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Promoting Annual Depression Screening in a Federally Qualified Healthcare Center

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Abstracts

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MSN, SUNY Health Science Center in Brooklyn, 1999

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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Abstract

According to the World Health Organization, depression affects about 350 million people worldwide. In 2014, only 50% of the adult patients were screened for depression in the community-based Federally Qualified Healthcare Center (FQHC) for which this doctorate of nursing practice (DNP) project was developed. In an effort to meet the 100% benchmark set nationally for the screening of adult patients in the primary care settings, the FQHC's quality improvement team now requires that 80% of adult patients in the clinic be screened for depression. Framed within the Iowa model of evidence-based practice, the purposes of this project were to: (a) identify an evidence-based protocol and clinical guidelines to direct the use of the Patient Health Questionnaires (PHQ)-2 and PHQ-9 depression screening tools currently available for staff, and (b) develop an educational curriculum for the staff about depression, the use of the protocol, and clinical guidelines for the tools. Two DNP educators served as content experts to evaluate the curriculum plan using a dichotomous nine-item format that revealed that the content met the objectives of the curriculum. The experts also conducted content validation of each of the 15-pretest/posttest items using a Likert scale ranging from 1(*not relevant*) to 4 (*highly relevant*). A content validation index of 1.00 showed that the experts strongly agreed that the items reflected the content of the curriculum. Recommendations were made for item construction of the pretest/posttest. The project speaks to social change through promotion of the PHQ-2 and PHQ-9 depression screening tools to facilitate appropriate diagnosis and treatment, thus promoting the health of clients, families, and the community.

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Dedication

I would like to dedicate my work to my mother, Sybil Alleyne, who consistently believed in my ability and stimulated my desire for educational growth from kindergarten to the doctoral levels. I would also like to dedicate my work to my sister, Donna Alleyne and my daughter Angela Hazlewood who showed unconditional love and encouragement throughout all the ordeals, tribulations and successes that I have experienced during the doctoral nursing program. Your support, encouragement, and reassurances strengthened my weaknesses, energized my enthusiasm, and gave me hope to go on in spite of all my fears and anxieties. I dedicate this with gratitude to you all.

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The pleasure is mine to thank Dr. Joan Moon, my committee chair, Dr. Susan Hayden, member and Dr. Corrine Wheeler, University Researcher Reviewer, for supporting me. I am truly grateful for your extraordinary reviews, feedback and welcoming suggestions throughout the work of this project. I would also like to acknowledge Dr. Sylvia Gonzales, preceptor, for her consistent encouragement and guidance during my practicum. I am grateful to Brownsville Multi-Service Family Health Center for sponsoring and supporting me for the doctoral program. I would also like to thank the depression screening committee for their informative suggestions that supported, defended and championed my work. To my extended family who rallied, prayed, and in many ways contributed to my success, I thank you for your time and support.

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Section 1: Overview of the DNP Project

Introduction

According to the National Alliance on Mental Illness (NAMI, 2015), depression is a multifaceted condition that is reflected in a person's mood, thinking, or behavior. Depression can affect people of all ages, ethnicities, races, and socioeconomic backgrounds. The World Health Organization (WHO, 2015) reported that approximately 350 million people of all ages experience depression worldwide. A depression report from NAMI (2015) estimated that 7% of the American adult population experienced at least one episode of depression in 2014. Women were 70% more likely to have depression than men and young adults were 60% more likely to experience depression than adults 50 years and older. The WHO (2015) found that moderate to severe depression can lead to comorbidities including heart disease, diabetes, and stroke; decreases in work productivity and socialization at home; increased absenteeism and healthcare costs; and suicidal tendencies. The WHO (2015) further indicated that although appropriate treatments are available for depression, fewer than half of individuals experiencing depression worldwide are treated. The WHO noted that some of the barriers to treatment include inadequate assessment and misdiagnoses, lack of appropriate collaborative care, and the stigma of mental illness.

To capture early diagnoses of depression, the United States Preventive Service Task Force (USPSTF, 2015) recommended yearly depression screening guidelines for patients 18 years and older in primary care settings that have appropriate practices to accurately diagnose depression, treat depression, and provide follow-up care. The PHQ-2

and PHQ-9 are the validated depression screening tools that were chosen by the USPSTF to diagnose depression. These tools are short, simple, and manageable, and have standardized questions that evaluate the severity of clients' depressive symptoms. If the results of the PHQ-2 are positive, the PHQ-9 is administered to assess the level of depression. If both screening tests are positive for depression, an assessment is administered using the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) criteria to determine the specific depression diagnoses and treatment prognosis (Agency for Healthcare Research and Quality [AHRQ], 2015).

Rosser, Frede, Conrad, and Heaton (2012) reported that despite the recommendations to conduct yearly depression screenings for adults and increase awareness, depression has remained unidentified in many cases both by patients and providers. Records from the Health Resources and Services Administration (HRSA), where the clinic's electronic records are stored, showed that federally qualified health centers were not administering the depression screening tools to 80% of patients 18 years and older as required by the federal government (FQHC, 2015). Specifically, for the clinic where this project occurred, the 2014 report from the HRSA database indicated that the providers, including physicians and nurse practitioners, screened only 50% of the patients.

Maurer and Darnall (2012) stated that many cases of depression are undertreated or misdiagnosed, and even if patients are treated adequately, more than 75% of patients who are diagnosed and treated experience an increased likelihood of recurrence, and 10% to 30% also experience lingering symptoms, which can lead to metabolic syndrome,

cardiac diseases, stroke, and suicide. Healthy People 2020 (2015) also noted that undetected depression could lead to behavioral problems, disabilities, and premature death.

Healthy People 2020 (2015) stated that depression could be caused by several factors, including genetic makeup, biochemical environments, social services, employment opportunities, and psychological experiences. Grohol (2014) indicated that the causes of depression are unspecific and possibly develop through a complex combination and interaction of factors, such as stress at home, work, or school as well as genetics. Everyone who possesses genetic markers for depression may not actually develop clinical depression; however, patients suffering from depression often cannot recover on their own (Grohol, 2014). Therefore, I have proposed that accurate depression screening, diagnosis, treatment, and follow-up care would help to improve the quality of life of individuals suffering from depression.

Background

In 2014, 9% of the United States (US) general population was affected by depression, which cost the US healthcare system more than $43 billion (Health Net, 2015). The WHO (2015) has projected that by the year 2020, depression will be the second-leading cause of disability and premature death worldwide (Healthy People 2020, 2015). The PHQ-2 and PHQ-9 have been successfully used to detect early depression, leading to adequate treatment and follow-up care as well as improved wellness and higher-quality lifestyles (Piognone et al., 2012).

Advanced practice registered nurses have continued to play a vital role in delivering safe, skillful, and efficient quality services to patients in primary care settings (AACN, 2006). The nurses' use of the PHQ-2 and PHQ-9 as validated screening tools has been considered imperative in providing optimal care for patients. For example, Hill (2013) suggested that staff nurses using the PHQ-2 could help to identify and communicate awareness of potential depressive patients. Clinical nursing staff members could initiate the depression screening and the providers, including physicians as well as APRNs, could subsequently attend to any positive results. The provider could arrange further testing by using the PHQ-9, which could lead to early detection, an appropriate treatment plan, and follow-up care. The patient could also benefit from referrals to appropriate organizations that assist with resources for depression management (Hill, 2013).

The role of nurses in depression screening has been to serve as a listener and confidante to patients. These roles have assisted nurses in delineating and reevaluating the clinical approach to mental health care (Van Daele, Vansteenwegen, Hermans, Van den Bergh, & Van Audenhove, 2015). The authors further indicated that nurses with effective interpersonal skills are able to detect symptoms, address additional health issues, monitor patients' satisfaction levels, and motivate patients suffering from depression to seek treatment and access to appropriate collaborative care.

Bienenfield (2014) explained that depression disorders have been identified in 13% to 22% of patients in primary care settings, but only 50% of these cases are typically identified. Bienenfield further reported that USPSTF found evidence that screening helps

identify depressed patients accurately in primary care settings. Accurately identifying depression facilitates treatment processes that would allow patients to live healthy lives and promote positive social change.

Problem Statement

The clinical practice problem addressed in this DNP project was that in 2014, only 50% of the adult patients were screened for depression in the community-based Federally Qualified Healthcare Center (FQHC) for which this doctorate of nursing practice (DNP) project was developed, a statistic that has not met the requirement of 80% as recommended by the FQHC quality improvement team. The low percentage of annual depression screenings at the FQHC indicated a need to increase the clinical staff members' understanding of depression screening tools. Rosser et al. (2012) affirmed that primary care settings should serve as the first opportunity to recognize and treat depression. To increase the recognition of depression, prevent complications associated with the disease, and decrease the high prevalence rates of depression, the Community Preventive Services Task Force (CPSTF, 2015) recommended that depression screening and treatment plans be monitored by multidisciplinary collaborative care systems that consist of primary care providers, patients, and mental health specialists.

Purpose

The purposes of this quality improvement project were to: (a) identify an evidence-based protocol and clinical guidelines to direct the use of the Patient Health Questionnaires (PHQ)-2 and PHQ-9 depression screening tools currently available for staff, and (b) develop an educational curriculum for the staff about depression, the use of

the protocol, and clinical guidelines for the tools. The EBP protocol and educational curriculum would help the providers understand the reasons for using the PHQ-2 and PHQ-9 depression screening tools at this healthcare facility, where standardized systems and collaborative support are in place (USPSTF, 2015). The reviewed literature indicated that screening for depression in primary care settings could be effective in improving patient outcomes (Maurer & Darnall, 2012). However, a deficit existed between the FQHC requirement of 80% and the quality improvement (QI) results of 50% within the organization. The center conducted assessments on only 50% of the patients in 2014, while the federal expectations require that 80% of patients should have been screened for depression. The purpose of this project was to decrease this gap by increasing the understanding of the clinical staff about the need to conduct depression screenings and how to use the PHQ-2 and PHQ-9 depression screening tools.

Project Goals and Outcomes

Following are the goals and outcomes for this DNP project:

Goals

The goal of this DNP project is to provide the clinical staff at the FQHC in Brooklyn with an understanding of the need to increase depression screenings and how to use the PHQ-2 and PHQ-9 depression screening tools in primary care settings.

Outcomes

The following are the expected outcomes for this project:

1. A literature review matrix (see Appendix B).
2. A protocol (see Appendix C)

3. Clinical Guidelines (see Appendices D1, D2)
4. An educational curriculum plan (see Appendix E)
5. A content expert evaluation of the curriculum plan (F)
6. A pretest/posttest questionnaire (see Appendix H)
7. The pretest/posttest content validation (see Appendix I)

Framework

I used the Iowa model of evidence-based practice (Doody & Doody, 2014) (see Appendix A) to frame this DNP project and help increase the usage of the PHQ-2 and PHQ-9 depression screening tools. The model emphasizes the importance of including the entire organization and stakeholders as well as evidence-based research content in decision-making practices (Dentje, 2015). The model also identifies and describes a process that facilitates the ability to identify and resolve obstacles that prevent or inhibit integrating evidence into practice. The framework explains how to identify a "problem-focused trigger" that establishes a need for change; gather, review, and critique relevant literature that identifies the need for change in clinical practice; incorporate research evidence that supports the need for change; implement the change; and conduct ongoing evaluations to observe the outcomes (White & Dudley-Brown, 2012). The Iowa model of evidence-based practice proposes a comprehensive strategy that helps identify important processes required to translate the depression screening protocol, clinical guidelines for administering the PHQ-2 and PHQ-9, and evidence-based educational curriculum into practice (Dentje, 2015).

The following steps of the Iowa model of evidence-based practice were incorporated in this project:

1. The first step was to formulate a practice question using the "PICO" model (population, intervention, comparison, and outcome). Using the PICO model, the following question was established: Would the introduction of a protocol and clinical guidelines for depression screening with an educational curriculum for the nursing staff facilitate the usage of the PHQ-2 and PHQ-9 depression screening tools among adult patients in the primary care settings?
2. The second step required the interdisciplinary team to assess and evaluate whether the recommended evidence based (EB) content on depression screening was valuable in helping the clinical staff to understand the importance of screening for depression among adult patients in primary care settings. The interdisciplinary team also provided ongoing guidance that facilitated the introduction of the EBP protocol and development of educational curriculum plan.
3. The third step was: (a) to gather evidence-based literature on depression screening protocols and educational curriculum and (b) to obtain current evidence-based literature that supports investigating the problem. The literature was analyzed and synthesized and presented to the interdisciplinary team.
4. The fourth step addressed the content of the literature. A literature matrix was used to analyze the quality and the strength of the evidence. Permission to

use the Johns Hopkins Nursing EBP grading scale was obtained from Johns Hopkins Medicine (2015).

5. The fifth step assisted the team in assessing and evaluating whether the recommended EB content on depression and depression screening was sufficiently clear and consistent to enable the clinical staff to screen for depression among adult patients in primary care settings.

6. The sixth step developed the depression screening educational plan that included the USPSTF protocol (Annals of Internal Medicine [AIM], 2015) and the National Medical Policy clinical practice guidelines (Health Net, 2015). The team planned to implement a policy and procedure for depression screening after graduation, August 2016.

7. The final step involved evaluating and validating the contents of the protocol and then implementing it among staff members in the clinical setting after graduation. Process evaluation of the protocol and educational curriculum was ongoing and was reflected in meeting minutes. A qualitative summative evaluation was conducted upon completion of the depression screening project and was related to the progress of the project. An individual with a PhD in educational psychology, who is also an expert in educational assessment, reviewed the 15-item pretest/posttest construction, and two DNP educational experts evaluated the curriculum contents and validated the pretest/posttest.

Nature of the Project

Using the Iowa model of evidence-based practice (Doody & Doody, 2014), the QI committee and I identified the problem. At the FQHC, the Chief Medical Officer (CMO) allowed me to convened an interdisciplinary team to review the analysis and synthesis of the literature related to depression and depression screening, and the team helped guide the project. The team was composed of one nurse, one medical provider, one psychotherapist, one case manager, QI staff members, two educational experts, and myself.

Definition of Terms

The following are definitions of terms that have been used in this DNP QI project:

Curriculum: Curriculum refers to a didactic program for teaching a particular subject, such as depression (Walt, 2013). The curriculum used in this project will explain the causes of and complications related to depression, the need to incorporate depression screening protocols, a treatment plan, and follow-up care.

Depression Screening Tools: The PHQ-2 and PHQ-9 depression screening tools are validated instruments that have been frequently used for early detection of depression in primary care settings (Luchins, 2010).

Protocols: Evidence-based protocols are standard guidelines of care across different medical disciplines that improve clinical effectiveness, help reduce risk, increase teamwork, and improve care plan (HRSA, 2015b).

Screening: Screening refers to examinations of individuals that provide early detection of diseases, illnesses, and psychosocial problems; and also refers to examinations designed to provide follow-up care for existing diseases or illnesses (Walt, 2013).

Assumptions

According to Chinn and Kramer (2011), assumptions are the established characteristics of ideas, meanings, relationships, and frameworks that may not have been scientifically tested. I made the following assumptions during this DNP QI project:

- The clinical nursing staff possesses a desire to use best practices in patient care, which includes depression screenings.
- Stakeholders, medical providers, clinical nursing staff, and other healthcare professionals support the introduction of a protocol and the development of an educational curriculum to screen for depression.

Limitations

Hyrkus and Harvery (2010) suggested that effective leaders: (a) understand the importance of disseminating information regarding needed changes and (b) recognize the need to nurture the readiness and expectation of that change. The DNP project showed the need to improve the usage of the depression screening tools. I completed the incorporation of the EBP protocol and guidelines into the educational curriculum, and developed the curriculum plan. I will be implemented the curriculum plan after graduating from Walden University.

Some of the limitations to this study included the following:

- Difficulty persuading stakeholders to recognize the need for the depression screening protocol and the educational curriculum for using the depression screening tool.
- Overcoming the belief of some staff members that the educational training would be excessively time consuming;
- Overcoming the perception that the change would be overpowering, as well as the perception that using electronic medical tools would be tedious (Grant, Colello, Riehle. & Dende, 2010).

To overcome these barriers, I applied motivational skills and techniques that convinced the team to consider the advantages of increasing the use of the depression screening tools. The value of this project was demonstrated and consent was obtained by providing a comprehensive review of the evidence-based literature, providing evidence that the depression screening tools are necessary, and communicating the need for a change of perceptions towards the usage of the tools (Kotter, 2007).

Significance

The proposed practice approach for this DNP QI project was to introduce an evidence-based depression screening protocol, clinical guidelines for administering the PHQ-2 and PHQ-9, and an educational curriculum that would allow clinical staff members to be more engaged in screening for depression. I provided the depression screening team with knowledge about the need for increased usage of the depression screening tools. This knowledge was expected to illustrate the importance of increasing

clinical staff members' usage of the depression screening tools. Early detection of depression can prevent major depression and other mental illnesses as well as other comorbid diseases (CPSTF, 2015). Early detection and treatment of depression could also prevent family stress and lead to improved relationships among patients, healthcare professionals, and family members (Halverson & Bienenfield, 2015).

Summary

Section 1 of this DNP QI project described the importance of and the need for depression screening among adult patients in a healthcare facility in at a FQHC in Brooklyn. I introduced an evidence-based depression screening protocol, the clinical guidelines for administering the PHQ-2 and PHQ-9, and an educational curriculum to the team. The team reviewed the material and an educational curriculum plan was developed to promote depression screening among patients. Section 2 will present a review of the literature and a theoretical framework that addresses the use of depression screening tools in a healthcare practice.

Section 2: Review of Scholarly Literature

Introduction

The practice problem addressed in this design-only DNP project was that depression screenings conducted by healthcare professionals among adult patients in the primary care setting did not meet the benchmark set by the organization's quality improvement department. The purposes of this quality improvement project were to: (a) identify an evidence-based protocol and clinical guidelines to direct the use of the Patient Health Questionnaires (PHQ)-2 and PHQ-9 depression screening tools currently available for staff, and (b) develop an educational curriculum for the staff about depression, the use of the protocol, and clinical guidelines for the tools. The information on the literature review content provides knowledge about the rationale for conducting depression screenings and the importance of increasing the usage of depression screening tools.

This section presents information about the validity of the PHQ-2 and PHQ-9 depression screening tools. Depression is one of the most prevalent mental health problems in the US and could cause sadness, loss of interest and appetite, fatigue, and difficulty working (Health Net, 2015). Unidentified depression can lead to disability and suicide (World Health Organization, 2015). The USPSTF (2015) reported that meaningful evidence exists that depression screening can identify depression in primary care settings and can be adequately treated with psychotherapy, medications, and follow-up care.

Literature Search Strategy

I conducted a review of the literature electronically using the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, PubMed, Google Scholar, Cochrane, and EBSCO host at the Walden University Library. These databases were used to search for evidence-based literature that could provide information on depression screening protocols, clinical guidelines for administering the PHQ-2 and PHQ-9, and educational curriculum that can be used to improve the standard of care when screening for depression. Key search terms included *depression; types of depression screening; depression-screening protocol; evidence-based clinical practice for depression;* and *theory, model, and education*.

Based on the search terms, approximately 75 articles were reviewed, and information from 54 articles was included in the literature review. All articles were published between 2006 and 2015 and were selected using inclusion/exclusion criteria. Studies incorporated into the literature review included systematic reviews, and journal articles. Studies were excluded if the articles were published in a non-English language, if the topics involved patients younger than 18 years old, if the articles involved depression interventions other than USPSTF recommendation, and if the studies were conducted in environments other than outpatient settings or primary care settings.

Framework

The USPSTF (2015) recommended yearly depression screening guidelines using the PHQ-2 and PHQ-9 tools among adult patients in primary care settings that have established systems in place for accurately diagnosing, treating, and providing follow-up

care (USPSTF, 2015). Despite the high prevalence of depression in the US, patients continue to be misdiagnosed or untreated for depression (Maurer & Darnall, 2012). Doody and Doody (2014) explained that EBP as a rationale for implementing change has been increasing in healthcare settings in order to support nurses' decision making, to improve nurse-patient relationships, and to promote high-quality healthcare.

Iowa Model of Evidence-Based Practice

The process of the Iowa model (Doody & Doody, 2014) guided the clinical nursing staff at the FQHC site in Brooklyn in adapting the evidence-based depression protocol, clinical guidelines for PHQ-2 and PHQ-9, and the EBP educational curriculum plan. The model's outline provided the process of integrating the evidence into practice and allowing the clinical nursing staff to provide collaborative care services as follows (Health Net, 2015):

- The clinical nursing staff will administer the PHQ-2 on all adult patients. If the PHQ-2 is positive, the nurse will offer the PHQ-9 tool and refer the client to the primary care provider.
- The primary care provider will use the evidence-based depression screening protocol and clinical guidelines for PHQ-2 and PHQ-9 for administering the screening, managing treatment, and referring clients to the appropriate services as needed.
- The case manager will refer each depressed client to a collaborative team that includes a primary care provider, a case manager, a psychotherapist, and a

supervising psychiatrist. This team will meet monthly to communicate and share information about meeting patients' needs.

Depression

According to the National Institute of Health (NIH, 2015), several genes acting together with environmental and other factors could cause depression, which can also be triggered by mental and physical trauma or without triggers. Depression, especially if left untreated, can result in increased healthcare costs and lost productivity; it also can indirectly cause heart disease, diabetes, and stroke (Center for Disease Control and Prevention, 2015).

Depression Screening

Promerantz (2015) examined findings from several studies that focused on the process of screening for depression in primary care settings. The screenings were based on self-rating depression scales and structured interviews with all primary care patients during their office visits. The author reported that severe depression occurred among 4.8% to 8.6% of patients with depression; dysthymia , persistent depressive disorder, occurred among 2.1% to 3.7% of patients with depression; and minor depression occurred among 8.4% to 9.7% of patients with depression. The prevalence rate for all types of depression was 15.3% to 22% of all patients seen in the primary care setting (Promerantz, 2015). The author indicated that despite an increase in depression, providers misdiagnosed 30% to 50% of depressed patients in primary care settings.

The USPSTF (2015) pointed out that preventing the misdiagnosis of depression could be achieved by conducting early depression screenings in primary care settings

where adequate testing is used to diagnose and treat depression as well as provide effective follow-up care. The CPSTF (2015) recommended implementing collaborative care models with case managers who connect primary care providers, patients, and mental health specialists to ensure care is adequately provided.

Depression Screening Tools

Using validated screening tools for depression is important in identifying early signs of depression. The USPSTF endorsed the PHQ-2 and PHQ-9 tools as validated screening tools (Maurer & Darnall, 2012). The PHQ-2 contains two items, and if a patient indicates positive responses to both, the PHQ-9, which contains nine items, is then administered. If the results of the PHQ-9 are positive, then clinicians use the *DSM-IV* to diagnose the depressive disorder more specifically and then provide referrals to appropriate healthcare settings that are capable of ensuring accurate treatment and follow-up care.

Chen, Huang, Chang, and Chung (2006) analyzed a sample of 3,417 Chinese Americans who completed the PHQ-2 and, when the results of the PHQ-2 were positive, then completed the PHQ-9. The optimal goal was to evaluate the clinical usage of the PHQ-9 in a primary care setting at a community health center. Patients were administered the PHQ-9 during their routine physical examination. Out of 3,417 patients, 973 screened positive for depression, and a total of 141 patients were diagnosed with clinical depression based on the criteria within the DSM-IV and agreed to treatment. Chen et al. (2006) were able to confirm that the PHQ-2 and PHQ-9 tools are reliable to use in primary care settings. The researchers further noted that if the PHQ-2 tool is positive, the

PHQ-9 tool helps to determine a more precise score for the level of depression. The PHQ-9 tool is then use during treatment to evaluate the progress and guide providers' decisions about follow-up care and further assessment.

Maurer and Darnall (2012) stated that many types of screening tools have been developed to identify depression. The researchers noted that the USPSTF recommended that the most basic depression assessment tools should be able to trigger full diagnostic interviews that use the standard diagnostic criteria from the DSM-IV. The USPSTF (2015) confirmed that the PHQ-2 shows 97% sensitivity and 67% specificity in adults, while the PHQ-9 shows 61% sensitivity and 97% specificity in adults. The USPSTF selected the PHQ-2 and PHQ-9 as valid screening tools for depression.

Soltani, Smith, Beck, and Johnson (2014) examined the outcomes of a universal depression screening, diagnosis, and management program implemented by medical students at two medical student-run free clinic sites. The medical students conducted a retrospective study by first obtaining data from the medical records of patients who were administered the PHQ-2 and PHQ-9 during primary care visits. The results indicated that 95% (206/215) of the patients were administered either the PHQ-2 or PHQ-9. The researcher also revealed that out of 166 patients who were not diagnosed with depression prior to the screening, 33 (19.9%) had a positive PHQ-2 score, and 30 of 33 (90.9%) received the PHQ-9 screening. Nineteen (11.4%) of the 166 screened had a positive score for depression using both depression screening tools. Out of the 19 patients who had a positive depression score on the PHQ-2, 14 patients were administered two or more repeated PHQ-9 assessments 4 weeks apart along with ongoing collaborative treatment

and follow-up care. Eight of the 14 patients (57.1%) displayed a significant improvement, which was indicated by a decrease in the PHQ-9 score of less than five points. Before the implementation of the depression screening program, 19.1% (41/215) of patients were diagnosed with depression, and after the screening, 27.9% (60/215) were diagnosed with depression. The findings revealed that the medical students were able to identify undiagnosed depression, collaborate with interdisciplinary teams, and decrease depression symptoms.

The USPSTF, Community Preventive Services Task Force (CPSTF), and other methodological experts provided a systematic review of the relevant scientific literature published on depression screening protocols, clinical guidelines for administering the PHQ-2 and PHQ-9, and comprehensive care of depressed patients (CPSTF, 2012). The literature review on EBP depression treatment plans indicated that in order for appropriate care to be effective, three requirements must be met: (a) reliable screening process, (b) effective treatment, and (c) follow-up care (CPSTF, 2012).

The USPSTF depression protocol, the National Medical Policy clinical practice guidelines of behavioral health screening and assessment, and EBP literature review have emphasized the importance of a comprehensive clinical practice that can facilitate a trained team consisting of medical providers, nurses, social services workers, nutritionists, and mental healthcare professionals with an emphasis on these three requirements (USPSTF, 2015). Unutzer, Schoenbaun, Druss, and Katon (2012) found that most mental disorders, especially depression, are identified in the general primary care medical settings, but the diagnoses are not adequately and efficiently treated. The

researchers revealed that medical providers who collaborated with or referred clients to a comprehensive, trained clinical practice that included mental health treatment resulted in a more effective and successful patient care outcome than treatment in primary care settings.

Rosser et al. (2012) conducted a depression screening study using the PHQ-2 first, followed by the PHQ-9 if necessary. The participants included 3,726 patients 18 years old or older at 32 pharmacies in Cincinnati, Ohio. Of the 3,726 patients, 67 (1.8%) had a positive outcome on the PHQ-2. Of the patients who were administered the PHQ-9, 25% met the criteria for depression and were referred for further follow-up care. The researchers also reported that 5% of the patients who had a positive score on the PHQ-9 had experienced suicidal ideation and were referred to urgent care. Follow-up care was provided, clients were treated for new onsets of depression, and the medication of previously diagnosed clients was adjusted. Rosser et al. (2012) concluded that implementing the PHQ-2 and PHQ-9 using protocols that adhered to the Health Resource and Services Administration (HRSA) requirements for depression screening can lead to positive social change in the healthcare community (Rosser et al., 2012).

Suzyki, Kumel, Ohhira, Nozu, and Okumua (2015) examined the validity of the PHQ-2 and PHQ-9 depression screening tools at the Medical University Hospital in Japan. A total of 521 patients with an age range of 51.0 ± 19.4 (mean ± SD) years old completed the study using both the PHQ-2 and PHQ-9. DSM-IV-TR standards were used to diagnose patients with major depressive disorders. Suzyki et al. (2015) reported that the mean major depression scores were 3.8 (PHQ-2) and 15.7 (PHQ-9), which were

significantly higher than the scores of the patients without depression: 1.8 (PHQ-2) and 6.0 (PHQ-9). The researchers further reported that the most appropriate cutoff point for PHQ-2 and PHQ-9 scores should be ≥3 (sensitivity 0.76, specificity 0.82) and ≥11 (sensitivity 0.76, specificity 0.81), respectively, in order to identify depression in primary care settings in Japan.

Seo and Park (2015) conducted a cross-sectional study with 132 participants who consecutively visited the clinic as a result of experiencing headaches. The researchers gathered information related to validating the PHQ-2 and PHQ-9 depression screening tools for patients suffering from migraines who were 16 years old to 70 years old. The results of the findings indicated that the PHQ-9 had a sensitivity of 79.5%, a specificity of 81.7%, a positive predictive value (PPV) of 64.6%, and a negative predictive value (NPV) of 90.5%. The PHQ-2 cutoff score was 2; the PHQ-2 had a sensitivity of 66.7%, a specificity of 90.3%, a PPV of 74.3% and NPV of 86.6%. Seo and Park (2015) reported that the PHQ-2 and PHQ-9 are reliable and valid tools for screening for depression.

Summary

Through independent studies, several reports showed that depression screening and education interventions could provide early diagnosis and treatment of depression (Seo & Park, 2015; Soltani et al., 2015; Rosser et al., 2012). The researchers also wrote that the PHQ-2 and PHQ-9 depression screening tools have helped to identify the early diagnosis of depressive symptoms. The early diagnosis of depression has allowed providers to treat depression and conduct follow-up care that decreased the symptoms of depression (Soltani et al., 2014).

The next section, Section 3, explains the method of introducing an evidence-based protocol, provides clinical guidelines for administering the PHQ-2 and PHQ-9, and presents an educational curriculum for depression screening among adult patients who present in clinical practice settings. The project process, project management, description of the multi-disciplinary team, and plans for the curriculum and evaluation are also presented.

Section 3: Approach and Method

Introduction

The purposes of this quality improvement project were to: (a) identify an evidence-based protocol and clinical guidelines to direct the use of the Patient Health Questionnaires (PHQ)-2 and PHQ-9 depression screening tools currently available for staff, and (b) develop an educational curriculum for the staff about depression, the use of the protocol, and clinical guidelines for the tools. Studies within the literature review support the use of the PHQ-2 and PHQ-9 as valid depression screening tools to be used in primary care settings where comprehensive care is in place to support early diagnosis, appropriate treatment, and follow-up care for depression (USPSTF, 2015).

The Community Preventive Services Task Force (CPSTF, 2015) reported that one in four adults have experienced a mental illness or mental disorder. Depression is one of the leading causes of disability in the US, and loss of productivity due to mental illnesses overall that equates to approximately $193 billion per year. To improve wellness and manage the care of clients with depression, the CPSTF (2015) recommended that collaborative care should be provided: (a) to increase the frequency of routine screening and diagnosis of depression, (b) to increase provider usage of the evidence-based protocol and clinical guidelines for depression screening, and (c) to improve patient and community support in treating and managing depression.

Section 3 presents the approach and rationale for introducing the depression screening protocol, clinical guidelines for administering the PHQ-2 and PHQ-9, and the educational curriculum for increasing the use of depression screening tools. A team of

seven interdisciplinary medical staff members was identified to guide and evaluate the project at the FQHC in Brooklyn during the DNP project.

Approach and Rationale

After selecting the most appropriate articles and relevant information to include in the literature review, the literature review matrix was developed, and I received from Johns Hopkins Medicine (2015) to use the Johns Hopkins Nursing EBP grading scale. Next, I formed the interdisciplinary team, identified the outcomes, and developed the education curriculum.

The Interdisciplinary Team

According to the American Psychological Association (APA, 2015), an interdisciplinary team is a group of healthcare professionals who implement an integrated healthcare approach that focuses on collaboration and communication. This integration allows collaboration and sharing of information among team members and enables them to develop comprehensive plans to address the biological, psychological, and social needs of patients (APA, 2015). The team assembled for this DNP project was composed of a nurse, a medical provider, a psychotherapist, a case manager, a QI staff member, two educational experts, and myself.

The duties of the team were as follows:

- I served as the leader of the interdisciplinary team throughout the QI depression screening project.
- The nursing staff helped review the project and assisted with the analysis of input from the nurses regarding the introduction of the EBP protocol, the clinical

guidelines for administering the PHQ-2 and PHQ-9, and the educational curriculum plan.

- The medical provider provided information and guidance concerning the process of referrals, comprehensive care, and treatment plans.
- The psychotherapist provided information about the types of therapy available and appropriate treatment plans.
- The case manager provided information concerning the appropriate collaboration process required to increase the quality of care for the patients.
- The QI staff collaborated and assisted in liaising with the authoritative leadership in providing information concerning the updates, finances, and other issues related to the QI project.
- The educational experts conducted an ongoing evaluation of the curriculum plan and the pretest/posttest item and validated the contents of the curriculum.

The team met monthly for 3 consecutive months, then twice weekly for 3 weeks. Team members provided their opinions and suggestions, which were considered during the development process and incorporated into the education plan. This leadership method helped to successfully persuade the depression screening team to accept the USPSTF protocol, the National Medical Policy clinical practice guidelines of behavioral health screening and assessment, and the educational curriculum plan. The increase usage of the depression screening tools would enhance early detection, increase the quality of care, reduce healthcare costs, and eliminate poor productivity (Warrick, 2011).

Evaluation

The process demonstrated in the Iowa model (Doody & Doody, 2014) provided a pathway for the DNP project for the team to evaluate the product throughout the development of the project. The team evaluated of the development of the project as follows:

Curriculum Content Evaluation

Two DNP-prepared nurses are responsible for critiquing and approving the policy and guidelines related to the QI materials, as well as the educational materials for the clinical staff at the FQHC clinic evaluated the curriculum content I designed a nine-item, 1 (*not met)* to 2 (*met*), format for the DNP prepared nurses to assess the curriculum content.

Pretest/Posttest Content Validation

I developed a pretest/posttest 15-itemized instrument, and a PhD expert in educational psychology reviewed the construction of the items; in addition, the two DNP-prepared nurses (who also served as educators in the clinic) evaluated the validity of the pretest/posttest using a four-point Likert-type rating scale ranging from *"not relevant = 1 to highly relevant = 4"* that I designed.

Qualitative Summative Evaluation

The team members conducted a qualitative summative evaluation of the DNP project after the curriculum plan had been completed and the pretest/posttest-itemized instrument had been validated to evaluate the process of the DNP project.

Institutional Review Board

Form A was submitted to the Walden University Institutional Review Board (IRB) for review and approval to ensure that the ethical standards of the university were met. The IRB-approved record number for the design-only DNP project is 03-14-16-0536435. The project facility location does not have an IRB.

Summary

The responsibilities of the team members promoted a collaborative approach that was effective in addressing the gap related to increasing the usage of the PHQ-2 and PHQ-9 depression screening tools. Including stakeholders and end-users in the development process as well as providing information and feedback during the development of the EBP helped to facilitate the transition and implementation (White & Dudley, 2013). The DNP project will help the clinical nursing staff identify early signs of depression. The project also will improve the quality of life and enhance patient safety, resulting in a decrease in healthcare costs

Section 4 explains the protocol and guidelines, along with the curriculum content evaluation, pretest/posttest validation, and summative evaluation findings and discussion. Section 4 also summarizes the findings of the project and discusses how the goals and outcomes were met within the Iowa model. The process and summative evaluations are discussed, and the results of evaluations and validation of the contents are presented. In addition, implications for the project, strengths and limitations of the project, and a self-analysis conclude the section.

Section 4: Discussion and Implications

Introduction

The purposes of this quality improvement project were to: (a) identify an evidence-based protocol and clinical guidelines to direct the use of the Patient Health Questionnaires (PHQ)-2 and PHQ-9 depression screening tools currently available for staff, and (b) develop an educational curriculum for the staff about depression, the use of the protocol, and clinical guidelines for the tools. The goal of the DNP project was to provide the clinical staff with knowledge about depression in order to promote the use of the PHQ-2 and PHQ-9 depression screening tool in primary care settings.

The documents created were as follows: (a) a literature review matrix (see B), (b) the EBP USPSTF protocol selected from the literature review (see Appendix C), (c) clinical guidelines (see Appendices D1, D2), (d) an educational curriculum plan (see Appendix E), and (e) a pretest/posttest content (see Appendix H). The content experts evaluated the curriculum plan (see Appendix F), and validated the pretest/posttest items (see Appendix I). Finally, all the team members completed a summative evaluation. Section 4 presents the evaluation and findings, a discussion of the outcomes, the implications of the project, and an analysis of myself in the development of the project.

Evaluation/Findings and Discussion

The process of developing the project entailed analyzing and synthesizing the literature and presenting the evidence to the team that supported identifying the most appropriate protocol, identifying the clinical guidelines for administering the PHQ-2 and PHQ-9, developing the evidence-based curriculum, and designing the pretest/posttest. I

used the Iowa model to delineate a seven-step process to search for evidence-based literature, use the literature to design the project and create a plan, evaluate the plan, and develop strategies to implement the plan. I also used the Iowa model to outline a collaborative framework that enabled the team to integrate the plan into practice. The protocol (adapted from the USPSTF), the clinical guidelines adapted from the National Medical Policy clinical practice guidelines for behavioral health screening and assessment, and the EBP curriculum plan that the team and I designed will be taught throughout the interdisciplinary departments after graduation.

Expert Review and Content Validation of the Project

The team reviewed the literature focused on depression screening protocols. Three experts conducted the evaluation and validation of the outcome products. The two content experts were DNP-prepared clinic educators who evaluated the educational curriculum and provided content validation of the pretest/posttest items. A PhD in educational psychology with expertise in assessment was able to review the pretest/posttest item construction. Upon completion of the project, the team members completed a qualitative summative evaluation on the project. Following are the findings and evaluation/validation.

Outcome I: Literature Review Matrix (see Appendix B)

Discussion. I presented the results of the reviewed evidence-based literature to the team members, who then critiqued the information and requested follow-up information on the clinical guidelines for administering the PHQ-2 and PHQ-9 as well as the design of the curriculum plans.

Evaluation. After I presented the results of the literature review to the team, the team agreed to use several articles for the development of the project, including the USPSTF protocol (AIM, 2015) and the National Medical Policy clinical practice guidelines (Health Net, 2015) of behavioral health screening and assessment for depression screening using the PHQ-2 and PHQ-9 tools.

Data. None

Recommendation. The team suggested that approximately 30 to 40 articles should be related to depression and depression screening.

Outcome II: Selection of an Evidence-Based Protocol and PHQ Guidelines

Discussion (see Appendices C, D1, D2). The team examined the articles on the USPSTF protocol (AIM, 2015), the National Medical Policy clinical practice guidelines (Health Net, 2015) of behavioral health screening and assessment, and scholarly projects on depression screening guidelines for the usage of the PHQ-2 and PHQ-9 tools.

Evaluation. After I presented the results of the literature review to the team, the team evaluated the information and eventually selected the USPSTF protocol (AIM, 2015) on depression and the screening process. The team also selected the National Medical Policy clinical practice guidelines (Health Net, 2015) of behavioral health screening and assessment on depression and decided to use the PHQ-2 and PHQ-9 tools.

Recommendation. The team proposed that the clinic policy and procedure on depression screening should be adapted from the USPSTF protocol (AIM, 2015) and National Medical Policy clinical practice guidelines (Health Net, 2015) of behavioral health screening and assessment and implemented after graduation.

Outcome 3: Educational Curriculum Plan (see Appendix E)

Discussion. The educational curriculum plan was developed based on the literature review and consisted of objectives, content outline, evidence, method of presentation, method of evaluation of pretest/posttest items, and evidence grade.

Evaluation. The two clinical DNP content experts evaluated the curriculum plan using the Content Expert Evaluation form (see Appendix F), which consisted of nine itemized objectives in a *"met=1/not met=2"* evaluation format. The experts were provided with a copy of the curriculum plan and the literature review matrix, and compared the content of the curriculum with the literature review to ensure that the material provided met the objectives.

Data. Content evaluation summary = 2.0 (see Appendix G).

Recommendation. The committee reviewed the plan and discussed terminology that might need to be defined or clarified to reflect the educational level of the staff.

Outcome 4: Pretest/Posttest Content Expert Validation (see Appendix I)

Discussion. A PhD in educational psychology with expertise in assessment reviewed the construction of the 13 multiple-choice, and two true/false items on the pretest/posttest. In order to determine how well each item reflected the curriculum objectives (i.e., content validation), the two DNP content experts were given a copy of the pretest/posttest, the curriculum plan, and the literature review matrix.

Content Validation. The content experts validated the pretest/posttest items, which consisted of a 15-item, four-point Likert-type rating scale that ranged from *"not relevant = 1 to highly relevant = 4"* (see Appendix H).

Data. Content Validation Index = 1.00 (see appendix I)

Recommendation. The assessment expert made recommendations to limit the number of "true/false" items.

Qualitative Summative Evaluation (see Appendix L)

At the last meeting, a seven item, open-ended, qualitative, summative evaluation was sent to each team member through interoffice mail with instructions to complete and return the evaluation anonymously. Six of the seven questionnaires were returned, analyzed, and the emerging themes were as follows.

Project Team with Student as a Leader. An emerging theme was effective leadership style: The team noted that the student's leadership style was meaningful in directing and uniting the team, giving guidance to the format of the plan, and executing the development of the curriculum plan. One member wrote that the leader provided a good leadership approach during the development of the project.

Outcome Products. An emerging theme was productive literature review: The team felt that collectively gathering, interpreting, and analyzing the literature allowed the team to apply pertinent information to successfully develop the project. One member expressed the need to be more involved in the actual literature reviewing.

The Role of the Student As the Team Leader. An emerging theme was good participation: All of the team members expressed their appreciation for being part of the development process, and two members made substantial contributions by scrutinizing and approving the project. Two members conveyed the need for all members to be part of

the approval of the project, and four members wrote that the team's participation in the project was appropriate.

Another emerging theme was effective communication: The members expressed their appreciation for being able to provide their opinions and that these opinions were considered and applied to the project, which helped the team to smoothly transition to meet the expected goals. One member conveyed that the team readily accepted the concerns from the end-users.

Suggestions for Improvement. An emerging theme was more time: Five out of the six members emphasized that the scheduled time for the meetings should be more organized and timely. One of the six members expressed that more time should be given for suggestions and that committee meetings should start and finish on time.

Implications

To improve the quality of care and address health inconsistencies, evolving changes in the health care system are necessary (HRSA, 2014). To meet the needs of the increasing numbers of depressed patients, healthcare workers need to increase the frequency of administering depression screening tools in primary care settings. The implications of this project are that (a) the EBP protocol, the clinical guidelines for administering the PHQ-2 and PHQ-9, and the educational curriculum represent a safe and effective plan for early detection of depression and (b) the usage of the tools will improve quality of life through early detection, adequate treatment, and appropriate follow-up care of depression.

Policy

The goal of the DNP project was to provide the clinical staff with knowledge to promote the use of the PHQ-2 and PHQ-9 depression screening tools in primary care settings. According to the World Health Organization (WHO, 2015), 350 million people of all ages suffer from depression worldwide. In addition, the WHO reported that moderate to severe depression can cause cardiovascular diseases, low work productivity, stress at home, absenteeism at work, and increased healthcare costs. To detect depression early, the USPSTF has recommended yearly screening using the validated PHQ-2 and PHQ-9 depression screening tools in primary care settings that have appropriate practices in order to accurately diagnose depression, treat depression, and provide follow-up care (AHRQ, 2015).

The clinical guidelines for depression screening include administering the PHQ-9, and if the results of the PHQ-2 are positive, providing follow-up care and a treatment plan depending on the severity of the PHQ-9 and the diagnosis of the DMR (AHRQ, 2015). The interdisciplinary staff will provide collaborative services to meet the needs of the depressive patients, which will encourage lifestyle changes.

Practice

Nursing practitioners constitute one of the largest segments of the healthcare workforce in the US. Nurse practitioners operate in multidisciplinary settings and locations in which the frontline staff performs the most important role in recognizing and assessing illness (IOM, 2011). McEwen and Wills (2014) wrote that Nightingale emphasized in her teachings the need for nurses to know how to perform by knowing

how to identify symptoms and being able to relate to the effects of the symptoms. The EBP protocol, clinical guidelines for administering the PHQ-2 and PHQ-9, and educational curriculum provided in this project will allow nurses to master the skills of identifying signs and symptoms of depression as well as work collectively with others to provide excellent clinical practices for patients.

Research in Practice

The fundamental goal of DNP research in practice is to help the evolving healthcare system to successfully conduct research and improve clinical practice in order to enhance quality care provided to patients (IOM, 2011). To prevent major depression, additional work is needed to help patients understand depression, the stigma related to the disease, the need for depression screening, and options for treatment plans (Saver et al., 2016). Continuing to do literature review on depression screening protocols and collaborative treatments will increase the quality of healthcare and at the same time decrease healthcare costs.

Social Change

The clinic's quality improvement department has consistently explored gaps between best practices and currently existing practices in the healthcare system to identify ways of improving quality care. The ongoing promotion of depression screening will provide a social shift among the staff at the FQHC by using the PHQ-2 and PHQ-9 depression screening tools to facilitate the opportunity for optimal diagnosis and treatment of depression, thus promoting the health and wellness of clients, families, and the community.

Strengths and Limitations

The strengths of this DNP project were (a) the robust literature review that helped identify an evidenced-based protocol, the clinical guidelines for administering the PHQ-2 and PHQ-9, and the curriculum for the depression screening; (b) support from the quality improvement committee, which provided feedback and suggestions for developing the project; and (c) the CEO for allowing me to use my leadership skills to develop the DNP project.

The limitations of the project included (a) the difficulty in persuading the authority stakeholders to accept the need to identify a depression screening protocol, guidelines for its implementation, and the development of a curriculum plan for administering the depression screening tools; (b) difficulty in persuading the staff of the need for change even though it may be time consuming; (d) the time-consuming process of the IRB; and (e) a lack of ability to implement the plan. The opportunity to implement the plan after graduation will help provide more accurate information about the effects of the DNP project and address the limitations of the project.

Analysis of Self

The following sections present a self-analysis in several domains related to the process of developing this DNP project.

As Scholar

My knowledge of evidence-based practice and research has grown and has contributed to the advancement of the evolving clinical practices and academia in my discipline. This educational experience has added to my knowledge about how to

participate in designing and promoting ongoing changes in the healthcare system that will help me contribute to successful practices in providing high-quality healthcare.

As Practitioner

The New York State Department (NYSD) has passed the Nurse Practitioners Modernization Act (NPA) into law in 2014. On January 1, 2015, the NYSD implemented the NPA into practice (NPA Greater Rochester Chapter, 2015). The law allows me as an FNP to diagnose patients, treat patients, and perform therapeutic and corrective measures within my specialty without an agreement with a physician. I worked more than 17 years in collaboration with physicians to deliver high-quality care. Today, the NYSD law allows practitioners to work independently, to diagnose patients, and to treat patients. The DNP program has enhanced my leadership skills and enabled me to use evidence-based practices in providing high quality care (IOM, 2011). The DNP program allowed me to continue as a DNP scholar and provided me with the ability to transfer research findings into practice and to progress as an expert practitioner.

As Project Developer

The knowledge I have gained throughout the doctoral program has allowed me to advance educationally and become a successful project developer. Before the doctoral program as a practitioner, my focus was primarily on direct patient care. During the program, developing this project with the guidance of a committee has allowed me to use the skills I learned to effectively direct and lead a team. The summative evaluation process provided feedback on my role in the development of the project. The DNP project process helped me to expand my knowledge about how to involve others, how to

encourage others to participate, how to elicit meaningful feedback, and how to develop more trusting relationships with my team members. I also gained knowledge about the importance of including the end-users of a product in order to gain information that will better serve them. According to McEwen and Wills (2014), the Benner model is an educational framework that (a) supports the notion of leaders working with clinical staff members to promote a high level of care and (b) provides an appropriate structure for making advance nurses more efficient in diagnosing patients, treating patients, and implementing evidence-based practices. This framework has contributed to my continuation as a research-practice scholar, granting me the knowledge to progress as an expert practitioner and being able to solve and overcome complex problems that will be beneficial in the healthcare arena.

Project Contribution to My Professional Development

This DNP project process helped me develop my leadership, decision-making, and collaborative skills so that I may continue integrating evidence-based changes in the evolving healthcare system (AACN, 2015).

Summary

The goal of this DNP project was to provide patients with adequate screening for depression by introducing an EBP protocol, clinical guidelines for administering the PHQ-2 and PHQ-9, and an educational curriculum for the nursing staff in a healthcare organization. Achieving the goal of increasing the number of the patients being screened for depression will enable healthcare workers to provide early detection of depression, provide adequate care, improve patients' quality of life, and meet the benchmark of the

federal government. The purpose of Section 5 is to present the abstract for a power point presentation to disseminate this project to a larger audience of nurses.

Section 5: Scholarly Project Dissemination

PowerPoint Presentation

The power point dissemination procedure for the DNP project follows guidelines designed to meet AACN Chapter Best Practice Power Point Abstract Criteria (AACN, 2016). The power point (see Appendix M) presents the purpose, background/significance, method, results, and conclusion of an EBP depression screening protocol and clinical guidelines for administering the PHQ-2 and PHQ-9 instruments. The power point also presents an educational curriculum that will increase the knowledge of the clinical staff about the importance of increasing the usage of the depression screening tools. This curriculum plan will help the learners understand and implement the screening protocol as well as the clinical guidelines for administering the PHQ-2 and PHQ-9 to increase the usage of the depression screening tools.

Purpose

The purposes of this quality improvement project were to: (a) identify an evidence-based protocol and clinical guidelines to direct the use of the Patient Health Questionnaires (PHQ)-2 and PHQ-9 depression screening tools currently available for staff, and (b) develop an educational curriculum for the staff about depression, the use of the protocol, and clinical guidelines for the tools. The EBP protocol and educational curriculum would help the providers to understand the reasons for using the PHQ-2 and PHQ-9 depression screening tools at healthcare facilities where standardized systems and collaborative support are in place (USPSTF, 2015).

Background/Significance

The practice problem addressed in this design-only DNP project was that annual depression screenings were administered to only 50% of the adult patients in a primary care setting, which did not meet the requirement of 80% as recommended by a federally qualified healthcare center in Brooklyn. The low percentage of annual depression screenings at the FQHC identified a need to improve the understanding of clinical staff members about the importance of using the depression screening tools. The identified need was for healthcare providers to (a) improve their understanding of the guidelines for administering the PHQ-2 and PHQ-9 depression screening tools, (b) understand the importance of early detection of depression, and (c) identify appropriate treatment and follow-up care.

Method

This DNP design-only project was framed using the Iowa model of evidence-based practice. The model helped me identify the practice question, formulate the quality improvement team, and guide the introduction of the protocol and clinical guidelines for administering the PHQ-2 and PHQ-9, and develop the educational curriculum plan. The patient-centered medical home model provided guidance for the collaborative care model used to treat depressive patients. The sample used consisted of adult patients in a primary care setting. The data were gathered and collected through a systematic literature review and were analyzed by the depression QI committee.

Results

The completed project outcomes consisted of a literature review matrix based on the selection of an EBP protocol, clinical guidelines for administering the PHQ-2 and PHQ-9, an educational curriculum plan, and a pretest/posttest validation. The literature review material was gathered, and the team reviewed the material and provided recommendations for improvement. The EBP depression screening protocol, clinical guidelines for administering the PHQ-2 and PHQ-9, and literature review on depression for the educational plan were gathered, reviewed, and accepted by the committee. The USPSTF and the National Medical Policy clinical practice guidelines of behavioral health screening and assessment on depression were incorporated into the curriculum plan. Two DNP-prepared clinical educators evaluated the curriculum plan and validated the content of the pretest/posttest items. A PhD in educational psychology with expertise in assessment reviewed the pretest/posttest item construction, and upon completion of the project, the team members completed a qualitative, summative evaluation on the project, which provided information about the project development.

Conclusion

Depression is a mental illness that can cause cardiovascular disease, loss of productivity, and stress at home. Introduction of the protocol and development of the educational curriculum plan would help to increase usage of the PHQ2 and PHQ9 depression screening tools. An increase in the usage of the depression screening tools would enable providers to provide early identification, appropriate treatment, and

appropriate follow up care, which will result in healthier lifestyles and decreased healthcare costs.

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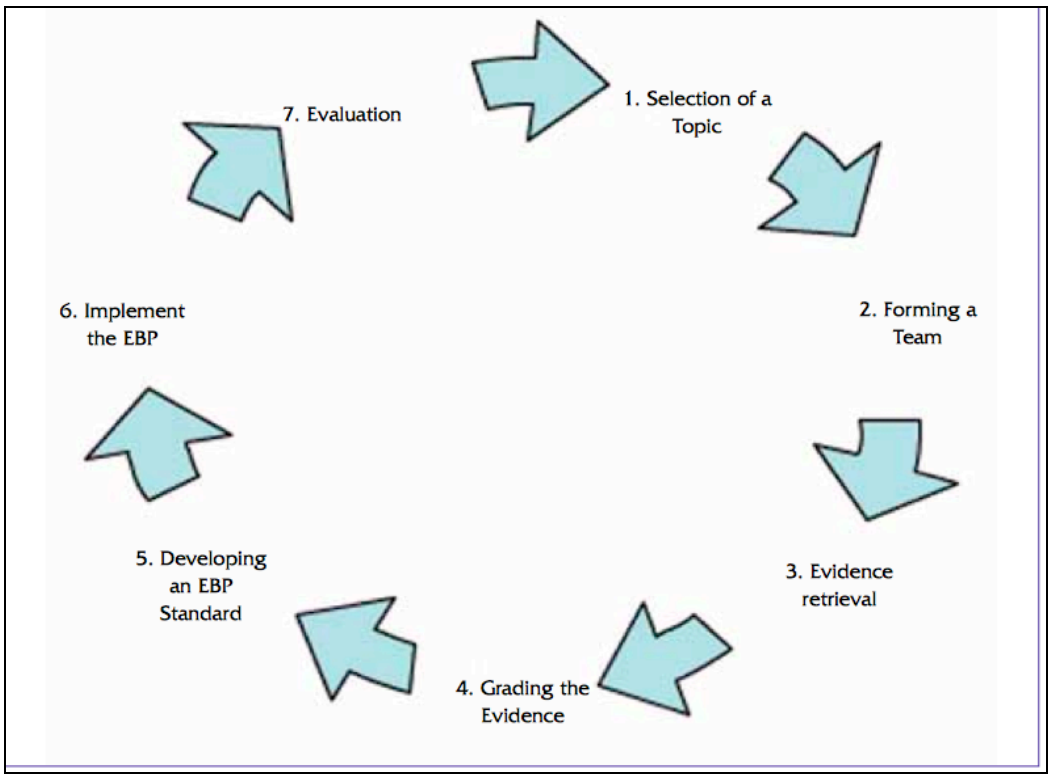
Walt, N. J. (2013). Guidance on terminology. *Journal of Medical Screening, 50,* 1-50. doi: 10.1258/jms.2008.008go

Warrick, D. D. (2011). The urgent need for skilled transformational leaders: Integrating transformational leadership and organization development. *Journal of Leadership, Accountability & Ethics, 8*(5), 11–26. Retrieved from https://www.na-businesspress.com/JLAE/WarrickDD.Web8_5_pdf

White, K. M., & Dudley-Brown, S. (2012). *Translation of evidence into nursing and health care practice.* New York, NY: Springer.

World Health Organization. (2015). Depression. Retreived from http://www.who.int/mediacente/factsheets

Appendix A: The Iowa Model



Adapted from Doody, C. M., & Doody, O. (2014). Introducing evidence into nursing practice: Using the Iowa model. *British Journal of Nursing, 20*(11): 661-4 doi: 10.12968/bjon.2011.2011.661. No permission needed for adoption.

Appendix B: Literature Review Matrix

Johns Hopkins Rating Scale Used with Permission

Promoting Annual Depression Screening in a

Federally Qualified Healthcare Center

Reference	Theoretical/ Conceptual Framework	Research Question(s)/ Hypotheses	Research Methodology	Analysis & Results	Conclusions	Grading the Evidence
Agency for Healthcare Research and Quality. (2015). Improving quality of care for people with depression. Retrieved from https://www.ahrq.gov/research	Behavioral health	To clarify whether screening adults for depression in primary care settings improves recognition, treatment, and clinical outcomes.	MEDLINE, Cochrane reviewed randomized trails conducted in primary care settings.	Meta-analysis suggests that overall screening and feedback reduced the risk for persistent depression. Validation for the use of PHQ-2 and PHQ-9.	Screening for depression can improve outcomes, when systems are in place to ensure adequate treatment and follow-up.	Level III
American Association of Colleges of Nursing. (2006). *The Essentials of Doctoral Education for Advanced Nursing Practice*. Retrieved from www,aacn.nche.edu			Systemic review	The DNP program focuses heavily on practice that is innovative and evidence-based, reflecting the applicatio n of credible research	The essentials of Doctoral Education for Advanced Nursing Practice.	Level III

				findings.		
American Psychological Association. (2015). What is integrated health care? Retrieved from https://www.apa.org/health/integrated-health-care.aspx			Meta analysis on Integrated care	Review of evidence - based literature suggests that integrating psychological care with primary care and other services can enhance patients' access to services, improve the quality of their care and lower overall health-care costs.	The uniqueness of the integration is the collaboration of information among the team members to assist in developing comprehensive plans to address the biological, psychological, and social needs of the patients.	Level III
Bienenfield, L. (2014). Screening tests for depression. Retrieved from https://www.emedicine.medscape.com/article/1859039-overview			Cochrane review, psych Info and PubMed	Meta-analysis found that PHQ2 sensitivity 80% & specificity 92% PHQ9 sensitivity 88% & specificity 92%.	The PHQ2 is a screening tool use to determine the occurrence of depressed mood and an inability to feel pleasure for the past two weeks. The PHQ9 helps to confirm the clinical diagnosis of depression and can be use over	Level III

					time to monitor the severity of symptoms.	
Centers for Disease Control and Prevention. (2015). Depression. Retrieved from https://www.cdc.gov/nchs/fastats/depression.htm			Cochrane review, mental health services locator	NHANES - computer and physical exam. Evidence has shown that mental disorders, especially depressive disorders, are strongly related to the occurrence, successful treatment.	More emphasis and resources have been devoted to screening, diagnosis, and treatment of mental illness than mental health.	Level III
Chen, T. M., Huang, F. Y., Chang, C., & Chung, H. (2006). Using the PHQ-9 for depression screening and treatment monitoring for Chinese Americans in primary care. *Psychiatric Services*, *57*(7): 976-981. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/16816282		Chinese Americans are known to underutilize mental health services, routine screening for depression in primary care clinics has been advocated as a means of identifying Chinese-American patients with depression and initiating appropriate treatment.	Meta analysis of RCT. A total of 3,417 patients who presented for annual physical examination participated in the project. Using a two-tier process if pt. answers more that two questions on the PHQ2 positively then PHQ9 was given.	141 individuals were diagnosed with depression; women were more likely to have depressive symptoms than men, 114 of the 141 patients received treatment; and 40 responded to treatment by eight weeks of treatment.	The PHQ-9 can be used to screen for depression as well as guide depression treatment planning among Chinese Americans in primary care.	Level II
Chinn, P. I., & Kramer, M. K.	Integrated theory and		Middle range theory	Nursing theory	**Definitions** Assumptions	Level III

(2011). *Integrated Theory and Knowledge Development in Nursing (8th ed.)*. St. Louis: Elsevier/Mosby.	knowledge development		from quantitative or qualitative approaches	guides research, practice, education, administration	are the established characteristics of ideas, meanings, relationships, and frameworks that may not be scientifically tested.	
Community Preventive Services Task Force. (2012). Improving mental health and addressing mental illness. The Community Guide. Retrieved from https://www.naccho.org/mentalhealth/index.html	Collaborative care models		Systemic review and meta-analysis	37 studies were identified for the systematic review and meta-analysis; results show that collaborative care led to reduction in the number of depression symptoms, increased treatment	The CPSTF recommends collaborative care for the management of depressive disorders based on strong evidence of effectiveness in improving depression symptoms, adherence to treatment, response to treatment, and remission and recovery from depression.	Level III
Dentje, K. J. (2015). Evidence-based practice: Understanding the process. Retrieved from https://www.medscape.com/viewarticle/567786_4	Iowa model		A number of steps have been identified in the Iowa model to facilitate NP engagement in problem identification and solution development as it relates to incorporatin	The Iowa model highlights the importance of considering the entire healthcare system from the provider, to the patient, to the	The Iowa model helps the NPs the ways in which literature findings can be reviewed to determine if they are relevant to the population we serve and if the findings are	Level III

			g evidence findings into practice.	infrastructure, using research within these contexts to guide practice decisions.	clinically significant.	
Doody, C. M., & Doody, O. (2014). Introducing evidence into nursing practice: Using the Iowa model. *British Journal of Nursing, 20*(11): 661-4 doi: 10.12968/bjon.2011.2011.661	Iowa model		Systemic review	Iowa model focuses on organization and collaboration incorporating conduct and use of research.	EBP for integrating change has been increasing in the health care settings to support nurses' decision-making, nurse-patient relationships, and promote high-quality health care.	Level III
Federally Qualified Health Care Center. (2014). *Uniform Data System Report.* Brooklyn, NY: BMS Main. Retrieved from https:// www.bmsfhc			Government statistical reports	UDSR - provide benchmark for FQHC indicators	UDSR helps the FQHC recognize the need for quality improvement.	Level III
Gilliam, S., & Siriwardena, A. N. (2014). Evidence-based health care and quality improvement. *Quality in Primary Care, 22*(3), 125–132. Retrieved from https://www.ncbi.nlm.gov./pubmed/2486533	Theoretical models of change and evidence	How evidence-based healthcare relates to qualy improvement ?	Meta-analyses, systematic reviews of RCTs	A study in general practice found that around 31% of therapeutic clinical decisions were based on evidence from randomized controlled	For quality improvement initiatives to be effective, that should be based on sound evidence. EBP integrates the individual provider's	Level III

9				trials (RCTs), whereas 51% were based on convincing non-experimental evidence.	experience, patient's preferences and the best available research information.	
Grant, B., Colello, S., Riehle, M., & Dende, D. (2010). An evaluation of the nursing practice environment and successful change management using the new generation Magnet Model. *Journal of Nursing Management, 18*(3), 326-331.doi: 10.1111/j.1365-2834.2010.01140.x	Magnet Model	To discuss the new Magnet Model as it relates to the successful implementation of a practice change.	Meta-analyses, systematic reviews of RCTs	Review of systems showed to identify success factors related to a practice change and to evaluate the nursing practice environment.	Successes factors for implementation of a practice change can be illuminated when nursing work environment are supportive and empowering by EB practice to yield successful implementation of the new practice.	Level III
Grohol (2015). An introduction to depression. National Institute of Mental Health. Retrieved from psychcentral.com/lib/further-information-about-depression	Cognitive-behavioral Theory.	What is depression? Is a wide	Meta-analysis systematic reviews of RCTS Meta-	Review shows everyone who has the genetic factors may not develop depression. With	Causes of depression are unspecific, and possibly developed by a complex combination. The early	Level III Level III

Halverson, J. L. & Bienenfeld, D., (2015). Depression treatment & management approach. Retrieved from https://www.emedicine.medscape.com/article/286759-treatment		range of effective treatments is available for major depressive disorder?	analyses, systematic reviews of RCTs	appropriate treatment, 70-80% of individuals with major depressive disorder can achieve a significant reduction in symptoms.	detection and collaborative treatment can prevent family stress and provide better relationships with patient and family members.	
Hanrahan, S. H. & Lofgren, M. L. (2004). Evidence-Based Practice: Examining the risk of toys in the microenvironment of infants in the Neonatal Intensive Care Unit. Retrieved from https://www.medscape.com/viewarticle/489955_2	Iowa model of EBP	Findings will show a plausible reaction between practice and risk.	Meta-analyses	Provides a step process for evidence based practice.	Algorithm provides a process of ongoing evaluation.	Level III
Health Net. (2015). Major depression practice guidelines. National Health Policy. Retrieved from https://www.healthnet.com/statoc/…/majordepressioncpg.pdf	National medical policy	To promote depression screening protocol and guidelines	Systemic review	Major Depression is second only to hypertension in primary care settings as the most common chronic medical condition, found in 10% of medical	9% of the United States (US) general population was affected by depression, which cost the US healthcare system over $43 billion.	Level III

				outpatients.		
Healthy People 2020. (2015). Mental health and mental disorder. Retrieved from http://www.mentalhealth.org		Improve mental health through prevention and by ensuring access to appropriate, quality mental health services.	Systemic review	Mental disorders are among the most common causes of disability.	Mental health plays a major role in people's ability to maintain good physical health.	Level III
Health Resource and Services Administration. (2013a). Proposed uniform data system change for calendar year 2014. Retrieved from https://www.bphc.hrsa.gov			Uniform data system resources that collect data for federally qualified heath care centers.	Federal quality benchmarks call for 80% of patients 18 years and older to be screened for depression yearly.	2014 report from the HRSA database showed that the providers, including physicians and nurse practitioners, only screened 50% of the patients in a FQHC in Brooklyn.	Level III
Health Resource and Services Administration. (2015b). Care guidelines/protocols. Retrieved from http://www. https://hab.hrsa.gov/deliverhivaidscare/clinicalguidelines.html	None	None	Systemic reviews	Early detection of depression using the screening tools PHQ-2&PHQ-9 can help identify early diagnosis of depression.	Definition: Protocol EBP protocols are standard guidelines of care across different medical disciplines that improve clinical effectiveness, risk management, teamwork, and care plan.	Level III

Hill, R. (2013). Improving depression screening in patients with chronic illness. *American Nurse,8,*10. Retrieved from https://www.americannursetoday.com	The National Guidelines Clearinghouse	Nurses can incorporate both the IOM and DHHS recommendations into daily practice through simple screening measures to assess for the presence of depression in patients with chronic disease.	IOM and DHH reports, systemic reviews	In any 2-week period, approximately 8% of the US population is struggling with depression. Nurses, practicing to the fullest extent of their licensure and capability, can use a simple tool during each patient encounter to help identify a possible depressive disorder.	Staff nurses using the PHQ-2 could help to identify and communicate awareness of potential depressive patients. The Patient Health Questionnaire-2 (PHQ-2) is a screening tool that has demonstrated excellent reliability and validity in a variety of patient populations.	Level III
John Hopkins Medicine (2016). Center for evidence-based practice. Permission to use Johns Hopkins Nursing Evidence based model and tools. Retrieved from https://www.hopkinsmedicine.org/evidence-based-practice/jhn_ebp.html	Change	Johns Hopkins nursing EB mode and tools Evidence	Systemic reviews Meta-	Obtaining permission for usage of the tool. Leadershi	Effective	Level III Level III

Hyrkäs, K., & Harvey, K. (2010). Leading innovation and change. *Journal of Nursing Management, 18*(1), 1–3. doi: 10.1111/j.1365-2834.2010.01069.x.	theory	based practice is the catalyst for innovation in nursing leadership.	analysis	p causes an influence of others to contribute to a positive outcome	leaders understand the importance of disseminating information about needed changes and recognize the need to nurture the readiness and expectation of that change.	
Kotter, J. P. (2007). Leading change: Why transformation efforts fail. *Harvard Business Review, 85*(1), 96–103. Retrieved from https://hbr.org/2007…/leading.change-why-tra	Leadership theory	Why transformation efforts fail?	System review	Lesson learned form the more successful cases is that the change process goes through a series of phases.	Motivational skills will be accomplished by providing literature reviews, outlining the reasons for the lack of the screening tools, and outlining the need for a change of perceptions towards the usage of the tools (Kotter, 2007).	Level III
Luchins, D. J. (2010). Depression screening as a quality indicator. *Mental Health in Family Medicine, 7*(2), 107-113. Retreived from http://www.nc	Primary care evaluation of mental Disorder (PRIMEMD) Collaborative care model	Depression screening could be used as a quality indicator	Control studies and other sources related to the technical, clinical and policy assumptions. Cochrane review and	Approx. 74 patients were identified on the PHQ; 22 received f/u care, 10% were given prescriptio	Depression screening is a priority among preventive services. The PHQs screening are the most efficient outcomes in depression,	Level IV

bi.nim.nih.gov.			meta analysis	ns and 5% were given a mental referral. Meta analysis also showed that collaborative care model had higher outcomes than does who did not use the model.	and are cost effective.	
Maurer, D. M., & Darnall, C. (2012). Screening for depression. *American Family Physician, 15*(2), 139-144. Retrieved from hptt://www.aafp.org/afp			Meta-analysis and systemic review	The PHQ-2 has a 97 percent sensitivity and 67 percent specificity in adults, whereas the PHQ-9 has a 61 percent sensitivity and 94 percent specificity in adults. If the PHQ-2 is positive for depression, the PHQ-9 should be administered.	The U.S. Preventive Services Task Force recommends screening in adolescents and adults in clinical practices that have systems in place to ensure accurate diagnosis, effective treatment, and follow-up.	Level III

McEwen, M., & Wills, E. M, (2014). *Theoretical Basis for Nursing*. (4th ed.). Philadelphia, PA: Wolters Kluwer Health.	Theoretical basis for nursing		Systemic reviews	Shared theories used by nurses	Application of theory in nursing	Level III
National Alliance on Mental Illness. (2015). Depression. Retrieved from http://www.nami.org/learn-more/mental-conditions/depression			Clinical trial and meta analysis	An NIMH-funded clinical trial of 439 adolescents with major depression found that a combination of medication and psychotherapy was the most effective treatment option.	Women are 70% more likely than men to experience depression. Depression is caused by a combination of genetic, biological, environmental, and psychological factors.	Level III
NPA Greater Rochester Chapter. (2015). Nurse Practitioners Modernization Act will become law. Retrieved from https://www.npagr,enpnetwork.com/nurse-practitioner			Systemic Review	Newly license nurse practitioners in New York with less than 3,600 hours of practice will maintain a written agreement and practice protocols with the physician.	Nurse Practitioners Modernization Act will become law in January 1. 2015	Level III

Rosser, S., Frede, S., Conrad, W., & Heaton, P. C. (2012). Development, implementation, and evaluation of a pharmacist-conducted screening program for depression. *Journal of the American Pharmacist Association, 53*, 22-29. doi:10.1331/JAPhA.2013.11111		To develop, implement, and evaluate a depression screening program performed by pharmacists in the community setting	Prospective study.	Nurse practitioner with greater than 3,600 hours of practice - no signed agreement or protocol, but will maintain collaborative relationship.		Level III
Saver, B. G.						

Van-Nguyen, V. V., Keppel, G. & Doescher, M. P. (2016). A qualitative study depression in primary care: Missed opportunities for diagnosis and education. *The American Board of Family Medicine, 29*(2), 1558-7118. Doi: 10.3122/jabfm/2007.01.06006 Seo, J. G., & Park, S. P. (2015). Validation of the Patient Health Questionnaire-9 (PHQ-9) and PHQ-2 in patients with migraine. *The Journal of Headache and Pain, 16,* 65. doi:10.1186/s10194-015-0552-2		Interviewed 15 subjects being treated for depression on dx, barriers, understanding of depression and issues related to treatment decisions To investigated the reliability and validity of the Patient Health Questionnaire-9 (PHQ-9) and Patient Health Questionnaire-9 (PHQ-2) in patients with migraine.	Systematic Review Cross sectional qualitative study done on 132 headache participants using several depression screening tools.	Many reported visits without being asked about depression; many stated that they did not receive info or treatment options in the majority of cases, practitioners decided the course of treatment The study showed that the PHQ-9 had a sensitivity of 79.5%, a specificity of 81.7%, a positive predictive value (PPV) of 64.6%, and a negative predictive value (NPV) of 90.5%. The PHQ-2 cut off score is 2; the PHQ-2 had a sensitivity of 66.7%, a	Researchers found many misdiagnosis, information gaps, and limited patient understanding and treatment. The PHQ-9 and PHQ-2 are both reliable and valid screening instruments for MDD in patients with migraine.	Level III Level IV

				specificity of 90.3%, a PPV of 74.3% and NPPV of 86.6%.		
Smith, M. A. (2011). Are you a transformational leader? *The Journal of Excellence in Nursing Leadership, 42*(9), 44-50. doi: 10.1097/01.NUMA.0000403279.0437.6a	Transformational leadership theory	The effects of transformational leadership	Systemic review	The transformational leadership style allows for the recognition of areas in which change is needed and guides change by inspiring followers and creating a sense of commitment	The transformational leadership style utilized by nursing leaders in the clinical setting has a direct effect on nursing staff satisfaction, which ultimately has an effect on patient satisfaction.	
Soltani, M., Smith, S., Beck, E., & Johnson, M. (2014). Universal depression screening, diagnosis, management and outcomes at a student-run free clinic. *Academic Psychiatry, 39*(3), 259-66. doi:10.1007s40596-014-0257-x		A medical student-run universal depression screening, diagnosis, and management program at two SRFC sites	Medical students did a 6-month retrospective medical record review of depression screening using the PHQ-2&9 on 174 patients.	The findings showed that 95% (206/215) of the patients were given either the PHQ-2 or PHQ-9. The study also revealed that out of 166 patients who were undiagnosed for depression	The study showed that the medical students were able to identify undiagnosed depression, collaborate with interdisciplinary teams, and increase improvement in the severity of depression.	Level III

				prior to the screening, 33 (19.9%) had a positive PHQ-2, and 30 of 33 (90.9%) received the PHQ-9 screening		
Suzuki, K., Kumei, S., Ohhira, M., Nozu, T., & Okumura, T. (2015). Screening for major depressive disorder with the patient health questionnaire (PHQ-9 and PHQ-2) in an outpatient clinic Staffed by primary care physicians in Japan: A Case Control Study. *PloS one*, *10*(3), 119-147. doi:10.1371/journal.pone.0119147.		Examining the utility of the PHQ-9 and PHQ-2 at an outpatient clinic in a Medical University Hospital in Japan	A case control study	A total of 521 patients completed the study using both PHQ-2 and PHQ-9. DSM-IV-TR standards were used to diagnose patients with major depressive disorders. The study revealed that the mean major depression scores were PHQ-2 (3.8) and PHQ-9 (15.7) which were significantly higher than the scores of the patients	The PHQ-9 and PHQ-2 were useful instruments for screening for major depressive disorders.	Level IV

				without depression screening from PHQ-2 (1.8) and PHQ-9 (6.0.).		
U.S. Preventive Services Task Force. (2015b). Draft recommendation statement: Depression in adults. Retrieved from http://www.uspreventiveservicestaskforce			Cochrane reviews, systemic reviews and meta analysis	The USPSTF found good evidence that screening improves the accurate identification of depressed patients in primary care settings.	The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up.	Level III
Unutzer, J., Schoenbaun, M., Druss, B., & Katon, W. J. (2012). Transforming mental health care at the interface with general medicine: Report for the Presidents Commission. Retrieved from http://dx.doi.org/10.1176	Evidence-based quality improvement models	Improved mental health care at the interface of general medicine and mental health requires educated consumers and providers.	Search of MEDLINE and Psych INFO; and consultation with experts in the field	Most mental disorders, especially depression, are found in the general primary medical settings, but the diagnoses are not adequately and efficiently treated	The researchers revealed that medical providers who collaborated with or referred clients to, a comprehensive trained clinical practice that included mental health resulted in a more effective and successful patient care outcome than treatment in primary care	

					settings.	
Van Daele, T., Vansteenwegen, D., Hermans, D., Van den Bergh, O., & Van Audenhove, C. (2015). Home nurses and patient depression. Attitudes, competences and the effects of a minimal intervention. *Journal of Advanced Nursing*, *71*(1), 126-135. doi: 10.1111/jan.12476		Long-term ill patients have an elevated risk to develop comorbid depression, as do their family caregivers.	Quasi-experimental field study with pre-measures, post-measures and f/u measures.	Home nurses who followed the intervention did detect significantly more depressed patients compared with controls.	The role of the nurse in depression screening is to be the client's confidante and listener. These roles would assist the nurses in delineating and reevaluating the clinical approach to mental health care.	Level II
Warrick, D. D. (2011). The urgent need for skilled transformational leaders: Integrating transformational leadership and organization development. *Journal of Leadership, Accountability & Ethics, 8*(5), 11–26. Retrieved from https://www.na-businesspress.com/JLAE/WarrickDD.Web8_5_pdf	Transformational leadership theory	How to integrate transformational leadership and organization development	Cochrane review	The term transforms means to fundamentally change something or someone from one state to another.	Organization development benefits from a greater emphasis on the need for transformational leaders in leading change.	Level III
White, K. M., & Dudley-Brown, S.	Evidence-based theories and	Why evidence-based	Systemic review	Translation of evidence	Cochrane reviews showed that	Level III

(2012). *Translation of evidence into nursing and health care practice.* New York, NY: Springer.	frameworks	practice and why now?		into nursing and health care practice	systematic process provides a thorough evidence-based clinical practice	
World Health Organization. (2015). Depression. Retreived from http://www.who.int/mediacentre/factsheets		What is depression?	Systemic reviews	Definition of depression	Depression is a common mental disorder that affects approx. 350 million people of all ages globally. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family.	Level III
						Level III

Appendix C: Protocol for Depression Screening

Annals of Internal Medicine

AHRQ Agency for Healthcare Research and Quality
Advancing Excellence in Health Care • www.ahrq.gov
USPSTF

SCREENING FOR DEPRESSION IN ADULTS
CLINICAL SUMMARY OF U.S. PREVENTIVE SERVICES TASK FORCE RECOMMENDATION

Population	**Nonpregnant adults 18 years or older**	
Recommendation	**Screen when staff-assisted depression care supports* are in place to assure accurate diagnosis, effective treatment, and follow-up.**	**Do not routinely screen when staff-assisted depression care supports* are not in place.**
	Grade: B	**Grade: C**

Risk Assessment	Persons at increased risk for depression are considered at risk throughout their lifetime. Groups at increased risk include persons with other psychiatric disorders, including substance misuse; persons with a family history of depression; persons with chronic medical diseases; and persons who are unemployed or of lower socioeconomic status. Also, women are at increased risk compared with men. However, the presence of risk factors alone cannot distinguish depressed patients from nondepressed patients.	
Screening Tests	Simple screening questions may perform as well as more complex instruments. Any positive screening test result should trigger a full diagnostic interview using standard diagnostic criteria.	
Timing of Screening	The optimal interval for screening is unknown. In older adults, significant depressive symptoms are associated with common life events, including medical illness, cognitive decline, bereavement, and institutional placement in residential or inpatient settings.	
Balance of Harms and Benefits		Limited evidence suggests that screening for depression in the absence of staff-assisted depression care does not improve depression outcomes.
Suggestions for Practice	"Staff-assisted depression care supports" refers to clinical staff that assists the primary care clinician by providing some direct depression care and/or coordination, case management, or mental health treatment.	
Relevant USPSTF Recommendations	Related USPSTF recommendations on screening for suicidality and screening children and adolescents for depression are available at www.preventiveservices.ahrq.gov.	

Appendix D1: Guidelines for Depression Screening

National Medical Policy

Subject: Major Depression Clinical Practice Guidelines

Policy Number: NMP471

Effective Date: November 2005

Update: February 2015

Clinical Practice Guidelines: Behavioral Health Screening, and Assessment

BEHAVIORAL HEALTH SCREENING AND ASSESSMENT

GOAL

To outline methods for identifying patients with possible behavioral health (mental health or substance use) disorders and provide guidance for decisions to refer for specialized behavioral health treatment.

SCREENING TOOLS AND INTERVENTIONS FOR COMMON BEHAVIORAL HEALTH DISORDERS SEEN IN PRIMARY CARE

• **Depression** o Depression is a potentially life-threatening illness that affects up to 6.7% of Americans (or

approximately 14.8 million people) in any given year. It is the leading cause of disability in the

United States for those between the ages of 15 and 44. o Prevalence in the United States of dysthymic disorder and major depressive disorder is 11.2% of

13-18 year olds. Girls are more likely than boys to experience depressive disorders. Additionally, 3.3 % of 13 to 18 year olds have experienced a seriously debilitating

depressive disorder.

• Screening and Follow-up for Depression in Adults o The US Preventive Services Task Force recommends screening adults for depression in primary care when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up.

o Some of the most common and recommended screening tools for depression are the **PHQ-9** and the **PHQ-2:**

§ **Patient Health Questionnaire-9 (PHQ-9)** – A nine question depression scale that is based on the nine diagnostic criteria for major depressive disorders in the Diagnostic and Statistical Manual Fifth Edition (DSM-5). It is helpful in diagnosing depression and monitoring response to treatment. The PHQ-9 is available in English and Spanish for download on the WASBIRT site at: http://www.wasbirt.com/content/screening-forms

§ **For additional languages go to:**
http://phqscreeners.com/overview.aspx?Screener=02_PHQ-9

§ **Patient Health Questionnaire-2 (PHQ-2)** –
http://www.cqaimh.org/pdf/tool_phq2.pdf The PHQ-2 is a "pre-screener" that inquires about the frequency of depressed mood and anhedonia over the past two weeks. The PHQ-2 includes the first two items of the PHQ-9. The purpose of the PHQ-2 is not to establish a final diagnosis or to monitor depression severity, but rather to screen for depression as a "first step" approach. Patients who screen positive should be further evaluated with the PHQ-9 to determine whether they meet criteria for a depressive disorder.

o To learn more about other validated screening tools go to:
http://emedicine.medscape.com/article/1859039-overview#a1

Appendix D2: Clinical Practice Guidelines:

Behavioral Health Screening, and Assessment

Scoring and intervention guidelines for using the PHQ-9 with Adults **PHQ-9 Scores and Proposed Treatment Actions for Depression in Adults**

PHQ-9 SCORE	DEPRESSION SEVERITY	PROPOSED TREATMENT RECOMMENDATION
0–4	None-minimal	None
5–9	Mild	Watchful waiting, repeat PHQ-9 at follow-up visit
10 – 14	Moderate	Treatment plan, considering counseling, follow-up and/or pharmacotherapy
15 – 19	Moderately severe	Active treatment with pharmacotherapy or psychotherapy
20 – 27	Severe	Immediate initiation of pharmacotherapy and, if severe impairment or poor response to therapy, expedited referral to a mental health specialist for psychotherapy and/or collaborative management

* From Kroenke K, Spitzer RL, Psychiatric Annals 2002;32:509-521

All positive screenings should be followed up with a full assessment using standard diagnostic criteria such as those listed in the American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing, also known as DSM-5.

Ongoing Monitoring of Depression in Adults

Engagement Education: Provide education and document that the patient and his/her family are actively engaged in self-management practices, based on understanding of the diagnosis, risk/benefits of treatment options, and consideration of patient preferences.

Ongoing Contacts: Implement a system to assure ongoing contacts with the patient during the first 6-12 months of care (scheduled follow-up appointments, phone calls, etc.) and based on use of the PHQ-9 or other standardized screening tool used at each contact to track response to treatment.

Resources: Institute for Clinical Systems Improvement (ICSI) Health Care Guidelines: Adult Depression

in Primary Care Guidelines: https://www.icsi.org/_asset/fnhdm3/Depr.pdf § Instructions for using PHQ Screeners:

http://www.phqscreeners.com/instructions/instructions.pdf

Appendix E: Educational Curriculum Plan

Problem: The clinical practice problem addressed in this DNP project was that annual depression screenings have been conducted for only 50% of adult patients in primary care settings, a statistic which has not met the requirement of 80%, as recommended by the FQHC.

Purpose: The purposes of this quality improvement project were to: (a) identify an evidence-based protocol and clinical guidelines to direct the use of the Patient Health Questionnaires (PHQ)-2 and PHQ-9 depression screening tools currently available for staff, and (b) develop an educational curriculum for the staff about depression, the use of the protocol, and clinical guidelines for the tools.

Goal: The goal of the DNP project is to provide the nursing staff with knowledge for increasing the usage of the PHQ-2 and PHQ-9 depression screening tools by developing an EBP protocol and educational curriculum plan for the primary care setting.

Objectives At the conclusion of this educational experience the learner will be able to -	Content Outline	Evidence	Method of Presenting (see Appendix K)	Method of Evaluation P/P Item	Evidence Grade
1. Define the significance and the purpose of the educational curriculum plan for the PHQ-2 & PHQ-9 screening tools for depression.	A. Introduction 1. Project significance a. Depression is a multifaceted condition that is depicted in 1. Mood, 2. Thinking, or 3. Behavior b. Causes of depression are - 1. Stress at work 2. Socioeconomics 3. Genetics 4. Gender 5. Psychology 6. Physiology	A1 a. National Alliance on Mental Illness (NAMI, 2015). b. Maurer and Darnall (2012).	Oral presentation and power point with group sessions Oral presentation and power point with group session	15 4	A1. a. Level IV b. Level III

	c. The importance of recognizing the signs of depression prevents 1. Misdiagnosis 2. Under treatment 3. Lack of screening for depression	c. Community Preventive Services Task Force (CPSTF, 2015)			c. Level III
	d. The leading complications of depression are - 1. Disability 2. Production loss 3. Suicide	d. CPSTF (2015)	Oral presentation and power point with group sessions		d. Level III
	2. Purpose of curriculum A. Introduction to EBP protocol - 1. Depression 2. Screening recommendations a) Initial and ongoing screening for depression b) Treatment and collaborative care c) Follow-up visits	A2 a. United States Preventive Service Task Force (USPSTF, 2015). b. Healthcare Research and Quality (AHRQ, 2015).		2	A2. a. Level III b. Level III
	3. Interdisciplinary team o Team leader, nurse, and medical provider; o Case manager, physiotherapist, and psychiatrist, o QI member and an educational expert.	Doody and Doody (2014)			Level III

	B. Introduction to the educational curriculum for the validated screening tools - 1. Patient Health Questionnaire (PHQ)-2 - first tool has two questions. 2. PHQ-9 has nine questions to identify the level of depression, if PHQ-2 is positive. 3. Diagnostic and Statistical Manual of Mental Disorders criteria helps to determine the specific depression diagnoses.	AHRQ (2015)			Level III
2. Explain the reason for early detection of depression.	B. Background 1. Depression socioeconomic effects a. Cost of treatment in the US is 43 billion dollars per year. b. About 6.7% of adults are affected by depression in the US. c. About 7% of the American population has, at least, one episode per year. Depression affects more women than men. d. 60% of the adults in young adults ages 18 to 25 years old are more likely to	B1. Health NET (2015).	Power point presentation with group sessions.	3 4	B1. Level III

	have depression, e. Depression affects more women than men. 2. Comorbid factors that are associated with depression a. Hypertension b. Cardiac disease c. Diabetes d. Obesity 3. Contributing factors to lack of screening for depression a. Inadequate assessment. b. Unfamiliar EHR system c. Lack of appropriate collaborative care. d. Stigma of illness.	B2. WHO (2015). B3. Healthy People2020 (2015).		5	B2. Level III B3. Level III
3. State the reason for increasing the percentage of depression screening in the primary care setting.	C. 1. In 2014, only 50% of the adults were screened for depression screening in the health care setting. 2. Benchmark set for screening of depression yearly by federally qualified healthcare center is 80%. 3. Identifying early detection of depression provide - a) Adequate treatment b) Appropriate	C. Federally Qualified Health Center (FQHC, 2015).	Oral presentation and power point with group discussion.	6	C - Level III

	follow-ups, and c) Prevention of increase risk factors such as major depression.				
4. Recognize signs and of depression.	D. Signs of depression 1. Absenteeism 2. Slow speech 3. Little interest in with others. 4. Intense grief over a death of a love one. 5. Sleep disturbance	D. WHO (2015).	Power point and oral presentation with group discussion.	7	D - Level III
5. Acknowledge the effects the effects of depression.	E. Effects of depression 1. Low self-esteem 2. Poor family relationships 3. Dissatisfaction among coworkers 4. Poor physical and mental health 5. Loss of work production 6. Increase health care cost 7. Behavioral problems. 8. Disability 9. Premature deaths	E. WHO (2015).	Power point and oral presentation with group discussion.	8	E - Level III
6. A. Apply evidence-based (EB) knowledge to detect clinically diagnoses, treatment, and follow up care. B. Use the validated	F. Protocol for Depression screening for ages18 years and older - 1. Yearly screening of depression or if signs such as slow speech and little interest in doing things. 2. Screening of early detection, treatment, and follow-up care through collaborative	F. CPSTF (2015).	Power point and oral presentation with group discussion.	9 10	F - Level III

depression screening tools - PHQ-2 and PHQ-9.	skills. 3. How to conduct and score the PHQs by a) Discussing with patients the reason for screening; b) Explaining and initiating the PHQ-2 and PHQ-9 screening tools.				
7. Discuss the steps of the Iowa model for integrating evidence-based knowledge into practice.	G. Iowa model To integrated EB knowledge into practice the model provides six steps of the framework: a. Recognizing the trigger b. Selecting a team c. Researching and collecting data. d. Implementing the knowledge. e. Evaluating the findings. f. Disseminate the outcomes of ongoing evaluation.	G. Dentje (2015).	Power point and oral presentation with group discussion.	11	G - Level III
8.State the importance of collaborative care using the Iowa model.	H. Iowa model 1. The framework will provide comprehensive knowledge about collaborating care to meet the needs of the patients who are positive for depression. The care will consist of: a. Nurses for initiating	Doody and Doody (2014)	Power point and oral presentation with group discussion.	12	H1 - Level III

	screening b. Primary care provider for referring and treating comorbid care. c. Case manager will be the liaison to connect the appropriate interdisciplinary services. d. Psychiatry 2. The model will help clients to - a. Comply with treatment; b. Improve knowledge about depression; c. Improve patient-provider provider relationship; and d. Double the adherence for treatment.	H2. Amiel and Pincus (2012)	Power point and oral presentation with group discussion.		H2 - Level III

Appendix F: Content Expert Evaluation of the Curriculum Plan

Date:

Student: Denise Alleyne

Name of Reviewer:

Products for Review: Curriculum Plan, Complete Curriculum Content, Literature Review Matrix

Instructions: Please review each objective related to the curriculum plan, content and matrix. The answer will be a met or not met with comments if there is a problem understanding the content or if the content does not speak to the objective.
At the conclusion of this educational experience, the participant will be able to:

Objective 1: define the significance and the purpose of the educational curriculum plan for the PHQ-2 &PHQ-9 screening tools for depression.

Met Not Met

Comments:

Objective 2: explain the reason for early detection of depression.

Met Not Met

Comments:

Objective 3: state the reason for increasing the percentage of depression screening in the primary care setting.

Met Not Met

Comments:

Objective 4: recognize signs of depression.

Met Not Met

Comments:

Objective 5: acknowledge the effects of depression.

Met Not Met

Comments:

Objective 6: A. apply EB knowledge to detect
Clinically diagnoses, treatment, and follow-up care.

Met Not Met

B. use the validated depression
screening tools - PHQ-2 and PHQ-9 .

Met Not Met

Comments:

Objective 7: discuss the steps of the Iowa model for integrating
EB knowledge into practice.

Met Not Met

Comments:

Objective 8: state the importance of
collaborative care using the patient center medical home model.

Met Not Met

Comments:

Objective 9: list the goals set for the DNP project.

Met Not Met

Comments:

Appendix G: Content Expert Evaluation of Curriculum Plan Summary

Not Met = 1 Met – 2
At the conclusion of this educational experience, the participant will be able to:

Objective Number	Evaluator 1	Evaluator 2	Average Score
1. Define the significance and the purpose of the educational curriculum plan for the PHQ-2 & PHQ-9 screening tools for depression.	2	2	2
2. Explain the reason for early detection of depression.	2	2	2
3. State the reason for increasing the percentage of depression screening in the primary care setting.	2	2	2
4. Recognize signs of depression.	2	2	2
5. Acknowledge the effects of depression.	2	2	2
6a. Apply EB knowledge to detect clinically diagnoses, treatment, and follow-up care. 6b. Use the validated depression screening tools - PHQ-2 and PHQ-9.	2	2	2
7. Discuss the steps of the Iowa model for integration EB knowledge into practice.	2	2	2
8. State the importance of collaborative care using the Iowa model.	2	2	2
9. List the goals set for the DNP project	2	2	2

Recommendations: The evaluators reviewed the objects and discussed terminology that might need to be defined or clarified to reflect the educational level of the staff.

Appendix H: Pretest/Posttest Questionnaire

Date: March 29, 2016 **Student Name: Denise Alleyne**

Reviewer's Name:

Packet: Curriculum Plan, Pretest/Posttest, and Complete Curriculum

INSTRUCTIONS: **Please check each item to see if the question is representative of the course objective and the correct answer is reflected in the course content.**

Test Item #

1. Which one of the following is a contributing factor for Depression?

    a) Headaches
    b) Coughing
    c) Stress at home and work
    d) Decreased appetite

2. The purpose of developing the evidence-based (EB) protocol and curriculum is to:

    a) Provide awareness of screening for depression.
    b) Decrease the percentage of screening for depression yearly.
    c) Decrease healthcare cost for depression.
    d) Decrease work production.

3. In the year 2015, what was the cost of treating depression in the US?

    a) Less than $43 billion
    b) $43 billion or more
    c) $500 thousand
    d) $430 billion

4. Which one of the following is NOT associated with cause of depression?

    a) Hypertension
    b) Cardiac problem
    c) Diabetes
    d) Interest in doing things

5. What contributes to the lack of screening for depression?

    a) User-friendly electronic record system
    b) Appropriate collaborative care.
    c) Appropriate assessment
    d) Stigma of depression as an illness

6. What is the benchmark set by the federally qualified healthcare center for depression screening?

    a) %
    b) 60%
    c) 80%
    d) 100%

7. Which one of the following is NOT a sign of depression?

    a) Frequent absenteeism
    b) Slow speech
    c) Little interest in participating with others
    d) Adequate Sleep

8. Which one of the following is a sign of depression?

    a) Great relationship at home
    b) Workers' job satisfaction
    c) Behavioral problems
    d) High self-esteem

9. How often should depression screening such as the PHQ-2 and PHQ-9 be used?
    a) At each provider visit
    b) Every two to four years
    c) At the initial medical visit
    d) Yearly visit or when signs of depression are detected

10. The validated depression screening tools recommended by the United State Preventive Services Task Force are -
    a) PHQ-2 and PHQ-9
    b) 15-Item Geriatric Depression Scale
    c) Snellen scale
    d) Mini Mental State examine

11. Which one of the following is NOT a component of the Iowa model?

    a) Recognizing triggers
    b) Selecting a team
    c) Reviewing and collecting data
    d) Avoid on-going evaluation

12. What does the patient centered medical home model consists of to meet the needs of the depressive patients?

    a) Nurses
    b) Primary care provider
    c) Case manager
    d) All of the above

13. USPSTF developed and recommended annual depression screening guidelines for patients 18 years and older in primary care settings that have appropriate practices to accurately diagnose, treat, and do follow up care.
    a) True
    b) False

14. One of the goals of the DNP project is for the student to master the understanding of the United States Preventive Services Task Force recommendations for screening for depression.

    a) True
    b) False

15. Depression is a mental disorder that can remain easily undetected, untreated, and misdiagnosed in the primary care setting due to stigma of the disease.
    a) True
    b) False

Appendix I: Pretest/Posttest Expert Content Validation

Educational Curriculum to Screen for Depression

Date: March 29, 2016 **Student Name: Denise Alleyne**

Reviewer's Name:

Packet: Curriculum Plan, Pretest/Posttest, and Complete Curriculum

INSTRUCTIONS: **Please check each item to see if the question is representative of the course objective and the correct answer is reflected in the course content.**

Test Item #

1. Which one of the following is a contributing factor for Depression?

   e) Headaches
   f) Coughing
   g) Stress at home and work
   h) Decreased appetite

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

2. The purpose of developing the evidence-based (EB) protocol and curriculum is to:

   e) Provide awareness of screening for depression.
   f) Decrease the percentage of screening for depression yearly.
   g) Decrease healthcare cost for depression.
   h) Decrease work production.

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

3. In the year 2015, what was the cost of treating depression in the US?

e) Less than $43 billion
f) $43 billion or more
g) $500 thousand
h) $430 billion

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

4. Which one of the following is NOT associated with cause of depression?

e) Hypertension
f) Cardiac problem
g) Diabetes
h) Interest in doing things

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

5. What contributes to the lack of screening for depression?

e) User-friendly electronic record system
f) Appropriate collaborative care.
g) Appropriate assessment
h) Stigma of depression as an illness

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

6. What is the benchmark set by the federally qualified healthcare center for depression screening?

    e) 40%
    f) 60%
    g) 80%
    h) 100%

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments

7. Which one of the following is NOT a sign of depression?

    e) Frequent absenteeism
    f) Slow speech
    g) Little interest in participating with others
    h) Adequate Sleep

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comment

8. Which one of the following is a sign of depression?

    a) Great relationship at home.
    b) Workers' job satisfaction
    c) Behavioral problems
    d) High self-esteem

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

9. How often should depression screening such as the PHQ-2 and PHQ-9 be used?
    a) At each provider visit
    b) Every two to four years
    c) At the initial medical visit
    d) Yearly visit or when signs of depression are detected

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

10. The validated depression screening tools recommended by the United State Preventive Services Task Force are -
    a) PHQ-2 and PHQ-9
    b) 15-Item Geriatric Depression Scale
    c) Snellen scale
    d) Mini Mental State examine

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

11. Which one of the following is NOT a component of the Iowa model?

    a) Recognizing triggers
    b) Selecting a team
    c) Reviewing and collecting data
    d) Avoid on-going evaluation

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

12. What the patient centered medical home model consists of to meet the needs of the depressive patients?

    a) Nurses
    b) Primary care provider
    c) Case manager
    d) All of the above

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

13. USPSTF developed and recommended annual depression screening guidelines for patients 18 years and older in primary care settings that have appropriate practices to accurately diagnose, treat, and do follow up care.
    a) True
    b) False

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

14. One of the goals of the DNP project is for the student to master the understanding of the United States Preventive Services Task Force recommendations for screening for depression.

    a) True
    b) False

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

15. Depression is a mental disorder that can remain easily undetected, untreated, and misdiagnosed in the primary care setting due to stigma of the disease.
    a) True
    b) False

Not Relevant **Somewhat Relevant** **Relevant** **Very Relevant**

Comments:

Appendix J: Summary of Content Expert Validation of Pretest/Posttest Items

Not Relevant = 1, Somewhat Relevant = 2, Relevant = 3, Very Relevant = 4

Test Item	Evaluator 1 Score	Evaluator 2 Score	Ave Score
Which of the following is a contributing factor for Depression? a) headaches, b) coughing c) stress at home and work d) decreased appetite	4	4	4
The purpose of developing the evidence-based (EB) protocol and curriculum is to: a) Provide awareness of screening for depression. b) Decrease the percentage of screening for depression yearly. c) Decrease healthcare cost for depression. d) Decrease work production	4	4	4
3. In the year 2015, what was the cost of treating depression in the US? a) Less than $43 billion b) $43 billion or more c) $500 thousand d) $430 billion	4	4	4
4. Which one of the following is NOT associated with cause of depression? a) Hypertension b) Cardiac problem c) Diabetes d) Interest in doing things	4	4	4

5. What contributes to the lack of screening for depression? a) User-friendly electronic record system b) Appropriate collaborative care. c) Appropriate assessment d) Stigma of depression as an illness	4	4	4
6. What is the benchmark set by the federally qualified healthcare center for depression screening? a) 40% b) 60% c) 80% d) 100%	4	4	4
7. Which one of the following is NOT a sign of depression? a) Frequent absenteeism b) Slow speech c) Little interest in participating with others d) Adequate Sleep	4	4	4
8. Which one of the following is a sign of depression? a) Great relationship at home. b) Workers' job satisfaction c) Behavioral problems d) High self-esteem	4	4	4

9. How often should depression screening such as the PHQ-2 and PHQ-9 be used? a) At each provider visit b) Every two to four years c) At the initial medical visit d) Yearly visit or when signs of depression are detected.	4	4	4
10. The validated depression screening tools recommended by the United State Preventive Services Task Force are - a) PHQ-2 and PHQ-9 b) 15-Item Geriatric Depression Scale c) Snellen scale d) Mini Mental State examine	4	4	4
11. Which one of the following is NOT a component of the Iowa model? a) Recognizing triggers b) Selecting a team c) Researching and collecting data d) Avoid on-going evaluation	4	4	4

12. What the patient centered medical home model consists of to meet the needs of the depressive patients? a) Nurses b) Primary care provider c) Case manager d) All of the above	4 4	4 4	4 4
13. USPSTF developed and recommended annual depression screening guidelines for patients 18 years and older in primary care settings that have appropriate practices to accurately diagnose, treat and do follow up care. a) True b) False	4	4	4
14. One of the goals of the DNP project is for the student to master the understanding of the United States Preventive Services Task Force recommendations for screening for depression. a) True b) False	4	4	4

15. Depression is a mental disorder that can remain easily undetected, untreated, and misdiagnosed in the primary care setting due to stigma of the disease. a) True a) False	4	4	4

Content Validation Index Score: 1.0

Recommendations:

Evaluator 1: Recommended that the pretest/posttest items such be used for quality improvement depression screening evaluation for the clinical staff every six months.

Evaluator 2: Recommended that the pretest/posttest items such be added to the policy and procedure document when completed.

Two content experts who are DNP prepared nurses evaluated the curriculum plan. These experts work in the education department of the FQHC clinic and are responsible for evaluating and validating the policy and procedure material for the QI team.

Appendix K: PowerPoint

Promoting Annual Depression Screening in

a Federally Qualified Healthcare Center

by

Denise Alleyne

Learning Objectives

- Acknowledge the cause and effects of depression
- Recognize signs and symptoms, and comorbid factors of depression
- Explain the reasons for depression screening
- Describe the USPSTF recommendation for adult depression screening
- Identify the USPSTF validated depression screening tools

Introduction

- The World Health Organization (WHO, 2015) reported 350 million people experience depression worldwide.
- WHO (2015) also projected that by the year 2020, depression will be the second-leading cause of disability and premature death worldwide
- Depression- a multifaceted condition that is depicted in mood, thinking, or behavior (National Alliance on Mental Illness [NAMI], 2015).

Problem

The clinical practice problem addressed in this DNP project was that annual depression screenings have been conducted for only 50% of adult patients in primary care settings, a statistic which has not met the requirement of 80%, as recommended by the FQHC. In 2014, 9% of the United States (US) general population was affected by depression, which cost the US healthcare system over $43 billion (Health Net, 2015). The World Health Organization has projected that by the year 2020, depression will be the second-leading cause of disability and premature death worldwide (Healthy People 2020, 2015).

Causes of depression are -

1. Stress at work/school
2. Socioeconomics
3. Genetics
4. Gender
5. Psychology
6. Physiology

(Maurer and Darnall (2012)

Effects of depression

1. Low self-esteem
2. Poor family relationships
3. Dissatisfaction among coworkers
4. Poor physical and mental health
5. Loss of work production
6. Increase health care cost
7. Behavioral problems.
8. Disability
9. Premature deaths (WHO. 2015).

Comorbid factors that are associated with depression

1. Hypertension
2. Cardiac disease
3. Diabetes
4. Obesity

(WHO. 2015).

The depression screening prevents

1. Misdiagnosis
2. Under treatment, and
3. Lack of screening for depression

Community Preventive Services Task Force (CPSTF, 2015)

The recommended outline of depression screening for ages 18 years and older -

1. Yearly screening of depression or if signs such as slow speech and little interest in doing things.
2. Screening of early detection, treatment, and follow-up care through collaborative skills.

3. How to conduct and score the PHQs by
    a) Discussing with patients the reason for screening;
    b) Explaining and initiating the PHQ-2 and PHQ-9 screening tools.

(CPSTF, 2015).

Conclusion

Applying the knowledge EBP depression screening protocol, clinical guidelines for PHQ-2 an PHQ-9 and development of an educational curriculum plan for the adult depression screening will help to increase the usage of the depression screening tools. Hence, the primary care setting will be able to reach the benchmark set by the quality improvement department.

Appendix L: Summative Evaluation

Qualitative Summative Evaluation Stakeholders/Committee Members

Title of Project: Development of evidence-based protocol and educational curriculum for depression screening.

Student: Denise Alleyne

Thank you for completing the Summative evaluation on my project. Please complete and send anonymously via interoffice mail to: Denise Alleyne

A. This project was a team approach with the student as the team leader.

1. Please describe the effectiveness (or not) of this project as a team approach related to meetings, communication, and desired outcomes etc.

2. How do you feel about your involvement as a stakeholder/committee?

3. What aspects of the committee process would you like to see improved?

B. There were outcome products involved in this project such as the educational EBP, clinical guidelines for PHQ-2 and PHQ-9 and curriculum plan, pretest/posttest item, pretest/posttest expert content validation, objectives' content expert validation, and qualitative summative evaluation:

1. Describe your involvement in participating in the development/approval of the products.

2. Share how you might have liked to have participated in a developing the project.

C. The role of the student was to be the team leader.

1. As a team leader how did the student direct the team to meet the project goals?

2. How did the leader support the team members in meeting the project goals?

D. Please offer suggestions for improvement**.**

Appendix M: American Association of Critical Care Nurses

PowerPoint Presentation

Promoting Annual Depression Screening in a Federally Qualified Heath by

Denise Alleyne, DNP, FNP

Joan Moon, EdD, CNM

Susan Hayden, PhD, MSN

PROBLEM

- The clinical practice problem addressed in this DNP project was that annual depression screenings have been conducted for only 50% of adult patients in a federally qualified health care (FQHC) primary care setting in Brooklyn, a statistic that has not met the requirement of 80% as recommended by the FQHC.

Purpose

- To identify an evidence-based protocol and clinical guidelines from the literature to guide the use of the PHQ-2 and PHQ-9 depression screening tools currently available to staff members, and
- To develop an educational curriculum for staff members that focuses on depression, the use of the depression screening protocol, and clinical guidelines for the depression screening tools.

Goal

- The goal of this DNP project is to provide the clinical staff with an understanding of the need to increase the depression screenings and how to use the PHQ-2 and PHQ-9 depression screening tools in primary care settings.

Background/Significance

- According to the World Health Organization (WHO, 2015)
  - Approximately 350 million people experience depression worldwide.
  - By the year 2020, depression will be the second-leading cause of disability and premature deaths.
  - Moderate to severe depression can lead to comorbidities.
- The protocol, guidelines and curriculum will provide knowledge about the PHQ tools and understanding about early detection, treatment and f/u care of depression Community Preventive Services Task Force, 2015).

Method

- The quality improvement design only project was framed within Iowa model of evidence-based practice using a team approach.
- Data obtained through evaluation of a curriculum plan and pretest/ posttest by content experts and qualitative summary evaluation by stakeholder team members.

Results

Outcome 1 – Literature Review Matrix

Discussion

- I presented the EB literature to the team.
- The team critiqued and discussed the literature.

Evaluation

- The team chose 54 out of 75 articles that were pertinent for the project.
- The team accepted the literature review matrix.

Data

- None

Recommendations

- The team decided –
  - 30 to 40 articles on depression, and
  - ongoing information on PHQ-2 and PHQ-9 guideline.

Results (Cont'd/)

Outcome 2 – EB Protocol and PHQ guidelines

Discussion

- United States Preventive Services Task Force protocol recommendations for depression screening (Annals of Internal Medicine, 2015).
- The National Medical Policy clinical practice guidelines for depression screening (Health Net, 2015).

Evaluation

- Protocol and guidelines were accepted.

Data

- None

Recommendation

- Completion of policy and procedure after graduation.

Results (Cont'd.)

Outcome 3 – Educational Curriculum Plan

Discussion

- Development of EB education curriculum for clinical staff.
- Objectives, content, method of instruction, evaluation, evidence and grading of evidence

Evaluation

- Two DNP prepared educators
- A nine itemized evaluation as a "*not met = 1/ met = 2*" format

Data

- The evaluation average score was 2

Recommendation

- Clarify terminology to support the education level of the staff

.

Results (Cont'd.)

Outcome 4 – Pretest/Posttest

Discussion

- A PhD educator reviewed the 15 pretest/posttest items.
- The two DNP educators performed a content validation.

Evaluation

- The two DNP experts validated the pretest/posttest items.
- A 15-item, 4-point Likert-type rating scaled ranging from "*not relevant =1 to highly relevant = 4*" was used.

Data

- Content Validation Index = 1.00

Recommendation

- PhD recommended to reduce the number of "true/false" items from six to three.

Results (Cont'd.)

Qualitative Summative Evaluation

- A seven-item, open-ended, qualitative, summative evaluation questionnaire was given to seven team members.
- Six out of seven questionnaires distributed were returned.
- Thematic responses were:
  - Effective leadership
  - Productive literature review
  - Good participation
  - Effective communication
  - The need for more time for the meetings

Conclusion

- Introduction of the protocol, educating the clinical staff on depression, and the use of the depression screening tools will facilitate the well being of patients and families quality of life.

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