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Staff Instruction on Patient Health Questionnaire and Collaborative Care Model in Primary Care

Jennifer Carton
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Jennifer Carton

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Review Committee
Dr. Robert Anders, Committee Chairperson, Nursing Faculty
Dr. Mattie Burton, Committee Member, Nursing Faculty
Dr. Tracy Wright, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2020

Abstract

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Jennifer Carton

MS, Walden University, 2014

BS, Kaplan University, 2012

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The DNP project examined the effectiveness of the Patient Health Questionnaire-9 (PHQ-9) and the Collaborative Care Model (CCM) as a practice protocol for patients suffering from depression in primary care to address the problem of a shortage in mental health specialists. Research reveals an increase in Americans suffering from depression. Many primary care clinics do not have a practice protocol in place to screen and manage depression. The project's purpose was to develop a lesson plan to instruct staff on the PHQ-9 and CCM to implement into their practice. The project questions were if the lesson plan developed by the DNP student to instruct primary care staff on the PHQ-9 and CCM for depressed patients would be deemed valid by the expert panel and whether the staff education would provide the clinic staff with the knowledge necessary to implement the practice protocol in their clinic. Knowles's theory of learning guided the staff education plan. An expert panel of 6 professionals validated the staff education plan. The staff education was offered to 2 nurse practitioners and 3 nurses and their knowledge assessed by a pre-posttest analysis. Staff evaluation of their learning was analyzed and recommendations for future offerings provided. It was determined that the staff instruction plan would be an effective method for teaching the practice protocol to other primary care clinics to screen and manage patients with depression. Positive implications for social change are that more primary care providers will screen and treat patients with mental illness. Thus, avoiding referrals as much as possible to mental health professionals. The protocol enables the primary care providers to provide mental health assessment and treatment within an integrated primary care setting.

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Section 1: Introduction

Introduction

Depression is the most common mental illness present in patients in primary care settings (Williams, Nieuwsma, Elmore, Roy-Byrne, & Melin, 2018). According to Williams et al. (2018), 50% of patients with depression seen in primary care receive a diagnosis of such when proper screening is not in place. While it is challenging to identify and diagnose depression in this population when screening to detect the presence of depression is routinely done, and staff is knowledgeable about treatment, outcomes can be significantly improved (Williams et al., 2018). The National Institute of Mental Health (NIMH, 2017) estimated that in 2016, 16.2 million or 6.7% of U.S adults suffered from depression.

Routine assessment for depression is suggested due to the high incidence of the disease in primary care patients. The Patient Health Questionnaire-9 (PHQ-9) is a standardized tool used in the primary care setting to screen, diagnose, monitor, and measure the severity of depression (Moriarty, Gilbody, McMilliabn, & Manea, 2015; Institute for Clinical Systems Improvement [ICSI], 2016). The instrument provides an ongoing assessment regarding how the treatment of depression is progressing. The PHQ-9 is easy to use, has high validity and reliability, and is low cost (Jiao, Rosen, Bellanger, Belkin, & Muennig, 2017). Once the identification of depression happens, a case management protocol that links depression management with primary care providers fosters improved outcomes (Jiao et al., 2017).

Eghaneyan, Sanchez, and Mitschke (2014) suggested the Collaborative Care Model (CCM) as a useful means of managing depression for patients seeking care from

the primary care provider (PCP). Also, the U.S. Preventive Service Task Force (USPSTF, 2016) recommended regular screening and monitoring of adults with evidence-based tools such as the PHQ-9 and appropriate systems in place for accurate diagnosis, effective treatment, and proper follow-up. The combination of routine screening and collaborative care in primary care may lead to more patients having their depression managed due to most patients seeing their PCP for this health issue. Approximately 20% of depressed patients have their condition managed and treated by a mental health specialist, as they prefer to see their PCP due to the trusting relationships they have developed. (Unutzer, Harbin, Schoenbaum, & Druss, 2013).

The CCM is an evidence-based approach that emphasizes the integration of physical and mental health services. Unutzer, Harbin, Schoenbaum, and Druss (2013) claimed the CCM is both successful and cost-effective in treating common mental health disorders. The primary team members who collaborate to care for depressed patients when applying this model are the PCP, care manager, and mental health specialist. Each has specific responsibilities in terms of the provision of care. In the project, provider staff in a primary care clinic were educated regarding how to implement the CCM using the PHQ-9.

The purpose of the DNP project was to develop a lesson plan for administering and scoring the PHQ-9 and implementing the CCM, and secondly, teach the project clinic staff how to use them in their clinical practice. In 2017, 35% of adults suffering from depression did not receive treatment (NIMH, 2017). The collaboration between the PCP and the mental health professional, the concept behind the CCM, hopes to remedy the problem of unmet mental health needs. It hopes to achieve this by improving access to

care by initiating screening at the point of care with the PCP and having it managed within this setting, so there are fewer barriers encountered.

Problem Statement

At present, there is no screening tool to assess a patient's risk or current symptoms for depression at the project clinic. Additionally, there is no care process in place to manage depressed patients. The providers typically refer patients to mental health specialists even though care could safely and effectively be handled in the clinic. In 2015, when statistics on diagnoses first became available through electronic health records (EHRs) at the project clinic, only 5% of patients served in their practice had a diagnosis of depression and were engaged in treatment.

According to the project site, the number of patients with depression significantly increased in 2018 to 17%. The growth in the last six months showed a 110% increase when compared to the first half of the year. Furthermore, Medicaid insurance covers 64.7% of patients served at the project clinic. Currently, there is one mental health specialist within a proximal distance of this community who accepts state-provided insurance. The mental health provider at this facility agreed a partnership with the primary care clinic would also benefit her practice as she is unable to meet the demand (Collaborating Mental Health Specialist, personal communication, October 7, 2018). Collaboration between the PCP and the mental health specialist using the CCM will provide a mutually beneficial situation for patients evaluated at the clinic who screen positive for depression.

Local mental health organizations such as Vera French, Transitions, QC Health Initiative, and National Alliance on Mental Illness (NAMI) have identified a need for

better mental health services in the community of the project clinic (Director of Mental Health Services, personal communication, July 19, 2018). Four cities along a major riverway across two states make up the area. The population is approximately 315,000 (Professional Research Consultants, 2015).

According to Professional Research Consultants (2015), 12% of adults living in the community report fair or poor mental health, and approximately 20% have been diagnosed with depression by a health care provider. The rate is higher than the national average of 6.7% of adults in 2016 (NIMH, 2017). The most affected groups include low-income, Hispanic, and Black women who make up a significant part of patients served in the public health clinic, the location of the project (Professional Research Consultants, 2015). According to the project site (2018), 42% of female patients seen in their practice are Hispanic, and 27% are Black.

The literature also supports better screening and diagnosis of depression in primary care. Akincigil and Matthews (2017) found that patients who were seen in primary care often had depression go undetected half the time due to low depression screening rates of 4.2%. However, they found that when PCPs recognized depression symptoms, accurate diagnosis and timely treatment were the results (Akincigil & Matthews, 2017). Additionally, Canady (2018) found that screening for adults without the diagnosis of depression was low at .65% in 2008. However, she noted an upward trend of depression screening in primary care to 3% in 2015. With this increase, more individuals are receiving competent treatment and follow-up care due to early recognition of depression. She attributed the positive upward trend to a heightened awareness of

more individuals suffering from depression, new healthcare legislation, and federal screening recommendations.

Healthy People 2020 has objectives for enhanced screening and treatment for depression in primary care. Depression involves an increasing disease burden, which requires attention to improve and maintain an individual's good physical health. Proposed core objectives for Healthy People 2030 continue to concentrate on screening and treating adults with depression and severe mental illness. The goals also emphasize the importance of primary care clinics in conducting this screening (Office of Disease Prevention and Health Promotion [ODPHP], 2018). Consequently, an evidence-based tool used to screen and diagnose depression is necessary to identify patients in need of treatment. Additionally, an approach to carefully manage and treat depressed patients in the primary care setting is critical to serving this population better.

The doctoral student taught the project clinic staff an evidence-based approach to screening and providing care to depressed patients using the PHQ-9 depression tool with the CCM to improve the care process in the primary care practice. After completing the lesson plan, an expert panel consisting of a family nurse practitioner, psychiatrist, psychologist, nurse educator, social worker, and peer specialist appraised the method and content of the lesson plan. Knowledge attained by project clinic staff from the staff education was assessed, and their evaluation of course content and instruction became data for the completion of the project.

The screening for depression and the use of a case management protocol is significant to nursing practice as nurses are typically first to interact with patients and must possess the knowledge and skills to recognize signs and symptoms of depression.

Primary care nurses will also have an active role in the follow-up and careful monitoring of depressed patients with the implementation of the PHQ-9 and CCM. This DNP project proposed educating the staff on the use of the PHQ-9 and CCM as an evidence-based practice to improve the quality of care for patients managed by the project clinic and to ensure the right help is provided. The aim of the DNP project was for more individuals with depression to be identified by the primary care staff after training, which would result in more patients receiving treatment for depression.

Purpose

When a healthcare provider addresses one's physical symptoms or abnormalities such as hypertension, the patient is provided effective treatment following a systematic way of approaching lifestyle and medication therapy. This same approach must occur when tending to a patient's mental health and such ailments like depression. A gap in clinical practice presents itself when there are effective care processes available, but depression is not being properly diagnosed or managed due to lack of screening by primary providers, insufficient knowledge, and unwillingness to treat this condition (Petrosyan et al., 2017). The PICO question for the project follows:

P (Population) - Primary care staff

I (Intervention) - Specific staff education on CCM and PHQ-9 administration

C (comparison) - No educational intervention

O (outcome) – A valid curriculum for instructing staff on PHQ-9 and CCM was developed, and the staff attained adequate knowledge from the education to implement the tools in their practice. The purpose of the DNP project was to develop a lesson plan for administering and scoring the PHQ-9 and implementing the CCM, and secondly,

teach the project clinic staff how to use them in their clinical practice. There were two practice-focused questions. The first was: Would the lesson plan developed by the DNP student to instruct primary care staff on the PHQ-9 and CCM for patients suffering from depression be deemed valid by an expert panel? The second was: Using a pre-posttest assessment, would the project clinic staff achieve the level of knowledge necessary to implement the screening tool and care process into their practice?

The PHQ-9 is the preferred screening tool for depression. Jiao et al. (2017) found the PHQ-9 is a well-validated depression screening tool with high sensitivity and specificity that is cost-effective and easy to administer in the primary care setting. As per the ICSI (2016), the instrument can be used within diverse populations as it has been comparable among Chinese Americans, African Americans, Latino, and non-Hispanic White groups. Also, it is available in many languages, useful across a variety of health care settings, and simple to score. The focus of the questionnaire is nine of the diagnostic criteria for depression, according to *The Diagnostic and Statistical Manual (DSM-V)*. The score calculated from the patients' answers to problems encountered in the last two weeks is used to recommend evidence-based treatment. A score of greater than 15 out of 27 indicates the need for active treatment when considered in conjunction with patient history, functional status, and comorbidities (Spitzer, Williams, & Kroenke, 2014).

The CCM emphasizes routine screening and provides PCPs the opportunity to collaborate with mental health professionals to discuss diagnosis and treatment. Additionally, case managers assist in the management of their care. The case manager's assistance allows the PCPs to feel confident in their ability to care for depressed patients,

and it assures they are receiving the best treatment supported by the latest evidence. It also allows mental health specialists to focus their practice on more severe and challenging mental health conditions.

Nature of the Doctoral Project

The setting of the project was a public health primary care clinic with a population of mostly underserved patients. Per the project site, 64.7% of patients are recipients of state-provided insurance (Medicaid). These patients face barriers to healthcare, regardless if they are seeking treatment for physical or mental ailments. Several organizations support the use of PHQ-9 and CCM in identifying and managing depression. The Community Preventive Services Task Force (CPSTF), a division of the Centers for Disease Control and Prevention (CDC), asserted the CCM ensures systems are in place in primary care for the efficient diagnosis, treatment, and follow-up of depressive disorders. (NIMH, 2017). The USPSTF has recommendations encouraging depression screening, and the models use. The Veteran Affairs Translating Initiatives for Depression into Effective Solutions (TIDES), and Improving Mood: Promoting Access to Collaborative Treatment (IMPACT) employ the CCM. Their experience, as reported in the literature, helped guide the DNP project.

I instructed clinic staff on how to properly administer the PHQ-9 depression screening tool and the components of the CCM following the evaluation of the lesson plan by a team of experts. Participants evaluated their knowledge of the PHQ-9 and CCM before the implementation of the tool and care process in their practice using pre- and post-test assessments. Finally, staff evaluations were used as sources of evidence to

improve the curriculum developed by the DNP student if indicated. Staff development activities involved Knowles adult learning theory.

The purpose of the DNP project was to develop a lesson plan for administering and scoring the PHQ-9 and implementing the CCM, and secondly, teach the project clinic staff how to use them in their clinical practice. The aim was staff members, primarily PCPs, would be more willing to diagnose and manage patients with depression using specific guidelines and support from a mental health specialist. As mentioned, a partnership with PCPs also benefits the practice of mental health specialists as more PCPs see patients with depression and manage it within the primary care setting, decreasing their load of patients with less complicated symptoms and opening up more time to treat severe cases of mental disorders.

Significance

Several stakeholders will benefit from this project. The first are residents of the community where the project clinic is located who suffers from depression and their family members. The impact of a program that allows more individuals to be diagnosed and treated for depression by their primary caregivers will enable them or those in their families the chance to live happier and more fulfilled lives. Other stakeholders are affiliated provider staff at the primary care clinic and other similar organizations. Engaging these other stakeholders gives them the ability to provide care to more people, some who may be friends, family, colleagues, and other unknown individuals suffering from depression that may not be received otherwise. A financial advantage may occur

from providing more services, which, in turn, will bring more patients to the clinic for treatment and will help the public health organization that is the project clinic as well.

The National Alliance on Mental Illness (NAMI) and Mental Health America (MHA) support the use of the CCM. Both of these organizations have local affiliates near the project site. The community where the project clinic is located will benefit from the DNP project using the CCM model. The CCM approach facilitates the building of partnerships to support the mutual goals of the project clinic and local mental health organizations of helping people with mental illness.

Contributions to nursing practice involve teaching nurses and advanced practice nurses' additional skills to serve their population better. Active involvement in the staff education project is an essential part as there will be more accepting of the practice of using PHQ-9 and CCM, and they will learn how to apply evidence-based interventions to their practice designed to improve treatment and patient outcomes for depressed patients. French-Bravo and Crow (2015) claimed that employees who possess equal knowledge of how internal and external opportunities and threats affect daily operations, as well as future direction, would be essential to sustaining a change in clinical practice. Additionally, with the application of the PHQ-9 and CCM into their practice, they will be able to observe the positive effect on patients and families.

The project is appropriate for primary clinics in any community. The project clinic serves as a pilot program, and if the staff education project is found to be effective in increasing their knowledge of the PHQ-9 and CCM, it can be shared with other healthcare organizations on a larger scale. Healthcare conferences can be a positive platform to share information. The material can be delivered as a poster presentation and

orally presented to an audience. Multiple levels of disseminating the information should be used and are most successful when transferring new knowledge to the point of care. This project and the knowledge acquired can help many communities with the problem of limited mental health resources with increasing demand.

Fragmented care is a social problem that negatively affects the quality of delivered care. If addressed, this would benefit many patients, particularly underserved areas and small rural communities. The different disciplines of healthcare have been compared to silos, where healthcare professionals are only willing to provide care within their area of specialty (Knickman et al., 2016). There is no incentive for them to expand their services and offer more comprehensive care. Lack of motive is a significant barrier for patients who do not have insurance or have state-provided insurance with limited coverage. To better serve these populations and others, the practice protocols need to change as healthcare providers must be more willing and open to manage mental and physical health needs in their practice.

Summary

This DNP project educating PCPs and their clinic staff on the components of the CCM and administration of the PHQ-9 depression screening tool to improve the care provided to patients who have mental illness in collaboration with a mental health specialist have many benefits to justify its implementation and organizational support. If the practice problem is adequately addressed, it could enhance the lives of many individuals suffering from depression and their families in communities worldwide. Thus, enhancing patients' quality of life would be accomplished by increasing the

acceptance of PCPs treating depression in their practice and providing them support with follow-up and shared decision-making with a care manager and mental health specialist.

Other countries have the same barriers experienced in the United States and often lack resources and have limited numbers of mental health specialists. Mental Health America (MHA, 2018) reported that the ratio of mental health patients to the mental health workforce in the United States is 536:1. The large discrepancy between the number of individuals with mental illness to available providers means many patients will have their mental health needs unmet. Currently, over 9 million Americans report not having their needs met (MHA, 2018). Low reimbursement of services only complicates the problem as many providers choose not to accept insurance, and families are left to pay out of pocket for mental health care.

Worldwide, the number of individuals suffering from depression is staggering. According to the World Health Organization (WHO, 2018), depression is the leading cause of disability, and over 300 million suffer from it. A staff education project that assists primary care staff in the identification of depression and its management in the primary care setting would help close this gap between the increasing need for mental health care and the shortage in health care professionals qualified to provide the care. Section 2 delves deeper into the background, concepts, models, and theories that inform the DNP project and its historical context. A more robust discussion of my role and the project team follows in Section 2.

Section 2: Background and Context

Introduction

The screening and management of depression in the United States fall short of best practices in comparison to other chronic conditions such as diabetes and hypertension (Bishop et al., 2016). Bishop et al. (2016) stressed that the best practices for screening, diagnosing, treating, and follow-up of depression should follow management processes used with other common chronic medical conditions. They emphasized screening at every visit, a nurse care manager to track management of patients with depression, regular follow-up with compliance checking, and information sharing with a mental health specialist and PCP as paramount to treatment success. The use of clinical guidelines or management processes in the treatment of chronic conditions allows for better accountability of providers, efficient resource allocation improvement, minimized healthcare errors with better identification when mistakes do occur, and improved health outcomes (Petrosyan et al., 2017).

There were two practice-focused questions. The first was: Would the lesson plan developed by the DNP student to instruct primary care staff on the PHQ-9 and CCM for patients suffering from depression be deemed valid by an expert panel? The second was: Using a pre-posttest assessment, would the learners achieve the level of knowledge necessary to implement the screening tool and care process into their practice? The purpose of the DNP project was to develop a lesson plan for administering and scoring the PHQ-9 and implementing the CCM, and secondly, to teach the clinic staff how to use them in their clinical practice. Section 2 will describe the concepts, models, and theories

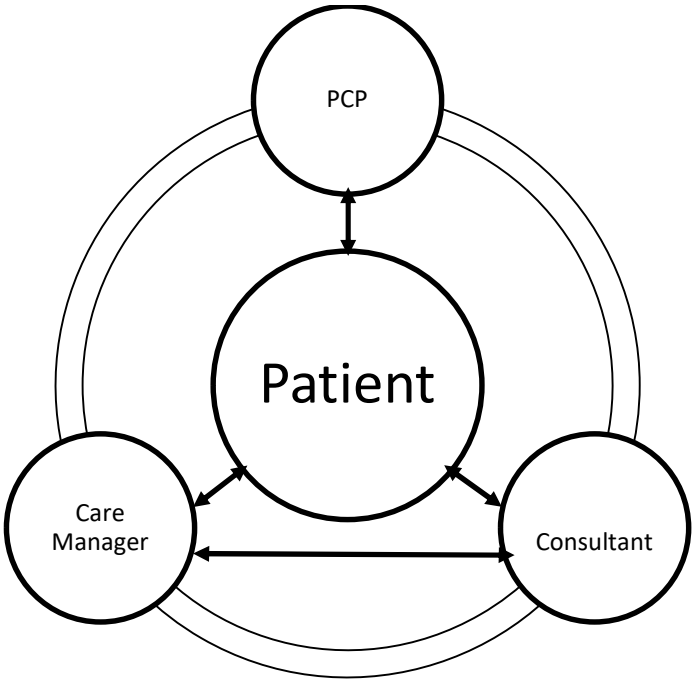
used to inform the DNP project, show its relevance to nursing practice, and give some historical background and context for a better understanding of the problem. Discussions include my role as well as the project team.

Concepts, Models, and Theories

CCM

The CCM is a case management protocol used in the staff development component of the project. The CCM was developed as a variation of the Chronic Care Model (Eghaneyan et al., 2014). Eghaneyan et al. (2014) explained the Chronic Care Model outlined critical practices to caring for patients with chronic illness to improve outcomes, better meet patient needs, provide more effective patient education, and use information systems for better monitoring, care planning, reminders, and feedback. The idea behind the chronic care model was applied to treating mental illness, whereas symptoms experienced by the patient were the result of chronic disease and not indications of an acute illness.

The premise of the CCM is that primary care providers work closely with psychiatric professionals to take measurement outcomes collected by the care manager in their close monitoring of the patient and develop and adjust treatment based on these findings (See Figure 1). The responsibility of the care manager is to engage patients by using educational and behavioral strategies, present patient cases at meetings with mental health and primary care providers, use reliable tracking methods for patient follow-up, and communicate with team members and give regular feedback on patient outcomes (Eghaneyan et al., 2014).



The **Patient** seeks help, discloses symptoms, participation and engages in treatment, and tracks symptoms.

The **PCP** identifies patients, introduces Collaborative Care, makes an initial diagnosis, and initiates treatment (prescribes medication, referral to psychotherapy, or both).

The **Behavioral Health Care Manager** engages patients, tracks patients in a registry, and provides care management-based treatment to target, and optional evidence-based therapy.

Figure 1. Pictorial representation of the Collaborative Care Model, which is a strategic Approach to providing care to patients suffering from depression in a primary care setting. From "The IMPACT Model of Collaborative Care by University of Washington, 2015. Retrieved from https://www.ihs.gov/telebehavioral/includes/themes/newihstheme/display_objects/documents/slides/bh2015conf/bh15_impactmodel.pdf. Taken from Government Publication.

In the main Medicaid population served at the project clinic, the CCM can serve as a framework to improve both physical and mental health outcomes. Also, with patient-centered medical homes and the Affordable Care Act, it now allows individual states to establish models for reimbursement of severe and chronic mental health disorders (Woltmann et al., 2012). A final justification for the use of the CCM is state-level exchanges offer the opportunity for bundled payments to providers, which can facilitate the use of a care manager, a crucial component of CCM-related services

(American Academy of Family Physicians [AAFP], 2014). The implementation of this model will lead to future organizational and policy reform regarding mental health services and coverage.

Knowles Learning Theory

The theory used for staff education regarding the CCM in depression treatment and the implementation of the PHQ-9 screening tool to diagnose and monitor symptoms was Knowles's theory of learning. Malcolm Knowles was the first to recognize that children and adults learned differently and coined the concept andragogy. According to Knowles, Holton III, and Swanson (2005), there are four principles to andragogy or the teaching of adult learners: (a) adult learners are self-directed and need to be involved in the content and process of learning, (b) their prior experience should be drawn upon, (c) the content should be relevant and impact the learner's personal or work life, and (d) adult learning is problem-centered so it should not focus on memorization (See Figure 2). Knowles's theory of learning is most effective when the needs of the learner are incorporated into the planning of the education offering.

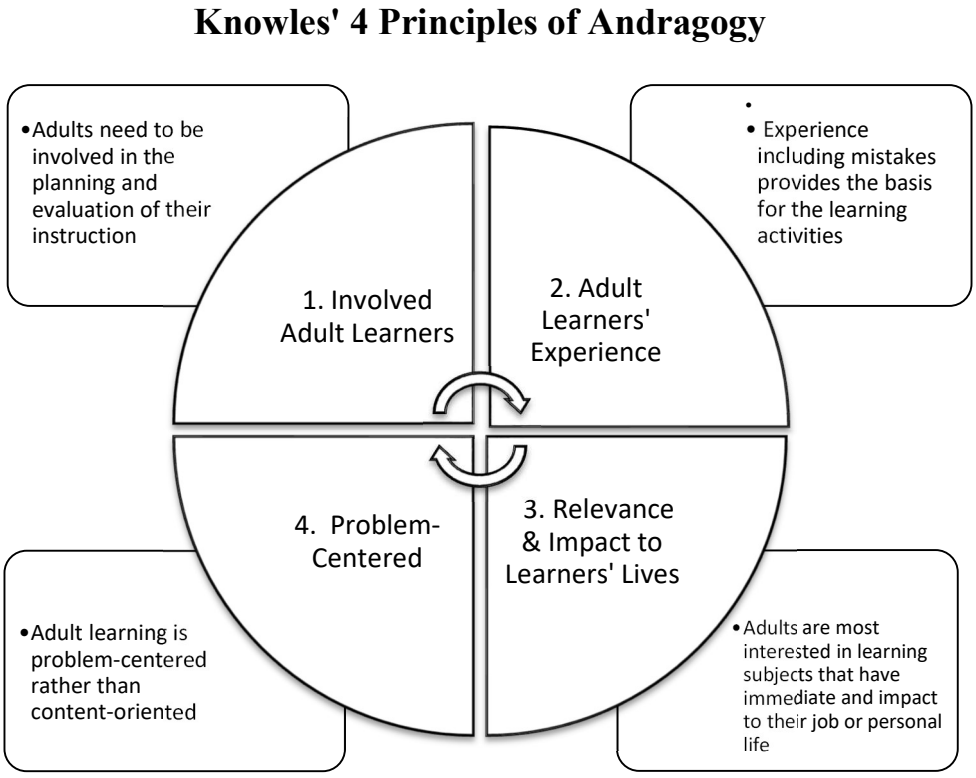


Figure 2. Pictorial representation of Knowles Andragogy Principles, which is a learning Theory that depicts how adults understand best when considering a staff education project being taught to clinic staff. From "The Adult Learning Theory of Malcolm Knowles" by E-Learning Industry, 2013. Retrieved from https://www.slideshare.net/elearningindustry/the-adult-learning-theory andragogy-of-malcolm-knowles

Bultas, Hassler, Ercole, and Rea (2014) applied Knowles's learning theory to the effectiveness of teaching staff using high-fidelity simulation (HFS) for quicker intervention when a pediatric patient is deteriorating compared to a traditional mannequin. Knowles's learning theory guided the staff development study. The simulation as a strategic educational tool allowed staff to meet their learning needs in a

more realistic and meaningful manner. The results were individuals in the experimental group who received their instruction using HFS had higher post-test scores than the control group using mannequins. Additionally, teamwork performance levels were significantly higher in the group who participated in HFS teaching scenarios. Emphasis on adult experiences and the process and relevance of learning as opposed to curriculum content are critical assumptions of Knowles's learning theory and will be applied to the staff education presented for the DNP project.

Relevance to Nursing Practice

Lack of mental health providers and other frequently encountered barriers impede the treatment of depression. Provider shortage leads to confusion on who is responsible for screening and treating patients with mental health conditions. In the past, depressed patients were referred out by their primary provider for the management of their illness. MHA (2018), recently reported that one in five adults were unable to get the treatment they needed for mental illness and faced several barriers to receiving care. Challenges encountered were lack of or inadequate insurance, limited availability of mental health providers, insufficient finances, and lack of access to specific treatment types such as inpatient therapy and individual treatment. When staff nurses attempted to find a place for patients to receive treatment for their mental condition, it was a frustrating process and were unable to place patients in a provider's care. The results were that patients continued suffering and, consequently, a significant decrease in their quality of life.

Nurses were not recognized initially as agents of change in mental health. The American Nurses Association (ANA, 2018) and several other nursing organizations led a call to action for health care professionals and other stakeholders to inform and develop

well thought out policies and support increased access to mental health services. The request also asked for better screening and treatment of patients with mental health conditions such as depression. A viable solution proposed was to utilize primary care providers, including nurse practitioners, in the detection, diagnosing, treating, and evaluating of mental illness in the general population (Theophilos, Green, & Cashin, 2015). As per Theophilos, Green, and Cashin (2015), integrating mental health services and primary care made sense. They asserted that nurse practitioners should view caring for depressed patients as a routine part of their central role. Patients preferred receiving mental health care in conjunction with their primary care services. The use of PHQ-9 to screen, diagnose, and evaluate treatment, and the CCM as a care process to manage depression in primary care is logical as many patients who seek care from their PCP for other chronic conditions such as diabetes, heart disease, and cancer also suffer from mental disorders, most commonly depression.

PHQ-9

The use of the PHQ-9 in primary care has been studied, tested, and empirically validated as a tool for screening and diagnosing depression in this setting (Jiao et al., 2017). As per Spitzer, Williams, and Kroenke (2014), the internal reliability and test-retest of the instrument are considered excellent with a Cronbach's alpha of 0.89 in primary care. With a summary score cut-point of greater than or equal to 10, found to be the point of maximum sensitivity without loss of specificity, the sensitivity for major depression was 88% and specificity of 88%. The purpose and nature, practical application, and technical aspects of the PHQ-9 as a screening tool and a way of

monitoring treatment over time makes it a reliable questionnaire to improve the rate of depression recognition and facilitate more effective treatment.

The significant prevalence of diabetes and other comorbidities in the general population provides additional support for collaboration models for the identification and treatment of depression in patients treated in primary care settings (Ju Kang et al., 2015). Some of the most recent research uses the PHQ-9 screening tool in patients who suffer from depression, but also have other comorbidities such as diabetes (Willborn et al., 2016). The diabetic patient is administered the PHQ-9 to identify the presence of depression as a result of her chronic condition. Willborn et al. (2016) looked at the usage of the PHQ-9 tool in the screening of patients with type 2 diabetes in two primary care clinics and found the use of the instrument in both clinics increased after 2013 in patients with diabetes. Their findings demonstrated that it was a quick and effective way to recognize diabetic patients with depression. However, the use of the screening tool alone was not found to be enough, and intervention from the primary provider was necessary for improved outcomes in depression and management of their diabetes. The inclusion of PHQ-9 for the therapeutic response of patients with depression and diabetes was found appropriate in assuring the efficacy of treatment. Given the high percentage of diabetic patients typically seen in primary care, the clinic provides additional justification for depression screening.

The PHQ-9 and its use in the project clinic offers an evidence-based screening tool to identify patients suffering from depression in primary care. A positive screening then alerts the staff to address the patient's symptoms, discuss treatment, and recommend the person to the CCM program for closer monitoring and continuous evaluation of their

depression using the PHQ-9 tool. As per Moriarty et al. (2015), calculation of the score requires adding numbers 0-3 marked by the patient indicating how often the patient was bothered by the symptoms in the last two weeks. The staff then adds the score, and the severity of depression is determined. The rating drives treatment recommendations, pharmacotherapy, and psychotherapy.

CCM

Wayne Katon is considered the pioneer of collaborative care in mental health. His original research highlighted the use of the CCM in patients receiving care for depression in primary care and its effectiveness in improving patient outcomes. Katon et al. (1995) compared the usual care of depressed patients in the primary care setting with individuals receiving integrated care with primary care providers and a mental health specialist. The participants of the group receiving collaborative interventions with primary and specialty care also were provided additional patient education and monitored follow-up. Primary care providers were instructed on best practices for depression treatment. They found improved patient adherence, increased patient satisfaction with care rendered, full acceptance by primary care providers, and better outcomes for patients in the experimental group. The CCM takes this concept and applies it to caring for patients with chronic mental health conditions to capitalize on each contributor's strengths and educational emphasis on improving patient outcomes and increasing safety.

A randomized control trial conducted by Richards et al. (2013) compared the intervention of CCM with the inclusion of 6 to 12 contacts with a depressed patient over 14 weeks with usual care. The hours consisted of a 30-40-minute initial appointment with a provider and 15-20-minute telephone conversations with the care manager. The

routine care included an appointment with a primary provider, treatment with an anti-depressant, and referral to a psychiatrist for other treatments. The researchers found CCM was preferred by patients and had persistent positive effects for up to 12 months from initiation of the integrated treatment intervention.

The Depression Improvement Across Minnesota (DIAMOND) Initiative implemented CCM in 75 primary clinics (Solberg et al., 2013). Solberg et al. (2013) trained employees of the primary care clinics on the components of CCM. The staff participated in ongoing evaluation and facilitation activities. Surveys of providers and care managers were the main evaluative measures at three intervals, before training, at one year, and two years. The study found primary care clinics successfully implemented new care processes such as the CCM when financial barriers were minimized, practical training was provided to staff that facilitated the initiation of the new method or model, and when staff resources and expertise needed were made available. The study specifically demonstrated improvement in the management of patients with depression.

Many individuals do not have their depression diagnosed and managed if their PCP is not screening for it and are not willing to manage depression in addition to other chronic diseases (Ju Kang et al., 2015). The DNP project hoped to address this with instruction given to primary staff on the PHQ-9 screening tool and CCM to more effectively identify and manage comorbidities seen in primary practice that address patient's mental and physical health needs. The aim was the shortage in mental health providers will have less of an impact on the general population who see their PCPs regularly for other reasons but are also able to have their depression treated when it may have otherwise been ignored or not recognized.

Local Background and Context

According to MHA (2018), Illinois, the location of the public health clinic, is ranked in the middle of all states 22nd for access to mental health services with considerable room for improvement. Additionally, 53.3% of Illinoisans diagnosed with mental illness did not receive treatment, which ranks 21st among U.S. states. Finally, 22.2% of individuals living in Illinois who sought treatment for mental health conditions had their needs unmet. Illinois is at 36th, near the bottom of the 50 states. These percentages and rankings, especially in the bottom half of patients seeking treatment for mental illness with unmet needs, demonstrates the urgency for change. Challenges faced by Illinois residents and many throughout the U.S. can be reduced by implementing routine screening for depression with the PHQ-9 tool, applying the CCM, and training primary care staff on this evidence-based management protocol for depression.

A problem applicable to the lack of access to mental health services for the population seen at the public health clinic is its demographic location serving rural communities. As per MHA (2018), persons with rural residences are the most affected by the lack of mental health providers in their area. The ranking of Illinois for the mental health workforce is 31 out of 50 states or a ratio of 580 patients to one provider. The MHA (2018) stressed the use of CCM in primary care and telehealth are sensible solutions to the significant gap in the mental health workforce in these communities.

The Illinois Department of Public Health (IDPH, 2016) made behavioral health a priority in their Healthy Illinois 2021 Plan. They came up with six goals, three of which pertain to the topic of this project. First, they intend to improve the collection, utilization, and sharing of behavioral health-related data in Illinois. Sharing of information is

essential as data drives research, and research is necessary for continued improvement in care. It will be crucial for providers to see the care they are providing is improving access and meeting the needs of the communities around them. Second, they want to build upon and increase local system integration. In this manner, the partnerships strengthen among stakeholders. The activity enhances and supports the integration of mental and physical health, along with a continuum of service ranging from prevention to treatment. Lastly, the department wants to improve the opportunity for treatment in the community rather than institutions. The behavioral health unit would like to decrease the number of people who end up in emergency rooms, jails, and hospitals with mental health issues. Instead, they want to narrow the treatment gap by building and sustaining community-based treatment for mental disease. The state of Illinois and the participating public health organization are committed to providing evidence-based practice, despite funding and service cuts. The fit is in line with the CCM and use of the PHQ-9 screening tool as both are evidence-based interventions and cost-effective to use.

The mission of the public health department used for the doctoral project is to protect and improve the health of the community. This statement does not specify just physical health. Thus it includes the mental health of its residents as well. The project health department has the vision to protect, promote, maintain, and enhance the independence, health, and wellbeing of all area residents, visitors, and employees through the provision of state-of-the-art, cost-effective health services consistent with law, regulation and community values. The clinic is also involved in the local Mental Health Alliance Organization, which makes it an ideal establishment to implement these changes

and for policies and guidelines to include meeting the needs of patients with mental illness.

As demonstrated, there is an urgent need to identify primary care patients who suffer from depression and secondarily to provide them with evidence-based treatments. Currently, the project clinic is not using a standardized assessment to identify patients with depression. Thus, there is considerable opportunity to recognize these individuals by implementing the PHQ-9. The CCM, where the PCP jointly manages the patient with the mental health professional, will provide them with the care necessary to achieve remission of their depression.

Role of the DNP Student

As a public health family nurse practitioner, I am aware of the need to provide our clinic population with appropriate diagnostic and treatment options for depression. In my role as a family nurse practitioner, I provided the primary care staff with additional knowledge on how to identify patients with depression and then to use the CCM model to coordinate their care. I was responsible for the development of a lesson plan that assisted in achieving this task and ensuring the staff was trained to administer the PHQ-9 and apply the CCM to their practice.

My involvement outside of the clinic includes being an active member of the local Mental Health Alliance Organization, and I help coordinate and plan the yearly Mental Health Walk to raise monies for mental health awareness. Additional education was obtained by attending conferences on mental health through NAMI and suicide awareness programs. The most notable organization in which I am involved is Suicide Prevention and Resilient Kids (SPARK), which raises suicide awareness in local schools,

and intends to spark meaningful conversations on youth suicide prevention. I have completed many of my practicum hours at a local mental health facility that serves low-income, underserved, Medicaid populations like the health department location of the doctoral project. The project research has helped me identify the barriers faced by these patients and how treatment for depression, when tailored appropriately, can assist many patients with depression. I have witnessed the frustration of patients seeking mental health care services. I am aware of how undiagnosed depression and lack of treatment can lead to poor compliance with the management of other chronic conditions, suicide attempts, and even premature death. The potential of changing patient outcomes through screening for depression with PHQ-9 and using a CCM approach is evident.

My role in the doctoral project was first to develop a teaching plan on how to use the PHQ-9 screening tool and the CCM and implement it within a primary care setting. Once a team of experts validated the curriculum, I educated the primary staff on the instrument and model. Instruction consisted of training a care manager in her role within the model, as this is crucial to proper management of the disease. The provider training included how to score the screening tool and determine treatment using the number calculated from the patient's answers. The clinic was shown how to create a professional relationship with a local mental health specialist to collaborate care of the depressed patient with the primary provider. I then oversaw administering staff evaluations of the material and used the information to improve and make changes to the lesson plan for future use in other organizations.

The professional motivation for this project was from my clinical experience, and the similarity of patients served in the project clinic. I am aware of the needs of the

population in this county. I desire to meet the physical and mental health issues faced by my patients. I have witnessed the aggravation of staff and patients when navigating services and attempting to locate resources. I believe that effective services and treatment for depression can be accomplished in the primary care setting and should be managed and addressed, just like any other chronic condition. Chronic conditions, such as diabetes or cancer, can often lead to depression in patients (Voinov et al., 2013). For that reason alone, receiving treatment for both conditions at the same health care location makes sense and will more than likely improve compliance. Also, I feel the relationship between a primary provider and their patient is one of trust and understanding, which will facilitate conversations on the topic of depression.

There is always the potential for bias when testing the implementation of evidence-based interventions into practice. Potential bias was the use of the PHQ-9 over other depression screening tools. The Beck Depression Inventory is a self-rating scale, like the PHQ-9. The amount of time it takes to administer the instrument is short, like the PHQ-9. Some could argue that this screening tool is superior to the PHQ-9 due to a specificity of 99% and a sensitivity of 97% (Bienenfeld, 2016). However, access to the scale is restricted as it is copyrighted and has a fee for use. Thus, use is limited as several instruments are available through the public domain. Another potential bias was my employment within the same organization as the project clinic. Skewing of the data due to the staff's familiarity with me and their desire to make my project successful could have occurred. Emphasized in staff development was how the project would support patients with depression. It was stressed that if patients with mental health needs were unmet, it could lead to worsened physical health and significantly decrease their quality

of life. Thus, staff support for the project had the potential of improving patients' outcomes of care.

Role of the Project Team

The development of the lesson plan required a team of experts to approve its validity. The project team consisted of the staff at the primary health clinic and the mental health specialist. The clinic nurse understood the part of the case manager, and with the primary provider learned implementation and scoring of the PHQ-9 as well as the CCM care process. The local mental health specialist served as a collaborative partner. The training was offered at the clinic during regular hours to assure staff attendance and familiarity with clinic processes.

The project team was encouraged to share their experience and insight into the doctoral project. All clinics associated with this public health system have their limitations and barriers. Additionally, the family nurse practitioner at the clinic where the project was implemented has 19 years of experience in primary care and offered a vast amount of experience and knowledge to the project. The assumption was that the project would be welcomed and appreciated. The success of this project could have a significant impact on the lives of mental health patients in the community and surrounding areas as well as their families. Finally, the experience of the clinic supervisor in the development of policies on clinical practices benefited all team members and patients seeking treatment for depression.

Summary

The use of the PHQ-9 screening tool and the CCM in primary care have the potential to transform mental health care, specifically depression, for many in this

smaller, rural community. The project's relevance to nursing practice was increasing access to depression care that is evidence-based to individuals who would not usually have their needs met with usual care in the designated primary care clinic due to lack of resources and decreased numbers of mental health specialists in the area. The role of the DNP student and the project team was critical to its success and sustainability as part of the practice. Section 3 will focus on the collection and analysis of the evidence. Included is a discussion on sources of evidence. Lastly, the component consists of a discussion regarding the analysis and synthesis of the evidence and procedures used in the doctoral project.

Section 3: Collection and Analysis of Evidence

Introduction

The growing demand for providers to screen and manage depression calls for a new process of care in primary practices to serve this increasing health need. It is estimated that there are over 8 million ambulatory visits for depression diagnosis and management each year, with primary providers seeing over half of these patients (Bishop et al., 2016). Thus, primary providers are the gateway to individuals receiving diagnosis and treatment for their depression.

Providers and their staff must be prepared to practice and manage depression as a chronic illness like hypertension or diabetes. The PHQ-9 screening tool provides the clinic staff the ability to screen and monitor patient's progress using an evidence-based measurement. The CCM is an evidence-based management model that is effective in reducing the burden of symptoms, increasing medication compliance, and improving patient/provider satisfaction (Bishop et al., 2016). The purpose of the DNP project was to develop a lesson plan for administering and scoring the PHQ-9 and implementing the CCM, and secondly, teach the clinic staff how to use them in their clinical practice.

In many cases, depression accompanies other chronic illnesses such as diabetes and cancer (Unutzer et al., 2013). Another justification for screening all adults with the tool is to diagnose patients and offer education and appropriate treatment. A program that incorporates collaborative care between a care manager, primary provider, and mental health specialist who work together to provide care and monitor a patient's progress is one approach to integrating physical and mental health care to improve the

management process of depression in the primary care setting. As part of the project, the lesson plan was validated by a team of experts, learners' knowledge attained from the curriculum was appraised from pre-post test results, and the affiliated clinic staff assessed the instruction of the PHQ-9 and CCM.

The state of Illinois, where the project clinic is located, has experienced financial setbacks the last decade leading to many budgets and program cuts with mental health services being affected significantly (Thomas, 2016). According to Thomas (2016), a recent state budget impasse from July 2015 to August 2017 means many years will be needed to recoup losses and monetary resources decimated by a lack of state funding. An extraordinary commitment to regain social and financial capital, specifically in the public health sector, will be necessary to rebuild state-funded community health programs (Thomas, 2016).

The approval of the 2018 budget looks to improve mental health services where this budget stalemate had damaging effects on communities in Illinois. Included in this budget was a 3% Medicaid increase in mental health to help stabilize funds for community-based treatment, avoiding a $27 million cut to mental health services by extending the psychiatric Medicaid add-on payments, and increasing substance use prevention and treatment grants (Thresholds, 2018). Section 3 will restate and clarify the practice-focused questions, consider the sources of evidence, and describe the procedures used for the analysis and synthesis of its evidence.

Practice-Focused Question

The number of individuals suffering from depression and seeking treatment in the U.S. increased significantly from 6.6% in 2005 to 7.3% in 2015 (Weinberger et al., 2018). The rise was highest among more vulnerable people, such as children and young adults and, low-income populations (Weinberger et al., 2018). The most significant rise was among late teens from 8.7% to 12.7% in 2015. Depression frequently goes undiagnosed, yet it is very treatable.

Data from the study suggested that treatment for depression among Americans suffering from the disease has not increased, and socioeconomically vulnerable patients are at the highest risk of untreated depression (Weinberger et al., 2018). Discrepancies between who receives treatment and who does not and a gap in practice when there are practical tools and management processes to treat depression in primary care should encourage more prevention, screening, and intervention efforts such as the implementation of PHQ-9 and CCM. A reason to suggest the PHQ-9 to screen for depression as well as a care process using the CCM in the primary care clinic is so more individuals will have their depression diagnosed and managed, especially the more vulnerable patients such as those seen in the public health project clinic.

There were two practice-focused questions. The first was: Would the lesson plan developed by the DNP student to instruct primary care staff on the PHQ-9 and CCM for patients suffering from depression be deemed valid by the expert panel? The second was: Using a pre-posttest assessment, would learners achieve the level of knowledge necessary to implement the screening tool and care process into their practice? The project suggested a protocol that aligns well with the practice-focused questions as it

incorporates the development of a lesson plan to educate primary staff to provide evidence-based approaches to screen for depression and treat it through collaboration with a care manager, PCP, and mental health specialist. The PHQ-9 and CCM were chosen for the project over other screening tools and models for care due to easy access through the public domain with no permission or cost required to use them and their ease in terms of completing and scoring.

Sources of Evidence

A search of the current literature published from January 2013 to January 2018 using Medline, ProQuest, Ovid, CINAHL, Cochrane, NAMI, psychARTICLES, SAGE Journals, and Thoreau was performed. Keywords used for the search were *depression, mental health, co-occurring conditions, depression screening, PHQ-9, collaborative care model, chronic care model, primary care, primary care provider, integrated care, access, mental health services, Knowles adult learning theory, self-directed learning, and adult learning theory*. The search found 1.025 significant articles. Of those, the literature review used 72. In addition to the literature review, other sources used for evidence to address the practice-focused questions posed by the DNP project included a team of experts chosen by the DNP student and the project clinic staff.

The literature review was used earlier to research useful methods for managing depression in primary care to encourage change to practices that have been in place at the project clinic for 19 years. Staff buy-in to the change was crucial to the sustainability of the new practice. The proposed modification in the care provided to depressed patients with the implementation of the PHQ-9 and the CCM has not been the normal process as most patients were referred out to mental health specialists. The literature review aided

in identifying effective communication and teaching strategies to support successful project implementation. Communication is critical to staff members ' understanding and knowledge of the project's purpose and content (Eghaneyan et al., 2014). Lastly, the information gathered from the literature review was used by the DNP student to develop a curriculum for staff education regarding the implementation of the PHQ-9 and CCM. Analysis of the latest research and literature demonstrated the recommended tool and model for use in the care of depressed patients was based on substantial evidence and findings to support the project clinic's endorsement of the new clinical practice.

A team of experts was assembled by the DNP student to review the lesson plan developed for teaching clinic staff the PHQ-9 and CCM instruments. The expert panel consisted of a family nurse practitioner, psychiatrist, psychologist, nurse educator, social worker, and a peer specialist. Their assessment was used to evaluate the staff development component of the project to educate staff on the use of the PHQ-9 and CCM in the practice setting. Their evaluation of each component of the curriculum was done via determination of validity using Lynn's model.

The project clinic team who attend the staff development activity evaluated their learning using the American Nurses Credentialing Center (ANCC) continuing education unit (CCU) evaluation tool. A pre and post-test design were used to assess the achievement of learning outcomes. Staff education needed to be appropriate and effective. Eghaneyan et al. (2014) asserted that problems recognized through staff evaluations are flaws and deficiencies in training, lack of program support, poor communication among team members, and unique organizational barriers.

Collection and analysis of the project evidence were performed using the previously completed literature review, an expert panel to validate the content of the lesson plan, and project clinic evaluations of the course as sources. These provided the necessary data to answer the project question of whether the lesson plan was sufficient to teach the administration of the PHQ-9 screening tool for depression and the referral into the CCM program and if staff would acquire the knowledge necessary to successfully implement both tools to their practice at the project clinic.

Procedures

The developed curriculum was presented to the expert panel as the first step of the DNP project. The expert panel evaluated the objectives of the educational aspect of the project. They ensured the lesson plan's objectives aligned with the staff development project. The objectives for the staff development aspect of the project were:

1. Staff members will learn about the PHQ-9 and how to score it
2. Staff will learn the concept of the CCM, including its evidence base and principles
3. The roles and responsibilities of each collaborative care team member will be learned by staff
4. Staff will learn how to effectively communicate with each other and patients participating in the CCM

After approval of the teaching content and strategies, training was executed to the project clinic staff. Team members evaluated the DNP student's instruction and course content, and their understanding of the material was assessed with pre- and post-tests. The project clinic was used for evidence collecting, so the information received was deemed accurate

and reliable, and an in-depth account of the staff instruction was obtained to provide valuable improvements and identify successes for future implementation in other clinics.

Evaluation plan. The evaluation plan for expert panel assessment of the lesson components taught to the project clinic staff on how to administer and score the PHQ-9 depression screening tool and implement the CCM care process was for the experts to ensure the goals, activities, and content aligned with the proposed lesson objectives. Ensuring alignment of the goals was imperative to conclude whether the project staff met the course objectives. The alignment was achieved by determining content validity (CV) of the lesson plan used to educate the staff. CV justifies its use in the study for the findings to be considered meaningful and genuinely representative of the project data (Rutherford-Hemming, 2015).

As per Rutherford-Hemming (2015), to determine CV, the experts in the content being taught to the project clinic staff must agree that the components of the lesson presented were relevant to the construct, or the course objectives and learning outcomes. Content validity and the content validity index (CVI) was computed using Lynn's Model (See Table 1). The CV score was calculated by the number of experts who felt the lessons were relevant to the learning objectives (Rutherford-Hemming, 2015). An example using Lynn's model is if five out of six experts felt the lesson components were relevant, the CV would be 0.83 computed by the number of experts who agree the content is valid divided by the total number of panel members. Each lesson item was individually rated on its relevance to determining the CVI. Examples of items included in the lesson plan were PowerPoint, video, pre-and post-tests. More on this will be offered in the analysis and synthesis of the data section.

Table 1

Team of Experts Evaluation of Lesson Plan using Lynn's Model

Number of experts endorsing course items as content Valid						
Expert #	1	2	3	4	5	6
1	1.00					
2	0.50	1.00				
3	0.33	0.66	1.00			
4	0.25	0.50	0.75	1.00		
5	0.20	0.40	0.60	0.80	1.00	
6	0.16	0.33	0.50	0.66	0.83	1.00

From "Determining content validity and reporting a content validity index for simulation scenarios," p. 392, by T. Rutherford-Hemming, 2015, Nursing Education Perspective (National League for Nursing), 36(6).

Protections

As per Walden (2017), all DNP projects were required to undergo approval from the university's Internal Review Board (IRB). The protocol proposed fell under the blanket pre-approval set up by the DNP program as it was in the parameters where no patient data was used for this project and was approved (approval # 09-17-19-0398769). Validation forms were completed by each member of the expert team for the lesson plan developed by the student. There was no exchange of money for the expert panels' or staff services. Each member of the expert panel and the project clinic staff was given

information regarding the project, including questionnaire and evaluation procedures, acknowledgment their involvement was voluntary, risks and benefits of taking part in the project and notice their privacy would be protected when they elected to participate in the staff education. Consent was implied when the expert panel and staff agreed to contribute to the DNP project. Pre-and post-tests completed by the project clinic staff were anonymous. The data collected for the project was on the DNP student's personal computer to which only she had access to and was password protected. Any information on the patient population provided by the project clinic was reported in unidentified aggregate data. When the project was completed, data was deleted, and the drive was scrubbed. The project site deferred to Walden for IRB approval. The DNP student awaited the university's IRB approval to begin the project.

Analysis and Synthesis

Upon approval from the Walden IRB, initial evaluation by the expert panel was completed, and how to assess the content of the staff education was explained. Each section of the lesson plan had the content rated by the panel. The Likert scale was used where the answer choices corresponded with the scoring number ranging from one where the content had no relevance to the learning outcomes or four where it was highly relevant to the staff learning of the material. Expert panel members were able to free text some of their suggestions and elaborate on their assessment of the learning module. The data collected from the Likert scale were analyzed using Lynn's model (Rutherford-Hemming, 2015), and the additional assessment of the lesson plan from the expert panel was summarized.

Each component of the lesson plan had the CV and the CVI calculated using the Lynn model. Fewer than six experts should be used, according to Rutherford-Hemming (2015), to alleviate the opportunity for chance inflation when applying the standard error of the proportion, the premise of Lynn's model. CVI was computed by taking the number of experts reporting a three or four for the relevance of the individual items included in the lesson plan and dividing it by the total number of experts on the panel who evaluated the course content. The minimum validity that was acceptable was set at 0.83 (5 out of 6 members), and any item that fell below needed to be revised. Expert comments were helpful in the revision of content components. As described above, the same process was used to compute the CV. Evaluation criteria of the lesson plan used for the staff education on the PHQ-9 and CCM was a CV and CVI of 0.83. Any future alterations to the lesson plan would have to be approved by the experts participating in the evaluation.

The pre- and post-tests were used to measure the knowledge gained by the staff after the course content was presented. The individual responses were analyzed and interpreted. A formative evaluation of strengths and weaknesses based on the before and after scores were performed to revise instruction and suggest improvements.

Due to only having two providers and three nurses as learners in the training course for the DNP project, the data available from this measurement as well as visual assessment of participants actively learning and engaging in course activities were used to improve the instruction for future use only. Participants needed to score at least nine out of ten on post-test for it to be considered valid, and no changes or improvements necessary. Inferential statistics or a t-test was not needed in this instance, as described above, to assess the participant scores. The additional analysis would be included if the

content was being taught to a larger group of medical staff, which will likely be an upcoming way to disseminate the material.

A summative evaluation was used from the ANCC CEU tool completed by the project clinic staff to appraise the instruction on the PHQ-9 screening tool and CCM. According to Frey (2018), summative evaluation is used to determine if a program reached its goals, objectives, and outcomes. This method of analysis helps to conclude the effectiveness of the instruction on the PHQ-9 and CCM.

Summary

The need for more providers to manage depression in primary care requires a careful process that includes a reliable screening tool and an evidence-based practice taught to clinic staff (Bishop et al., 2016). The DNP project hoped to accomplish this by providing staff education on administering the PHQ-9 depression screening tool and referring patients identified to be suffering from depression to the CCM program where a care manager, the PCP, and a mental health specialist work closely to apply appropriate treatment and close management of the disease.

Section 3 discussed the sources of evidence that were used for this project to support this practice, such as the earlier performed literature review, an expert panel on the lesson material, and the project clinic staff. The participants were the primary care staff at the project clinic, and protections such as not naming the project clinic, nor disclosing members of the expert panel were employed. The analysis was achieved by using the Lynn model to assess panel validation scores of the content, scoring clinic staff members pre- and post-tests, and evaluations of the course completed by the course participants. Section 4 will discuss the findings and implications of the evidence

recommended solutions to address the problem, project team contributions, and the strengths and limitations of the project.

Section 4: Findings and Recommendations

Introduction

Depression can be a debilitating disease, and those who suffer from it may be misdiagnosed and not receive the treatment and care they need to function effectively. Lack of treatment affects their quality of life and that of their families. Their inability to lead healthy lives is greatly affected by a lack of diagnosis and treatment when evidence-based management protocols are available and proven successful (Petrosyan et al., 2017). The doctoral project addresses this gap in practice by providing a family practice clinic the tools and education necessary to address the practice problem by teaching staff to administer the PHQ-9 screening tool and then referring patients to have their depression managed internally using the CCM care protocol. The CCM is an evidence-based approach to treating depression, where a partnership is formed between primary care providers, care managers, and mental health specialists (Unutzer et al., 2013).

There are two practice-focused questions. The first was: Will the lesson plan developed by the DNP student to instruct primary care staff on the PHQ-9 and CCM for patients suffering from depression be deemed valid by the expert panel? The second was: Using a pre-posttest assessment, will the clinic staff achieve the level of knowledge necessary to implement the screening tool and care process into their practice? The purpose of the DNP project is also two-fold to develop a lesson plan for administering and scoring the PHQ-9 and implementing the CCM and teach the clinic staff how to use them in their clinical practice. The aim is for staff members, primarily PCPs, to be more willing to diagnose and manage patients with depression using specific guidelines and support from mental health specialists.

Evidence from the literature review supports the use of a screening tool and care management process, such as the PHQ-9 and CCM, in the management of depression in primary care. Other sources of evidence used for the project are a team of panel experts consisting of a nurse practitioner, psychiatrist, psychologist, nurse educator, social worker, and peer specialist, and staff at the public health family clinic who will be instructed on the tool and model. The team of experts provided evidence by evaluating the course content and determining if the information presented in the course was valid. The expert panel evaluation ensures the learners can meet the staff development objectives. The project clinic staff offered evidence for the project by completing a pre- and post-test to assess their learning of course outcomes. The course ended with the clinic staff appraising the course using the ANCC-CEU evaluation tool.

Analytical strategies used for the staff development project were Lynn's model and formative and summative evaluations. Lynn's model was used to analyze the data from the expert panel's assessment of each course component using the Likert scale. The Likert scale rates content based on its relevance to the learning outcomes, where 1 represents no relevance to four represents deep relevance. The expert panel also provided written feedback to be summarized as part of the project findings. A formative evaluation of the strengths and weaknesses of the staff development course was completed using the pre-and post-test scores. How much the project clinic staff scores improved on the post-test was analyzed and interpreted. A summative evaluation was performed on the clinic staff's responses to the ANCC-CEU tool. The course evaluation

determined if the staff development course reached its goals, objectives, and outcomes and if instruction regarding the PHQ-9 and CCM was effective.

Findings and Implications

Expert Panel CVI Review Results

The findings of the staff development project demonstrated that the course was successful in terms of teaching the clinic staff how to administer and score the PHQ-9 and manage depression in primary care using the CCM. There were six members of the expert panel. For the course content to be assessed as valid, five of the six-panel members had to determine its relevance to the course objectives. The four objectives were: (a) staff members will learn about the PHQ-9 and how to score it, (b) staff will learn concepts involving the CCM, including its evidence base and principles, (c) the roles and responsibilities of each collaborative care team member will be learned by staff, and (d) staff will learn how to communicate with each other and patients effectively.

Components of the staff development were PowerPoint on PHQ-9 and CCM, a short video on CCM, a post-instruction demonstration of staff using the protocol, pre-and post-tests, and staff survey (See Figure 3). One expert panel member did not find the short video to be relevant to the staff achieving the course objectives as she did not feel there was enough content presented in the video, and most of the information was provided in the PowerPoint presentation on the CCM. However, five out of six members of the panel assessed the content as relevant and did not need any alterations. Using Lynn's model to compute CV and CVI, the overall rating of the course content showed all panel participants felt the content was relevant to the staff development course objectives (See Figure 4). Recommendations and feedback from the panel experts

suggested the pre-and post-test should have more than ten questions for future training and the size of the groups of learners should remain smaller to facilitate a more interactive environment, so they feel more comfortable asking questions and participating in the role-playing scenario of the PHQ-9 and CCM. If it was a more extensive course with many participants, the expert panel recommended not doing the demonstration of the protocol using staff members.

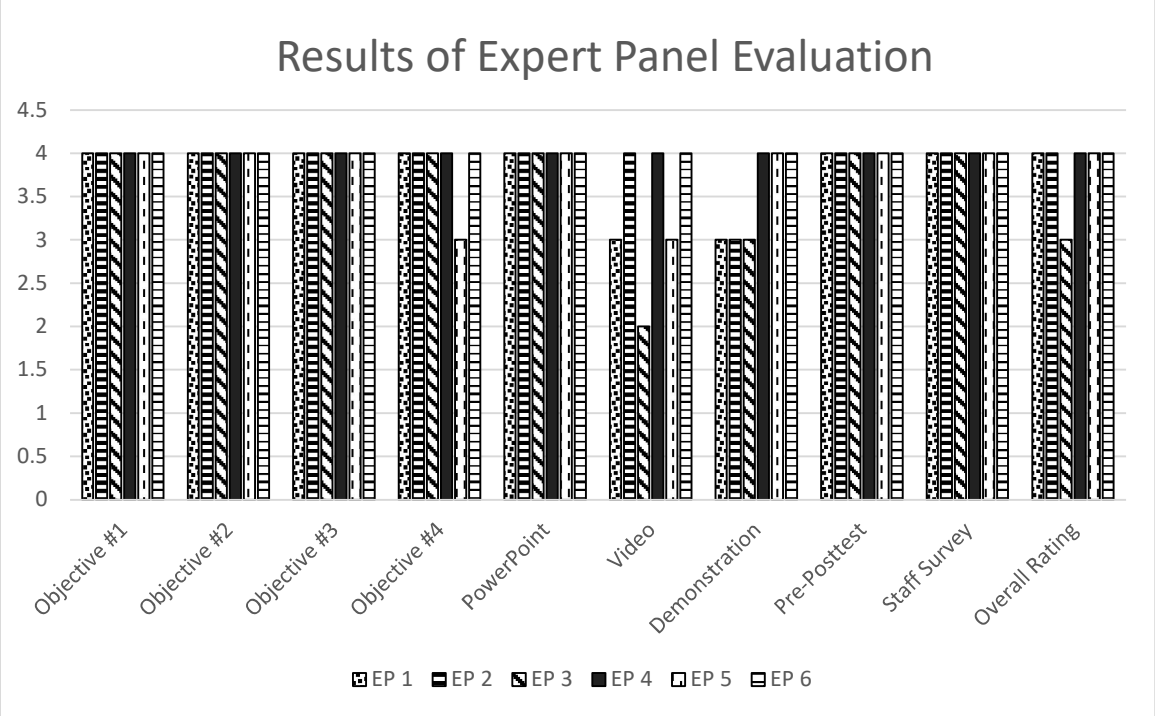


Figure 3. Results of the expert panel evaluation are shown where a score of 3 or 4 on the Likert Scale represented the relevance of each component to the staff development activity. There was one expert who rated the video on the CCM as needing alterations to be assessed as relevant to the staff development activity.

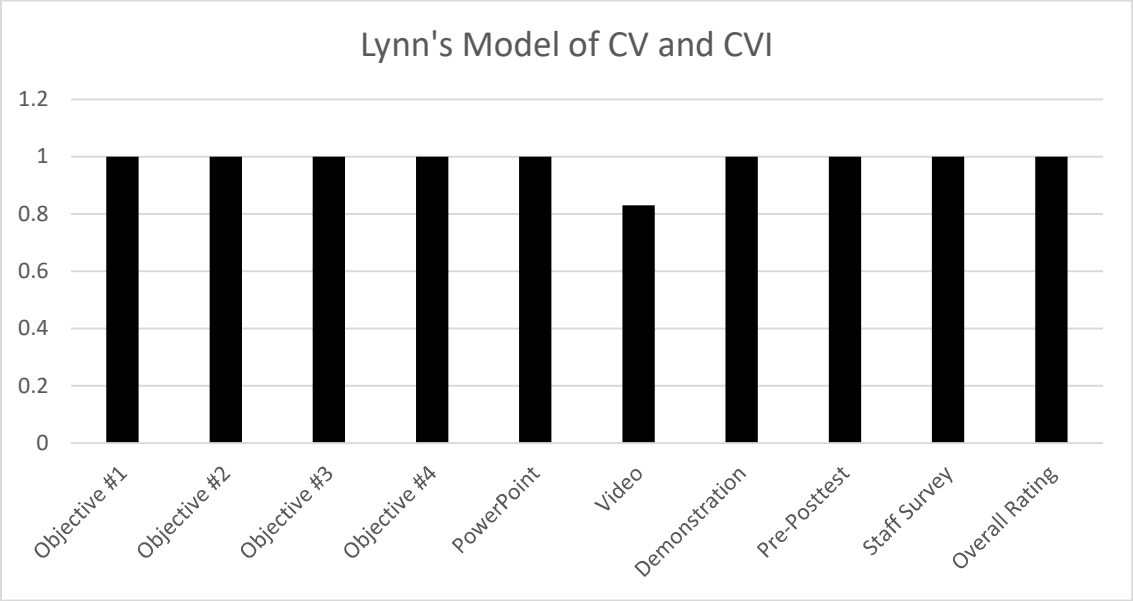


Figure 4. Expert panel evaluation using Lynn's Model. CV and CVI were computed by dividing the number of expert panels that found the course component relevant divided by the total number of expert panelists. To determine if valid, the CV and CVI was set at 0.83. The figure shows the expert panel deemed all components as valid.

Clinic Staff Pre- and Post-test Results

The project clinic staff were informed of procedures, their voluntary involvement, risks, and benefits of participating, and notice their privacy would be protected when their consent was obtained for the staff education. The scores from the pre-test compared to the post-tests findings determined all five project clinic staff members' understanding of the content. The pre-test showed some basic knowledge of the PHQ-9 and CCM with a mean score of 8.4 (See Figure 5). A learning deficit was noted among project clinic staff in their understanding of staff responsibilities and the main principles of the CCM before the staff education. The fact that the project clinic staff had a good foundation and understanding of the tool and the model facilitated a more-in-depth discussion during the presentation of the course content. The demonstration of the project clinic staff using the

care management protocol was found to be very useful as they were able to notice and correct their own mistakes without much instruction from the doctorate student teaching the course. A 10 out of 10 was scored by each clinic staff members who completed the post-test after the staff development course (See Figure 5).

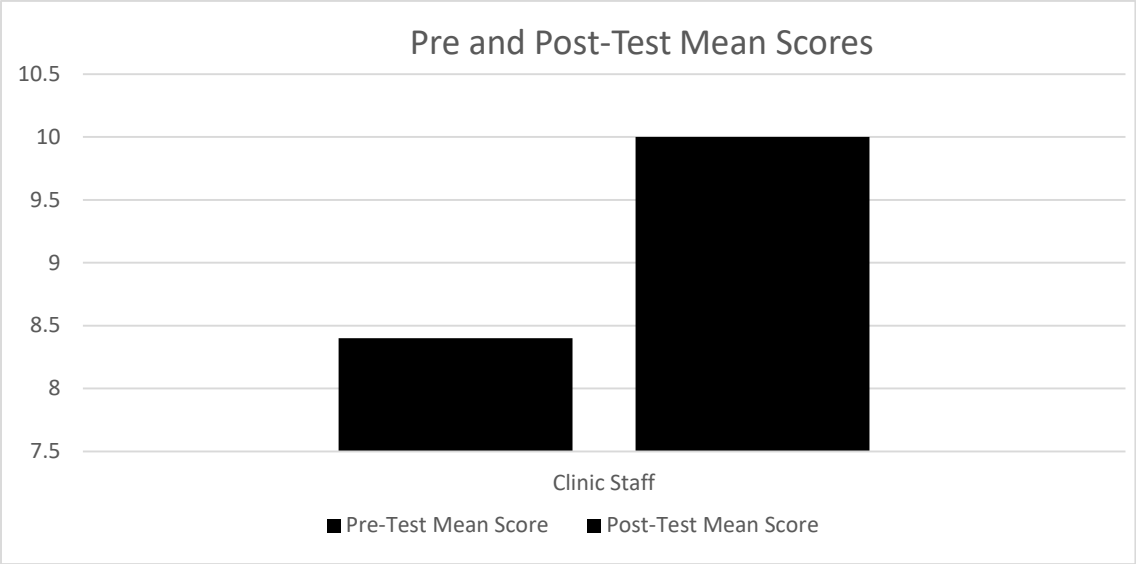


Figure 5. Mean pre and post-test scores of clinic staff to demonstrate the level of understanding of the PHQ-9 tool and CCM.

Clinic Staff ANCC-CEU Evaluation Results

The ANCC-CEU evaluation tool findings were positive and offered some useful suggestions for improvement in future course offerings. All project clinic staff strongly agreed the course had met the objectives intended. They also found the doctorate student to be knowledgeable of the topic, found the teaching aids to be useful, and found the content presented in the course was relevant to those stated objectives. Clinic staff felt the demonstration of the protocol was the most critical aspect of the staff education module. They also thought the PowerPoint presentation content was appropriate and did

not need any alterations. Suggestions for changes mentioned were to offer more time for the instructions as they felt the amount of time allotted was not sufficient for individuals who did not have the knowledge base of the particular clinic. There were also some suggestions of a twenty-question pre-posttest for assessment of the project clinic staff's understanding rather than ten questions. It was felt a ten-question quiz might not assess the learning of the tool and model as well. Finally, they recommended more ancillary staff be involved in the training such as the certified nursing assistants (CNAs), and the office staff as they will be part of scheduling patients involved in the CCM care management protocol and will need to know these requirements in addition to the nurse serving the role as the care manager. The office staff will be the ones in the project clinic to initiate patient screening as they will distribute the PHQ-9 tool to the patient during registration to expedite their completing the form before going back to the room.

The outcomes were as expected by the DNP student. The staff development instruction achieved what it intended to as each project clinic staff member showed their understanding of the content through the demonstration of the protocol and the post-test scores. If there were one unanticipated limitation that may impact the findings, it would be the ten-question pre- and post-test as it may not measure the project clinic staff's complete understanding of the course content. If the test was longer, it might show a learning deficit not identified with the shorter exam. The deficit in their learning may directly impact the findings and affect how successful the clinic was at executing the protocol in their practice.

The implications of the findings among individuals, communities, institutions, and systems may not be realized by implementing it in one small practice. However, as

more clinics participate and receive the instruction, the findings showed it could be an effective way for primary care providers to manage depression in their practice as well. The implication of the findings on individuals, communities, and institutions will speak for itself as many individuals who do not have their mental health needs met will have the opportunity to seek services from their PCP and not just mental health specialists where a shortage has been established. A projection from the Health Resources and Services Administration (HRSA, 2016) found that in 2025, there will be a 250,000-worker shortage of select behavioral health professions. HRSA (2016) suggested that models such as the CCM will help mitigate the short supply of mental health specialists where they will be utilized more efficiently in partnership with PCP's.

Potential positive implications for social change are additional PCP's will be confident and willing to screen and treat patients who have mental illness and not feel the need to refer them out of their clinic to a mental health specialist. The silos discussed earlier will not exist, and American healthcare will become a more integrated system where patients can have their mental and physical health needs addressed and met in one building with one provider. Ultimately, the implications to social change will go more-in-depth, and the stigma that remains when discussing and seeking treatment for mental health issues will be lessened, and the topic of mental health will be a part of people's conversations without embarrassment or fear of what people will think.

Recommendations

The gap in practice identified by the doctorate project is many people around the United States and globally are not having their mental healthcare needs met when there are effective protocols and guidelines to diagnosing and managing such mental

conditions as depression effectively at the primary care level where most seek care and are most comfortable (Eghaneyan et al., 2014; Unutzer et al., 2013). This particular practice can be supported by an organizational policy outlining the CCM management of patients suffering from depression for providers to follow. The policy would have to specify who will be serving the role of the mental health specialist that will provide support to the PCP when managing depression under their care. An agreement between the mental health specialist and the organization wishing to form a partnership will need to be made with the public health administrator that will delineate how the specialist will be compensated for their service. The policy at the project clinic is currently in the process of being developed. The nurse practitioners at the site and their direct supervisor are collaborating with the policy creation.

There were recommendations from the expert panel and project clinic staff that will be taken into consideration in future presentations of the course content. The suggestion of a twenty-question pre-and post-test will be evaluated to see if this does measure the understanding of the tool and model better. There was also the comment from one expert panelist that the video on the main points of the CCM did not add a lot as far as providing additional information not already covered in the PowerPoint. I think changing the order of the presentation where the video is shown before the PowerPoint on the model may be more valuable as it gives the learner the main points on the CCM and shows how it is used before giving more specific details. That may add to their understanding as the slides are revealed. Lastly, the project clinic staff commented that the staff education should continue to be presented to smaller groups of people to facilitate more open conversation and participation in the role-playing demonstration of the PHQ-9 and CCM

being executed. A smaller number of participants will be considered, but also, the course content can be adjusted slightly to accommodate the size of the group the information is being presented to in the future.

Contribution of the Doctoral Project Team

Working with the project team first, to determine the validity of the course content to meet the staff development objectives by the expert panel to second, providing the instruction to the project clinic staff was a relatively smooth process. It is unknown if this was due to the doctorate student's familiarity with the individuals who were part of the team, or if this is an expectation in future course offerings. The expert panel in deciding the validity of the components of the course provided great insight, and their suggestions on improving the course were useful. The project clinic staff also provided useful suggestions and professional insight for improvements and to address project limitations.

The team member's recommendations assisted in the development of the final product, and they all played a role in the creation of their organizational policy. The team will continue to be called upon for input when presenting the staff development course to other clinics, and additional avenues of dispersing the information. Plans to evaluate the effectiveness of the protocol on meeting patient needs and successfully managing depression are intended, and the correct process for carrying out additional research is being explored and pursued by the clinic practitioners and their supervisor. The doctorate student has the opportunity to be a part of any plans as her employment with the project clinic allows her to stay involved. The thought of extending the DNP doctoral project further is an unanticipated outcome to the student's attainment of her educational goals.

Strengths and Limitations of the Project

The strengths of the doctoral project are the course content can be quickly delivered in any primary healthcare setting during office hours. There are minimal resources needed to execute the staff development project. The number of learners receiving the material can be limited to a smaller group or shared with a more significant number of team members. There are several opportunities to disseminate the content. Finally, the expert panel assembled for the project were all members of the community outside of the pilot clinic organization and had minimal contact with the student before the collection of their project contributions.

A limitation of the doctoral project was the student's current employment with the organization affiliated with the site clinic. It is unknown if the findings were influenced by her familiarity with the project clinic staff. A future recommendation will be to offer the instruction outside of this organization. Another limitation is that the sample size was minimal, as the project clinic does not have many providers and nurses. Dissemination will be directed at larger groups in the future. A final limitation pointed out by the expert panel, and the project clinic staff were the number of questions on the pre-posttest. The experts and project clinic staff suggested there be twenty questions to assess more accurately the learner's understanding of the specifics of the PHQ-9 screening tool and the CCM care management protocol.

Section 5: Dissemination Plan

As part of the dissemination plan, findings of the staff instruction regarding the PHQ-9 and CCM were communicated to the team of experts and project clinic staff. The administration was also given a copy of the project findings for their review. The protocol will be shared with new hires as the project clinic grows and expands to other communities and areas of health.

Local to the project clinic, there are mental health organizations that have conferences where providers from all over the community come together to share resources and ideas. Poster presentations at national conferences could be the initial step to getting the information to larger audiences. Eventually, I would like to present the course content to organizations such as The American Academy of Family Physicians (AAFP), National Conference of Family Medicine Residents and Medical Students, and American Association of Nurse Practitioners (AANP). There is the potential to submit a manuscript discussing the implementation of the PHQ-9 and CCM to professional journals. Some journals of interest would be *Journal of the American Board of Family Medicine, The Annals of Family Medicine, The American Journal of Psychiatry, Journal of the American Psychiatric Nurses Association, Mental Health in Family Medicine, and The International Journal of Psychiatry in Medicine*. These audiences and venues mentioned offer opportunities to present the practice problem and the staff education of how to address it throughout the community and eventually nationwide.

Analysis of Self

Through the process of completing the DNP project, I have learned a lot about myself as a practitioner, scholar, and project manager. First, as a nurse practitioner, I

have found that I am passionate about the topic of mental health. I see patients daily who are seeking relief from their mental illness and witness the anguish and frustration they have experienced trying to navigate the complicated healthcare system to get the help they need. I am determined to continue to evaluate my practice regarding the needs of my patients to fill gaps where the health system fails the more vulnerable patient population. When I decided to become a nurse practitioner, it was to be in a position where I could help my patients more and be an advocate for their care. There is not a more deserving group than those who have a mental illness to focus and continue to work to improve the quality of their care in the future.

I believe where I have learned the most about myself is in the role of a scholar. I earned an associate's degree in nursing, along with my bachelor's, masters, and soon the attainment of my doctorate. My educational goals were all accomplished while raising a family, being a wife, and working full-time to not only serve as a positive role model to my sons but also can serve my community as a health care provider in the public health domain. I believe everyone deserves quality healthcare, and my role as a scholar allows me the opportunity to provide care that is evidence-based to all my patients. Without my educational journey, it would be difficult to assure the care rendered was at the highest level and allowed the best chance for my patients to achieve better health. I commit to continuing my role as a scholar throughout my professional career and never to be complacent doing things because that is how they were always done. The healthcare field is continuously changing and evolving. My role as a scholar does not end with the achievement of my doctorate.

My role as a project manager has revealed qualities about myself that I have not been aware of or seen. First, I am an effective leader. I have served in leadership roles in sports, my previous employment, and other educational projects in various capacities. The project allowed me another leadership opportunity to improve access to mental health care for those in my community and positively impact the lives of many residents. I am excited to continue serving this role. Second, I love being an educator. Through this experience, I have begun to serve as a preceptor for students so I can help educate nurses and healthcare providers who embrace their role and responsibility to contribute evidence-based findings to improve patient health outcomes. Finally, my role as a project manager has demonstrated professional confidence as I enter my sixth year as an advanced practice nurse. Benner (1982) described stages of clinical competence where nurses progress from being a novice new nurse to becoming an expert nurse with a more profound knowledge gained through experience and achieving goals. I feel the DNP project has advanced me to this stage and, going forward, will be beneficial to both my practice and my patients.

There were some challenges encountered during the completion of this project. It was challenging to set aside a day and time where all providers and staff could be available for the staff instruction course. In the future, this will be planned more in advance. Planning when to implement staff instruction was made difficult by the uncertainty of the project timeline. A second challenge was getting the expert panel and staff at the project clinic to submit their contributions to the project promptly. The collection of data was more straightforward with staff, but the expert panel consisted of individuals within the community, and I did not have as much access to them except

through email. Going forward, this will not be an issue as the data collected will be mainly from project clinic staff unless something in the staff instruction must be modified.

Summary

This staff instruction project on administering the PHQ-9 and implementing the CCM in primary care addressed who will screen and manage depression in a time when millions of Americans have the mental condition, but only a small percentage are having their mental health needs met. If more primary care providers are willing to treat depression in their practice, this will help alleviate the problem of growing demand and a shortage of mental health specialists. The research found if depression is treated using care management protocols like what is used to treat diabetes and other chronic conditions, primary care providers will be better equipped to treat depression in their practice (Bishop et al., 2016). Bishop et al. (2016) mentioned the CCM as one of the management processes used most often in primary care and successful at lessening symptom burdens, improving medication compliance, and increasing patient satisfaction. While the clinic where the care process using the screening tool PHQ-9 and CCM was small, I believe it demonstrated the protocol could be successfully taught to primary care staff, and thus be used effectively as a care management process for depression treatment.

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Appendix A: Lesson Plan for Staff Education

Lesson Plan for Staff Education

Objectives for staff education:

1. Staff members will learn about the PHQ-9 and how to score it
2. Participants will learn the concept of the CCM, including its evidence base and principles
3. The roles and responsibilities of each collaborative care team member will be learned by staff
4. Staff will learn how to effectively communicate with each other and patients participating in the CCM

Teaching Methods:

1. Lecture method of teaching will be applied using PowerPoint
2. A short video will be shown to introduce the CCM concept.
3. A post-instruction demonstration applying protocol will be completed with staff participation
4. Administration of a pre-and post-test will be given to each staff team member

Outline for Staff Instruction:

1. A Pre-test that is multiple choice will be given to staff members to test initial knowledge of the PHQ-9 and CCM.
2. PowerPoint will be used for instruction on the PHQ-9 depression screening tool and how to score it.
3. A short video will be shown as an introductory to the CCM
4. Further instruction of the concepts of the CCM and specific roles for each team member will be discussed via PowerPoint
5. Post-test given to assess knowledge gained from instruction

Evaluation:

1. A pre-and post-instruction test will be given to each participant
2. A survey evaluating the instruction module will be provided to each staff member.

Appendix B: Pre- and Posttest for Staff Education

Pre- and Posttest for Staff Education on PHQ-9 and CCM

1. What does the Patient Health Questionnaire (PHQ-9) screen for?
    a. Diabetes
    b. Hypertension
    c. Depression
    d. ADHD

2. Who should be administered the PHQ-9?
    a. Patients who suffer from chronic conditions
    b. Teen-agers
    c. Post-partum women
    d. All the above

3. What score is suggestive of someone needing active treatment for this condition on the PHQ-9 scoring scale of 0-27?
    a. 5
    b. 15
    c. 10
    d. None of the above

4. What does CCM stand for?
    a. Collaborative Care Model
    b. Chronic Care Model
    c. Critical Care Medicine
    d. Chronic Care Management

5. Who are the individuals who make up the CCM team?
    a. Secretary, nurse, and patient
    b. Clergy person, social worker, and hospice nurse
    c. Surgeon, OR nurse, anesthesiologist
    d. Care manager, primary care provider, and mental health specialist

6. Which is NOT a core principle of Collaborative Care?
    a. Affordable Care
    b. Patient-Centered Team care
    c. Evidence-Based Care
    d. Population-Based Care

7. What are some of the responsibilities of the care manager?
    a. Systematically tracks treatment response
    b. Performs initial and follow-up assessment
    c. Provides evidence-based counseling
    d. All the above

8. What roles and responsibilities does the primary care provider have?
    a. Starts and prescribes pharmacotherapy
    b. Provides regular consultation on primary care patients with depression as needed
    c. Reviews challenging patients with a mental health specialist
    d. None of the above

9. In the IMPACT study, patients who received care based on the CCM protocol showed 50% improvement over those patients receiving usual care.
    a. True
    b. False
    c. The IMPACT study had nothing to do with CCM

10. Cost-effectiveness of the CCM has not been demonstrated by research
    a. True
    b. False
    c. No studies have been done showing any correlation between cost and using the CCM

Appendix C: Patient Health Questionnaire - PHQ-9

Patient Health Questionnaire (PHQ-9)

Patient Name: **Date:**

	Not at all	Several days	More than half the days	Nearly every day
1. Over the *last 2 weeks,* how often have you been bothered by any of the following problems?				
a. Little interest or pleasure in doing things	☐	☐	☐	☐
b. Feeling down, depressed, or hopeless	☐	☐	☐	☐
c. Trouble falling/staying asleep, sleeping too much	☐	☐	☐	☐
d. Feeling tired or having little energy	☐	☐	☐	☐
e. Poor appetite or overeating	☐	☐	☐	☐
f. Feeling bad about yourself or that you are a failure or have let yourself or your family down	☐	☐	☐	☐
g. Trouble concentrating on things, such as reading the newspaper or watching television.	☐	☐	☐	☐
h. Moving or speaking so slowly that other people could have noticed. Or the opposite; being so fidgety or restless that you have been moving around a lot more than usual.	☐	☐	☐	☐
i. Thoughts that you would be better off dead or of hurting yourself in some way.	☐	☐	☐	☐
	Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
2. If you checked off any problem on this questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	☐	☐	☐	☐

Appendix D: Scoring for PHQ-9

PHQ-9* - Questionnaire for Depression Scoring and Interpretation Guide

For physician use only

Scoring:
Count the number (#) of boxes checked in a column. Multiply that number by the value indicated below, then add the subtotal to produce a total score. The possible range is 0-27. Use the table below to interpret the PHQ-9 score.

Not at all	(#) _____ x 0 =	____
Several days	(#) _____ x 0 =	____
More than half the days	(#) _____ x 0 =	____
Nearly every day	(#) _____ x 0 =	____

Total score: ____

Interpreting PHQ-9 Scores

Diagnosis	Total Score	For Score	Action
Minimal depression	0-4	< 4	The score suggests the patient may not need depression treatment
Mild depression Moderate depression	5-9 10-14	5-14	Physician uses clinical judgment about treatment, based on patient's duration of symptoms and functional impairment
Moderately severe depression Severe depression	15-19 20-27	> 14	Warrants treatment for depression, using antidepressant, psychotherapy and/or a combination of treatment.

* PHQ-9 is described in more detail at the McArthur Institute on Depression & Primary Care website www.depression-primarycare.org/clinicians/toolkits/materials/forms/phq9/

Appendix E: ANCC CEU Evaluation Tool

ANCC CEU Evaluation Tool					
PHQ-9 and CCM Instruction					
		DATE(S):			
1 = Strongly Disagree 2 = Disagree	3= Agree 4 = Strongly Agree	**1**	**2**	**3**	**4**
Met the following objectives: (PLEASE CHECK the appropriate box)					
1. Staff members will learn about PHQ-9 and how to score it		**1**	**2**	**3**	**4**
2. Staff will learn the concept of CCM, including evidence base and principles		**1**	**2**	**3**	**4**
3. Roles and responsibilities of each collaborative care team member will be learned by staff		**1**	**2**	**3**	**4**
4. Staff will learn how to effectively communicate with each other and patients participating in the CCM		**1**	**2**	**3**	**4**
1. A. **Speaker's Name: Jennifer Carton**					
1. Knowledgeable		**1**	**2**	**3**	**4**
2. Teaching aids/methods		**1**	**2**	**3**	**4**
3. Content was relevant to the objectives		**1**	**2**	**3**	**4**
Comments:					
2. What was the most helpful aspect of this staff education module?					
3. If this course were to be repeated, these would be my suggestions for changes in content.					
4. What should be added to future staff education instruction on these topics?					

Appendix F: Expert Panel Curriculum Evaluation Form

Expert Panel Evaluation Form

The following form is for the expert panel to assess the various components of the lesson plan.

Please check next to the box 1= not relevant, 2= unable to assess relevance without item revision, 3= relevant but need minor alterations, and 4=very relevant and succinct

---

Objective 1: Staff members will learn about the PHQ-9 and how to score it

How relevant is the objective to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Objective 2: Staff will learn the concept of the CCM, including its evidence base and principles.

How relevant is the objective to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Objective 3: Roles and responsibilities of each collaborative team member will be learned by staff.

How Relevant is the objective to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Objective 4: Staff will learn how to effectively communicate with each other and the patients participating in the CCM.

How Relevant is the objective to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Teaching method: PowerPoint will be used for instruction on the PHQ-9 and CCM

How Relevant is the PowerPoint to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Teaching Method: A short video introducing the CCM concept in primary care

How relevant is the video on CCM to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Teaching Method: A post-instruction demonstration with staff involvement applying the protocol.

How relevant is the demonstration applying the protocol to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Teaching Method: Pre- and post-tests will be used to assess knowledge before instruction and after.

How relevant is the pre-and post-tests to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Evaluation: Survey will be given to staff to evaluate the instruction module to learn strengths and weaknesses

How relevant is the staff survey of the instruction module to the staff development activity?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments

Overall Rating

How relevant are the component of the lesson plan instructing staff on the PHQ-9 and CCM?

- ☐ 1 = not relevant
- ☐ 2= unable to assess relevance without item revision
- ☐ 3= relevant but need minor alterations
- ☐ 4=very relevant and succinct

Open Comments