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Prescreening Recommendations for Patients on Medical Cannabis

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2019

Abstract

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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Abstract

Marijuana is the most frequently used illegal substance in the United States and is most widely used among young people aged 12 to 21 years. Accurate screening and monitored issuance of medical cannabis recommendations have been shown to decrease abuse rates of the substance, create fewer deaths from opiates, reduce crime rates, reduce marijuana use in youths, decrease car crash deaths, and lessen prevalence of suicide in young men. The purpose of this project was to explore whether multiple screening methods for depression and anxiety in patients who seek medical cannabis referrals for anxiety and depression would improve screening and cannabis referral accuracy. A comprehensive review of the literature was conducted, and 2 screening tools were identified. The tools identified were the Zung self-rating anxiety scale and the *Diagnostic and Statistical Manual of Mental Disorders 5* scale. The medical director at the project site reviewed the tools and approved them. These tools were then included in an education program for 12 staff members and providers with a pretest given to the participants prior to the staff education program. A posttest was then administered to the same group after the staff education program was completed and the new screening measures implemented. Results showed that referrals for cannabis were at 85% before the 2-step screening process was implemented; referrals for cannabis decreased to 60% with implementation of the dual screening method, suggesting increased accuracy in screening for depression and anxiety for cannabis referrals. This project might promote positive social change by increasing accuracy for cannabis referrals and reducing the risk of cannabis abuse.

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Dedication

This is dedicated to Maria Luz, my wife, my source of strength and inspiration.

Acknowledgments

This project would not be completed without the following significant persons:

- Maria Luz, my loving wife who never fail to lighten and brighten my days; for her unconditional love and care and for keeping me company especially during the wee hours when I need to work on this project;
- Dr. Janice Long, my Mentor who unselfishly shares her knowledge and tirelessly continues to motivate me; she is constantly in touch, monitoring, and making sure that I stay on the right track;
- My classmates who shared significant tips – great help!

And most of all, I offer my great thanks and bring back the glory to our Heavenly Father – the only source of wisdom and strength.

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Section 1: Nature of the Project

Introduction

Marijuana is identified as the most frequently used illegal substance in the United States (Buddy, 2018). It is most widely used among young people aged 12 to 21 years according to the 2013 National Survey on Drug Use and Health (NSDUH) (Chen, Yu, Lasopa, & Cottler, 2017) who have lower perceptions of risk (Wall et al., 2011). Dependence syndrome, increased risk for vehicular accidents, impaired respiratory function, cardiovascular issues, and effects on adolescent psychosocial development and mental health are the most probable adverse effects of regular use of marijuana (Hall & Degenhardt, 2009).

Cannabis, or medicinal marijuana, is a therapy that has garnered much national attention in recent years (Bridgeman & Abaiza, 2017). Controversies surrounding legal, ethical, and societal implications associated with use, safe administration, packaging, and dispensing; adverse health consequences and deaths attributed to marijuana intoxication; and therapeutic indications based on limited clinical data represent some of the complexities associated with this treatment (Bridgeman & Abaiza, 2017). Marijuana is currently recognized by the U.S. Drug Enforcement Agency's (DEA's) Comprehensive Drug Abuse Prevention and Control Act (Controlled Substances Act) of 1970 as a Schedule I controlled substance and defined as having a high potential for abuse (Bridgeman & Abaiza, 2017).

The multiple implications for abuse of the substance were due to the availability of legal cannabis (Tishler, 2015). A total of 29 states, the District of Columbia, Guam, and Puerto Rico now allow for comprehensive public medical marijuana and cannabis (Hasin et al., 2015). Legislation passed in California in 2004 allowed nonregistered patients to use and possess dried marijuana and plants in quantities reasonably sufficient to meet their current medical needs, whereas registered patients are allowed to possess 8 oz. or not more than six mature or 12 immature plants (Hoffman & Weber, 2010). California was one of the first states to legalize medical cannabis use in 1996, allowing Californians to possess a physician's recommendations to acquire and use marijuana for medical purposes (Reinarman, Nunberg, Lanthier, & Heddleston, 2011) and not be subject to criminal penalties (Hoffman & Weber, 2010). States with medical marijuana laws (MMLs) were seen to have higher rates of marijuana use among adolescents than those states without MMLs (Wall et al., 2011).

For this doctoral project, I introduced change in an organization in California that screens and issues medical cannabis recommendations to patients who use the substance to address their depression and anxiety. Proper screening and monitored issuance of medical cannabis recommendation has been shown to decrease abuse rate of the substance, cause fewer deaths from opiates, reduce crime rates, reduce marijuana use in youths, decrease car crash deaths, and lessen prevalence of suicide in young men (Macpherson, 2015). This project is a staff and provider education program that was developed to support the new screening methods identified from the literature.

In Section 1, I cover the problem statement, the purpose of the project, the nature of the project, the significance, and a summary.

Problem Statement

Cannabis was proclaimed as particularly beneficial for those with several symptoms of psychological disorders such as depression, coping, and social anxiety (Bonn-Miller, Boden, Bucossi, & Babson, 2013), and according to Reinarman et al. (2011), marijuana is seen by many physicians to have substantial therapeutic uses to address symptoms of pain, insomnia, anxiety, panic attacks, sleep disorder, appetite issues, seizures, and involuntary movements.

Legal use of marijuana is a state-level decision and in the United States, 18 states, and the District of Columbia, have legalized marijuana to date (National Conference of State Legislatures, 2013). In those states, patients are allowed to use and possess small quantities of marijuana for medical purposes (Hoffman & Weber, 2010). However, in 2012, an estimated 74% of adolescents in the United States had used someone else's medical cannabis (Salomonsen-Sautel, Sakai, Thurstone, Corley, & Hopfer, 2012), which resulted in adverse effects such as addiction, intoxication, and disturbance in cognitive and motor function due to the abuse of the substance (Volkow, Baler, Compton, & Weiss, 2014). Medical intervention and hospitalization to address the adverse effects will result in increase in health care costs (Rapp, 2015).

Despite the legalization of marijuana in many states, it is categorized as a "Schedule 1 controlled substance," a classification that necessitates nurses to acquire the

best understanding of the substance as well as the particular laws in the state where they practice (Volkow et al., 2014). An increased need exists for deep understanding especially because more and more people in the United States demand for use of medical cannabis (Volkow et al., 2014). Awareness of the substance and its effects, policies covering the use of cannabis for medical purposes, and actively taking part in the screening of patients who need medical cannabis recommendation will enable nurse practitioners to perform one of their significant roles which is to save the health care industry from spending too much of its funds (Rapp, 2015).

Physicians in my target organization issue recommendations for medical cannabis based on the Compassionate Use Act of 1996 (saclaw.org, 2017) after confirming through a screening process that patients are qualified. The organization has been using one screening method and I have personally witnessed first-time and subsequent-visit patients who have been denied of medical cannabis recommendations. As a DNP-prepared practitioner, I learned from the site that there was a need for identification of alternative methods or more than one screening method so patients will not have the opportunity to manipulate the screening process on their subsequent visits. Furthermore, multiple screening methods are available as researchers have conducted studies on various screening tools to ensure that the appropriate screening is used to identify those who are eligible for medical cannabis recommendation and to decrease the prevalence of the abuse of the said substance (Committee on Substance Abuse, 2011).

Purpose

This doctoral project was guided by the following practice-focused questions:

- What evidence supports the use of screening methods for patients suffering from depression and anxiety and seeking medical cannabis recommendation?
- What are the results of a staff education on alternative screening methods for determination of the need for cannabis referrals in the western United States?

When managing patients who use medical marijuana, de Vries and Green (2012) listed five key points the APN must be aware of:

- Be well-informed about current research regarding all pharmaceuticals.
- Educate patients on the physical and psychological effects of medical marijuana, and how to interact with legally prescribed medications.
- Document medical marijuana use as reported by the patient as well as reported effects.
- Educate the patient on state and federal penalties regarding medical marijuana.
- Do not supply, fund, obtain, or in any other way prepare medical marijuana for patient consumption.

Therapeutic cannabis use raises a number of dilemmas for nurses (de Vries & Green, 2012). They are caught in the middle as marijuana has been declared legal in some states while the U.S. DEA declares that the substance has no medical use and has a high chance for abuse (Volkow et al., 2014). In addition, although they are aware of the adverse effects of marijuana, nurses need to have a deeper understanding of the screening for medical cannabis to avoid potential abuse (Volkow et al., 2014). This planned project

is also aimed at addressing that gap-in nursing practice by providing a staff education program developed to educate nursing staff and providers on the alternative methods for screening.

The introduction of change in the target organization through the use of more than one screening method was aimed to ensure appropriate screening, provision of precise treatment, reduce adolescent access to diverted medical marijuana, and decrease health care costs. My role in this project was to identify alternate screening tools through a search of the literature and I provided staff education on the topic and the instruments identified.

Nature of the Doctoral Project

The target organization is a medical clinic in Orange County, California, which caters requests for medical cannabis recommendations. Through formal discussions with and approvals from the organization's leaders, this project identified alternative screening processes, provided the foundations for a significant practice change for screening patients who request medical cannabis, and used the AGREE II tool that evaluated the alternative instruments that are selected for their effectiveness for implementation at the site.

The target population for the staff education was the staff of the medical clinic. Data was gathered within the organization and were the actual results of assessments and screening procedures done by the clinic's primary Physician and medical assistant.

Significance

The clinic's physicians, nurses, medical manager, and administrative staff are the main stakeholders of this project. Their active participation in this endeavor was significant to achieve the goal of making significant contributions to the health care industry and in promoting positive social change. Moreover, appropriate screening should ensure that medical cannabis recommendations are only provided to qualified patients to avoid further adolescent access to diverted medical marijuana and to decrease substance abuse rates (Salomonsen-Sautel et al., 2012), decrease health care costs (Lizeretti & Extremera, 2011), and help improve the lives of the target population.

The success of this doctoral project may prove to be beneficial in mental health services where abuse of medications was identified (National Institute of Mental Health, 2016).

Summary

All state regulations consent patients to use and acquire small amounts of marijuana for medical use (Hoffman & Weber, 2010). As health care providers, we must ensure that abuse does not take place and patients are assisted to optimum health (Hoffman & Weber, 2010). As an advanced-practice nurse, I acknowledge that status quo is no longer applicable in today's health care system and have the capability of promoting efficient policy development.

In the following sections of this doctoral project, I address the appropriate model that guided this endeavor. Furthermore, I discuss its relevance to nursing practice and provide the significance of my role as a DNP student.

Section 2: Background and Context

Introduction

Cannabis is the preferred medical term for marijuana or cannabis (Lee, 2012). In this study, I use the terms *marijuana* and *cannabis* interchangeably. Bonn-Miller et al. (2013) posited that cannabis is particularly beneficial for those with several symptoms of psychological disorders such as depression, coping, and social anxiety. Marijuana is perceived by many physicians to have substantial therapeutic benefits to address (not only) symptoms of pain, insomnia, sleep disorders, appetite issues, seizures, and involuntary movements but also of anxiety and panic attacks (Reinarman et al., 2011).

California was one of the first states to legalize medical cannabis use in 1996, allowing Californians to possess physician's recommendations to acquire and use marijuana for medical purposes (Reinarman et al., 2011) and not be subject to criminal penalties (Hoffman & Weber, 2010). Legislation passed in California in 2004 allowed nonregistered patients to use and possess dried marijuana and plants in quantities reasonable enough to meet their current medical needs; registered patients are allowed to possess 8 oz. or not more than six mature or 12 immature plants (Hoffman & Weber, 2010). Although the California law placed restrictions on the legal use of the drug, abuses still have occurred. Providers who prescribed cannabis did not consistently know if the patient continued to need the drug. Therefore, a screening process was implemented.

Proper screening and monitored issuance of medical cannabis recommendations resulted in a decreased abuse rate of the substance, caused fewer deaths from opiates,

reduced crime rates, reduced marijuana used in youths, decreased car crash deaths, and lessened prevalence of suicide in young men (Macpherson, 2015). However, an estimated 74% of adolescents in the United States had used someone else's medical cannabis (Salomonsen-Sautel et al., 2012), which resulted in adverse effects such as addiction, intoxication, and disturbance in cognitive and motor function due to the abuse of the substance (Volkow et al., 2014). Cannabis abuse is costly in terms of medical interventions and hospitalizations to address the adverse effects of cannabis abuse affecting not only hospital costs, but costs to the families and patients who use it when the need no longer exists (Rapp, 2015).

Physicians in my target organization issue recommendations for medical cannabis based on the Compassionate Use Act of 1996 (saclaw.org, 2017) after confirming through a screening process that patients are qualified. The organization has been using one-screening method. With only one-screening method, patients may become familiar with the screening tool and know how to answer the questions to assure they will be provided a renewal of their cannabis recommendation. For this reason, alternative methods of screening are needed.

As a DNP-prepared practitioner, I recognized the necessity to work on this project and presented the relevance of using other screening methods or more than one-screening method so patients will not have the opportunity to anticipate the required answers to the screening process on their subsequent visits. The Committee on Substance Abuse (2011) discussed that studies have been conducted on various screening tools to ensure that the

appropriate screening is used to identify those who are eligible for medical cannabis recommendation and to decrease the prevalence of the abuse of the substance.

My aim in this project was to introduce a practice change in the local clinical organization through the recommendation of more than one screening method to ensure appropriate screening, provision of precise treatment to decrease substance abuse rates (Salomonsen-Sautel et al., 2012), decrease health care costs (Lizeretti & Extremera, 2011), and help improve the lives of the target population and this changed will be initiated through staff education.

The following practice-focused questions guided this doctoral project:

- What evidence supports the use of screening methods for patients suffering from depression and anxiety and seeking medical cannabis recommendation?
- What are the results of a staff education on alternative screening methods for determination of the need for cannabis referrals in the western United States?

Section 2 covered the concepts, models, & theories, relevance to nursing practice, local background and context, and the role of the DNP student.

Concepts, Models, and Theories

Nurses are urged to use up-to-date research evidence to deliver the best possible care (LoBiondo-Wood, Haber, Berry, & Yost, 2013). Research-based practice has better patient outcomes than routine, procedural nursing care and informs nursing decisions, actions and interactions with patients (Doody and Doody, 2011). Evidence-based practice involves the use of reliable, explicit and judicious evidence to make decisions about the

care of individual patients combining the results of well-designed research, clinical expertise, patient concerns, and patient preferences (Kueny, Sheyer, Lehan Mackin, & Titler, 2015).

The Iowa Model of Evidence-Based Practice to Promote Quality Care focuses on organization and collaboration incorporating conduct and use of research, along with other types of evidence (Titler et al., 2001). This model helped to focus on knowledge- and problem-focused triggers, leading to question current nursing practices and whether care can be improved through the use of current research findings (Melnyk & Fineout-Overholt, 2011).

Using the Iowa Model of Evidence-Based Practice to Promote Quality Care involves taking seven essential steps, as follows:

Step 1: Selection of a Topic

Medical cannabis was chosen as the center of this project because of the priority and magnitude of the problem, its application to all areas of practice, its contribution to improving care, the availability of data and evidence in the problem area, the multidisciplinary nature of the problem, and the commitment of staff (Doody & Doody, 2011).

Step 2: Forming a Team

The team is responsible for development, implementation, and evaluation (LoBiondo-Wood et al., 2013). The composition of the team should be directed by the chosen project and include all interested stakeholders (Doody & Doody, 2011). In

creating a team for this project, the team should draw up written policies, procedures and guidelines that are evidence-based (LoBiondo-Wood et al., 2013). The medical team may perceive task performance as a more justifiable use of time than seeking evidence for action or designing guidelines for existing practice (Kueny et al., 2015). For this project, I will invite physicians, medical assistants, and nurses from the organization and will review the process of the Iowa model steps with them.

Step 3: Evidence Retrieval

Evidence was made up of the screening tools gathered from the literature as part of my research. The evidence was obtained by using key search terms and the designated databases for the search were EBSCO Publishing, CINAHL, Medline, Elsevier, – Institute for Healthcare Improvement (ihi.org/), and National Institutes of Health (nih.gov/) and I referenced materials from 2014-2018

Step 4: Grading the Evidence

In this project, I presented and used at least two screening tools on top of the tool that the target organization is currently using and the evidence that supports each one. I will grade the evidence using the effectiveness criteria which will relate to whether the intervention achieves the intended outcomes (Doody & Doody, 2011). This evidence will be presented to the project team.

Step 5: Developing an Evidence-Based Practice Standard

Team members conform to agree on recommendations for practice after a critique of the literature (Doody & Doody, 2011). Medical marijuana in evidence-based practice

is ideally a patient-centered approach, which when implemented, is highly individualized (LoBiondo-Wood et al., 2013). In this project, I will set up a time for the team to meet to go review the materials I have collected and to discuss the merits of each. As a group, at least two alternative strategies for screening will be selected.

Step 6: Implementing Evidence-Based Practice

LoBiondo-Wood et al. (2013) discussed that features such as written policies, procedures, and guidelines that are evidence-based need to be considered for implementations to take place. Social and organizational factors can influence implementation and support placed on the integration of evidence into practice is essential (Kueny et al., 2015). For this project, I will develop the policy for the use of the selected screening tools and will ask the project team to provide feedback on the content and the timeline for implementation.

Step 7: Evaluation

This is a significant phase that will assess the value and contribution of the evidence into practice (Doody & Doody, 2011). Audit and feedback through the process of implementation should be conducted (Ivers et al., 2012) and success will not be achieved without support from frontline leaders and the organization (Moon & Kim 2015). For this phase I will develop evaluation tools for use by the site after implementation and will provide education classes to the multidisciplinary staff at the site.

Relevance to Nursing Practice

Despite the legalization of marijuana in many states, cannabis is categorized as a "Schedule 1 controlled substance," a classification that necessitates nurses to acquire the best understanding of the substance as well as the particular laws in the state where they practice (Volkow et al., 2014). An increased need exists for deep understanding especially because more people in the United States of patients who need medical cannabis recommendation will enable nurse practitioners to perform one of their significant roles, which is to save the health care industry from spending too much of its funds (Rapp, 2015). This is a significant role, but it was not my main focus in this project. The priority was on saving lives and to educate nurses on how to avoid abuse by screening first for the need for the drug.

Therapeutic cannabis use raises a number of dilemmas for nurses (de Vries & Green, 2012). They are caught in the middle as marijuana has been declared legal in some states, while the U.S. DEA declares that the substance has no medical use and has a high chance for abuse (Volkow et al., 2014). Furthermore, although they are aware of the adverse effects of marijuana, nurses need to have a deeper understanding of the screening for medical cannabis to avoid potential abuse (Volkow et al., 2014). This planned project was also aimed at addressing that gap-in nursing practice.

Local Background and Context

The target organization is a clinic that performs screening methods to identify patients who need medical cannabis to address their anxiety and depression issues.

During the completion of my practicum hours in the said clinic, although not directly interacting with the patients, I was allowed to collaborate with the medical assistant and observe the screening process. I have seen patients who were denied of medical cannabis recommendation. Those denied of the recommendation were those who came in “high” and smelled of marijuana and manifested loud and aggressive behavior. After undergoing the screening process, both the physician and the medical assistant agreed that they need cannabis only for recreation purposes.

The clinic is located in the state of California where medical cannabis use was legalized in 1996 allowing Californians to possess physician's recommendations to acquire and use marijuana for medical purposes (Reinarman et al., 2011) and not be charged with criminal penalties (Hoffman & Weber, 2010).

Role of the DNP Student

In compliance to the practicum requirement of this DNP program, I had the opportunity to render practicum services in a clinic that screens patients for medical cannabis recommendation. My critical thinking as a medical professional was stimulated after close observation of the screening process and seeing the possibility of the process being manipulated. As a medical practitioner in a state where the use of cannabis has been declared legal, I believed in the urgency to make a noteworthy contribution that will cause the decrease of the abuse of the substance.

This project, therefore, becomes not only a compliance to the DNP program requirement, but my contribution to the betterment of the lives of the locals or the people

at the target community. My roles were mostly related, but not limited to, the gathering of evidence, formation of a project team, staff education, completion of this project, and the dissemination of information.

Role of the Project Team

For this project, I worked closely with a project team, which was made up of the head physician, medical assistant, and nurses at the medical clinic that screens patients for medical cannabis recommendation. After presenting the potential screening tools, evidence was graded and then presented to the team. The project team was granted appropriate time to review the materials and decided on at least two alternative strategies and provided feedback on the content and the timeline for the implementation.

Summary

The Iowa Model of Evidence-Based Practice to Promote Quality Care discussed in this section provided the efficient guide to the identification and grading of the evidence which was presented to the team. The identification of the relevance of the project to nursing practice is another key point of this section. It should provide an efficient transition to the succeeding section where the evidence generated will be analyzed and synthesized and enable the provision of the connection of the gap in practice.

Section 3: Collection and Analysis of Evidence

Introduction

Cannabis was proclaimed as particularly beneficial for those with several symptoms of psychological disorders such as depression, coping, and social anxiety (Bonn-Miller et al., 2013), and according to Reinarman et al. (2011), marijuana is seen by many physicians to have substantial therapeutic uses to address symptoms of pain, insomnia, anxiety, panic attacks, sleep disorder, appetite issues, seizures, and involuntary movements.

Legal use of marijuana is a state-level decision and in the United States, 18 states and the District of Columbia have legalized marijuana (National Conference of State Legislatures, 2013). In those states, patients are allowed to use and possess small quantities of marijuana for medical purposes (Hoffman & Weber, 2010). However, an estimated 74% of adolescents in the U.S. had used someone else's medical cannabis (Salomonsen-Sautel et al., 2012) which resulted in adverse effects such as addiction, intoxication, and disturbance in cognitive and motor function due to the abuse of the substance (Volkow et al., 2014). Medical intervention and hospitalization to address the adverse effects will result in increase in health care costs (Rapp, 2015).

Despite the legalization of marijuana in many states, it is still categorized as a "Schedule 1 controlled substance", a classification that necessitates nurses to acquire the best understanding of the substance as well as the particular laws in the state where they practice (Volkow et al., 2014). There is an increased need for deep understanding

especially because more and more people in the U.S. demand for use of medical cannabis (Volkow et al., 2014). Awareness of the substance and its effects, policies covering the use of cannabis for medical purposes, and actively taking part in the screening of patients who need medical cannabis recommendation will enable nurse practitioners to perform one of their significant roles which is to save the health care industry from spending too much of its funds (Rapp, 2015).

Physicians in my target organization issue recommendations for medical cannabis based on the Compassionate Use Act of 1996 (saclaw.org, 2017) after confirming through a screening process that patients are qualified. The organization has been using one screening method and I have personally witnessed first-time and subsequent-visit patients who have been denied of medical cannabis recommendations. As a DNP-prepared practitioner, I found the necessity to exercise my critical thinking and worked on this project and presented the relevance of using more than one screening methods so patients will not have the opportunity to manipulate the screening process on their subsequent visits. Multiple screening methods have been developed and tested and are available for use in primary care setting (Committee on Substance Abuse, 2011). Research conducted on various screening tools helps to validate screening tools as a mean to identify patients whose condition makes them eligible for medical cannabis recommendation and to decrease the prevalence of cannabis abuse (Committee on Substance Abuse, 2011).

The target organization where this project took place is a clinic that performs screening methods to identify patients who need medical cannabis to address their anxiety and depression issues. On admission to the organization, patients were screened initially then on subsequent visits went swiftly through the screening phase when the medical assistant employed the same screening tool used in their initial visit, the online screening tool of the Anxiety and Depression Association (ADAA) for Generalized Anxiety Disorder (GAD), which the ADAA developed from the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (*DSM-IV*) (ADAA, 2018) is used at the location. In discussing the screening process with the medical assistant my theory was confirmed in patients on subsequent visits quickly completed the form indicating they were familiar with the screening method proposed the use of the Zung self-rating anxiety scale (Zung SAS) as an alternate screening method. The Zung SAS is a 20-item self-assessment designed to quantify a patient's level of anxiety (Dunstan, Scott, & Todd, 2017). As a part of their mission and goals, the medical team at the organization aims to improve the lives of the locals by making significant contribution in the decreased rate of substance abuse by ensuring that medical cannabis recommendations are granted only to those who need it for medical purposes by implementing other screening tools. The staff did not have the knowledge or skills for alternate screening methods and therefore my project focused on searching the literature to identify alternate screening tools, then educating the staff on their use. My role in this project was to identify alternate screening tools for use at the site.

In Section 3, I cover the practice-focused questions, sources of evidence, published outcomes and research, archival and operational data, evidence generated for the doctoral project, and the analysis and synthesis of information.

Practice-Focused Questions

This doctoral project was guided by the following practice-focused questions:

- What evidence supports the use of screening methods for patients suffering from depression and anxiety and seeking medical cannabis recommendation?
- What are the results of a staff education on alternative screening methods for determination of the need for cannabis referrals in the western United States?

Therapeutic cannabis use raises a number of dilemmas for nurses (de Vries & Green, 2012). They are caught in the middle as marijuana has been declared legal in some states while the U.S. DEA declares that the substance has no medical use and has a high chance for abuse (Volkow et al., 2014). Although nurses are aware of the adverse effects of marijuana, nurses need to have a deeper understanding of the screening for medical cannabis to avoid potential abuse (Volkow et al., 2014). This lack of knowledge of medical cannabis represents the gap in practice that I addressed in this project.

The introduction of staff education on alternative screening tools to prepare the organization for a change in the use of more than one screening method was aimed to ensure appropriate screening, provision of precise treatment, reduce adolescent access to diverted medical marijuana, and decrease health care costs.

Sources of Evidence

When managing patients who use medical marijuana, de Vries and Green (2012) listed five key points for the APN:

- Be well-informed about current research regarding all pharmaceuticals.
- Educate patients on the physical and psychological effects of medical marijuana, and how to interact with legally prescribed medications.
- Document medical marijuana use as reported by the patient as well as reported effects.
- Educate the patient on state and federal penalties regarding medical marijuana.
- Do not supply, fund, obtain, or in any other way prepare medical marijuana for patient consumption.

Evidence were gathered from the target organization on the current processes for screening. I completed a literature search, identified alternate screening methods, and then a staff education program was developed and presented to the staff at the site. The education program included the evidence obtained from the literature search to support the screening tools, educational procedure for use with patients, and steps for how and when to alternate the use of the tools. Results were measured through pretests and posttests that helped determine the outcome of alternative screening methods for determination of the need for cannabis referrals in the western United States.

Published Outcomes and Research

Databases and Search Engines

The literature review was conducted using databases from CINAHL, Medline, and other sources including Elsevier, Institute for Healthcare Improvement (ihi.org/), and National Institutes of Health (nih.gov/).

Search Terms

Listed are the terms used to search for references to address the concerns raised in my practice-focused questions: *medical cannabis, screening for medical cannabis patient, patients seeking medical cannabis recommendation, medicinal marijuana, marijuana, cannabis,* and *medicinal marijuana study*. Inclusion criteria were articles published between 2013 and 2018, peer reviewed, and published in the English language. Inclusion in the education were nurses and providers who work in the clinic in a large western state.

Marijuana is identified as the most frequently used illegal substance in the United States (Buddy, 2018). Cannabis was proclaimed as particularly beneficial for those with several symptoms of psychological disorders such as depression, coping, and social anxiety (Bonn-Miller et al., 2013). Therapeutic cannabis use raises a number of dilemmas for nurses, the cannabis used is usually obtained illegally, which can have consequences for both those who use it and nurses who provide treatment in the community. (de Vries & Green, 2012).

Appropriate screening should ensure that medical cannabis recommendations are only provided to qualified patients to avoid further adolescent access to diverted medical marijuana and to decrease substance abuse rates (Salomonsen-Sautel et al., 2012).

Although medical marijuana is used to address some indications such as depression and anxiety, the medical staff should be efficiently educated on the proper screening for medical cannabis recommendation to ensure that it is appropriately used and the recipients of the recommendations will benefit from its use (Hill, 2015) and to reduce the frequent and heavy recreational use to evade the increasing levels of cannabis abuse (Hall & Degenhardt, 2009).

Archival and Operational Data

Nurses are urged to use up-to-date research evidence to deliver the best possible care (LoBiondo-Wood et al., 2013). Research-based practice has better patient outcomes than routine, procedural nursing care and informs nursing decisions, actions and interactions with patients (Doody and Doody, 2011). Evidence-based practice involves the use of reliable, explicit and judicious evidence to make decisions about the care of individual patients combining the results of well-designed research, clinical expertise, patient concerns and patient preferences (Kueny et al., 2015).

The providers at the site make their referrals after each screening process; although use of new instruments will be welcomed by the staff, the need for education on how to use the new tools and when and how to rotate their use was the rationale for this education project.

Evidence Generated for the Doctoral Project

The Iowa model of Evidence-Based Practice to Promote Quality Care focuses on organization and collaboration incorporating conduct and use of research, along with

other types of evidence (Melnyk & Fineout-Overholt, 2011). This model helped me to focus on knowledge- and problem-focused triggers, leading to question current nursing practices and whether care can be improved through the use of current research findings (Melnyk & Fineout-Overholt, 2011).

Participants

The participants for this project were the staff and the providers. I developed and provided the education for them using the screening tools that I identified from the literature. I provided them with an anonymous consent to participate in the education project. I asked them to complete a pretest, sit through an hour-long education program, and complete a post-test on the content that I provided.

Procedure

Employing the Iowa Model of Evidence-Based Practice to Promote Quality Care involves taking seven (7) essential steps, as follows:

Step 1: Selection of a Topic

Medical cannabis was chosen as the center of this project because of the priority and magnitude of the problem, its application to all areas of practice, its contribution to improving care, the availability of data and evidence in the problem area, the multidisciplinary nature of the problem, and the commitment of staff (Doody & Doody, 2011).

Step 2: Forming a Team

The team, which is composed of the staff and the providers, will review the evidence and tools that I will identify, the education program and policy that I will develop. I will come up with a form that they can fill out so I can get feedback from each of the expert panel or team and use that information to improve my education program for the staff.

Step 3: Evidence Retrieval

The education program was based on the evidence from the screening tools gathered from the literature.

Step 4: Grading the Evidence

In this project, I presented and employed at least two screening tools on top of the tool that the target organization is currently using and the evidence that supports each one. I will grade the evidence using the effectiveness criteria which will relate to whether the intervention achieves the intended outcomes (Doody & Doody, 2011). This evidence will be presented to the project team.

Step 5: Developing an Evidence-Based Practice Standard

Team members conform to agree on recommendations for practice after a critique of the literature (Doody & Doody, 2011). Medical marijuana in evidence-based practice is ideally a patient-centered approach, which when implemented, is highly individualized (LoBiondo-Wood et al., 2013). In this project, I will set up a time for the team to meet to

go review the materials I have collected and to discuss the merits of each. As a group, at least 2 alternative strategies for screening will be selected.

Step 6: Implementing Evidence-Based Practice

LoBiondo-Wood et al. (2013) discussed that features such as written policies, procedures, and guidelines that are evidence-based need to be considered in order for implementations to take place. Social and organizational factors can influence implementation and support placed on the integration of evidence into practice is essential (Kueny et al., 2015). For this project I developed the policy for the selected screening tools and asked the project team to provide feedback on the content and the timeline for implementation.

Step 7: Evaluation

This is a significant phase that assessed the value and contribution of the evidence (Doody & Doody, 2011). Audit and feedback through the process of implementation will be conducted by the site after this project is completed (Ivers et al., 2012) and success will not be achieved without support from frontline leaders and the organization (Moon & Kim 2015). I evaluated the results of the education presentation with a posttest on the content presented in the education program. The site will be responsible for completing the final evaluation of the implementation as that will take place after this developmental stage is completed.

Protection

Cannabis, or medicinal marijuana, is a therapy that has garnered much national attention in recent years. (Bridgeman & Abaiza, 2017). Controversies surrounding legal, ethical, and societal implications associated with use, safe administration, packaging, and dispensing; adverse health consequences and deaths attributed to marijuana intoxication; and therapeutic indications based on limited clinical data represent some of the complexities associated with this treatment. (Bridgeman & Abaiza, 2017). Marijuana is currently recognized by the U.S. DEA's Comprehensive Drug Abuse Prevention and Control Act (Controlled Substances Act) of 1970 as a Schedule I controlled substance and defined as having a high potential for abuse (Bridgeman & Abaiza, 2017). Institutional Review Board approval was obtained and no data collections or analysis occurred until approval has been received. The IRB approval number for the project was 03-26-19-0725261. Further, to assure protections of the participants of the education program, no personal identification was obtained from the participants and the pretest and posttest questionnaires had unique identifiers.

Analyzing and Synthesis

I have always been in close contact with the clinic manager even when I was not permitted to directly interact with the patients. Efficient collaboration with the clinic manager provided access and permission to gather, track, record, and organize the evidence and to present the education program. The participants were the staff and the providers at the clinic. A pretest was administered to them before the education program.

Each participant had two copies of the test that had the same unique ID for the pre- and post-test. After completion of the pretest, the test was placed in an envelope. I obtained the envelope before administering the education program. After the education program was completed, I asked the participants to complete the post-test. The post-tests were placed in the envelope with the pretests and I collected them without knowing which test was provided by any participant.

Pretest and posttest scores were then entered into an Excel spreadsheet and compared against each other. The number of the participants and their individual roles in the clinic were reviewed. Results of the pretest and posttest contents were compared.

Summary

Evidence to support the education program and the screening tools that were used were the result of the literature review. Data from the pretests and posttests were provided by the staff before and after the education program was given. This section provides the detail for the plan for the project.

The succeeding section is aimed to educate the readers of the gap-in-practice and the purpose of this doctoral project; sources of evidence and how they were obtained are discussed; findings and implications to positive social change are provided; and proposed solutions that will address the gap-in-practice are described.

In Section 4, I work with findings, implications, recommendations, contribution of the project team, and the strengths and limitations of the project.

Section 4: Findings and Recommendations

Introduction

Cannabis was proclaimed as particularly beneficial for those with several symptoms of psychological disorders such as depression, coping, and social anxiety (Bonn-Miller et al., 2013), and according to Reinarman et al. (2011), marijuana is seen by many physicians to have substantial therapeutic uses to address symptoms of pain, insomnia, anxiety, panic attacks, sleep disorder, appetite issues, seizures, and involuntary movements.

Despite the legalization of marijuana in many states, it is still categorized as a "Schedule 1 controlled substance," a classification that necessitates nurses to acquire the best understanding of the substance as well as the particular laws in the state where they practice (Volkow et al., 2014). An increased need exists for deep understanding especially because more and more people in the U.S. demand for use of medical cannabis (Volkow et al., 2014). Awareness of the substance and its effects, policies covering the use of cannabis for medical purposes, and actively taking part in the screening of patients who need medical cannabis recommendation will enable nurse practitioners to perform one of their significant roles which is to save the health care industry from spending too much of its funds (Rapp, 2015).

Physicians in my target organization issue recommendations for medical cannabis based on the Compassionate Use Act of 1996 (saclaw.org, 2017) after confirming through a screening process that patients are qualified. The organization has been using

one screening method and I have personally witnessed first-time and subsequent-visit patients who have been denied of medical cannabis recommendations. As a DNP-prepared practitioner, I saw the necessity to exercise my critical thinking, worked on this project and presented the relevance of using other screening methods or more than one screening method so patients will not have the opportunity to manipulate the screening process on their subsequent visits. More important, the providers at the organization did express that they saw the need for alternate methods as they do have patients who come for second visits or refills.

This planned project was also aimed at addressing that gap-in nursing practice by providing a staff education program developed to educate nursing staff and providers on the alternative methods for screening. The introduction of change in the target organization through the use of more than one screening method via staff education program was aimed to ensure appropriate screening, provision of precise treatment, reduce adolescent access to diverted medical marijuana, and decrease health care costs. My role in this project was to identify alternate screening tools through a search of the literature and provide staff education on the topic and the instruments identified.

Evidence were provided by the target organization on their current processes for screening. Literature search and study were done to identify alternate screening methods. Pre- and Post-tests were administered to the staff at the organization to identify the significance of using more than one screening methods on patients seeking medical cannabis recommendation.

This doctoral project was guided by the following practice-focused questions: The project focused-question Number 1 was: What evidence supports the use of screening methods for patients suffering from depression and anxiety and seeking medical cannabis recommendation?

Screening tools must be used on patients seeking medical cannabis recommendation (Caulkins, Kilmer, & Kleiman, 2016). Health care providers must be sure of the need of the patients and these screening tools will help them identify the need (Caulkins, Kilmer, & Kleiman, 2016). Caulkins, Kilmer, and Kleiman (2016) further discussed that screening methods serve as guide for health care providers in identifying which ones can and do manipulate systems; thus, ensure that only those who are truly qualified of the recommendations may acquire them.

To answer project-focused question Number 1, I conducted a literature search to identify the most current evidence available on screening tools for cannabis referrals. Thorough literature search was done on Walden library, CINAHL, Medline, Elsevier, Institute for Healthcare Improvement, and the National Institutes of Health which are reliable sources. These sites provided information that indicated authorized groups or individuals who stand behind the information they present. The dates of research are also given which guide readers to identify that the information presented are recent enough to meet the requirement of the paper or project.

In one of the meetings with the decision-makers of the organization, I was given the opportunity to present the two alternate screening methods:

- Zung Self-Rating Anxiety Scale (Zung SAS) (See Appendix A).
- *Diagnostic and Statistical Manual of Mental Disorders 5* (*DSM-5*) (wee Appendix B) with Instructions to Clinicians (See Appendix C).

The Zung Self-Rating Anxiety Scale (Zung SAS) was designed by W. K. Zung, MD, to quantify a patient's level of anxiety. It is a 20-item self-assessment scored on a Likert-type scale of 1-4 ("a little of the time," "some of the time," "a good part of the time," and "most of the time") (Biggs, Wylie, and Ziegler, 1978). ZUNG (SAS) is free and available online and was built to assess levels of anxiety based on cognitive, autonomic, motor, and central nervous systems manifestations. The final assessment is derived from the total score which ranges from 20 to 80. The raw score has an Anxiety Index which is used to identify a patient's level of anxiety: 20 to 44, normal range; 45 to 59, mild to moderate anxiety level; 60 to 74, marked to severe anxiety level; and 75 to 80, extreme anxiety level (Biggs, Wylie, & Ziegler, 1978).

DSM-5, which stands for the *Diagnostic and Statistical Manual of Mental Disorders 5*, is the result of more than a decade’s effort by mental health experts. The latest versions are available online and may be accessed for free. This test stipulates the definition and classification of mental disorders to provide advancement in diagnoses, treatment, and research. DSM has screening tests for specific disorders and ages, with instructions for physicians, scoring, and interpretation (American Psychiatric Association, 2013).

The project-focused question Number 2 was: What are the results of a staff education on alternative screening methods for determination of the need for cannabis referrals in the western United States?

To answer project question Number 2, I prepared the pretest (See Appendix D) and posttest (See Appendix E) as well as the staff education program which was created after the completion of the literature review and after the screening tools that were qualified for use were decided upon.

The staff benefited from the staff education program as they are made aware and reminded of other screening tools which were results of thorough research. Gaining knowledge on alternate screening methods helped the staff and the organization identify and understand varying behaviors of patients seeking medical cannabis. The ability to identify and assess said behaviors will make it possible to avoid manipulation of the system; therefore, medical cannabis recommendations will be given only to those who truly need them.

Findings and Implications

Procedures

The participants were given a pre-test before the suggested additional screening tools were taught in the education program. The education program on the screening tool was discussed during the staff education held within the organization's premises. The pre-tests results were kept in individual envelopes assigned to each participant using a unique identifier and no personal information were collected.

There were patients on subsequent visits and went swiftly through the screening phase when the medical assistant employed the same screening tool they have been using which is the online screening tool of the Anxiety and Depression Association (ADAA) for Generalized Anxiety Disorder (GAD) which ADAA developed from the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) (ADAA, 2018). The medical assistant supported my theory from observation that patients on succeeding visits may manipulate the existing screening method which they have become familiar with; thus he discussed my suggestion of using another screening tool which is the Zung Self-Rating Anxiety Scale (Zung SAS), a 20-item self-assessment designed to quantify a patient's level of anxiety.

After the head physician's approval and after implementing both the ADAA for GAD and the Zung SAS screening tools, some patients were indeed found to not needing the drug anymore. As a part of their mission and goals, the medical team at the organization aims to improve the lives of the locals by making significant contribution in the decreased rate of substance abuse by ensuring that medical cannabis recommendations are granted only to those who need it for medical purposes by implementing other screening tools.

The staff education program was then given to the participants and afterwards the post-test questions were administered. Post-tests were given to the participants after the education was completed. Post-tests were secured in the same individual envelopes with unique IDs and then all were gathered for analysis.

Results

Demographics of participants. The 12 participants are medical practitioners with at least a bachelor's degree. Made up of 4 males and 8 females, the team had been working together for at least three years in screening patients for medical cannabis recommendation (Table 1).

Table 1

Demographics

Gender	Male (33%)	Female (67%)
Number of years with the organization	5 years (58%)	3.8 years average (42%)
Number of years involvement in screening process	5 years (58%)	3.8 years average (42%)

Table 2

Pretest Results

How many screening tools implemented	100% replied : 1	
Have screened patients on subsequent visits	100% replied : YES	
Do you submit reports with recommendations after each screening?	100% replied : YES	
Part of the team that makes final decision on the releasing of medical cannabis recommendations	75% - YES	25% - NO
Percentage of patients being issued with medical cannabis after using one screening tool	Average 85%	
Based on 85% average of patients being given medical cannabis recommendations, would you recommend using another screening tool?	100% replied: YES	
Based on reports with recommendations (by the other members of the screening team), what is the % of recommendations for medical cannabis?	Average 85%	
	67% said patients are swift in answering the screening test;	
	33% said patients are impatient, anxious to be done immediately with the screening process	

Pretest Results

Results showed that the participants were familiar with implementing one screening tool during the screening process but were not aware of the need for more than one screening tool to test for the need for a cannabis referral. All participants indicated that the one screening tool was sufficient when answering the questions on the pretest indicating a lack of knowledge about options for more than one screening tool or of the rationale for the use of more than one screening tool.

Table 3

Posttest Results

Beneficiary of staff education program	100% replied: YES	
How many screening tools used for this week?	100% replied: 2	
Have screened patients on subsequent visits	75% - YES	25% - NO
Do you submit reports with recommendations after each screening?	100% replied: YES	
Part of the team that makes final decision on the releasing of medical cannabis recommendations	75% - YES	25% - NO
Percentage of patients being issued with medical cannabis after using one screening tool	Average 60%	
Based on 60% average of patients being given medical cannabis recommendations, would you recommend using another screening tool?	100% replied: YES	
Based on reports with recommendations (by the other members of the screening team), what is the % of recommendations for medical cannabis?	Average 60%	
	80% said patients seemed restless due to unfamiliarity of the tools	
	20% said patients are anxious to be done immediately with the screening process	

Posttest Results

After the scheduled staff education (See Appendix F), the staff of the organization underwent education on the additional screening tools and then post-tests were given to

them. Post-tests were secured in individual envelopes and then were gathered for analysis. Post-tests showed how the participants gained knowledge from staff education and how they are able to differentiate screening process results using one screening tool from results using at least two screening tools. All of the participants who were part of the team that makes the final decision on the releasing of medical cannabis recommendation expressed that they noticed differences in decisions and recommendations when two screening tools were used.

Recommendations

After the post-test, the manager, along with the clinic's primary physician, called for a team meeting to discuss the result. I presented to them the fact that the post-test showed that all of the members of the team that make the final decision on the releasing of medical cannabis recommendation expressed that they noticed differences in decisions and recommendations when two screening tools were used in the process. Prior to using two screening tools, the team approved 85% of requests for medical cannabis recommendations (see Table 1). However, after using two alternate screening tools, the team saw the need to approve 60% of requests for medical cannabis recommendations. The team agreed that it is best to use two screening tools during the screening process. The recommendation for screening included continued use of the current tool (Anxiety and Depression Association (ADAA) for Generalized Anxiety Disorder (GAD)) and pair it with either of the two suggested tools which are Zung-SAS and DSM-5. The team agreed to use pairs alternately. Thus, Zung-SAS and DSM-5 for patients on subsequent

visits, and ADAA for GAD and pair it with either Zung-SAS or DSM-5 for first-time patients.

Contribution of the Doctoral Project Team

The project team was made up of the Manager, Head Physician, Medical Assistants, and Nurses at the medical clinic that screens patients for medical cannabis recommendation. After presenting the potential screening tools, evidence was graded and then presented to the team. The project team was granted appropriate time to review the materials and decide on at least two alternative strategies and provided feedback on the content and the timeline for the implementation.

Strengths and Limitations of the Project

The most important aspect of this project is the fact that the decision makers of the organization understood the benefits and agreed to the use of the alternate screening tools presented. Also, with the head of the organization being an efficient and respected leader and being open to change, the staff education program went along very smoothly. The rest of the team were submissive to the activities and were cooperative in both the pre- and post-tests.

Although the project focuses on a small organization which results in a small sample size, I don’t see this as a project limitation. At this point, the size may not be an issue. What is significant is the result or the response of the team involved.

While I believe that I have done thorough literature reading and study on the subject, I noticed lack of previous research studies on the topic of the significance of

using pre-screening tools when performing assessment on patients seeking medical cannabis recommendations.

Section 5: Dissemination Plan

Dissemination Plan

At this point in my project, I am confident that I have clearly described the problem in practice in my target organization and that there was a possibility of giving medical cannabis recommendations to patients who did not need it. Also, they have been using only one screening tool, which made it easier for patients on subsequent visits to go through the screening process and acquire medical cannabis recommendations.

The organization where I aimed to do the staff education program was considerably small in size. Therefore, gathering of the significant participants and dissemination was not difficult to achieve. The manager made arrangements so that I was able to do my PowerPoint presentation in the clinic's conference room with the entire staff/human power on the day that they are closed for business.

The manager also pointed out the significance of the availability of the primary physicians and other members of the team that makes the final decision in who receives the medical cannabis recommendation. The staff education program on the alternate screening tools would be beneficial not only in outpatient clinics such as the target organization, but also in other inpatient health care facilities.

The dissemination plan included the discussion of the alternate screening tools and the results of the pre- and post-tests where majority of the participants and/or project team members agreed that it is best to use two more alternate screening tools on top of

the one which is currently being used. The manager requested electronic copies of the dissemination saved in various files and computers in their organization.

Analysis of Self

Seeing the reality of patients getting medical cannabis recommendations when they don't need it motivated me to aim to educate medical practitioners and remind them of other screening tools that have been tested through research. As an advanced-practice nurse, I decided that staff education will work best to increase the knowledge among the health care providers involved in the screening process of patients seeking medical cannabis recommendation. Through years of practice, I have seen how lack of knowledge will not only hurt patients but the health care industry as well.

As a DNP-prepared practitioner, my aim was to educate colleagues of the existence of evidence-based and user-friendly screening tools that will address the issue of patients becoming too familiar with the existing tools and manipulate them. As a medical professional motivated to be an effective agent of change, I made sure my project was focused on improving not only my project skills but most importantly the patient outcomes.

Within the completion of the project, I was able to efficiently initiate the staff education program, successfully complete it, and I have further honed my project skills. Therefore, I am able to move forward with my long-term professional goals such as to put more effort in staff education and be more active in quality improvement ventures that will reinforce evidence-based practice and improved patient outcomes.

Summary

As an advanced-practice nurse, I believe that status quo is no longer applicable in today's health care structure and that I should move forward and aim to be more capable in promoting efficient policy development. In my attempt to effectively introduce change and ensure positive patient outcomes, I collaborated with the health care providers in the target organization and did a thorough literature study. These efforts resulted in efficient and successful initiation and completion of staff education program where the beneficiaries were reminded of other screening tools which have been used and tested through research.

I may not have implemented the planned change but I am confident that I was able to make a noteworthy contribution as I was able to communicate the guidelines to the organization's leaders and policymakers; and these guidelines may be used by their organization to address the rate of substance abuse which is one of the leading health problems in the United States (Bonn-Miller et al., 2013).

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Appendix A: Zung Self-Rating Anxiety Scale

Zung Self-Rating Anxiety Scale (SAS)

For each item below, please place a check mark (✓) in the column which best describes how often you felt or behaved this way during the past several days. Bring the completed form with you to the office for scoring and assessment during your office visit.

Place check mark (✓) in correct column.	A little of the time	Some of the time	Good part of the time	Most of the time
1 I feel more nervous and anxious than usual.				
2 I feel afraid for no reason at all.				
3 I get upset easily or feel panicky.				
4 I feel like I'm falling apart and going to pieces.				
5 I feel that everything is all right and nothing bad will happen.				
6 My arms and legs shake and tremble.				
7 I am bothered by headaches neck and back pain.				
8 I feel weak and get tired easily.				
9 I feel calm and can sit still easily.				
10 I can feel my heart beating fast.				
11 I am bothered by dizzy spells.				
12 I have fainting spells or feel like it.				
13 I can breathe in and out easily.				
14 I get feelings of numbness and tingling in my fingers & toes.				
15 I am bothered by stomach aches or indigestion.				
16 I have to empty my bladder often.				
17 My hands are usually dry and warm.				
18 My face gets hot and blushes.				
19 I fall asleep easily and get a good night's rest.				
20 I have nightmares.				

Appendix B: *Diagnostic and Statistical Manual of Mental Disorders 5*

LEVEL 2—Anxiety—Adult*

*PROMIS Emotional Distress—Anxiety—Short Form

Name: _____ **Age:** ____ **Sex:** ❑ **Male** ❑ **Female** **Date:**_____

If the measure is being completed by an informant, what is your relationship with the individual? _____

In a typical week, approximately how much time do you spend with the individual? _____hours/week

Instructions to patient: On the DSM-5 Level 1 cross-cutting questionnaire that you just completed, you indicated that *during the past 2 weeks* you (individual receiving care) have been bothered by "feeling nervous, anxious, frightened, worried, or on edge", "feeling panic or being frightened", and/or "avoiding situations that make you anxious" at a mild or greater level of severity. The questions below ask about these feelings in more detail and especially how often you (individual receiving care) have been bothered by a list of symptoms **during the past 7 days. Please respond to each item by marking (✓ or x) one box per row.**

							Clinician Use
In the past SEVEN (7) DAYS....							Item Score
		Never	**Rarely**	**Sometimes**	**Often**	**Always**	
1.	I felt fearful.	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	
2.	I felt anxious.	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	
3.	I felt worried.	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	
4.	I found it hard to focus on anything other than my anxiety.	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	
5.	I felt nervous.	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	
6.	I felt uneasy.	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	
7.	I felt tense.	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	
						Total/Partial Raw Score:	
						Prorated Total Raw Score:	
						T-Score:	

Appendix C: *Diagnostic and Statistical Manual of Mental Disorders 5*

Level 2- Anxiety – Adult

Instructions to Clinicians

Instructions to Clinicians

The DSM-5 Level 2—Anxiety—Adult measure is the 7-item PROMIS Anxiety Short Form that assesses the pure domain of anxiety in individuals age 18 and older. The measure is completed by the individual prior to a visit with the clinician. If the individual receiving care is of impaired capacity and unable to complete the form (e.g., an individual with dementia), a knowledgeable informant may complete the measure as done in the DSM-5 Field Trials. However, the PROMIS Anxiety Short Form has not been validated as an informant report scale by the PROMIS group. Each item asks the individual receiving care (or informant) to rate the severity of the individual's anxiety **during the past 7 days**.

Scoring and Interpretation

Each item on the measure is rated on a 5-point scale (1=never; 2=rarely; 3=sometimes; 4=often; and 5=always) with a range in score from 7 to 35 with higher scores indicating greater severity of anxiety. The clinician is asked to review the score on each item on the measure during the clinical interview and indicate the raw score for each item in the section provided for "Clinician Use." The raw scores on the 7 items should be summed to obtain a total raw score. Next, the T-score table should be used to identify the T-score associated with the total raw score and the information entered in the T-score row on the measure.

Note: This look-up table works only if all items on the form are answered. If 75% or more of the questions have been answered; you are asked to prorate the raw score and then look up the conversion to T-Score. The formula to prorate the partial raw score to Total Raw Score is:

(Raw sum x number of items on the short form)
Number of items that were actually answered

If the result is a fraction, round to the nearest whole number. For example, if 6 of 7 items were answered and the sum of those 6 responses was 20, the prorated raw score would be 20 X 7/ 6 = 23.33. The T-score in this example would be that T-score associated with the rounded whole number raw score (in this case 23, for a T-score of 63.8).

The T-scores are interpreted as follows:

Less than 55	= None to slight
55.0—59.9	= Mild
60.0—69.9	= Moderate
70 and over	= Severe

Note: If more than 25% of the total items on the measure are missing the scores should not be used. Therefore, the individual receiving care (or informant) should be encouraged to complete all of the items on the measure.

Frequency of Use

To track change in the severity of the individual's anxiety over time, the measure may be completed at regular intervals as clinically indicated, depending on the stability of the individual's symptoms and treatment status. For individuals with impaired capacity, it is preferred that completion of the measures at follow-up appointments is by the same knowledgeable informant. Consistently high scores on a particular domain may indicate significant and problematic areas for the individual that might warrant further assessment, treatment, and follow-up. Your clinical judgment should guide your decision.

Anxiety 7a
Short Form Conversion Table

Raw Score	T-score	SE*
7	36.3	5.4
8	42.1	3.4
9	44.7	2.9
10	46.7	2.6
11	48.4	2.4
12	49.9	2.3
13	51.3	2.3
14	52.6	2.2
15	53.8	2.2
16	55.1	2.2
17	56.3	2.2
18	57.6	2.2
19	58.8	2.2
20	60.0	2.2
21	61.3	2.2
22	62.6	2.2
23	63.8	2.2
24	65.1	2.2
25	66.4	2.2
26	67.7	2.2
27	68.9	2.2
28	70.2	2.2
29	71.5	2.2
30	72.9	2.2
31	74.3	2.2
32	75.8	2.3
33	77.4	2.4
34	79.5	2.7
35	82.7	3.5

*SE = Standard Error on T-score metric

Appendix D: Pretest

Gender	
How long have you been with the organization?	
How long have you been involved in the screening process for patients seeking medical cannabis recommendation?	
How many screening tools have you implemented (so far as per organization's policies)?	
Have you screened patients on subsequent visits? (Yes, No, Most of the time)	
What one major observation do you have of patients on subsequent visits (as far as completing the screening process is concerned)?	
After the screening process, do you submit reports with your recommendations?	
Are you part of the team that makes the final decision on the releasing of medical cannabis recommendation? (If yes, please proceed to address the succeeding questions)	
What is the percentage of patients being issued with medical cannabis recommendation after the screening process and assessment?	
Based on the percentage that you declared (in the previous question), would you recommend using another screening tool?	
Based on the reports with recommendations (submitted by the other members of the screening team), what is the percentage of recommendations for medical cannabis?	

Appendix E: Posttest

Gender	
How long have you been with the organization?	
How long have you been involved in the screening process for patients seeking medical cannabis recommendation?	
Were you a beneficiary of this week's Staff Education Program?	
How many screening tools did the organization implement for this week (prior this questionnaire)?	
For this current week, were you able to screen patients on subsequent visits? If yes, what one major observation do you have of these patients on subsequent visits (as far as completing the screening process is concerned)?	
After the screening process, do you submit reports with your recommendations?	
Are you part of the team that makes the final decision on the releasing of medical cannabis recommendation? (If yes, please proceed to address the succeeding questions)	
What is the percentage of patients being issued with medical cannabis recommendation after the screening process and assessment using two screening tools?	
Based on the percentage that you declared (in the previous question), would you recommend using more than one screening tool?	
Based on the reports with recommendations (submitted by the other members of the screening team), what is the percentage of recommendations for medical cannabis?	

Appendix F: Staff Education