husband, they kept me intact throughout this journey. My sincere thanks to the Kamaras, Foday, and Marina Bangura, for always being there and giving an ear when I needed to vent. My neighbors Mr. Jones, Pam, Matt, and her spouse, thanks for putting up with me at any time. I was able to knock on your doors when I desperately needed help. I am looking forward to finally spending quality time with myself and the rest of the family. Know that I adore you more than you realize. To Dr. Francesca Farrar, I want to express my gratitude for all your effort in bringing me to this point. While you threw some curve balls, you always understood how to get me to hit a home run. The unexpected calls in the middle of the night, the evenings you willingly gave up, and your eagerness to direct and guide me at every stage of this project are more than a student could ever ask for. I am eternally grateful to my maternal

uncle—Mr. Mohamed Turay, who discovered me in the village and brought me to the city of Freetown to work at the Central Bank of Sierra Leone; for his encouragement and support to bring the idea that I open a clinic back home to help the less fortunate. That project needs a grant, but feasibility studies are in progress. I miss my grandmother's guidance on how to traverse the dungeons of patience, fortitude, humility, and people—she died in 2006 from issues related to old age. Finally, I am looking forward to the experiences ahead.

I want to express my gratitude to Tabitha Anderson a sister who made it possible for me to join the Washington Hospital Center team. To the leadership and staff of 1C and the MedStar Washington Hospital Center organization, I am grateful for believing in me and providing me with all the tools necessary help to get my DNP. You are a wonderfully awesome people.

Regarding the rest of the nursing program's leadership, my student colleagues, and Walden University professors and staff, I want to express my gratitude for your passionate ideas, stewardship, and commitment to creating an exceptional patient- and society-centered curriculum. I will never forget my experience at Walden University.

Nothing we achieve is our own.

Table of Contents

List of Figures	iv
Section 1: Nature of the Project	1
Introduction.....	1
Problem Statement	3
Local Nursing Practice Problem	3
Need to Address the Problem.....	5
Significance to Nursing Practice.....	5
Purpose Statement.....	6
Gap in Practice	6
Addressing the Gap.....	7
Nature of the Doctoral Project	8
Sources of Evidence.....	8
Approach to the Project.....	9
Purpose of the Project	13
Significance.....	13
Summary	17
Section 2: Background and Context	20
Introduction.....	20
Concepts, Models, and Theories	23
Ethical Procedures.....	27
Relevance to Nursing Practice	28

Local Background and Context.....	31
Role of the DNP Student.....	32
Role of the Project Team	34
Summary	35
Section 3: Collection and Analysis of Evidence.....	38
Introduction.....	38
Education and Confidence	40
Practice-Focused Question.....	40
Sources of Evidence.....	41
Procedures.....	43
Protections.....	43
Analysis and Synthesis	44
Summary	45
Section 4: Findings and Recommendations.....	47
Introduction.....	47
Findings and Implications	48
Key Findings.....	51
Recommendations.....	51
Contribution of the Doctoral Project Team	53
Strengths and Limitations of the Project.....	53
Strengths.....	53
Limitations	54

Summary	55
Section 5: Dissemination Plan	57
Analysis of Self	59
As a Practitioner.....	59
As a Scholar	60
As a Project Leader.....	60
Summary	61
References.....	63

List of Figures

Figure 1. Common Instructional Design Procedures Organized by ADDIE.....	25
Figure 2. Pretest Scores of Nurse Practitioners in Percentages	49
Figure 3. Posttest Scores of Nurse Practitioners in Percentages.....	50
Figure 4. Pre- and Posttest Scores of Participants in Percentages	50

Section 1: Nature of the Project

Introduction

Addiction to opiate usage is a worldwide issue. In reaction to overdoses, tragedies, and suicides, states have passed legislation allowing qualifying patients to receive medical marijuana. A dilemma for providers is that federal law prohibits the use of marijuana; therefore, it is illegal. The National Council of State Boards of Nursing (NCSBN) responded with evidence-based research guidelines for nurse practitioners to assess and qualify patients who meet medical marijuana eligibility criteria. The practice problem gap is that nurse practitioners need education on the care of patients using medical marijuana and meeting legal requirements for nursing practice to provide marijuana medical care to patients who meet criteria. Nurse practitioners at the underserved clinical project site had not been educated on caring for patients using medical marijuana. Therefore, there was a gap in practice in the clinic that needed to be addressed. Utilizing the NCSBN medical marijuana guidelines, the intervention educated nurse practitioners on what they need to know to care for medical marijuana patients. Additionally, a pre- and posttest were administered as a means of determining the nurse practitioners' degree of comprehension of the guidelines. A continuing education unit (CEU) was awarded to a nurse practitioner whose level of comprehension was deemed adequate. The contents of the NCSBN were utilized as the staff education manual for this quality improvement education initiative. As a result, there was an improvement in nurse practitioners' knowledge and confidence level in caring for patients who use medical marijuana.

According to preliminary statistics from the Centers for Disease Control and Prevention (CDC) National Center for Health Statistics, there were an estimated 100,306 drug overdose fatalities in the United States for the 12 months ending in April 2021, a 28.5% increase from the 78,056 deaths during the same time the previous year (CDC, 2021). Currently, the clinical facility has been experiencing an increased influx of patients seeking medical marijuana due to chronic pain related to health conditions such as cancer and posttraumatic stress disorder. Medical marijuana cannot be prescribed by a healthcare provider; each medical marijuana program (MMP) includes a list of qualifying medical conditions or symptoms for which an individual may use medical marijuana (National Council of State Legislatures, 2019). It is essential that there are nurse practitioners in the clinic who can assess and certify to provide medical marijuana to legitimate users to prevent further health problems for the clinic's vulnerable population.

Despite the limitations of cannabis research, there is some moderate- to high-quality evidence for the use of cannabis to treat chemotherapy-induced nausea and vomiting, pain (from cancer or rheumatoid arthritis), chronic pain (from fibromyalgia), neuropathies (from HIV/AIDS, multiple sclerosis [MS], or diabetes), spasticity (from MS or spinal cord conditions; NCSBN, 2018). For nurse practitioners, Maryland has a passive state law allowing them to provide marijuana to users. On the contrary, federal law vehemently denounces nurse practitioners prescribing medical marijuana to patients as the federal law considers medical marijuana illegal and a Schedule 1 drug. Nurse practitioners' role is to prescribe medical marijuana, although they are not legally allowed to do so. There is evidence that marijuana helps adolescents and young people with

Draveet syndrome and Lennox-Gastaut syndrome, reducing seizure frequency (Food and Drug Administration, 2018). Maryland passed a law giving providers authority to assess eligible patients who may use medical marijuana. A challenge emerged due to federal law prohibiting providers from prescribing medical marijuana. Thus, nurse practitioners in this primary outpatient clinic on the east coast of the United States need to be educated on legal guidelines for providing medical marijuana. According to the 2012 National Health Interview Survey, 11.2% of adults experience pain daily. An Agency for Healthcare Research and Quality (AHRQ) study reported additional harms of long-term opioid treatment, which can increase the risk of androgen deficiency in men receiving immediate-release opioids and overdose in methadone patients (CDC, 2016). Substantial evidence reveals that cannabis helps treat chronic pain, chemotherapy-induced nausea and vomiting, and spasticity associated with MS (National Academy of Sciences, 2017)—hence the justification for certifying patients using medical marijuana to improve the quality of care for a vulnerable population. There was a gap in need because the nurse practitioners in the clinic lacked knowledge on the NCSBN-developed guidelines. Therefore, education on the care of patients using the NCSBN medical marijuana guidelines was utilized, with CEUs awarded with tests to determine the knowledge of nurse practitioners on medical marijuana patients' care.

Problem Statement

Local Nursing Practice Problem

In an underserved primary clinic on the east coast of the United States, nurse practitioners have not been educated on the NCSBN guidelines on caring for patients

using medical marijuana. There has been a heightened number of patients of all walks of life looking for medical marijuana in the clinic. However, practitioners have not been educated on the guidelines for medical marijuana and are at risk of not following the guidelines and thus facing legal implications for providing medical marijuana to the population. Adults with medical conditions use marijuana at a much higher rate than adults without a medical condition in all age groups except those 65 and older, and 25.2% of young adults aged 18 to 24 who have been diagnosed with a medical condition have reported using marijuana on a daily basis (Dai & Richter, 2019). Even though federal law classifies marijuana as a Schedule 1 narcotic, states have been quick to legalize it for medical and recreational purposes, with considerable legislative action in recent years. Providers face uncertainty because of the conflict between federal and state regulations; nevertheless, state laws allowing marijuana use insulate providers from federal law. Currently, 33 states have approved complete MMPs, including the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands, and 12 states allow the use of "low"-THC, high-CBD products for limited medical uses or as a legal defense (National Council of State Legislatures, 2019). Consequently, there is a discrepancy between federal and state law. Contrary to widespread assumption, researchers believe that marijuana is harmful to the mind and body, and it is no longer considered a "softer" narcotic and is highly addictive (Lafayette et al., 2017). The broad problem is that the state has indicated a need for nurse practitioners to prescribe medical marijuana, which can be a federal offense.

Need to Address the Problem

The nursing practice gap is evident, as nurse practitioners in primary care on the east coast of the United States are unaware of the most recent data regarding the care of patients using medical marijuana. Traditional inquiries regarding the care of patients using medicinal marijuana in the clinic have not included assessing and certifying patients with qualifying conditions, or the patient may simply be asked, "Do you smoke?" and no further assessment or certification is performed. In the same way that illegal marijuana use is underreported by patients because they do not consider marijuana a medication, people may not consider themselves to be illegally consuming marijuana if they consume it without first being evaluated for qualifying illnesses. During clinic visits for pain and other comorbidities, nurse practitioners are required to conduct a screening to assess patients on the need for marijuana use. Therefore, nurse practitioners must notice that the primary care clinic should have this vital health screening in place to ensure that patients are not illegally utilizing medical marijuana. To teach patients about the consequences of illegal marijuana use, nurse practitioners must be knowledgeable. Due to the escalating epidemic of people dying from improper marijuana use, it is crucial to continue educating nurse practitioners and the vulnerable population on the topic of caring for patients utilizing medical marijuana, regardless of whether they are using it or not.

Significance to Nursing Practice

The project involved the development of education for nurse practitioners in an underserved clinic on the east coast of the United States to address needs related to caring

for medical marijuana patients, with the ultimate goal of educating nurse practitioners, patients, families, and the general public about the dangers of illegally using medical marijuana.

The primary stakeholders are nurse practitioners due to the importance of continuing education to nursing practice. Nursing is a dynamic, ever-changing profession, and maintaining current knowledge regarding specialty care is essential to improving the safety, quality, and efficacy of patient care and generating positive outcomes. Second, management and administration have a role in supporting these nursing education activities to improve patient care and lower care costs. Included in this intervention are nurse practitioners, patients, the community of the clinic site, the county of the clinic site, teachers, parents, and family members, who must be encouraged to get educated about the consequences of improper medical marijuana assessment and certification based on qualifying conditions.

Purpose Statement

Gap in Practice

The major problem is state legislation. To address the law in a practice area is to ensure that nurse practitioners comply with federal laws that allow the correct evaluation and certification of patients eligible to use medical marijuana. How can nurses combat the growing problem of nurse practitioners failing to certify or evaluate patients using medical marijuana? To accomplish this goal, nurse practitioners must be continuously updated on the latest healthcare trends and comprehend the nature of an illness or condition by educating nurse practitioners on the NCSBN guidelines on caring for

patients using medical marijuana. Nurse practitioners can provide quality care to the public, maintaining the best outcomes and promoting quality of life for vulnerable populations. Cannabis, generally known as marijuana, is the most widely used substance that is used illicitly or for medical purposes in the United States. The public perception of medical marijuana use is that it helps individuals manage their pain better; therefore, they need it to improve their quality of life. Prior to the introduction of medicinal cannabis, a large number of individuals with chronic pain relied on prescribed opioids to treat their discomfort. Regrettably, prescribed opioids have resulted in a high number of deaths as a result of drug overdose, illegal usage, overprescribing, and addiction (NCSBN, 2018). Nurse practitioners must comprehend the complexities of federal and state legislation governing medical cannabis users in order to provide safe care to patients. As nurse practitioners strive to provide safe care for patients, they must understand the intricacies of federal and state laws on medical marijuana. Nurse practitioners need to learn how to care for patients who qualify for and use medical marijuana. The project's goal is to educate nurse practitioners on the current NCSBN guidelines to increase their education and confidence level for the administration of medical marijuana to their patients in a safe, legal, and ethical manner, thus closing the gap in the education of the nurse practitioner on the NCSBN medical marijuana guidelines.

Addressing the Gap

Through this project, I sought to answer the following question: For nurse practitioners caring for patients using medical marijuana, can education on caring for

patients using the NCSBN guidelines for medical marijuana increase education and confidence scores? The evaluation and certification of qualifying conditions for the use of medical marijuana are relatively new, and not all concerns are immediately apparent; however, in recent years, substantial negative consequences on the human body have been linked to marijuana abuse. In multiple ways, this project has the potential to solve this practice gap. To halt this escalating epidemic, nurse practitioners must comprehend the fundamentals of marijuana and its molecular composition. Second, nurse practitioners must grasp the dangers of inhaling, consuming, and smoking substances that are comparable to marijuana. Third, many argue that marijuana is safer than opioids because it does not have the same chemical components. Fourth, nurses must comprehend the ailments that might result from unlawful marijuana usage. Finally, nurse practitioners must have the information and tools necessary to teach others about proper marijuana usage. With this combined information, nurse practitioners will be able to begin to educate patient populations on the dangers of illicit use and inadequate assessment or nonappropriate certification of medical marijuana for qualifying condition and linked conditions and provide techniques for proper usage of marijuana.

Nature of the Doctoral Project

Sources of Evidence

A literature review was undertaken using the resources accessible through Walden University and the underserved primary care clinic, including but not limited to CINAHL, MEDLINE, PubMed, ProQuest, Ovid, and the Cochrane Database of Systematic Reviews. *Marijuana, Stivex, certification, assessment, qualifying conditions,*

Maryland marijuana program, medical marijuana users, and dangers of illicit marijuana use were some of the keywords and phrases used in the literature search. The referenced articles needed to have been published within the last 5 years and needed to contain references to the dangers of nonappropriate certification of patients using medical marijuana, the prevalence of patients in need of marijuana medication, the poor quality of lives resulting from inappropriate product use, and the prevalence of a major health concern resulting from improper drug use. There was information for the participants and stakeholders; however, nonclinic nurse practitioners were not included. I obtained the appropriate permissions and clearances from the Walden University Institutional Review Board (IRB) and the facility's IRB. Information about the issue of caring for patients using medical marijuana was collated, and with the collaboration of clinical nurse specialists, physicians at the hospital, and clinic managers, an interdisciplinary team developed education for the nursing staff addressing the care of patients using medical marijuana.

Approach to the Project

Prior to establishing the program, approval from Walden University's IRB and the hospital where the project was conducted, as required, was requested. A statistician affiliated with the clinic agreed to collaborate on the project's details with clinic professionals, including medical marijuana experts and advanced practice nurses. The project was carried out at an underserved primary care clinic on the east coast of the United States. The education module was derived from an established evidence-based module. The project was a quality improvement project using the staff education module

with a pretest and posttest with 12 short questions that when taken earned 1 unit of continuing education credit from a program that was already developed. Nurse practitioners are accountable for the safety of their patients; consequently, it is a priority to ensure that all nurse practitioners agree to cover the gap that exists in practice.

A pretest was administered to nurses to assess their understanding of medical marijuana care in order to build a curriculum that met their educational needs. Prior to the class, a pretest was administered to assess the nurses' knowledge on caring for medicinal marijuana patients. The pretest evaluation instrument (Appendix A) was adapted from a tool used by the NCSBN. Participants received an email with a link to the pretest, as well as information on the project's aims and informed consent. This tool measured the demographics and marijuana-use knowledge of participants.

Using the ADDIE approach of analysis, design, development, implementation, and evaluation, the curriculum was produced with the aid of subject-matter experts. The length of the course varied between 60 and 90 minutes, depending on the needs of the pupils. After completing the course, nurse practitioners took a posttest to assess their comprehension. The test findings were used to create descriptive statistics that were used to analyze the data.

Additionally, CEU courses on treating patients who use medicinal marijuana are offered to ensure that nurse practitioners are more prepared to practice. The education module was based on the NCSBN guidelines on caring for patients using medical marijuana. The module overviews medical marijuana. It overviews the content and provides education for nurse practitioners to consider a number of factors including

physical and other comorbidities, legal issues, and qualifying diagnoses that qualify patients for certification. This would be inclusive of the patient population of children, adolescents, and psychiatric patients. This education module was used for the project education. A test developed for this CEU that was evidence based was used for the pre- and posttest in the project to measure the outcome using descriptive statistics to answer the clinical practice-focused question. Participants had the option to submit the tests on the module to obtain one CEU credit.

Additionally, the clinic serves patients with varying health conditions and different ethical and cultural backgrounds, ranging from neonates to frail, elderly patients. It also serves focused patient groups—for example, individuals who require management of pain due to terminal and chronic health conditions. The nurse practitioners range from full-time staff to those working night shifts, float nurse practitioners, and weekenders, summing to 15 nurse practitioners, along with a doctor and owner who is also a DNP. The project was feasible with the use of the pre- and posttests along with the education module being presented via online intranet. The education was done by the project leader. Professional emails were sent to all nurse practitioners and allowed 1 week review for education; information can be accessed as needed for future use.

Nurse practitioners were educated on how to use the guidelines to assess and certify the patient who uses medical marijuana. Second, the patient who qualifies for certification based on their assessment will also learn about state and federal laws prohibiting or restricting prescriptions. Instruction covered using pre- and posttest and

survey design to look at participants' knowledge of medical marijuana laws in different states and federal laws to see how well they know what they need to know as nurse practitioners. The NCSBN is responsible for all nursing boards in the United States and allows nurse practitioners to give out medical marijuana drug cards to the public. The new knowledge gained may be used to guide practice changes (see Lorenzo et al., 2019).

After the education module was developed, a panel of experts completed a content validity survey. A pre- and postsurvey were given to evaluate education increases. A confidence survey was also administered to measure the level of understanding and confidence that nurse practitioners obtained. These pre- and posttests measured summative outcomes. Understanding federal and state laws about medical marijuana drug cards was part of the training for nurse practitioners. They also learned how to work with and understand patients who qualify for medical marijuana treatment. The CEU will apply the education and check the nurses' abilities when giving out drug cards to the public. One study showed how effective CEU could show how quickly and correctly a person can do things and give the teacher immediate feedback (Phillips et al., 2020). The posttest had the same questions as the pretest, with the hope that there would be an improvement in every area to suggest knowledge gained.

A pretest and posttest were administered to measure the outcome of change in the scores. There was a hands-on/return demonstration of how to check patients who are eligible for medical marijuana in the education module. The information was on the competency checklist. One study found that nurses who took an educational course learned how to safely navigate and interpret readings, which led to better patient

outcomes and prevented practice errors from happening (Phillips et al., 2020). Thus, the goal of the DNP project was to teach nurse practitioners how to effectively and confidently issue medical marijuana to eligible users at the clinic. It is hoped that nurse practitioners will have more knowledge, skills, and confidence in using the most recent clinical literature after taking part in an educational process. The doctoral project could help close a gap in practice at this practice site by teaching nurse practitioners how to better assess eligible patients for medical marijuana use. The project could also help nurse practitioners have more confidence to improve patient outcomes and reduce the risk of harm because they do not know enough about medical marijuana laws.

Purpose of the Project

The problem in nursing practice is a lack of knowledge about the dangers of inappropriate evaluation and certification of patients prescribed medical marijuana. The NCSBN is among the most reputable organizations promoting medical marijuana usage and education activities (NCSBN, 2018). This initiative is an effort by an underserved clinic on the east coast of the United States to educate its nurse practitioners so that they can educate patients, families, and ultimately the surrounding community about the dangers of illicit marijuana use by not assessing and certifying patients appropriately. The nurse practitioner is responsible for protecting patients and the community and advocating for their health.

Significance

Medical marijuana use is an alternative to opioid usage and may give treatment to people who meet the requirements for qualifying ailments. Nurse practitioners, medical

marijuana users, the organization, and doctors are some of the people who will be affected by this project. Patients may be better off because as nurses become more informed and provide informed education to patients and families, their caregivers may in turn be safer; there will be less risk of errors in practice happening because of mistakes made when certifying a condition. As long as nurse practitioners and other healthcare providers see patients who use medical marijuana, they must know their state's laws and regulations, as well as the principles of safe and knowledgeable practice, in order to keep people from getting hurt. It is crucial for advanced practice registered nurses (APRNs) who can sign off on a qualifying condition to understand their responsibilities while doing so (NCSBN, 2019). By completing an objective questionnaire, they may be able to provide additional information regarding their marijuana knowledge and views. By examining this, it may be possible to discover issues with marijuana, such as information gaps and drug interruptions (Project of Law, 2019). Nurse practitioners must also keep an eye on and care for patients. Nurse practitioners must be aware of the negative effects of marijuana. Having competent caregivers and having a better reputation for giving better patient care may also result from the project.

The project leader will use data from the education module to determine learner gain while maintaining confidentiality and privacy. I will use descriptive statistics to analyze pre and posttest data collected as part of the training. The staff may be happy to know that they are improving their ability to care for patients using medical marijuana as safer practitioners, which will foster their confidence to practice. The project could make a big difference in nursing practice because it could be used in other projects that use

medical marijuana certification eligibility. The contribution would also support research that shows that having greater knowledge and expertise on caring for medical marijuana patients reduces the chance of nurse practitioners making errors due to a lack of awareness of the subject matter of marijuana administration to users.

Moreover, the project can be used in similar practice areas. There is a good chance that any primary practice that uses medical marijuana for patients can benefit from the project's new knowledge. The government, the community, and society and other primary care practices could also be examples of other healthcare entities that could benefit from the project. This project could help other areas of medicine that work with people of all ages and all stages of life. The project could positively affect nurse practitioners, patients, patients' families, and those who work with them. The staff would be better off if they learned more about being safe caregivers. The project is essential for more than just the social environment. It may also help staff, patients, and their families know and trust each other and get good service (de Oliveira et al., 2018). By maintaining safer procedures and adhering to the national guidelines for practice with patients using medical marijuana, the organization's employees will be more satisfied. According to a National Council of State Legislators (2019) report, while healthcare providers cannot prescribe cannabis, each MMP contains a medicinal condition and symptoms known as qualifying criteria for which a person may use medical marijuana. The provider evaluates whether or not the person has a qualifying condition and completes an MMP certification (National Council of State Legislator, 2019).

By improving the practice's nurse practitioners' knowledge, skills, and confidence in managing marijuana certification, this project will make a global difference. The nurse practitioners will accurately and confidently advocate for their patients' care and outcomes. The project will also make a difference by focusing on teamwork and social change. It will improve patient outcomes by strengthening nurse practitioners' skills and lowering the risk of harm from marijuana use. Guidelines for APRNs teach them to be safe and knowledgeable when they write medical marijuana qualifying conditions (NCSBN, 2018). Improving the knowledge level of nurse practitioners can help keep people safe. The project will also be good for patients and their families because there will be an increase in patient satisfaction because the adverse effects of marijuana use may be lessened. Nurse practitioners increasing their confidence level through obtaining new knowledge can enhance patients' overall perception of their clinic experience.

The project will positively impact social change. The new knowledge the project will create can support social change that aligns with Walden University's mission. The knowledge that will be obtained from the project will be applied to practice. Through research and reflective learning, it is possible to reflect on past mistakes and learn new knowledge so as not to repeat mistakes that have been made and improve quality care for patients. Therefore, providers will be educated on new knowledge and current trends of the practice. Second, caring for a population in a way that promotes long-term pain management can result in increased social well-being and a healthier nation. Finally, the implementation of the project can help minimize readmissions and untimely deaths, as well as alleviate the government's burden on unemployment and cut wasteful costs on

rehospitalization of patients. According to Walden University, positive social change is the deliberate process of generating and implementing ideas, methods, and activities that promote the worth, dignity, and growth of individuals, communities, organizations, institutions, cultures, and society (Walden University, 2020). By utilizing an education provided by Walden University, one can contribute to the advancement of current knowledge through rigorous and diligent research, thereby making a difference in society. The legalization of cannabis in several U.S. states has resulted in a 50% decrease in cannabis prices and a significant increase in the potency of cannabis products through the sale of high-THC cannabis extracts and oils. Thirty-six profits from retail sales have also fueled the growth of a legal cannabis business, which is currently campaigning for lower cannabis taxes and other restrictions to displace the illicit cannabis market. (Smart & Pacula 2019). The use of current knowledge has helped society achieve positively to the public's welfare and well-being, hence creating a positive impact on society. DNP students must not keep the knowledge they obtained from Walden University, but should impart such knowledge to others to help maintain a better society.

Summary

There is a risk to patients when nurse practitioners do not properly assess and certify patients using medical marijuana. The nurse practitioners at the primary care site have the chance to learn more about, improve their skills in, and build their confidence with the current clinical educational modules. The purpose of using the teaching module is to help nurse practitioners understand the difference between federal and state regulations to effectively evaluate patients who require medical marijuana as a therapy.

Nurse practitioners comprehending how to provide effective and high-quality care to their patients is crucial because increasing their confidence level in assessing patients' eligibility to obtain medical marijuana can build their confidence, thereby increasing quality care, which may influence social change. When caring for patients who use medicinal marijuana, all nurse practitioners should become acquainted with their state's laws and regulations, and most importantly, they should be cognizant of the principles of safe practice and educate nurse practitioners in the practice to ensure patient safety. APRNs who are allowed to certify a qualifying condition must also be aware of their obligations while doing so. After learning about the proper way to give medical marijuana to patients, nurse practitioners can cut down on the number of people who die because they do not know how to give medical marijuana to patients who use it. Patients who use medical marijuana are a top priority for the practice. Nurse practitioners have said that they do not know which states allow patients to access medical marijuana.. Because medical marijuana education is done through the intranet, there are chances that a nurse will forget or not use a feature on the system that will help practitioners keep track of their patients. The goal of the project is to make patients more satisfied with their clinic experience and overall care. By gaining new information on how to care for patients utilizing medicinal marijuana, nurse practitioners will become more informed and competent, which will increase their confidence.

In the second section of this project document, I discuss the application of the ADDIE model to the project and the significance of the project to the advancement of nursing practice. The responsibilities of the DNP student and team members who will

participate in the project's education component will be outlined. In the part that follows, I will also discuss how the state of Maryland is tackling the rising issues and problem of medicinal marijuana. By examining medical marijuana and its illicit use associated with an underlying disease condition that can cause injury through evidence and information, this doctoral project has the potential to impact the practice of nursing as it seeks to educate nurse practitioners regarding providing care using medical marijuana so that they can provide education and intervention for patients who have the potential to succumb to injury or death due to lack of knowledge of caring for patients using medical marijuana.

Section 2: Background and Context

Introduction

The underserved primary care clinic on the east coast of the United States is serving as the DNP project site that will prioritize all nurse practitioners' training requirements to boost their education in adequately assessing patients eligible to utilize medical marijuana. Due to a lack of awareness of federal and state laws regarding assessing individuals for eligibility to use medical marijuana, the nurse practitioners reported lacking education on determining eligibility for marijuana to patients who need the therapy. Every nurse practitioner participating in the course module provided by the NCSBN is educated on assessing patients who are eligible to use medical marijuana. However, it is the only opportunity for training on determining who may legitimately use medical marijuana. This doctoral project's practice-focused question was the following: For nurse practitioners caring for patients using medical marijuana, will education on the care of patients using the NCSBN guidelines for medical marijuana increase education and confidence scores?

Through this doctoral project, I sought to address the clinic's gap in practice by creating the expectation to improve knowledge and skill by educating nurse practitioners on understanding the nature of federal and state laws for dispensing medical marijuana to eligible patients in need of it. Additionally, I sought to address nurses' confidence that they are improving patient outcomes, reducing the risk of harm related to overprescribing and underprescribing and providing a reassuring experience for patients and their families. I am hoping that a reduction in low confidence levels of staff for dispensing

marijuana to patients will show as a long-term outcome, an increased patient satisfaction by improving the patient's overall perception of the quality of their clinic experience. Without more large-scale clinical studies, cannabis will remain a complementary and alternative medicine, a drug of last resort, or a salvage treatment (NCSBN, 2018). The background for this project included a review of the evidence-based practice model of the NCSBN National Nursing Guidelines for Medical Marijuana to guide the project and translate the literature into practice. Some terms used in this project will be clarified that may have multiple meanings. The description of my professional role and relationship to this project will include any relationships to the topic, participants, and institution, as well as any biases.

The project was carried out at an underserved primary care clinic on the east coast of the United States. The project was a quality improvement project using the staff education module and a pre- and posttest to measure confidence level change. Nurse practitioners are accountable for the safety of their patients. Consequently, it is a priority to ensure that all nurse practitioners agree to cover the gap that exists in practice. Further, the clinic serves patients with varying health conditions and different ethical and cultural backgrounds, ranging from neonates to frail elderly patients. It also serves focus groups such as patients with uncontrolled pain management due to terminal and chronic health conditions. The practice employs nurse practitioners who include full-time nurse practitioners, nurse practitioners working night shifts, float nurse practitioners, and weekenders, who sum up to 15 nurse practitioners, along with a doctor and owner who is also a DNP. The project was feasible with the use of the pre- and posttests along with the

education module being presented via online intranet emails to reach all nurse practitioners and allow education at their convenience.

As the DNP student project leader, I met with nursing leaders and the owner of the clinic to discuss the initiative's feasibility and educate nurse practitioners on the NCSBN guidelines, which we could utilize to help them assess and certify patients who are eligible to use medical marijuana. Upon approval for the project from the administrator and nurse practitioners, permission was obtained from the administrator to conduct the project on the practice site. IRB approval was sought. Following assessment of the problem and providing credible literature to nurse practitioners, an education module was developed. An adult learner theoretical education structure using ADDIE was instituted. Government websites, PubMed, CINAHL, and the new guidelines from the NCSBN for medical marijuana users were fully utilized as an educational model. Keyword terms related to medical marijuana, such as *medical cannabis*, *NCSBN*, *marijuana*, *medical marijuana program (MMP)*, *certify*, *dispensing drug cards*, *cannabidiol (CBD)*, *delta-9 tetrahydrocannabinol (THC)*, *Sativex*, *Schedule 1 control substance*, and *dronabinol*, will be used throughout the project. Literature published within 5 years or less, peer-reviewed articles, and systemic review meta-analyses and nurse practitioners working for the practice were included in the project to obtain maximum evidence base work. Literature over 5 years old, blogs, non-peer-reviewed articles, and opinionated articles were excluded from the project. Education was presented using an online PowerPoint /voiceover point to each nurse practitioner.

The intranet was used to deliver education using SurveyMonkey to deliver pre- and posttests. Data collected from the education module were analyzed. Data were analyzed using descriptive statistics; confidentiality and privacy were assured. Codes were used for SurveyMonkey to codify nurse practitioners' names to stay anonymous. After utilizing SurveyMonkey, I stored the result in a Word document or copied it in a folder on my private computer. The information will be kept in accordance with Walden University's policy and will be deleted after 7 years. Due to a lack of scientific study and the creation of policy reform, the number of Drug Enforcement Administration (DEA)-registered cannabis manufacturers grew (DEA, 2017). The clinic was faced with underlying practice issues. Consequently, a project needed to be implemented to educate nurse practitioners on federal and state laws for the legal dispensation of cannabis for nurse practitioners using evidence-based best practices.

Concepts, Models, and Theories

The use of evidence-based models provides a framework for organizing and transferring knowledge into practice (White et al., 2016). Various models or frameworks may help guide the adoption of best practices. The NCSBN Medical Marijuana Guidelines in the clinical setting served as a model for organizing and assessing the project. The approach helps researchers through the process of employing literature-based, evidence-based techniques and incorporating the results into standards of practice (NCSBN, 2019). The model guides researchers through the process of advancing nursing excellence for public protection by using current legislation, scientific literature, and nursing implications, nursing care of patients using medical marijuana, medical

marijuana education in prelicensure nursing programs, medical marijuana education in APRN nursing programs, and APRN certifying a medical marijuana qualifying condition (NCSBN, 2019). In addition, ADDIE, which stands for analysis, design, development, implementation, and evaluation, is one of the most common frameworks for learning (see Branch, 2009 cited by Cooperative Project, n.d. in Figure 1). ADDIE is a genuine, five-component process that creates and applies ideas and theories and facilitates the construction of knowledge and skills via directed learning. ADDIE is the instructional design approach used most often for training programs by instructors, software developers, and university administrators (Yeh & Tseng, 2019).

Figure 1*Common Instructional Design Procedures Organized by ADDIE*

	<i>Analyze</i>	<i>Design</i>	<i>Develop</i>	<i>Implement</i>	<i>Evaluate</i>
Concept	Identify the probable causes for a performance gap	Verify the desired performances and appropriate testing methods	Generate and validate the learning resources	Prepare the learning environment and engage the students	Assess the quality of the instructional products and processes, both before and after implementation
Common Procedures	1. Validate the performance gap 2. Determine instructional goals 3. Confirm the intended audience 4. Identify required resources 5. Determine potential delivery systems (including cost estimate) 6. Compose a project management plan	7. Conduct a task inventory 8. Compose performance objectives 9. Generate testing strategies 10. Calculate return on investment	11. Generate content 12. Select or develop supporting media 13. Develop guidance for the student 14. Develop guidance for the teacher 15. Conduct formative revisions 16. Conduct a Pilot Test	17. Prepare the teacher 18. Prepare the student	19. Determine evaluation criteria 20. Select evaluation tools 21. Conduct evaluations
	<i>Analysis Summary</i>	<i>Design Brief</i>	<i>Learning Resources</i>	<i>Implementation Strategy</i>	<i>Evaluation Plan</i>

Note. From “ADDIE instructional design procedures.,” by Robert Maribe Branch, 2009, *Instructional Design: The Addie Approach*, p. 9. (cited by Cooperative Project [licensed for non-commercial use only] / The ADDIE Approach (pbworks.com).

<http://groupcp.pbworks.com/w/page/65234407/The%20ADDIE%20Approach>

Steps Using the ADDIE Model

I followed a number of steps in the development of this staff education project.

The steps aligned with the ADDIE model included the following:

- Prior to beginning the project, I sought approval from the practice site management.

- To get ethical clearance and, if required, a practice site, I requested permission from the IRB of Walden University.
- To evaluate the impact of an education intervention, an educational module on quality improvement with a pre- and posttest design was used.
- The ADDIE approach, an adult learning theoretical framework, was used to build an instructional education design module.
- More recent literature on the subject was sourced from the Walden University library using CINAHL Medline, ProQuest, OVID data repository, Google Scholar government websites, and resources from the NCSBN.
- Terms such as *medicinal marijuana*, *cannabis*, *legal dispensing*, *nurse*, *project manager*, *project leader*, *nurse practitioners*, *cannabidiol*, *THC*, *NCSBN*, *marijuana*, *Sativex*, and *Marinol* were utilized throughout the project.
- Only nurse practitioners who worked in the practice, peer-reviewed research, and systematic review meta-analysis articles were included in the study; literature published within the last 5 years was used to obtain the most evidence-based results.
- Opinionated pieces, blogs, non-peer-reviewed publications, and articles published more than 5 years ago were excluded.
- I got approval from the nurse practitioners, the clinic manager, and other interested parties to examine the literature before I started the project.
- Once the project was approved, an email was sent to nurse practitioners to invite them to take part in the project.

- To preserve anonymity and ensure that the pretest and posttest questionnaires were matched; codes were employed to encode nurse practitioners' names for the survey.
- To execute the staff education module, nurse practitioners underwent PowerPoint training in one of the clinic's classrooms, with a survey administered after the training.
- Pre- and posttests using the intranet were used to provide education, as well as surveys by an expert panel to assess what was learned.
- As the project manager, I went through the data collected during the training session obtained from the site; aggregate data was used for the purpose of monitoring confidentiality and privacy, and a descriptive data analysis was used.
- After the surveys were completed and results were analyzed, I stored the findings in a folder in a Word document on my own computer.

In accordance with Walden University policy, the data will be stored for 7 years.

Ethical Procedures

Participants were assigned anonymous codes as part of the initiative. The use of an intranet was employed for participants to access the pre- and posttests, with the coding system used instead of their names for confidentiality and privacy. There were no consent papers to sign; a consent form was shared with participants; and this project received Walden University's IRB approval. SurveyMonkey was used to present the pre- and posttest for data analysis. On the guidelines, I set up data analysis for descriptive

statistics. The information gathered for this project will be kept for 7 years in a folder on the server per Walden University's recommendation. The password was encrypted and saved in a safe location that allows access to only authorized users. I used a voice recorder PowerPoint to disseminate the information to the nurse practitioners who are the end-users. The project was free of prejudice and special interests, and the data findings will not be disseminated until after the project concludes. The information saved on the folder will be destroyed per the recommendation of Walden University.

Relevance to Nursing Practice

Nurse practitioners working in the clinic, medical marijuana users who are clinic patients, the organization, and doctors are some of the people who will be affected by this project. These patients will be better off because their caregivers will be safer, and there will be less risk of medical injuries happening because of mistakes made when certifying a condition. As long as nurse practitioners serve patients who use medical marijuana, they must know their state's laws and regulations, as well as the principles of safe and knowledgeable practice, in order to keep people from experiencing preventable injuries.

It is essential for APRNs who can sign off on a condition that qualifies for medical marijuana treatment to know what their duties are when they sign off on it (NCSBN, 2019). They might be able to tell more about their knowledge and attitudes about marijuana by filling out a questionnaire that is objective. If nursing professionals look at medical marijuana issues, they might find problems with marijuana, like gaps in knowledge and drug interruptions (Project of Law, 2019). Nursing professionals must also keep an eye on and care for patients. They should know what to expect from the side

effects of the medicine. Having better caregivers and having a better reputation for giving better patient care may also result from this project. Keeping track of quality metrics for the practice is supported by CMS Quality Reporting; CMS (n.d.) supports a practice called reporting standardized patient assessment data and quality measures to improve the outcomes of people who get Medicaid. Poor scores affect how much Medicare will pay for services that patients get. The project could make a big difference in nursing practice because it could be used in other projects that use medical marijuana certification eligibility. The addition of the project's new information may also support studies indicating that nurse practitioners with more knowledge and competence would reduce the likelihood of medical and practice mistakes while caring for their patients.

The project can be used in other similar practice areas. There is a good chance that any primary practice that uses assessment and certifying qualifying conditions for medical marijuana users could be of help to them. The government, the community, and society could also be examples of other primary practices, but these are not the only ones. This project could help professionals in other areas of medicine who work with people of all ages and at all stages of life.

The project could positively affect nurse practitioners, patients, patients' families, and those who work with them. The staff would be better off if they learned more about being safe caregivers. Furthermore, the project is essential for more than just the social environment. It also helps staff, patients, and their families know and trust each other and get good service (de Oliveira et al., 2018). People who work for the organization may be happier because they will have improved their skills, thereby improving their confidence

level and knowledge ensuring a greater likelihood that they follow the national guidelines for safe practice with patients using medical marijuana. The project also aligned with the DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based-Practice (American Association of Colleges of Nursing [AACN], 2006). The project was aligned with the staff education module that the NCSBN recommends. Additionally, the alignment of this project included the problem statement and the aim of the project. Further, the clinical question, social change, the context of the doctoral project, sources of evidence, the approach or procedural steps, and ethical issues concerning the project were all aligned according to Walden University's approval and guidelines. Moreover, the staff education module was aligned with the clinical administration's suggestions and authorization to search the literature at the practice site.

By improving nurse practitioners' knowledge, skills, and confidence in managing marijuana certification, assessment of patients, the project will make a difference in the world. Nurse practitioners will accurately and confidently advocate for their patient's care and outcomes. The project also aims to make a difference by focusing on teamwork and social change. It aims to improve patient outcomes by strengthening the practice skill and lowering the risk of harm from marijuana use.

Guidelines for APRNs teach nurse practitioners to be safe and knowledgeable when they use medical marijuana qualifying conditions (NCSBN, 2018). By improving the knowledge level of nurse practitioners can help keep people safe. The project will also be a good thing for the patient and their families. There was an increase in patient satisfaction because the adverse effects of marijuana use are lessened. By nurse

practitioners increasing their confidence level through obtaining new knowledge can enhance patients' overall perception of their clinic experience. The nurse participants of the project, such as full-time PRN, float pool, weekend nurse practitioners, was in alignment throughout the project.

Local Background and Context

The project will be carried out at an underserved primary care clinic in east coast of the United States of America. The project is a quality improvement using the staff education module and a pre and post-test to measure the education obtained and confidence level change. Nurse practitioners are accountable for the safety of their patients. Consequently, it is a priority to ensure we all agree to cover the gap that exists in practice. Also, the clinic serves patients with varying health conditions and different ethical and cultural backgrounds, ranging from neonates to frail old. It also serves focus groups like patients with uncontrolled pain management due to terminal and chronic health conditions. The nurse practitioner does not prescribe for these patients, but we are allowed to assess for patients who are eligible to obtain medical marijuana. Once they have been assessed and proved eligible using qualifying conditions we refer patients to medical marijuana clinics to receive their medical marijuana.

The practice constitutes nurse practitioners ranging from full-time, day and night shifts, float nurse practitioners, and weekenders which summed up to fifteen nurse practitioners with a doctor and the owner who is also a DNP. There are about 15 (fifteen) nurse practitioners in the clinic. Five nurse practitioners are full-time, four are float pool, three are weekenders, and three are a night shift. The DNP nurse, the proprietress of the

clinic, also has vast experience in substance abuse and addiction. Her contribution is vital when it comes to managing the clinic. We also have our health partners who work alongside nurse practitioners, the unit secretary, phlebotomists, and other miscellaneous personnel who assist in the day-to-day running of the clinic.

The project is feasible with the pre and post-tests and the education module being presented via online intranet emails to reach all nurse practitioners and allow education at their convenience. It is feasible to accomplish this project in this setting because it has the nurse practitioners and a method to measure the practice. Both experienced nurse practitioners and new to practice nurse practitioners received education on the clinical marijuana module to obtain first-hand knowledge of the subject matter.

Role of the DNP Student

Nursing has proven to be the perfect career for me as it keeps me challenged and engaged, and helping people. I had a passion for nursing more when my mother died at an early age for an ailment that would have been prevented. We are not supposed to lose patients for diabetes which my mother had. The moral lesson to her death was that if only we had focused on health prevention and promotion, we would have saved her life. For me, knowledge is power, and there is relevance to the project in question. Hence obtaining this knowledge would render me to educate my patients, the community, and society that will make the difference.

As I obtained all my degrees in nursing, I feel as though I have acquired a vast knowledge to disseminate to the people who need the information. Last year, I was urged to utilize my master's degree to teach nursing students at the University, but

circumstances would not allow me to do so. Because of my present state, I do two days PRN as a nurse practitioner and at my other job, wherein they help pay my fees. I have grown to be a nurse that has exhibited a tremendous amount of expertise and understands the needs of the different population groups. I also act as a resource or go-to person for situations of substance abuse and its likes. Although we are assessing patients for eligibility for marijuana use, we still have inconsistencies and a lack of confidence to conduct an assessment for our challenged patients.

My role in the doctoral project is a project leader who is to educate the other nurse practitioners to ensure we affect a positive change. My main goal is to execute the orientation process for the team as a pretest. This project allows for that goal to be addressed. In my role's capacity, I would want the nurse practitioners to be efficient and knowledgeable about assessing and certifying patients who are qualified to use medical marijuana. Another area for improvement is to develop preceptors for orienting new employees to the clinic. Although the goal is not part of this project, it is essential to increase the knowledge level of new nurse practitioners. My relationship with assessing and certifying medical marijuana use to its users is well understood, and it will be continued as a teaching model for improvement in our area of practice.

As a DNP student, I am supported by the nurse practitioners because they noticed the difference in the clinic's environment when patients come for medical marijuana and want their needs met.

Role of the Project Team

The nurse practitioners found that the workflow and time management is on par and that patients and their results will improved significantly. The organization and the practice's leadership have shown verbal and administrative support for the DNP student's advancement. The Association of American Colleges of Nursing (2006) discusses essentials for doctoral education. It emphasizes the importance of DNP doctors' preparation in organizational leadership and systems thinking in order for them to develop novel approaches to the complex problems confronting modern health care. This DNP requirement stresses the DNP graduate's role for assuring accountability for quality treatment and patient safety and critically evaluating ethical difficulties inherent in patient care, health care organizations, and scientific research (AACN, 2006). The director at my current job assisted me in rescheduling my schedule to fit practicum hours and urged me to focus my efforts on enhancing the team, starting with evaluating patients who need a medical marijuana assessment and certification. Nurse Practitioners and staff know the patients' experiences with medical marijuana use metrics. Advanced education in systems leadership provides doctors of nursing practice with the skills needed to support successful organizational-wide changes in health care delivery and to interface with government officials to influence health care policy activities. The significance and usefulness of Doctor of Nursing Practice (DNP) projects may be increased via collaboration between educators and practice leaders and when students build on previous DNP projects. Projects may have a long-term financial, quality, and influence, proving the value and utility of the DNP degree (Melander et al., 2020). Leaders and

nurse practitioners at the clinic foster a culture of enhancing nursing practice, which is critical to gather support and involvement in this initiative. They are all in agreement that training nurse practitioners on evaluating and certifying patients who use medicinal marijuana for qualifying illnesses will boost their knowledge, confidence, and capacity to practice.

As a DNP-prepared nurse and an advanced practice registered nurse specializing in primary care, I will participate in the design of the teaching component of the project and help with its implementation with nurse practitioners and other stake holders. With the assistance and involvement of the clinic's administration, nurse practitioners, practice owners, and other stakeholders in practice, we will implement the education piece with ease. The project leader and the rest of the team will work in partnership with nurse practitioners, whose participation will be encouraged by the clinic owner to ensure we have a smooth implementation of the project. A physician from one of the counties interested in medical marijuana teaching has consented to join the initiative and is willing to help develop its educational component. A statistician will be engaged to assess the outcomes of the research.

Summary

In an underserved primary care clinic on the east coast of the United States of America, the DNP project seeks to reduce the knowledge gap that occurs among staff nurses caring for patients who use medical marijuana. The major goal of the project is to educate the nurse practitioners at the primary care clinic about the dangers of treating patients only based on their medical knowledge. A study of the literature will be

conducted, and approvals from Walden University and the research site's Institutional Review Boards, as well as participant permission, will be obtained. By teaching nurse practitioners about an issue that is evolving, the project will have an impact on nursing practice. It will also have an impact on society by promoting healthy habits in local communities to handle medical marijuana assessment and certification based on qualifying conditions. In part two of this proposal, the project's importance to enhancing nursing practice will be highlighted along with the ADDIE (analysis, design, development, implementation, and evaluation) methodology. The contributions of the DNP student and the other team members to the project's educational component will be explored in the section that follows. The state where the practice is based will also address the issues associated with caring for patients who use medical marijuana. The doctoral project has the potential to affect nursing practice since it investigates the effects of medical marijuana and the diseases that may be caused by excessive use of the drug. It aims to educate nurse practitioners about the risks associated with improper use of medical marijuana so that they can go on to provide education and intervention for patients who are at risk of developing preventable medical conditions.

In Section 2 of the doctoral project, we review the relevance of nursing in terms of education on marijuana assessment and certification by nurse practitioners to the public, as well as background information regarding state and local efforts to promote proper medical marijuana use in the community, especially for patients with qualifying conditions. In order to enhance nurses' knowledge and practice concerning medical marijuana use in the community, the ADDIE model for teaching has been evaluated in

this section. The function of the DNP student has been investigated via the team's participation to the project. The third portion will address the project's theme, evidence sources, and the collection, analysis, and synthesis of project data.

Section 3: Collection and Analysis of Evidence

Introduction

Literature from peer reviews, reports, and reviews supporting medicinal cannabis, as well as specialist subject matter experts, were used. Walden Library databases were used, along with PowerPoint presentations, to educate nurse practitioners on how to increase their expertise. According to the American Nurses Association, nurse practitioners have prescriptive jurisdiction in more than one state, including the District of Columbia. It is worth noting that 86.6% of nurse practitioners are primary care qualified, with the bulk of them seeing Medicare and Medicaid patients. Annually, nurse practitioners conduct over 1 billion patient visits (American Association of Nurse Practitioners [AANP], 2018). Preparation in organizational leadership and systems-level thought allows DNP clinicians to develop unique approaches to complex challenges facing contemporary healthcare, according to Essential 111 of the DNP curriculum. The DNP core focuses on the role of the DNP graduate in ensuring quality care and patient safety and critically exploring ethical dilemmas that arise in patient care, healthcare organizations, and scientific research (AACN, 2006). The National Academy of Sciences concluded that there is definitive or substantial evidence that cannabis or cannabinoids help treat chronic pain, chemotherapy-induced nausea and vomiting, and spasticity associated with MS (National Academy of Sciences, 2017). There is a lack of substantial understanding of the possible benefits of medical marijuana as well as the risks associated with it; as a result, nurse practitioners and other healthcare professionals will take a marijuana education course as a prerequisite to clinical practice, similar to what is

currently required in other countries (Pereira et al., 2020). According to the DEA (2017), substances known as Schedule 1 controlled substances have little agreed-on medical benefit and a high potential for violence. Nursing is a dynamic, ever-changing profession in which nurses must continue to educate themselves on new trends and evidence-based practice approaches in order to enhance practice and boost patients' health and well-being, hence enhancing population health (Bryant & Posey, 2019). Improving patient outcomes necessitates nurses educating their patients throughout the course of their visit. As a result, the initiative aims to satisfy the requirements of nurse practitioners who need education on evaluating and certifying patients who require medical marijuana, as well as to increase nurse practitioners' confidence, expertise, and delivery of best practice for the community they serve. The goal of this phase of the doctoral project was to explore evidence sources and research technique that would be used in addressing the health problem and implementing practice change in nursing. A primary care clinic on the east coast of the United States will implement the educational initiative. Despite the potential for adverse effects, both cannabinoids are currently commercialized as prescription drugs (e.g., Sativex, Cesamet, Marinol, etc.) to treat a range of disorders such as spasticity, chronic pain, and others. The United States was the first nation to legalize medical marijuana, followed by Canada (European Monitoring Centre for Drugs and Drug Addiction Medical Use of Cannabis and Cannabinoids, 2020; Freeman et al., 2019; Klumpers & Thacker, 2019). Only those selected cannabinoids and their synthesized derivatives may be applied as therapeutic (Lafaye et al., 2017). The above-mentioned evidence thus shows that the advantages of medical cannabis outweigh the disadvantages;

as a result, nurse practitioners must be knowledgeable of the federal and state laws governing the evaluation and certification of patients who use medical marijuana in order to practice with confidence.

Education and Confidence

The doctoral project focused on teaching nurse practitioners at a primary health care clinic on the east coast of the United States to increase their knowledge and confidence in caring for medicinal marijuana patients. The outcome will be increased education and confidence scores. The clinical practice focus question for the project was the following: For nurse practitioners caring for patients using medical marijuana, will education on the care of patients using the NCSBN guidelines for medical marijuana increase education and confidence scores? The goal of the project was to increase nurse practitioners' knowledge and skills so that they could develop increased confidence in providing education to understand how to assess and certify patients who are eligible to use medical marijuana. Nurse practitioners do not have enough knowledge regarding adequate assessment to determine patients' eligibility to use medical marijuana; as a result, the care provided to patients is cumbersome.

Practice-Focused Question

The doctoral project focused on teaching nurse practitioners at a primary health care clinic on the east coast of the United States to increase their knowledge and confidence in caring for medicinal marijuana patients. The outcome will be increased education and confidence scores. The clinical practice-focused question for the project was the following: For nurse practitioners caring for patients using medical marijuana,

will education on the care of patients using the NCSBN guidelines for medical marijuana increase education and confidence scores? The goal of the project was to increase nurse practitioners' knowledge and skills, to develop increased confidence in providing education to understand how to assess and certify patients who are eligible to use medical marijuana. Nurse practitioners do not have enough knowledge regarding adequate assessment to determine patients who are eligible to use medical marijuana; as a result, the care provided to patients is cumbersome.

Sources of Evidence

Literature from peer reviews, reports, reviews that have supported medical cannabis, and expert subject matter experts were utilized. Databases from Walden Library were used to retrieve evidence to support development of the education to improve staff knowledge. According to the American Nurses Association, nurse practitioners have prescriptive jurisdiction in more than one state, including the District of Columbia. It is worth noting that 86.6% of nurse practitioners are primary care qualified, with the bulk of them seeing Medicare and Medicaid patients. Annually, nurse practitioners conduct over 1 billion patient visits (AANP, 2018). Preparation in organizational leadership and systems-level thought allows DNP clinicians to develop unique approaches to complex challenges facing contemporary healthcare, according to Essential 111 of the DNP curriculum. The DNP core focuses on the role of the DNP graduate in ensuring quality care and patient safety and critically exploring ethical dilemmas that arise in patient care, healthcare organizations, and scientific research (AACN, 2006). The National Academy of Sciences concluded that there is definitive or

substantial evidence that cannabis or cannabinoids help treat chronic pain, chemotherapy-induced nausea and vomiting, and spasticity associated with MS (National Academy of Sciences, 2017). There is a lack of substantial understanding of the possible benefits of medical marijuana as well as the dangers associated with it; as a result, nurses and other healthcare professionals will take a marijuana education course as a prerequisite to clinical practice, similar to what is currently required in other countries (Pereira et al., 2020). According to the DEA (2017), substances known as Schedule 1 controlled substances have little agreed-on medical benefit and a high potential for violent.

Despite the potential for adverse effects, both cannabinoids are currently commercialized as prescription drugs (e.g., Sativex, Cesamet, Marinol, etc.) to treat a range of disorders such as spasticity, chronic pain, and others. The United States legalized medicinal marijuana first, followed by Canada (European Monitoring Centre for Drugs and Drug Addiction Medical Use of Cannabis and Cannabinoids, 2020; Freeman et al., 2019; Klumpers & Thacker, 2019). Only those selected cannabinoids and their synthesized derivatives may be applied as therapeutic (Lafaye et al., 2017). Thus, the evidence above has proven that the benefit of medical cannabis outweighs the losses; therefore, nurse practitioners need to understand federal and state laws to practice with confidence while taking care of medical marijuana users.

The project has identified stakeholders, including nurse practitioners who work in practice throughout the day, at night, in the float pool, and on weekends. Nurse practitioners' understanding of how to provide medical marijuana to consumers was tested. A pre- and posttest was administered to determine the nurse practitioners' degree

of expertise in evaluating and certifying medical marijuana users based on their qualifying conditions. The degree of satisfaction with the pre- and posttest was shown in a pre-/postsurvey assessment (Appendix B). The survey was used to gather data about nurse practitioners' demographics and their familiarity with certifying and evaluating marijuana patients. Once the education was completed, a standard evaluation tool (Appendix C) was administered to be completed by participants.

The project included 15 nurse practitioners from the primary practice location on the east coast of the United States. It was optional to take part in the program. As the DNP student leader, I met with the nurse practitioners to explain the project's goals and objectives and requested their participation. According to the most current evaluation of learning requirements conducted by the clinic, nurse practitioners choose in-person education.

Procedures

The intervention was a training program for nurse practitioners from the practice location on how to care for patients who use medicinal marijuana. As part of the facility's yearly evaluation, nurse practitioners at the practice site recently completed a learning needs assessment. According to the data, participants preferred an in-person learning method. In order to provide the educational content to the practicing nursing practitioner across a 60-minute session, a PowerPoint presentation was created.

Protections

The project received approval from Walden University's IRB. The proposal to train nurse practitioners was approved by the primary care center's director. By email or

written letter, nurses were notified of the project's goals and that participation would be voluntary. To take part in the DNP staff education program, interested parties participated in the education. All pre- and postsurveys, as well as the evaluation, were submitted anonymously. There were no risks associated with project participation or the initiative itself that were social, legal, emotional, psychological, or physical. The major goal of the project was to increase nurse practitioners' knowledge and proficiency about care for patients who use medical marijuana.

Analysis and Synthesis

A descriptive analysis was utilized to collect and analyze data before and after the education. According to Samuel et al. (2019), pre- and posttest assessment are useful for gauging training and students' capacity to achieve educational goals. Descriptive data analysis compares the means of samples that have been assessed twice in order to assess the efficacy of training by getting answers from participants to identical questions both before and after the training (Statistics Solutions, 2021). To ascertain if nurse practitioners' understanding on caring for patients using medical marijuana had improved with education, a statistics expert was enlisted to help examine before-and-after data and the paired *t*-test findings.

The project analysis was carried out by assembling and analyzing the data gathered and examined from the pretest and posttest using descriptive statistics to determine whether or not a statistically significant improvement was attained. The project was completed with an intranet presentation. Comparative descriptive statistics between mean and percentages was used to determine the results of the testing.

Summary

Nurse practitioners at the underserved primary care clinic on the east coast of the United States had the opportunity to improve their knowledge, skills, and confidence in utilizing existing expertise to assess and certify patients who need medicinal marijuana to reduce mistakes and increase nurse practitioners' confidence and knowledge levels. Nurse practitioners were educated on how to assess and certify patients using medical marijuana to strengthen their knowledge and abilities, resulting in greater confidence. One source of proof was peer-reviewed published literature that supported this effort. Participants were nurse practitioners who offered direct patient care in an underserved primary care clinic on the east coast of the United States. The technique for boosting nurses' knowledge, abilities, and confidence was a didactic presentation with a module component. The pretest and posttest results were used to evaluate whether there were any statistically significant changes in knowledge and confidence, while the training modules aimed to promote proficiency in their abilities. The participants were safeguarded by following the IRB guidelines.

In Section 3 of this DNP project, the implementation of a practice-based education program for nurse practitioners in an east coast primary care clinic environment was described. The practice-focused inquiry and current practice gap were reviewed, and the goal of the education was to increase nurse practitioners' understanding of caring for patients who use medicinal marijuana. I examined the evidence used to develop and deliver the instruction, defined marijuana-specific terms, and described the evaluation procedure. Additionally, authorization and consent from the university and the

IRB of Walden University were recognized. In Section 4, implementation, analysis, and synthesis of the gathered data will continue, as well as suggestions and findings.

Section 4: Findings and Recommendations

Introduction

The project's primary purpose was to improve compliance with the proper assessment and certification of medical marijuana to qualifying patients. Additionally, I sought to promote awareness of the need to improve knowledge and confidence, implement a zero-error policy, and appropriately provide certificates to patients throughout the care delivery process. The concept is that better compliance with the distribution of medical marijuana to end users would improve the quality and safety of patients' treatment. The clinic created an educational program on how to properly assess and certify medical marijuana patients based on their eligibility. A random sample of 15 nurse practitioners from an underserved primary care clinic in eastern Maryland were given an educational intervention on the granting of medical marijuana in response to NCSBN guidelines as a new policy.

The project had a total of 20 participants, including the owner of the clinic, who is a doctor; the clinic's coordinator; an educator; an information technology specialist; the senior administrator; and the nurse practitioners who received the training. There were 15 nonrandomly selected nurse practitioners; most (93.3%) were female. Nearly half (46.7%) of the nurse practitioners were under 30 years of age, 40% were between the ages of 30 to 50 years, and just 13.3% were over 50 years of age. Nurse practitioners made up the vast majority of participants (86.7%). Two of them worked in educational roles, and one was in an administrative role. One participant was a senior administrator (6.7%), another was a nurse educator (6.7%), and another was an information technology

professional (0.7%). The vast majority of the nurse practitioners (40%) had over 10 years of experience. One third (33.3%) of the participants reported between 5 and 10 years of experience, while one quarter (26.7%) said they had 4 or fewer years. The average participant was female and had worked as a nurse practitioner for over 5 years. The administrator, clinic coordinator, nurse educators, information personnel, and owner of the clinic were not given the pre- and posttests.

Findings and Implications

The data were analyzed using descriptive statistics displayed in percentages. Before starting the instructional sessions, the participants were given a pretest. Each participant participated in one of the five 45-minute instructional sessions. The posttest was given 1 week after all five sessions had been completed. The baseline and posttest data collecting periods were therefore separated by 6 weeks. The maximum number of points that could be earned was 100%. The participants received scores ranging from 30% to 68% on the pretest and 80% to 92% on the posttest. The total baseline (pretest) mean score for comprehending the significance and utility of assessing and certifying medicinal marijuana users were 50.0%. The sample achieved an average of 87.7% after attending the five 45-minute sessions. Using a descriptive analysis of the pre- and posttest data, I found a mean of 36.7% gain, which was significant. The largest gain was 60% with the smallest increase of 18%.

Each question item's score on the scale was based on a 5-point Likert scale, with each question item's value ranging from 1 to 5. The item scores on the pretest varied from 3–5 points. The average increase in question items was 1.46 points, ranging from low to

high. The belief that nurse practitioners lack the confidence to assess and certify patients using medicinal marijuana confidently did not alter following the training. (see Figure 2 for pretraining results of level of confidence of nurse practitioners).

Figure 2 and 3 show the average pretest (Figure 2) and posttest item scores (Figure 3). Figure 4 shows both the pretest and posttest scores across participants ($N = 15$).

Figure 2

Pretest Scores of Nurse Practitioners in Percentages

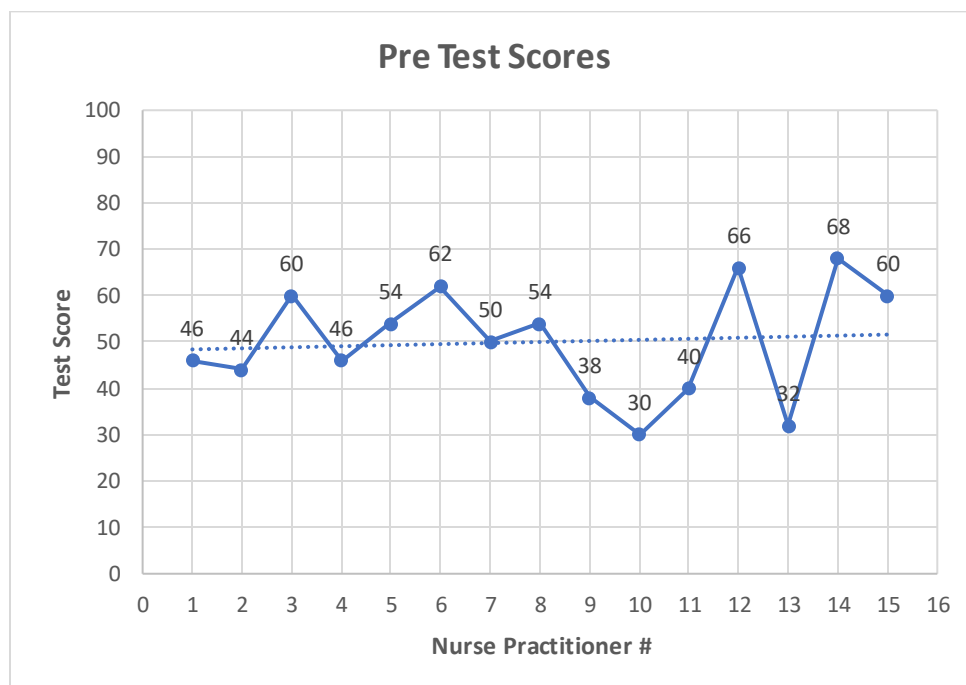
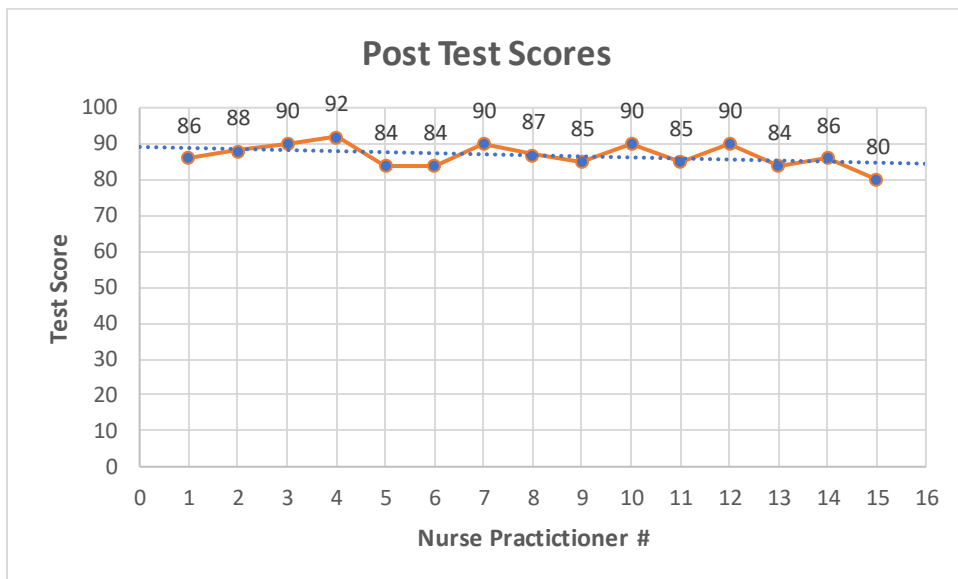
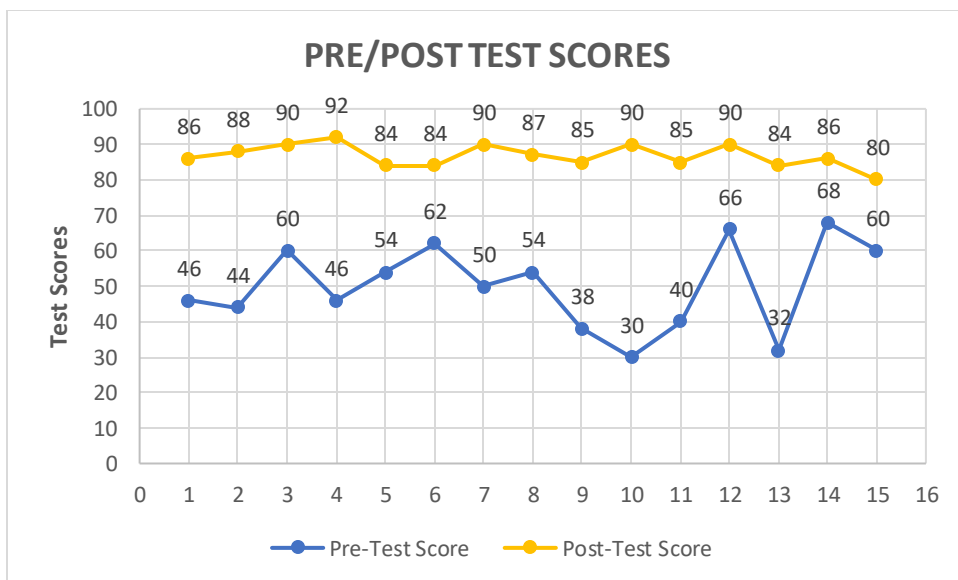


Figure 3*Posttest Scores of Nurse Practitioners in Percentages***Figure 4***Pre- and Posttest Scores of Participants in Percentages*

Key Findings

A total of 20 participants took part in the project. Fifteen of these participants were nurse practitioners who were chosen at random. The great majority (93.3%) were females, with 53.3% of them being over 30 years old. The majority of the nurses were nurse practitioners (86.7%) with 5 or more years of experience (73.3%).

Each participant attended and performed a pretest before being exposed to the training sessions and a second posttest 6 weeks later. According to a descriptive data analysis the mean pretest) score was 60%, and the mean follow-up score was 90%. The gain of 30% was statistically significant.

The most significant increases were shown in Questions 6 and 7, which assessed the participant's agreement that marijuana is a Schedule I restricted drug (+1.46) and Question 7, which rated the participant's agreement that obtaining medical marijuana was stressful (+1.27).

The tiniest adjustment was made to Question 5, which inquired where nurses may obtain the details of each jurisdiction's medical marijuana law in order to keep current with unique features that may influence their practice's current issues. Except for Question 5, all of the adjustments were much higher.

Recommendations

After analyzing the findings, I drew up a list of suggestions for the DNP project team. The leadership team was urged to give frequent training to nurse practitioners to ensure that they properly assess and certify patients based on their qualifying conditions. I expected that some nurse practitioners would engage in the old practice based on a lack

of knowledge of issuing medical marijuana, but I believed that they would shift to the current method of assessing and certifying patients using medical marijuana based on their qualifying conditions if the management of the clinic emphasized the importance of the evidence-based approach to clinic practitioners' practice. Another suggestion was that patients who have been diagnosed with a qualifying illness register with their state's MMP as a registered patient may receive cannabis from a jurisdiction-authorized cannabis dispensary. Only patients and their designated caregivers are allowed to purchase and administer cannabis for therapeutic purposes. The MMP will specify whether or not designated carers are permitted, as well as the steps to become a designated caregiver (National Council of State Legislatures, 2019).

Medicine and healthcare are constantly evolving fields. Education and other means of disseminating this knowledge are critical for increasing the adoption of evidence-based therapy and achieving excellent patient outcomes. Improving patient outcomes requires implementing changes in practice as well as training nurses how to detect the need for change. Finally, it was suggested that management examine staff performance on determining qualifying conditions for the issuing of medical marijuana to users on a random basis to guarantee that they are adhering to the Joint Commission's guidelines. As the project leader, I assured that the proposed guidelines have social value in the sense that when project findings are communicated, they will benefit nurse practitioners, the community, the clinic, and patients. This project has the potential to enhance patient care and results (Mohamed & Elhadi, 2019). Adults with medical difficulties had a much higher rate of current and daily marijuana use than those without

medical illnesses in all age groups except those 65 and older, which is one of the many advantages of granting drug cards to individuals who use medicinal marijuana. Among young adults with medical diseases aged 18 to 24 years, 25.2% said they were currently using marijuana, and 11.2% said they used it every day (Dai & Richter, 2019).

Contribution of the Doctoral Project Team

Under my supervision, the team played a critical part in the project. The clinic coordinator participated in the distribution of leaflets and the advertising of the training's future dates. The clinic's educator received the PowerPoint presentations that were used in the training sessions to ensure that they were accurate and in line with the project's goals. The information technology personnel helped with statistics and data analysis. The owner of the clinic help provided the data needed to complete the project. The senior clinical administrator helped in the planning of the presentation of the project and recruited nurse practitioners. I researched literature, developed a matrix, and obtained IRB approval as well as site approval for the revised project as directed by content experts. In addition, as the project leader, I advocated for change in health care policy.

Strengths and Limitations of the Project

Strengths

In this project, there were two key strengths found. The first strength was the health care facility management's sustained support throughout all stages of project execution. The clinic coordinator, nurse educator, clinical team, and clinical coordinator showed a high level of commitment and participation. Their dedication was a significant factor in the current project's success. The second strength of the nurse practitioners who

took part in this initiative was their ability to work well with others. Peer-to-peer assistance and encouragement contributed to the project's success.

Limitations

Numerous constraints were encountered throughout the course of this endeavor. To begin, there was a limited sample size. The small sample size of the project might make inferences difficult to draw and impair the capacity to generalize the findings to the population from which the sample was obtained. There was a possibility that nurse practitioners who responded to the survey were not typical of other nurse practitioners in the practice or other institutions. Because the nurse practitioners who participated in this investigation worked at a single clinic, the results cannot be generalized.

The second drawback of this study was that nurse practitioners' opinions of their practice were self-reported. Self-reported findings may be skewed by a social desirability bias, in that participants want to produce suitable responses (Sanford, 2017). Respondents may have attempted to submit responses in a manner that I as the project leader would find them favorable. Additionally, individuals' emotions may have skewed the self-report questions after completing the surveys. The nurse practitioners expressed their perspectives on what they considered impediments to issuing medicinal marijuana cards. Third, nurses' beliefs and behaviors may be influenced by information exchanged with coworkers. Nurse practitioners' attitudes may be influenced by what they perceive to have learned. According to the census, many nurse practitioners in this context migrate between facilities and may confront comparable or different difficulties when it comes to issuing medical marijuana drug cards to their patients.

It is strongly advised that future researchers addressing the issue of standardized medical marijuana distribution to eligible patients do their research in a practice setting where management and peers support the initiative at all stages. Their devotion will be critical to the project's success. Future research should use a large sample size and nurse practitioners recruited from various institutions to provide sufficient power to identify differences and increase the capacity to generalize the results. Additional study is necessary to determine the impact of this initiative on patient satisfaction. The following analysis is limited to nurse practitioners' experiences. Longitudinal studies might potentially be conducted to see if the project's effects persisted beyond the period covered by this study. In order to do more study, the report may be utilized to establish facilities with the lowest and most excellent compliance rates.

Summary

The project's results were given in Section 4, which centered on the subject of how medical marijuana would be assessed before and after its introduction and how to identify patients who would be eligible to use it for therapeutic purposes. A pretest and posttest, which were guided by the NCSBN as well as an evidence-based model, assisted in determining that participants' knowledge and confidence increased after the training on caring for patients who use medical marijuana. Additionally, the project helped nurse practitioners to learn new state and federal laws on the use of medical marijuana. The project was also used to review an alternative approach for pain management instead of the use of opioids, which increase mortality rates for users. A key aim was to improve knowledge about the federal guidelines that impact nurse practitioners practice in the

medicinal marijuana issuance to their patients. Finally, the project helped nurse practitioners to obtain certificates that allowed them to administer medical marijuana confidently. The findings of the descriptive statistical analysis were reported. The descriptive statistical examination of the preimplementation data for the experience level of nurse practitioners in the field led to a conclusion. A mean gain of 30% was found in the descriptive analysis of the postimplementation data for nurse practitioners' understanding of the topic, suggesting knowledge gained. Chapter 5 will include the project's conclusion, self-analysis, and distribution strategy.

Section 5: Dissemination Plan

In Chapter 5, I examine the dissemination component, self-analysis, and project summary. The goal of this descriptive project analysis was to compare the pre- and posttest implementation of nurse practitioners who cared for patients using medical marijuana and to determine if such findings resulted in a positive return for the clinic where the nurse practitioners practiced. Findings related to the clinical question, which focused on whether an increase in education can improve the confidence level and knowledge of the nurse practitioners to practice.

Doctoral candidates must be able to convey project results to health practitioners and other health care stakeholders. Dissemination of academic achievements entails conveying the outcomes of project initiatives so that comparable circumstances may be expanded to improve patient safety. Knowledge and communication strategies that employ targeted and tailored messages, as well as knowledge dissemination strategies that not only improve recipients' ability to use and apply evidence, but also motivate them to do so, appear to be the most effective in promoting evidence use by managers and policymakers (Chapman et al., 2021). The ability to share outcomes enables researchers to communicate their triumphs as well as the difficulties they encountered throughout the project's development. Passive distribution tactics targeted just at improving evidence's accessibility do not seem to have a significant effect. However, there is a shortage of information about the effects of interventions directed towards this audience, as opposed to healthcare professionals, customers, and patients. Additionally, more research that is guided by theoretical frameworks or specific tools and uses rigorous techniques,

standardized outcome measures, and detailed descriptions of treatments is required (Chapman et al., 2021). Project managers are often encouraged, where appropriate, to create tailored communications about their research for key stakeholders and improve information translation through systematic assessments, development of guidelines, and communication of frameworks of practice (Cappelli et al., 2021).

The findings will be communicated verbally to key stakeholders at an internal meeting in one of the clinic's classrooms and in the organization's newsletter. Additionally, findings of the project will be communicated in the AANP yearly meeting as well as in the community, where I am building a clinic. Interventions aimed at reducing indiscriminate use of controlled substances among at-risk patients may be more compelling if they produce messages that fit within the target population's latitude of acceptability and discourage the use of medical marijuana indiscriminately.

Dissemination of project results is critical to the process of raising nursing practice standards; hence, it is critical to promote free access to scientific discoveries. Under my supervision, the team played a critical part in the project. The clinic coordinator participated in the distribution of leaflets and the advertising of the training's future dates. The clinic's educator received the PowerPoint presentations that were used in the training sessions to ensure that they were accurate and in line with the project's goals. The information technology personnel helped with statistics and data analysis. The owner of the clinic helped to provide the data needed to complete the project. The senior clinical administrator helped in the planning of the presentation of the project and recruited nurse practitioners. I researched literature, developed a matrix, and obtained

IRB approval as well as site approval for the revised project as directed by content experts. In addition, most importantly, as the project manager, I advocated for a change in health care policy.

Analysis of Self

My leadership abilities have grown as a result of the DNP program. The program equipped me with experience that I can use as a scholar-practitioner. Utilizing correct evaluation in order to give medicinal marijuana to a user may be a daunting and difficult undertaking. Additionally, the action may be difficult for nurse practitioners who lack the expertise and confidence necessary to perform such obligations for their patients. I became a licensed practical nurse in 2004 and a registered nurse in 2010, and since then I have worked to further my education and experience in nursing. My experience and abilities obtained during my DNP journey have aided in my development as a nurse practitioner capable of using evidence to promote evidence-based practice. The DNP curriculum's core goal is to prepare graduate nurses to plan, administer, and evaluate health outcomes in a variety of contexts. The DNP project has instilled in me critical methodological skills in the design and evaluation of research aimed at improving public health.

As a Practitioner

Through this project assignment, I have developed as a DNP in training, a scholar, and a person who is well grounded in creating projects. The nurse practitioner program equipped me with new information and abilities that will aid me in my present employment. As a DNP candidate, I have gained knowledge

about various leadership roles in healthcare and implemented evidence-based practices at the clinic, resulting in a positive change in practice. The implementation of this staff education project targeted at enhancing evaluation skills for medical marijuana administration has also enabled me to apply the skills acquired throughout my DNP study into practice. The NCSBN literature and the ADDIE adult learning mechanism were used to assist with adult learning and determine how adults learn. I was able to construct educational materials for adults by using the five axioms regarding how people learn.

As a Scholar

The DNP program aided in my own discovery of how to conduct research and develop into a scholar. As an advanced nurse, I found that the DNP project enabled me to transfer and integrate my experience into clinical practice, a need for doctorate-certified nurses. I gained research skills and enhanced my confidence as a scholar as a consequence of this assignment. I will continue to pursue intellectual growth via continuing education and nursing research in order to stay current with nursing practices. I have actual experience conducting surveys and executing descriptive statistical analyses. The data collection and analysis procedure has been crucial in my academic growth.

As a Project Leader

As a project manager, I finished my education by raising awareness about the negative impact of inadequate assessment skills on the issuance of medical marijuana to medical marijuana users, thereby improving the organization's

coordination and quality of treatment to foster safe and quality care for patients. The DNP program enables nurse practitioners to establish a major practical issue based on their experience and interests and then use the knowledge learned throughout the program to solve the problem. I got my first chance to examine and deal with at the completion of the medicinal marijuana assessment eligibility project administration issue. As I ponder the methods necessary to complete the project, I must acknowledge that each phase has taken on a new but overwhelming sensation. Conducting education training for the project was a difficult endeavor that needed commitment and effort. To guarantee the project's success, I needed to create positive connections with a variety of stakeholders. This skill enabled me to apply theory to the project's aims.

Summary

The findings from this project supported the need to continuously educate nurse practitioners to improve the confidence level and increase the knowledge of nurse practitioners to practice safely with their patients. The analysis revealed a positive difference in the data based on the pre- and posttest implementation as a strategy in the clinic. It is essential that nurse practitioners have concrete educational outcomes to understand the benefits of implementing a new service or product. The development of an education program to educate health care workers about the critical nature of conducting an accurate eligibility assessment prior to issuing medical marijuana to users was intended to improve communication between nurse practitioners, patients, and the clinic's administrative head. Nurse practitioners may become more aware of the need for proper

authorization for medicinal marijuana users who should be issued medical marijuana to use it properly. Legislation authorizing the use of cannabis for certain ailments is affected by the few available research studies, but more so by advocacy organizations and anecdotal evidence. Individuals are consuming cannabis, regardless of the evidence or lack thereof, and nurse practitioners will care for these patients more often. To address the lack of guidelines for nurse practitioners caring for individuals who use cannabis, the NCSBN appointed members to the Medical Marijuana Nursing Guidelines Committee, which was charged with developing guidelines and recommendations to guide nurse practitioners' care of patients who use medical marijuana. The committee's work was completed in July 2018 (NCSBN, 2018). It is hoped that the publication of this project's findings in ProQuest, as recommended by Walden University, will provide peers with information that will facilitate practice changes through staff education and further quality improvement initiatives aimed at improving nursing practice and patient outcomes for patients using medical marijuana.

References

- American Association of Colleges of Nursing. (2006, October). *The essentials of doctoral education for advanced nursing practice*.
<https://www.aacnnursing.org/portals/42/publications/dnpessentials.pdf>
- American Association of Nurse Practitioners. (2018). *Nurses' facilitation of the public-private dialogue to increase innovation and investment in the healthcare sector*.
- Bryant, T., & Posey, L. (2019). Evaluating transfer of continuing education to nursing practice. *The Journal of Continuing Education in Nursing*, 50(8), 375–380.
<https://doi.org/10.3928/00220124-20190717-09>
- Centers for Disease Control and Prevention. (2021). *Drug overdose deaths in the U.S. top 100,000 annually*.
https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2021/20211117.htm
- Cooperative Product. (n.d.). *The ADDIE approach (pbworks.com)*.
<http://groupcp.pbworks.com/w/page/65234407/The%20ADDIE%20Approach>
- Dai, H., & Richter, K. P. (2019). A national survey of marijuana use among US adults with medical conditions, 2016–2017. *JAMA Network Open*, 2(9), Article e911936. <https://jamanetwork.com/journals/jamanetworkope/fullarticle/2751558>
- de Oliveira, A. E. C., Machado, A. B., Santos, E. D. D., & de Almeida, É. B. (2018). Alarm fatigue and the implications for patient safety. *Revista Brasileira de Enfermagem*, 71(6), 3035–3040. <https://doi.org/10.1590/0034-7167-2017-0481>
- Drug Enforcement Administration. (2017). Established Aggregate Production Quotas for Schedule I and II Controlled Substances and Assessment of Annual Needs for the

List I Chemicals Ephedrine, Pseudoephedrine, and Phenylpropanolamine for 2018, 82 F.R. 51873.

<https://www.federalregister.gov/documents/2017/11/08/2017-24306/established-aggregate-production-quotas-for-schedule-i-and-ii-controlled-substances-and-assessment>

European Monitoring Centre for Drugs and Drug Addiction. (2020). *Medical use of cannabis and cannabinoids: Questions and answers for policymaking*.

https://www.emcdda.europa.eu/system/files/publications/10171/20185584_TD0618186ENN_PDF.pdf

Food and Drug Administration. (2018, July 17). *Drug trials snapshots: Epidiolex*.

<https://www.fda.gov/drugs/drugs-approvals-and-databases/drug-trials-snapshots-epidiolex>

Freeman, T. P., Hindocha, C., & Green S. F. (2019). Medicinal use of cannabis-based products and cannabinoids. *BMJ*, 365, Article l1141.

<https://doi.org/10.1136/bmj.l1141>

Klumpers L. E., & Thacker D. L. (2019). A brief background on cannabis: From plant to medical indications. *Journal of AOAC International*, 102(2), 412–420.

<https://doi.org/10.5740/jaoacint.18-0208>

Lafaye, G., Karila, L., Blecha, L., & Benyamina, A. (2017). Cannabis, cannabinoids, and health. *Dialogues in Clinical Neuroscience*, 19(3), 309–316.

<https://doi.org/10.31887/DCNS.2017.19.3/glafaye>

Lorenzo Lewis, C., & Oster, C. A. (2019). Research outcomes of implementing CEASE:

An innovative, nurse-driven, evidence-based, patient-customized monitoring bundle to decrease alarm fatigue in the intensive care unit/step-down unit.

Dimensions of Critical Care Nursing, 38(3), 160–173.

<https://doi.org/10.1097/DCC.0000000000000357>

Mbe, Q., Ayodele, O., & Doss, D. (2017). Nurses' knowledge, beliefs, attitudes, and practices regarding electronic cigarettes: A cross-sectional study. *Tobacco Prevention and Cessation*, 3, Article 125. <https://doi.org/10.18332/tpc/76550>

Melander, S., Hampton, D., Garritano, N., Makowski, A., Hardin-Pierce, M., Scott, L., Tovar, E., & Biddle, M. (2021). Strengthening the impact of Doctor of Nursing Practice projects in education and clinical practice, *The Nurse Practitioner*, 46(8), 33–38. <https://doi.org/10.1097/01.NPR.0000751804.78165.5a>

National Academies of Sciences, Engineering, and Medicine. (2017). *The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research*. National Academies Press.

National Council of State Boards of Nursing. (2018). The NCBSN National Nursing Guidelines for Medical Marijuana. *Journal of Nursing Regulation*, 9(2 Suppl.). https://www.ncsbn.org/The_NCSBN_National_Nursing_Guidelines_for_Medical_Marijuana_JNR_July_2018.pdf

National Council of State Legislatures. (2019). *State medical marijuana laws*.

<https://www.ncsi.org/research/health/state-medical-marijuana-laws.aspx>

Pereira, L., Núñez-Iglesias, M. J., Domínguez-Martís, E. M., López-Ares, D., González-Peteiro, M., & Novío, S. (2020). Nursing students' knowledge and attitudes

regarding medical marijuana: A descriptive cross-sectional study. *International Journal of Environmental Research and Public Health*, 17(7), Article 2492.

<https://doi.org/10.3390/ijerph17072492>

Phillips, J., Sowan, A., Ruppel, H., & Magness, R. (2020). Educational program for physiologic monitor use and alarm systems safety: A toolkit. *Clinical Nurse Specialist: The Journal for Advanced Nursing Practice*, 34(2), 50–62.

<https://doi.org/10.1097/NUR.0000000000000507>

Project of Law (2019). Solicitud de Creacion de una Subcmmission para el Estudio de Tratamientos Terapeuticos con Cannabisy Derivados.

<https://www.congrso.es/portal/page/portal/Congreso/Congreso/Congreso/Iniciativas?>

Samuel, T., Azen, R., & Campbell-Kyureghyan N. (2019). Evaluation of learning outcomes through multiple choice pre- and post-training assessments. *Journal of Education and Learning*, (3), 122-135. <https://doi.org/10.5539/jel.v8n3p122>

Smart, R. Pacula, R., L. (2019). Early evidence of the impact of cannabis legalization on cannabis use, cannabis use disorder, and the use of other substances: findings from state policy evaluations. *Am aj Drug Alcohol Abuse*. 2019, 45, 644-663

Walden University, (2020). Walden 2020: A social change vision. *Center for social change*. <https://www.waldenu.edu/about/who-we-are/scholar-practitioners>

Yeh, H.C., Tseng, S.-S. (2019) Using the ADDIE Model to Nurture the Development of Teachers' CALL Professional Knowledge. *Educational Technology & Society*, 22 (3), 88-110. <https://research.com/education/instructional-design-modules>