2019

Primary Care and Behavioral Health Services in a Federally Qualified Health Center

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Abstract

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MS, Walden University, 2016

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Project Submitted in Partial Fulfillment

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Abstract

Between 2013 and 2016, 8.1% of U.S. adults 20 years and older suffered from depression, but only 29% of them sought help. This project addressed the low depression screening rate in a Federally Qualified Health Center (FQHC) that supported integrated care. The purpose of the project was to evaluate the integration of behavioral health into primary care in an FQHC through the rate of depression screenings. Two theoretical frameworks, the find-organize-clarify-understand-select/plan-do-study-act model and the Centers for Disease Control and Prevention's framework for program evaluation in public health were combined into a list of questions and data validity tests that were used to conduct the evaluation. This quality improvement (QI) project evaluated an existing QI initiative. Findings revealed that 75% of the patients seen, and not the initially reported 53%, received depression screenings, which indicated an improved outcome. Other findings were inadequate use of theoretical frameworks, poor data quality, and suboptimal effectiveness of QI team processes. The strategies and tools recommended in this project could be used by organizational leaders and QI teams to evaluate and improve QI initiatives. The project's contribution to awareness about depression through integrated care could increase patients' access to care, quality of life, and life expectancy, and positively impact social change.

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Dedication

I dedicate this doctoral project to my spouse Polina, with love, for her nearly unwavering support of my endless academic endeavors. At this point, she has gained sufficient experience and knowledge to write a book about how to prepare other spouses for the downsides that come with their husbands' educational aspirations. Hi Poli, I know that you typically do not read doctoral projects, but you should know that you helped me tremendously to write this paper and I will insist that you take a look at this page.

This scholarly work is also dedicated to the rest of my family. This includes my four-footed furry family members without whom, I may have finished the paper a few weeks earlier. Nevertheless, they provided me with the proper ratio and amount of distraction, keyboard coffee spills, companionship, and love during the long hours of work in front of my computer.

I also dedicate the project to all of the scholars, leaders, educators, providers, and supporters of integrated healthcare care. Thank you for your hard work. I hope this paper contributes to your efforts to integrate behavioral health and primary care services.

Acknowledgments

Dr. Barrett, thank you for keeping my writing concise as I was motivated to write a 300-page novel. I feel very fortunate to have you as my Committee Chair. I hope you are as well, especially after my last long paper submission. Thank you for your guidance, wisdom, time, support, and expertise that helped me write this paper and reach my academic goal. Dr. Tatkon-Coker, Dr. Wilson, and Dr. Moss thank you for providing feedback, sharing insights, asking difficult questions, and challenging my approach to this project, which has helped me to think critically and improve my work. I cannot say that I was always eager to hear more criticism from you, but our combined efforts made this a better project. Mr. Sacks, you probably realize at this time that editing for someone like me who's first and last names have a red line underneath in any text editing software could be an indication of a potential challenge. Thank you for editing this paper and helping me deliver the message of integrated care loud and clear.

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Section 1: Nature of the Project

Introduction

Primary care provider offices, hospitals, and other healthcare organizations in the United States operate in a fragmented healthcare system characterized by a limited exchange of information about the patients' medical history, provided services, and prescribed medications (Institute of Medicine [IOM], 2000). The IOM (2000) provided recommendations aimed at reducing the fragmentation of the U.S. healthcare system through a redesign of primary care that includes collaboration, integrated services, patient-centeredness, and holistic approach to care. As the primary care setting is increasingly becoming the entry point for behavioral health services, it is essential for primary care organizations to advance the continuum of care through the integration of behavioral health and primary care services.

Behavioral health problems and chronic physical diseases frequently coexist (Melek, Norris, Paulus, Katherine Matthews, & Alexandra Weaver, 2018) Sixty eight percent of the adults with a behavioral health condition have at least one chronic disease and more than 29% of the adults with undiagnosed chronic diseases also experience behavioral health problems (Goldstein, 2017). Between 2013 and 2016, during any two weeks in this period, the prevalence of depression, one of the most common psychiatric disorders, was 8.1% among U.S. adults 20 years and older (Brody, Pratt, & Hughes, 2018). Depression among women was 10.4% compared to 5.5% of men (Brody et al., 2018). Although behavioral problems, including depression, are common and impact a significant part of the U.S. population, they frequently remain untreated (Brody et al.,

2018; Kato, Borsky, Zuvekas, Soni, & Ngo-Metzger, 2018; National Institute of Health [NIH], 2017). In 2016, approximately 44.7 million or 20% of U.S. adults had a mental illness, but 57% of them did not receive intervention services (NIH, 2017).

The lack of adequate collaboration and integration between primary care and behavioral health providers is a major contributing factor to the fragmented and suboptimal management of common behavioral health and physical problems in primary care (Center for Integrated Health Solutions [CIHS], 2016). The focus of this project was the evaluation of an existing QI initiative aimed at integrating behavioral health into primary care through increasing the rate of depression screenings in a Federally Qualified Health Center (FQHC). Despite the organization's efforts, a suboptimal year-to-date (YTD) depression screening rate of 53% as of July 2018 compared to the average state rate of 61% and national rate of 60% among all FQHCs represented a significant gap in the quality of care (Health Resources and Services Administration [HRSA], 2016a, 2017).

Problem Statement

The Local Nursing Practice Problem

The setting for this doctoral project was an FQHC. FQHCs are primary care community clinics established under Section 1905(l)(2)(B) of the Social Security Act that receive federal funding through the HRSA for the provision of primary care services to underserved populations (HRSA, 2018a). FQHCs are required to provide care on a sliding fee scale to low-income individuals and are governed by Boards of Directors, which also include patients (HRSA, 2018a). Since FQHCs are recipients of federal

grants, they are required to demonstrate transparency, continuous QI, and responsible spending practices (HRSA, 2018c).

The local nursing problems at the organization of interest that were identified and addressed in the organization's QI plan included low depression screening rates and insufficient integration of care. Depression screenings are a mandatory reportable quality measure for all FQHCs defined in the Uniform Data System (UDS) manual (HRSA, 2018c). The UDS is a core set of data, such as services provided to patients, screenings, patient demographics, costs, and clinical processes that are reported annually by the FQHCs to the HRSA to inform the public about the health centers' performance (HRSA, 2018b).

The depression quality measure at the facility of interest was monitored on an YTD and monthly basis and reported every month to the staff through deidentified data extracted from the electronic health record (EHR) system. The YTD reporting included cumulative deidentified raw data from January 1, 2018 to the end of each reported month of the same year. The YTD depression screening rate at the clinic as of July 30, 2018 was 53%, which remained below the target goal of 60%.

Local Relevance of the Need to Address the Nursing Practice Problem

Addressing the depression screening problem was relevant to the facility of interest for several reasons. As an FQHC and a patient-centered medical home (PCMH), the clinic was committed to the development of QI that included comprehensive depression screening, treatment, and integrated care services that would benefit the served rural community. In addition, as an FQHC and recipient of taxpayer dollars, the

clinic was committed to supporting the HRSA's strategic plan by developing processes that advanced the competencies of the clinic employees, ensured the provision of continuous QI, improved access to care, strived for the delivery of integrated care, and built healthy communities (HRSA, 2016c). Moreover, as an FQHC organization that also received HRSA funding for its accreditation as a PCMH, the clinic was required to demonstrate QI through organized, active, patient-centered, integrated, and peer-based programs (Accreditation Association for Ambulatory Health Care [AAAHC], 2018). In this respect, a PCMH recognition required the organization to establish processes of continuous quality of care and patient outcomes improvement that extended beyond the physical presence of certain specialists and the mere reporting of quality metrics (CIHS, 2014).

The prevalence of adult depression in the county served by the clinic of interest was 14.7%, which was higher than the state depression rate of 9.8% and the national depression rate of 8.1% (Brody et al., 2018; New Mexico's Indicator-Based Information System [NM-IBIS], 2017a). The New Mexico Department of Health officials at the county and state levels recognized that depression has not been addressed adequately and contributed to rates of suicide and prevalence of chronic diseases such as diabetes, cancer, stroke, asthma, and heart disease (NM-IBIS, 2017a). The state's Centennial Care program, formerly the New Mexico Medicaid program, has been modified by the Human Services Department to offer a holistic approach and integration of physical and behavioral health services through the (NM-IBIS, 2017a). In addition, at the state level, the 2016 aggregate depression screening rate of the FQHCs in New Mexico was 61%,

ranging from 10% to 98%, where eight out of the seventeen reporting FQHCs in the state exceeded the state rate of 61% and the national rate of 60% (HRSA, 2016a). In this respect, the organization's depression screening rate remained below the national and state averages. Therefore, one of the long-term goals of the clinic of interest regarding depression screenings was to achieve results comparable or better than the best-performing clinics in the state, i.e. 98% or better.

Significance of the Doctoral Project

Healthcare today faces significant challenges related to patient safety, quality of care, financial constraints, and rising costs and deductibles. The lack of integrated care frequently results in undiagnosed and inadequately treated behavioral health problems and psychiatric disorders (CIHS, 2016). Individuals diagnosed with behavioral disorders have shorter life expectancies of between 7 and 18 years compared to people who are not diagnosed with behavioral disorders (Gilman et al., 2017). Eighty-eight percent of people diagnosed with behavioral health disorders die earlier due to chronic medical conditions such as diabetes as well as cardiovascular, respiratory, and infectious diseases (CIHS, 2016). The interrelation of physical and behavioral/mental health disorders calls for increased emphasis on depression screenings and integrated care solutions.

According to Goldstein (2017), the integration of behavioral health and primary care services in FQHCs has shown an increase in access to care by 1.3% and the rate of recommended screenings and interventions for people experiencing behavioral health comorbidities including depression by 2.8% without significantly raising the cost of care. The growing need for integrated care brings opportunities for Doctor of Nursing Practice

(DNP) professionals to promote staff education and enhanced learning, improvement in employee clinical reasoning and skills, cultural sensitivity, increased staff confidence, cohesiveness, and sense of ownership (Asarnow, Rozenman, Wiblin, & Zeltzer, 2015; Martinez, Galvan, Saavedra, & Berenzon, 2017). This project demonstrates the role of the advanced practice registered nurses (APRNs), as envisioned by Walker and Polancich (2015) by contributing to the development and promotion of new DNP-led practice models, translation of research into practice, evidence-based practices (EBPs), project collaboration, and care transformation leadership. Registered nurses (RNs) and APRNs can use the findings in this project as a model for promoting organizational changes toward integrated care.

Purpose

Gap in Practice

The provision of adequate depression screenings and integrated healthcare services has proven to improve patients' access to care and the overall patient well-being (Goldstein, 2017; Hunter, Goodie, Oordt, & Dobmeyer, 2017). The United States Preventive Services Task Force (USPSTF) recommended screening of all adults for depression (Siu et al., 2016). However, the number of depression screenings and access to care remains a significant problem at the national, state, and local levels (Kato et al., 2018). Kato et al. (2018) reported that depression screenings were not a common practice in primary care and only 50% of the U.S. adult population ages 35 and older were assessed for depression.

The apparent gap in practice addressed in this project was the inconsistent and suboptimal YTD monthly depression screening results. The organization's goal for the period between April and July 2018 was 60% and YTD depression screening rates were as follows: in April 2018, the YTD depression rate was 49%, in May 2018, the YTD depression rate was 53%, in June 2018, the YTD depression rate was 58%, and in July 2018, the YTD depression rate was 53% (see Table 1). The information was provided with permission by the organization's CEO.

Table 1

Monthly and YTD Depression Screening Rates for April to July 2018

	April	May	June	July
Monthly depression screening rate, (%)	51	60	70	46
Year-to-date depression screening rate, (%)	49	53	58	53

Note. Based on deidentified data from monthly reports provided internally by the clinic to its employees and reported as public information annually. Published with permission.

Guiding Practice-Focused Question

The project team focused on identifying the reasons for the suboptimal depression screening performance in the organization. The practice-focused question for this QI evaluation project was as follows: Why did the implementation of a QI initiative aimed at integrating behavioral health into primary care through increasing the rate of depression screenings in an FQHC yield an increase in the rate of depression screenings below the planned increase range? Key terms used in this project were *Federally Qualified Health Center (FQHC), project team, QI team, Uniform Data System (UDS) measures, UDS*

depression screening, integrated care, primary care providers, behavioral health providers, and *Patient Health Questionnaires (PHQ-2 and PHQ-9).*

Addressing the Gap-In-Practice

This project addressed the gap in practice by exploring the existing QI plan, identifying QI project outcomes and limitations, and offering recommendations for potential improvement. The project examined the approaches used for goal-setting, QI methods, implementation of change, staff education, and sustainability. Ultimately, the project emphasized the value of integrated behavioral health and primary care services in an FQHC.

Nature of the Doctoral Project

Sources of Evidence

Sources of evidence in this project included deidentified data, such as the organization's existing QI plan, EHR data, and findings from the literature. Sources from the literature were located through multiple databases and four major search engines, which were Google and Google Scholar, PubMed, and Walden Library Thoreau Multidatabase Search (EBSCOHost). Walden University's Thoreau provided combined searches in multiple databases, including Ovid Nursing Journals Full Text, ProQuest Nursing & Allied Health Source, ScienceDirect, and CINAHL & MEDLINE. The Walden University Library was searched primarily through Google Scholar and then accessed via the university's database. The appraisal system that was used in this paper was the hierarchy of evidence model developed by the American Association of Critical Care Nurses (AACN). The AACN's levels of evidence model is shown in Table 2.

Table 2

AACN's Levels of Evidence Model

Level of Evidence	Description of the Evidence
Level A	Meta-analysis of multiple controlled studies or meta-synthesis of qualitative studies with results that consistently support a specific action, intervention, or treatment.
Level B	Well-designed controlled studies, both randomized and nonrandomized, with results that consistently support a specific action, intervention, or treatment.
Level C	Qualitative studies, descriptive or correlational studies, integrative reviews, systematic reviews, or randomized controlled trials with inconsistent results.
Level D	Peer-reviewed professional organizational standards, with clinical studies to support recommendations.
Level E	Theory-based evidence from expert opinion or multiple case reports.
Level M	Manufacturers' recommendations only.

Note. Adapted from "AACN Levels of Evidence: What's New?," by R.R. Armola et al., 2009, *Critical Care Nurse, 29*(4), 70-73. doi: 10.4037/ccn2009969. Reprinted with permission.

The organization's QI plan was implemented on April 17, 2018. The assessment of the QI plan included 3 months of organizational data from May 1 to July 31, 2018, collected after the implementation of the plan. The information that was obtained from the EHR system included routinely reported deidentified measures and new deidentified data that was used for analysis.

Doctoral Project Approach

The DNP project followed the *Walden University Manual for Quality Improvement Evaluation Projects*. The Centers for Disease Control and Prevention's (CDC) framework for program evaluation and the find organize clarify understand select plan do study act (FOCUS-PDSA) QI models were used to evaluate the existing QI

initiative at an FQHC aimed at increasing depression screenings and integrating primary care and behavioral health services from a systems perspective. In this context, the project team, consisting of the DNP student and four employees of the organization of interest, participated in the evaluation of the existing QI initiative as an organizational versus departmental problem and analyzed the effectiveness of the methods used for setting up the organization's depression screening goals as well as its approach for QI, workflow, and education provided to employees to improve depression screening scores.

Purpose

The purpose of this project was the evaluation of an existing QI initiative in an FQHC. The organizational QI behavioral and primary health integration initiative seeks to increase the rate of depression screenings and thus achieve greater integration of behavioral health into primary care. This project aimed to decrease the gap in practice that was a result of the suboptimal integration of depression screenings process into the workflow, inadequate collaboration among staff members at various levels of the organization, and the lack of thorough understanding at the clinical and administrative levels within the organization about the characteristics and benefits of integrated care.

Significance of the Doctoral Project

Stakeholders

The success and sustainability of all organization-wide QI initiatives depend on the support for change at multiple levels of the organization (Fleiszer, Semenic, Ritchie, Richer, & Denis, 2015). The key stakeholders in this project included the clinical staff, information technology (IT) department, senior leadership, billing department, QI team

members, and ancillary staff. However, as the quality of care affected the clinic's revenues and reputation in the local community, the project directly or indirectly affected all members of the organization and the Board of Directors. In this context, it is essential for the organization's leaders to convey the message of QI as everyone's responsibility.

Contributions to Nursing Practice

Fragmentation of healthcare services and rising costs are well-recognized problems of the U.S. healthcare system (Goldstein, 2017). As the baby boomer population ages, there is increasing need for primary care providers to address the broad range of age-related disease problems (Fiscella & McDaniel, 2018). In this context, primary care is the least expensive and potentially most efficient setting for managing the delivery of both physical and behavioral health services (Fiscella & McDaniel, 2018).

Primary care is the entry point for healthcare services and thus a major stakeholder in the screening for depression and management of patients with behavioral health problems (Rozensky, 2014). Fifty percent of the patients with common psychiatric problems are managed by their primary care providers (CIHS, 2016). Nurses are well-positioned to drive a transformation in healthcare that is focused on care coordination, integrated care, and patient-centeredness (Salmond & Echevarria, 2017). The number and scope of practice of advanced nurses will continue to expand along with their growing role in primary care (Bauer & Bodenheimer, 2017). The number of nurse practitioners in the primary care setting is expected to continue to increase from about 60,000 in 2012 to 103,000 in 2025 (Bauer & Bodenheimer, 2017).

Furthermore, the project was significant for nursing practice as it also represented an opportunity to improve not only direct patient care but also serve as a demonstration of the growing role of DNP-prepared nurses in primary care and their knowledge and skills in leadership, translation of research into practice and solving complex organizational issues, QI, and the implementation of new healthcare delivery models (Walker & Polancich, 2015). With regard to systems thinking in conjunction with advanced nursing clinical practice, the project established a framework for the integration of care and overall QI within the organization.

Transferability to Other Practice Areas

Despite the project's focus on depression, the approach and conceptual models that were used could be applied to other practice areas. In this regard, although the project was concerned with suboptimal depression screenings, it has the potential to address larger organizational issues, such as interdisciplinary collaboration and models of integrated care. The project addressed the gap in depression screening and recommended the use of a framework for the development of integrated care by all stakeholders involved in the QI initiative, including the organization's QI team, clinical personnel, IT staff, and leadership. The integrated care framework could also be used in the management of other health-related problems with a behavioral component, such as social isolation, vulnerability, violence, and noncompliance with therapy (CIHS, 2016).

Implications for Positive Social Change

As self-determination and freedom of choice are major pillars of social change in modern societies, the project promoted positive social change by emphasizing the

concepts of integrated care and patient centeredness. Patient centeredness and integrated care are essential concepts in the current healthcare environment that can empower patients and encourage them to participate in the healthcare decision-making process, take ownership of their health, and help them select the best treatment for themselves (Asarnow et al., 2015; Jackson et al., 2013; Kadu & Stolee, 2015; Lechner, Obschonka, & Silbereisen, 2017). Moreover, the emphasis on patient centeredness and freedom of choice reinforced established trends in social change, including lifelong learning and individualization (Lechner et al., 2017). One of the goals of this project was to create a welcoming environment for patients who experience depression and other psychological problems that would foster their active exploration, health-related curiosity, search for information, and growth.

In the primary care setting, individuals with depression and other behavioral health problems face stigmas and visit time limitations, experience challenges with establishing a trusting relationship with their primary care providers, and receive less preventive and medical care services (CIHS, 2016). Increased depression screenings and follow-ups provide opportunities for improved access to behavioral health services for patients who are unlikely to seek psychiatric specialty care (CIHS, 2016). Optimal management of chronic physical and behavioral health conditions will improve patients' health and life expectancy and reduce the overall costs of treatment (CIHS, 2016; Ross et al., 2018). Closing the gaps in depression screenings and providing interventions for depression in the facility of interest has the potential to promote positive social change through improving patients' access to care and quality of life.

Summary

Behavioral health problems and chronic physical diseases frequently coexist and impact 68% of the U.S. population (Goldstein, 2017). However, common behavioral health problems including depression frequently remain underdiagnosed and untreated. Individuals with behavioral disorders have shorter lifespans compared to people without behavioral disorders. Primary care is playing an increasing role in behavioral healthcare integration as it is an entry point for patients with behavioral health problems (Goldstein, 2017). The integration of behavioral health and primary care services has the potential to increase access to care and rates of the recommended screenings and interventions for people with depression. The focus of this project was the evaluation of an existing QI initiative aimed at integrating behavioral health into primary care by increasing the rate of depression screenings in an FQHC. The DNP project identified the rate of depression screening in the center over a 3-month period and evaluated the causes of the low depression screening results from a systems perspective. Furthermore, the project leader made recommendations that could improve the rate of depression screenings, promote the coordination of primary care and behavioral health activities, reduce the fragmentation of care, and help build a healthy community.

Section 2: Background and Context

Introduction

Depression is a common psychiatric disorder that causes a significant burden on individuals, families, and the healthcare system (CDC, 2016). Twenty seven percent of persons with depression reported serious difficulties in home life and work, and 80% reported some degree of functional impairment related to depression (CDC, 2016). During a 90-day period, depressed individuals experience 11.5 days of reduced productivity and nearly 5 missed workdays (CDC, 2016a). In this respect, depression costs employers between $17 and $44 billion, or 200 million lost workdays each year (CDC, 2016a). In addition to direct costs to employers, depression contributes to the severity of other chronic diseases and further increases the costs associated with healthcare services (CDC, 2016a).

The treatment of patients with depression and other behavioral health problems costs the U.S. healthcare system $406 billion per year (Melek et al., 2018). The integration of behavioral health and primary care services can reduce these costs by 9-17% (Melek et al., 2018). As a result of integrated care, the overall annual savings opportunities for patients with chronic medical and behavioral health conditions, including depression, has been estimated at $293 billion for Medicare and Medicaid and $162 billion for commercial insurance plans (Melek et al., 2018).

Concepts, Models, and Theories

The evaluation of the existing QI plan was essential for determining the effectiveness, efficiency, and sustainability of the QI initiative. The DNP student

proposed a merged model of evaluation that would emphasize the formative evaluation of the organization's initiative, combined with a model for continuous QI. The merged model combined the FOCUS-PDSA conceptual model with the CDC's framework for program evaluation in public health.

The CDC model provided information about the overall evaluation process. According to the CDC (1999), the framework provides an understanding of the evaluation process to the provision of ongoing practical strategies that engage not only evaluation experts, but also program stakeholders who do not have experience in QI program development and evaluation. The FOCUS-PDSA framework was applied to provide both formative evaluation of the organization's depression screening processes and summative evaluation of outcomes related to the existing QI initiative. The FOCUS-PDSA framework was selected because of its ability to facilitate the planning, implementation, and evaluation of a QI project.

Based on the fact that the institution's QI project failed to meet desired outcomes, incorporating a model that could be used in all phases of the QI process could assist the institution's QI team in better understanding and aligning processes and outcomes. The DNP student's decision to use a merged approach took into consideration that program evaluation and QI are frequently considered different approaches to the assessment of the program's impact, implementation, and quality. The difference originates from looking at QI from an industrial engineering and management science perspective, compared to social and behavioral science lenses which are generally used in program evaluation (Woodhouse et al., 2013). The integration of a QI model into the evaluation process

added clarity about the formative evaluation of the QI process of depression screenings and the summative evaluation of the depression screening rates, and provided a connection between program inputs, processes, outputs, and outcomes (Woodhouse et al., 2013).

CDC Framework for Program Evaluation in Public Health

The CDC framework was developed in 1999 to demonstrate accountability and commitment to achieving measurable outcomes in healthcare (CDC, 1999). The procedures proposed in the framework are ethical, useful, feasible, and accurate (CDC, 1999). The CDC framework was designed to facilitate stakeholders' engagement in the evaluation process and provide a shared understanding of the purpose and outcomes of the evaluation (CDC, 2011). The CDC framework consists of six steps as follows:

1. Engage stakeholders.
2. Describe the program.
3. Focus the evaluation design.
4. Gather credible evidence.
5. Justify conclusions.
6. Ensure use and share lessons learned. (CDC, 2011)

The work on the framework began in 1997 when the CDC's director recognized the need for a model for combining program management with program evaluation (CDC, 1999). The framework was developed by the Evaluation Working Group, which consisted of CDC, state, and local evaluation experts, program managers and staff, teachers, and researchers (CDC, 1999). In 1998, the workgroup organized the Workshop

to Develop a Framework for Evaluation in Public Health Practice (CDC, 1999). The workshop involved 90 representatives who conducted a literature review, interviewed 250 individuals, and maintained a website for public comments (CDC, 1999). In addition, in 1998 the workgroup provided a distance learning course to 10,000 professionals, which allowed the working group experts to test and refine the framework with public health practitioners (CDC, 1999). The framework facilitates the translation of research evidence into practice by providing a clear and logical approach to program evaluation (CDC, 1999).

During the evaluation project, the DNP student discussed the evaluation process with the project team. Such an approach is frequently used to ensure the stakeholders understand the evaluation process (CDC, 2011). This served to align the QI process with the inputs, processes, outputs, and outcomes of the evaluation plan (CDC, 2011). Step three of the CDC framework requires the evaluation design to be focused on certain aspects of the QI initiative (CDC, 2011). In this regard, the DNP student incorporated the steps in the FOCUS-PDSA model into a focused evaluation to emphasize the link between quality improvement and the evaluation process.

FOCUS-PDSA Model

The PDSA model is known by several names, including the Shewhart cycle, the Deming cycle, the plan do check act (PDCA) cycle, and the plan do study act (PDSA) (Christoff, 2018; Johnson, 2016). The model was initially developed by Walter Shewhart in 1939 and subsequently promoted in the 1950s by W. Edwards Deming, a student of Dr. Shewhart (Christoff, 2018; Johnson, 2016). The PDSA model later evolved to

include the find organize clarify understand select (FOCUS) component used to facilitate the QI initiative development (American College of Cardiology [ACC], 2013; Hampton et al., 2014). The FOCUS-PDSA framework is commonly used by organizations as a core methodology to improve quality and can serve as a framework for the evaluation of existing QI initiatives. The FOCUS-PDSA framework consists of the following nine steps:

1. Find a problem or process to improve.
2. Organize a team to improve the process.
3. Clarify the problem and review current knowledge of the process.
4. Understand the problem and the root causes of process variation.
5. Select an intervention to improve the process.
6. Plan the improvements.
7. Do or implement the plan.
8. Study the results.
9. Act on the findings.

The FOCUS component of the model was used in this project to assure that the problem was clear and adequately defined. The FOCUS component was applied to evaluate the strategies the organization used to define the problem, organize the QI team, review the current depression screening process, and identify sources of the problem. The PDSA component of the model was used in the project as a framework for the evaluation of the organization's planning and implementation of changes, including staff education and policy reinforcement, aimed at improving the depression screening rates.

The PDSA element of the model represents the cycle of events that reflect planning for change (plan), implementation of the change on a small-scale basis (do), observation of the results (study), and refining the intervention based on the learning experience (act). Unlike other QI improvement approaches that focus on large scale changes over extended periods, one of the key advantages of the PDSA model is its ability to bring continuous QI by the process of testing changes on a small scale over a short period within an established goal and defined measuring process (Crowl, Sharma, Sorge, & Sorensen, 2015). The process can be repeated multiple times by a small team of participants until the goal is achieved and then applied with confidence to all teams in the organization (Crowl et al., 2015). In this project, the continuous cycles of the PDSA model were used to reflect the ongoing nature of the depression screening QI process. Applying the PDSA cycles in the evaluation addressed issues during the early stages of the organization's QI process and simultaneously provided a model for solving problems instead of merely reporting the success or failure of the program at the end of the evaluation period. Some of the issues discussed by applying the PDSA component included the lack of obtaining a broader buy-in from the key stakeholders, long periods of data analysis, large-scale changes, and the lack of additional planned changes and new interventions.

Changes in healthcare are challenging as they involve social system processes frequently characterized by unpredictability. In this regard, the success of change initiatives depends on local influences where single interventions are unlikely to deliver sustainable changes. For that reason, long-lasting organizational improvements based on

models such as the FOCUS-PDSA are more likely to be accomplished through multifaceted and repetitive interventions (Taylor et al., 2014). The FOCUS-PDSA model provides the structure for the identification of organizational problems and the development and implementation of repetitive QI changes (Taylor et al., 2014). Moreover, as the QI process in healthcare is frequently nonlinear, the FOCUS-PDSA model can also be used to provide an understanding of the QI process (Reed & Card, 2016).

Definition of Terms

Behavioral health providers: Clinicians who provide behavioral health services to patients and are reimbursed by insurance companies for these services.

Federally Qualified Health Center (FQHC): FQHCs are primary care community clinics that receive federal funding through the HRSA for the provision of primary care services to underserved populations (HRSA, 2018a).

Integrated care: The Agency for Healthcare Research & Quality (AHRQ, 2013) defined integrated behavioral health and primary care as a field of coordinated high-quality care where providers on both sides use systematic and cost-effective approach and work together to provide patient-centered care.

Patient Health Questionnaires (PHQ-2 and PHQ-9): PHQ-2 and PHQ-9 are two-question and nine-question self-reported screening tools for major depressive disorder that have been recommended in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-V*).

Primary care providers: Clinicians who provide primary care services to patients and are reimbursed by insurance companies for these services.

Project team: The team led by the DNP student that completed the evaluation project.

QI team: The organization's team that developed the depression screening plan, which was evaluated by the DNP student's project team.

UDS depression screening: Depression is a reportable UDS quality measure mandated by the HRSA for all FQHCs. The depression measure is a ratio that calculates the percentage of patients, ages 12 and older that received a depression screening during their visit within the current calendar year (HRSA, 2018d). In addition to providing the screening, the completion of this measure requires clinicians to document a follow-up plan of care such as pharmacological treatment, suicide risk assessment, and referral to a qualifying specialist on the day of the visit for all patients who received a positive depression score (HRSA, 2018d). The measure has a few exceptions, such as patients with an active diagnosis of depression or bipolar disorder, patients who were seen for urgent care, patients who refused to participate, and patients who have a condition that may affect the accuracy of the results (HRSA, 2018d).

Uniform Data System (UDS) measures: FQHCs track a set of mandatory reportable quality measures, also known as UDS measures, including depression screenings. The measures are defined in the Uniform Data System (UDS) Manual and reported to the HRSA on a regular basis (HRSA, 2018d).

Relevance to Nursing Practice

The Broader Problem in Nursing Practice

The implementation of national, state, and local initiatives for depression screenings and behavioral health integration has been suboptimal (Miller et al., 2017). As the primary care setting is increasingly becoming the entry point of behavioral health services, it is essential for primary care organizations to facilitate the implementation of disease prevention and continuum of care initiatives through depression screenings and integration of behavioral health and primary care services (Goldstein, 2017). Studies suggest that the treatment of depression can be effective in 80% of the affected population (CDC, 2016a). Patients diagnosed with depression who participate in effective integrated care programs are more likely to take ownership of their care and improve their overall health status (Ross et al., 2018).

There are significant challenges associated with the delivery of behavioral health services by the mental health specialists alone (Beck, Manderscheid, & Buerhaus, 2018). Millions of people suffering from mental illness have limited access to behavioral health services due to inadequate distribution and a shortage of mental health providers (Kepley & Streeter, 2018). The opioid crisis has contributed to the increase in the number of young adults experiencing severe depression and the already limited access to care (Beck et al., 2018). Despite the significant personal and economic burden associated with depression, only 39% of the individuals with severe depression and only 29% of all depressed individuals have contacted a mental health provider (CDC, 2016a).

Strategies and Standard Practices

The IOM (2001) recommended that behavioral health should not be separated from primary care. Although the concepts of mental and physical health are not new, the delivery of mental health services has been separated from primary care for decades (Goldstein, 2017). In the past, the models of care for the management of mental health patients have applied approaches that supported the work in silos between behavioral health and primary care providers (Goldstein, 2017). However, the provision of fragmented healthcare services has proven to be ineffective regarding the access to care, the provision of the recommended screenings, and the optimal management of people with behavioral health problems (Goldstein, 2017).

Potential Advances Nursing Practice

Primary care is the entry point for healthcare delivery in the United States and a key stakeholder in the process of screening for depression and the integration of care (Rozensky, 2014). As the role of nurse practitioners in primary care is growing, there is an opportunity for advanced nursing clinicians to improve the diagnosis and treatment of depression and lead the transformation of the healthcare system (Bauer & Bodenheimer, 2017). Advanced practice nurses can serve as patient advocates by educating their peers and other stakeholders about the separation of behavioral health and primary care and how that separation contributes to the overall fragmentation of the healthcare system and the unsatisfactory patient experiences that result from the lack of a whole person care approach (Kemppainen, Tossavainen, & Turunen, 2013; Miller et al., 2017).

Local Background and Context

Local Relevance

Approximately 50% of patients with common psychiatric problems are treated in the primary care setting (CIHS, 2016). The problem of low depression screening rates was of local importance as the prevalence of adult depression in the population served by the clinic of interest was higher than the state and national aggregates (Goldstein, 2017; NM-IBIS, 2017). Patients who participated in integrated services programs reported increased attention to their treatment preferences, greater access, coordination, and continuity to care, and higher quality of life (Goldstein, 2017; Richardson, McCarty, Radovic, & Suleiman, 2017).

Institutional Context

As an FQHC that operated in a health professional shortage area, the organization of interest served low-income or no-income individuals who lacked access to psychiatric specialty care due to various reasons, such as lack of transportation or insurance limitations. Studies suggest that physical and behavioral health comorbidities are associated with lower socioeconomic status and therefore are disproportionately experienced by low-income individuals (Goldstein, 2017). Therefore, improving the levels of depression screenings and the process of behavioral health and primary integration can be beneficial for the population served by the clinic.

State and Federal Contexts

According to the National Survey on Drug Use and Health, in 2016, the prevalence of depression in New Mexico was 3.1% higher than the national average (NM-IBIS, 2017b). Patients with depression are at higher risk for experiencing other comorbidities and suboptimal care (National Council for Behavioral Health [NCBH],

2018). Depression contributes to functional impairments regarding individuals' social life, relationships, home environment, and work (NM-IBIS, 2017b). Moreover, depression increases the risk for suicide and has been linked to a higher prevalence of other chronic diseases, such as obesity, diabetes, heart disease, asthma, arthritis, and stroke (NM-IBIS, 2017b). According to the NCBH (2018), persons with depression or other behavioral health conditions are 2.6 times more likely to be diagnosed with late-stage cancer and receive suboptimal treatment compared to people without mental health illness. Moreover, individuals with mental health illness have a 94% higher rate of tobacco use and a 50% lower chance of quitting (NCBH, 2018).

Between 2015 and 2016, measures adopted towards the increase of depression screening and integration of behavioral health and primary care services in other FQHCs across the country has facilitated the increase of depression screenings and follow-ups by almost 10% (HRSA, 2016b). In this respect, the implementation of a QI plan that increases the depression screenings has the potential to improve the care of the population served by the clinic of interest.

Role of the DNP Student

Professional Context and Relationship to the Doctoral Project

As the number and role of the nurse practitioners in primary care continue to grow, it can be expected that in the near future a significant portion of patients with depression and other behavioral health problems will be managed by nurse practitioners (Bauer & Bodenheimer, 2017). Moreover, DNP clinicians are prepared to serve as patient advocates, participate in the development and implementation of evidence-based

practices, facilitate organizations' adjustment to rapid changes in the healthcare environment, and promote the adoption of innovative models of care (Walker & Polancich, 2015). This doctoral project provides me with the opportunity to translate research into practice and make recommendations that can have a positive impact on the lives of many people.

DNP Student's Role in the Doctoral Project

For many years, the healthcare system has been experiencing challenges associated with quality of care, patient safety, and fragmentation of care (Walker & Polancich, 2015). The DNP program prepares nurses to have a broader understanding of organizational systems and become leaders in the translation of evidence into practice (Carter et al., 2016). The project provided this DNP student with the opportunity to work with experts from other disciplines, analyze pertinent information, and address a healthcare problem that has a significant impact on the overall health of patients. The project has the potential to close the gap between the recommendations in the literature and the current practices for depression screenings. Additionally, an increase in the depression screenings will contribute to strengthening the whole-person approach to care at the organization of interest.

Motivations for This Doctoral Project

My participation in this project has been motivated by my support for interdisciplinary collaboration and the need for a healthcare system redesign, as recommended by IOM. In addition, my philosophy of nursing emphasizes the importance of the team-based, collaborative, integrative, and holistic approach to care.

Additionally, as a clinician who serves underserved, low-income patients at the clinic of interest, I felt motivated to work on a project that, while primarily focused on the improvement of the rate of depression screenings, also addressed issues associated with the relationship between poverty, chronic disease prevalence, and health care disparity (Jha & Zaslavsky, 2014).

Potential Biases and Steps Taken to Address Them

It is essential for scholars and practitioners to be aware of potential personal biases in analyzing data, interpretation of findings, and the prioritization of models and theories. Potential personal biases toward the importance and urgency of finding integrated care solutions as well as the presence of bureaucracy in federally funded healthcare organizations may exist in this project. However, considering the multiple requirements associated with the governance of FQHCs, the limitations associated with the flexibility of making decisions were recognized and honored, and assisted in controlling bias. In addition, expert opinions from members of the project team were sought for review of the content of this project.

Role of the Project Team

The work on this project was facilitated by the formation of a project team. The project team was interdisciplinary and consisted of the doctoral student, the institution's chief executive officer (CEO), QI data and information technology (IT) analyst, medical assistant (MA), and a legal counsel. All members of the team were informed on a regular basis via secure email and Microsoft OneDrive, a cloud-based solution, about the project's progress and key content.

The CEO and the legal counsel were involved in key phases of the project, including permission to initiate the project and the implementation of interventions. The role of the DNP student was to identify a problem and an organizational project for evaluation, obtain permission to work on the project, form and educate the evaluation team about the project, obtain deidentified data, provide FOCUS-PDSA-based evaluation questionnaire to the project team members and discuss the findings from the evaluation, formulate recommendations, and disseminate the findings. The roles of the QI data analyst and the MA were to ask questions and seek clarification about the goals of the evaluation project, provide answers to the FOCUS-PDSA-based questions, and discuss the finding with the DNP student. In addition, the QI data analyst provided deidentified data from the organization's monthly reports, quality improvement plan, and quality improvement meetings minutes and performed a series of data validity reports on a test patient.

The members of the team also had opportunities to share their expertise. The QI data analyst provided feedback about the accuracy and reliability of the existing data. The CEO and the legal counsel provided advice on whether the project was in line with the organization's mission, vision, and regulatory requirements. The medical assistant was familiar with the workflow and the potential barriers for the project implementation and provided expertise in those areas. Feedback from each team member was provided upon request and response were expected within 3 to 5 business days.

Summary

Depression is a common psychiatric problem that also represents a substantial socioeconomic burden. Adequate depression screening, diagnosis, and management of depression could lead to a significant improvement in patient outcomes and savings for the healthcare system. The evaluation of the organization's quality plan was guided by the CDC's framework for program evaluation and the FOCUS-PDSA conceptual model. The merged CDC and FOCUS-PDSA model provided the structure for a multifaceted analysis of the current plan and a framework for the implementation of future changes. In the past, mental health services have been traditionally separated from primary care. However, as many patients with common psychiatric problems have been treated in the primary care setting, it is important for organizations to improve the rates for depression screening and treatment. Addressing the problem with depression screenings was of significant local relevance as the healthcare organization of interest serves a low-income population characterized by higher than the state and national depression prevalence. The project has the potential to close the gap between the recommendations in the literature and the current practices for depression screenings. The work on this project involved the formation of a project team. This DNP student's participation in this project was motivated by his support for interdisciplinary collaboration, teamwork, holistic approach to care, and the need for a healthcare system redesign.

Section 3: Collection and Analysis of Evidence

Introduction

The purpose of this doctoral project was to evaluate an existing QI initiative that sought to increase the rate of depression screenings and thereby integrate behavioral health into primary care. The management of depression in the primary care setting has proven to be effective in improving patients' access to behavioral health services. However, despite the recommendations in the literature and those provided by the USPSTF to screen all adults for depression, the YTD screening rate at the clinic of interest has remained below the organization's short- and long-term goals.

Practice-Focused Question

The Local Problem

The organization of interest was an FQHC that has implemented a QI plan to address the low depression screening rate at the clinic and improve the integration of behavioral health and primary care. Improving the rate of the depression screenings was of particular importance for the clinic as the prevalence of depression (14.7%) in the county where the clinic operated was greater than the state (9.8%) and national (8.1%) averages (Brody et al., 2018; NM-IBIS, 2017a). The practice-focused question for this project was: Why did the implementation of a QI initiative aimed at integrating behavioral health into primary care through increasing the rate of depression screenings in an FQHC yield an increase in the rate of depression screenings below the planned increase range? The project examined the approaches used in the organization's plan

with regard to depression target levels, QI methods, data collection, practice change, staff education, and sustainability.

Sources of Evidence

Three main sources of evidence were used in this project: deidentified data from the organization's monthly reports, QI plan, depression screening workflow, and QI meetings, deidentified data from the EHR system, and findings from the literature. Sources from the literature were located through major academic databases and search engines and except for six sources included articles from 2013 to 2019 which supported best practices. In addition, the project also used information provided by the *Walden University Manual for Quality Improvement Evaluation Projects*. The sources of evidence provided a description of the organization's QI plan and thus aligned with the purpose of the study to evaluate the organizational QI initiative aimed at integrating behavioral health into primary care through increasing the rate of depression screenings.

As shown in Table 2, the evidence for this project was appraised with use of the criteria established by the AACN. A total of 126 sources were initially selected from the scholarly databases, including 90 articles from Google and Google Scholar, 31 articles from Walden Library Thoreau, and five articles from PubMed. After the sources were reviewed, 71 were selected for this project, including 58 sources from Google and Google Scholar, eight articles from Walden Library Thoreau, and five articles from PubMed. Based on the AACN rating system for the hierarchy of the evidence presented in Table 2, three of the selected sources were Level A (meta-analysis of multiple controlled studies), two were Level B (well-designed controlled studies), eight were

Level C (qualitative studies, descriptive or correlational studies, integrative reviews, systematic reviews, or randomized controlled trials with inconsistent results), 36 were Level D (peer-reviewed professional organizational standards), and 21 were Level E (theory-based evidence from expert opinion or multiple case reports) (Armola et al., 2009).

Archival and Operational Data

The purpose of this doctoral project was to evaluate an existing QI plan that aimed to increase the rate of depression screenings and integrate behavioral health into primary care. Evidence for the assessment of the existing QI initiative was obtained from the organization's QI plan, deindentified EHR records, and deidentified monthly depression screening reports. Organizational data was originally collected through the EHR system. The organization's legal counsel drafted the permission for data access agreement, which was signed by the organization's CEO. The collection and subsequent analysis of evidence began after receiving approval from Walden University's Institutional Review Board (IRB), IRB approval #02-19-19-0451947).

Data collected for this project was relevant to the organization's QI plan for depression screening and assisted in answering the practice-focused question. The data collection steps were (a) the QI data analyst, one of the DNP project team members, provided deidentified data relevant to the depression screening initiative from the organization's monthly reports, QI plan, current depression screening workflow, and QI meetings minutes upon the DNP student's request; (b) the QI data analyst ran a mock scenario with a newly-registered patient in the EHR system as a test (see Appendix B);

(c) the information was reviewed as part of the FOCUS-PDSA evaluation process to establish the validity of the collected depression data by demonstrating whether the EHR system was collecting, recording, and organizing the data according to the established QI plan. The QI data analyst conducted a series of tests in the EHR system and new depression screening report was generated after each step in the mock scenario. The information from the reports was then verified for accuracy, i.e., whether it properly identified the new patient as screened or not screened for depression, depending on the given testing parameters and according to the UDS criteria for positive depression screening (see Appendix B). The QI data analyst shared the deidentified data with the DNP student via secure email. The historical information used in this project represented the best sources of evidence as it was obtained from the organization's QI plan and EHR system and was the focus of analysis in this QI evaluation project.

Analysis and Synthesis

Systems Used for Recording, Tracking, Organizing, and Analyzing the Evidence

The project team used the CDC framework to guide the overall evaluation process and the FOCUS-PDSA model to narrow the evaluation and assess the deidentified data collected through the organization's EHR system and subsequently processed by the QI data analyst. The DNP student and the members of the project team reviewed the organization's QI plan and records from the QI team meetings and followed the steps outlined in the FOCUS-PDSA model to independently review the requested organizational deidentified data as it relates to each of the nine steps of the model (Christoff, 2018; Coury et al., 2017; Donnelly & Kirk, 2015; Peter & Kirk, 2015;

Schellpfeffer & Beard, 2017; Vordenberg, Smith, Diez, Remington, & Bostwick, 2018). In the end of the evaluation, the DNP student synthesized the data and provided recommendations.

Based on the first two steps of the CDC framework, the DNP student began the evaluation process by forming partnerships and engaging the members of the project team. The DNP student provided information about the evaluation project and allowed the members of the team to express their point of view and ask questions about the project. Additionally, the DNP student ensured that the members of the project team understood the required elements of the DNP project, such as its purpose, methods, evaluation steps, activities, conclusions, and dissemination of findings (CDC, 2011). The DNP student also provided information to the members of the project team about the FOCUS-PDSA model, which guided the work of the team members, and ensured that they understood the steps outlined in the model.

In the next phase of the evaluation process, the DNP student merged step three and four of the CDC framework with the steps outlined in the FOCUS-PDSA model. This part of the evaluation included the assessment of the team's review of the need for organizational change, the quality of the problem statement, the process of organizing the institution's QI team, including the structure of the team, selection of the team members, goals, team member roles, and knowledge about the problem (Schellpfeffer & Beard, 2017; Zimnicki, 2015). The project team also evaluated the organization's QI team understanding of the current process, the importance of the depression screening quality indicator, and the data necessary to measure the process (Schellpfeffer & Beard, 2017;

Zimnicki, 2015). The project team then evaluated the validity of the collected data, data adequacy, and QI methods (Schellpfeffer & Beard, 2017; Zimnicki, 2015). After the data were analyzed by all members of the team, the DNP student reviewed the feedback from the project team members and presented the final findings to them. The DNP student ensured that the majority of the project team members agreed about the findings, interpretations, and conclusions that were made (CDC, 2011).

During the last phase of the evaluation, the DNP student applied steps five and six of the CDC framework. In this stage of the evaluation, the DNP student quantified the success of the QI plan as a YTD percent of goal and a ratio of the achieved YTD increase and the planned YTD increase in depression screening. In addition, the DNP student organized the quantitative and qualitative information gathered from each step of the FOCUS-PDSA framework-based process, synthesize it, summarized the progress toward meeting the QI initiative goals, formulated recommendations, and prepared for the dissemination of the findings (CDC, 2011).

Summary

The purpose of this doctoral project was to evaluate an existing QI initiative that sought to increase the rate of depression screenings and integrate behavioral health into primary care. The practice-focused question for this project evaluated whether the implementation of the organization's QI initiative increased the rate of depression screenings for all patients seen. A standardized form was used to request permission to gain access to operational deidentified data. The DNP student used the CDC's Framework for Program Evaluation and the FOCUS-PDSA model to evaluate the

organization's QI plan and follow the outlined steps to organize the evaluation process. The project team reviewed the organization's QI plan and records from the QI team meetings. In addition, the project team evaluated the deidentified data collected through the organization's EHR system and subsequently processed by the quality analyst. The project team examined and analyze the approaches used in the organization's plan with regard to depression target levels, QI improvement methods, practice change, staff education, and sustainability of the project. Section 4 incorporated the findings and recommendations of the QI evaluation project.

Section 4: Findings and Recommendations

Introduction

The local problem addressed in this project was the lower than average depression screening rate for state FQHCs combined with higher than average prevalence of adult depression for the state in terms of the population served by the clinic of interest. The project addressed the gap in practice related to suboptimal YTD depression screening results and inconsistent monthly depression screening rates after the implementation of a QI initiative in the organization of interest. The practice-focused question was: Why did the implementation of a QI initiative aimed at integrating behavioral health into primary care through increasing the rate of depression screenings in an FQHC yield an increase in the rate of depression screenings below the planned increase range? The purpose of this doctoral project was to evaluate an existing QI plan that aimed to increase the rate of depression screenings and integrate behavioral health into primary care.

Sources of Evidence

The evaluation of the existing QI initiative was based on evidence obtained from the organization's QI plan, deindentified EHR records, deidentified monthly depression screening reports, depression screening workflow, QI meeting records, and evidence from the literature found with four search engines. The DNP student obtained approval for this project from the organization's CEO and Walden University's IRB (approval #02-19-19-0451947). Table 3 provides an overview of the merged model approach incorporating the FOCUS-PDSA and the CDC's framework for program evaluation in public health that was used to facilitate the evaluation of the organization's QI plan.

Table 3

Merged Model Approach for QI Program Evaluation

Steps in the CDC Program Evaluation	Steps in FOCUS-PDSA Aligned with the CDC framework	DNP Project Activities Related to the Evaluation of the Existing Organizational QI Plan
1. Engage stakeholders.	n/a	• Identify the stakeholders, communicate with them frequently, and encourage them to participate in the project. • Form a DNP project evaluation team and develop partnerships with each member of the team. • Encourage the members of the evaluation team to ask questions about the DNP project.
2. Describe the program.	n/a	• Describe the DNP evaluation project to the members of the DNP evaluation team. • Ensure the DNP project team members understand the project.
3. Focus the evaluation design.	Step 1: **F**ind a problem or process to improve. Step 2: **O**rganize a team to improve the process. Step 3: **C**larify the problem and review the current knowledge of the process. Step 4: **U**nderstand the problem and the root causes of process variation. Step 5: **S**elect an intervention to improve the process. Step 6: **P**lan the improvements. Step 7: **D**o, i.e., implement the plan.	• Use the FOCUS-PDSA model during this step of the CDC Evaluation Framework to focus the DNP evaluation project design on the nine steps presented in the FOCUS-PDSA model. • Develop a questionnaire based on each of the nine FOCUS-PDSA steps. • Use the questions in each of the nine steps of the FOCUS-PDSA model as a measurement tool for the evaluation of the organization's QI initiative.

(table continues)

		Step 8: **S**tudy the results. Step 9: **A**ct on the findings.	
4.	Gather credible evidence.	The steps in the FOCUS-PDSA were applied after the evidence was collected.	• This step of the CDC Framework marks the beginning of the DNP project implementation phase. • Use a mock scenario on a test patient and collaborate with the data analyst to gather information about the validity of the data the organization used for reporting depression screenings, i.e., to determine whether the EHR system is collecting depression screening data properly. • Gather organization's QI plan documents, deindentified EHR records, deidentified monthly depression screening reports, depression screening workflow documents, QI meeting records, and evidence from the literature. • Provide the members of the DNP evaluation project team with the evaluation questionnaire. • Guide the DNP evaluation project team members to answer the questions for each of the nine FOCUS-PDSA steps. • Collect the feedback from the project team members and present the final findings to them.
5.	Justify conclusions.	n/a	• Quantify the success of the QI plan as an YTD percent of goal and a ratio of the achieved YTD increase and the planned YTD increase in depression screening. • Organize and synthesize the quantitative and qualitative information gathered from each step of the FOCUS-PDSA framework-based process and summarize the progress toward meeting the QI initiative goals. • Ensure the majority of the project team members agree about the findings, interpretations, and conclusions that were

(table continues)

		made.
6. Ensure use and share lessons learned.	n/a	• Formulate recommendations and disseminate the findings.

Prior to participating in the evaluation of data, the DNP student reviewed the requirements of the evaluation project with the project team members to ensure that they understood how to conduct the evaluation and provide them with the opportunity to ask questions. Based on step three of the CDC framework, the DNP student focused the evaluation of the data on the list of questions based on the nine steps in the FOCUS-PDSA model. The members of the evaluation team were instructed and encouraged to provide objective, honest, and comprehensive responses to the questions. As the members of the DNP project team were also members of the organization's QI team, they were also asked to provide feedback regarding their overall experiences with project development. In addition, team members were encouraged to seek clarification as needed regarding evaluation questions. To promote the reporting of perceived deficiencies of the organization's QI process, reduce the risk for interpersonal conflicts, and encourage constructive criticism, the members of the project team were reassured that all responses would be discussed without disclosing the name of the person who provided them. The project team member responses and follow-up discussions contained only deidentified data and were recorded in the FOCUS-PDSA form presented in Appendix H.

Findings and Implications

Analysis and Synthesis of the Evidence

The DNP student and members of the project team reviewed the requested organizational deidentified data, followed the instructions provided by the DNP student, and provided written responses and verbal clarifications to the FOCUS-PDSA-based questions provided via secure email and Microsoft OneDrive (see Appendix H). Each of the nine steps in the FOCUS-PDSA model was used to evaluate the organization's work on the QI initiative. The questions for each FOCUS-PDSA step established goals for various aspect of the QI process and were used as a quality measurement tool for the evaluation of the organization's QI initiative. Feedback was received from all members of the evaluation team and information was summarized and synthesized by the DNP student in relation to the nine steps in the FOCUS-PDSA model. The findings and implications are presented and discussed based on each of the nine FOCUS-PDSA steps. The responses to the questions determined whether the goals in each of the nine FOCUS-PDSA steps were fully, partially, or not met.

Step 1: Find a problem or process to improve. It is essential for projects teams to identify and clearly define a problem to improve (ACC, 2013). This step of the evaluation was applied to review the need for organizational change and the characteristics of the problem statement. The DNP project evaluation team members used the following questions for their assessment:

1. Was a problem or process for improvement identified?
2. How was the practice problem identified?
3. Was the practice problem clearly defined?

4. Was the problem statement properly formulated based on the Specific-measurable-attainable-relevant-timely (SMART) goals or another goal setting tool?
5. Was the priority of the need for organizational change identified?
6. Were the stakeholders identified?

The evaluation team determined that the need for QI was adequately identified by the organization's QI team and documented as part of the organization's description of the QI initiative purpose. The purpose of the organization's QI project was to integrate behavioral health and primary care services and increase the low depression screening rate in the organization. The QI team used the specific-measurable-attainable-relevant-timely (SMART) tool to formulate the problem statement and establish realistic short-term goals. The practice problem and project goals were clearly defined as depression screening rates lower than the current organizational goal of 60%; however, the stakeholders were not identified. The evaluation of the organization's QI teams' identification of the practice problem and stakeholders as it relates to the goals in this step of the FOCUS-PDSA model revealed that the goals were partially met and recommendations for further adjustments were formulated.

Step 2: Organize a team to improve the process. It is important for organizations to assemble QI teams that are familiar with the problem under examination (ACC, 2013). This step of the evaluation was applied to analyze the structure of the team, selection of the team members, team member roles and knowledge about the

problem. The DNP project evaluation team members used the following questions for their assessment:

1. Was a QI project team organized to facilitate the process?
2. How were the QI team members selected?
3. Were the people included in the QI team familiar with the problem and process?
4. Were the roles of the team members within the organization related to the issue discussed in the project?
5. Were the team members assigned specific roles?
6. Did the team leader have previous experience with QI projects?
7. What were the strategies for engaging the stakeholders?

An organizational QI team was formed to facilitate the QI process. The meeting minutes documents did not specify what criteria were used to select the organization's QI team members and whether they had previous experience with QI projects. Based on the feedback from the evaluation team members, five members of the organization's six-member QI team, including the member who was voted to be a team leader, lacked formal training and had very little or no experience in QI project development. The members of the team were not listed in the team meeting records but based on the assigned tasks on one of the meeting minutes documents, the organization's QI team consisted of a behavioral health provider, data analyst, medical assistant, case management nurse, nurse manager, and quality assurance officer. The medical assistant was the only member of the team who was using the depression screening tool on a

regular basis. The entire three-member core QI team of the organization participated in this depression QI project.

The roles and responsibilities of the team members were not indicated in the meeting minutes and there was no indication that ground rules for the team were established; however, it can be assumed that the meetings were documented by one of the team members who served as a recorder. Feedback from one member of the evaluation team revealed that there was some role assignment but based on the overall feedback received, not all members of the team were aware of it and two responders were not aware of who was the project leader. The lack of experience of nearly all QI team members likely contributed to the poor team work organization, exclusion of additional frontline employees and the lack of strategies to engage the stakeholders, inadequate documentation, and gaps in the QI initiative process. The evaluation of the organization's QI teams' structure and function as it relates to the goals in this step of the FOCUS-PDSA Model revealed that the goals were partially met and recommendations for further adjustments were formulated.

Step 3: Clarify the problem and review the current knowledge of the process. It is crucial for QI teams to understand the problem in order to improve it (ACC, 2013). This step of the evaluation was applied to analyze the organization's QI team's understanding of the current process and problem, the importance of the depression screening quality indicator, and the data necessary to measure the process. The DNP project evaluation team members used the following questions for their assessment:

1. Was the existing process clarified?

2. Were the problem and current knowledge of the process clarified with the QI team members and the staff?
3. Were written instructions readily available for the staff regarding the depression screening workflow, i.e., the steps that need to be performed to satisfy the depression screening criteria?

The current knowledge of the depression screening process was well-described in the QI team meetings planning documents and clarified with the QI team members. However, written instructions regarding the depression screening workflow were not readily available for the QI team and the rest of the staff. Therefore, the evaluation of the organization's QI teams' work as it relates to the FOCUS-PDSA model goals in this step revealed that the goals were partially met and recommendations for further adjustments were formulated.

Step 4: Understand the problem and the root causes of process variation. It is important for the members of the QI team to understand the meaning and sources of the data, and the causes of the problem (ACC, 2013). This step of the evaluation was applied to evaluate the data and root cause analysis (RCA) methods used by the QI team. The DNP project evaluation team members used the following questions for their assessment:

1. How was the data collected?
2. Were the quantity and quality of the data adequate, i.e., was the data valid and sufficient?
3. Were the variations and their impact on the current process identified?

4. Were the problem and the root causes of the process variation analyzed and ranked by the QI team?

Data collection and validity. The data collection process for depression screenings was clearly defined by the organization's QI team. However, the evaluation revealed some issues with the quantity and the quality of the data. The quantity of the data with regard to the type of follow-ups the patients received was incomplete due to limitations of the EHR system's reporting capabilities. Potential data quality issues were not considered and the validity of the data was not tested by the organization's QI team at the beginning of the QI initiative.

To address the concerns regarding the validity of the data used by the organization, a mock scenario was developed on a test patient and a report was generated after each step of the depression screening process (See Table 4). Figure 1 provides a description of the depression screening workflow as it related to satisfying the UDS criteria. The workflow begins with the screening of all qualifying patients with the PHQ-2 questionnaire. If PHQ-2 is zero, the UDS measure for depression screening is satisfied; if PHQ-2 is greater than zero, i.e., PHQ-2 is positive, the screening process continues to step 2 (See Fig. 1). If PHQ-2 is positive in step 2, the screening continues by applying the PHQ-9 questionnaire. If the PHQ-9 score is less than or equal to 6, the UDS measure is satisfied; if the PHQ-9 score is greater than 6, i.e., PHQ-9 is positive, the screening process continues to step 3. When the PHQ-9 score is positive, the provider needs to select one or more follow-up options in the EHR system to satisfy the UDS measure.

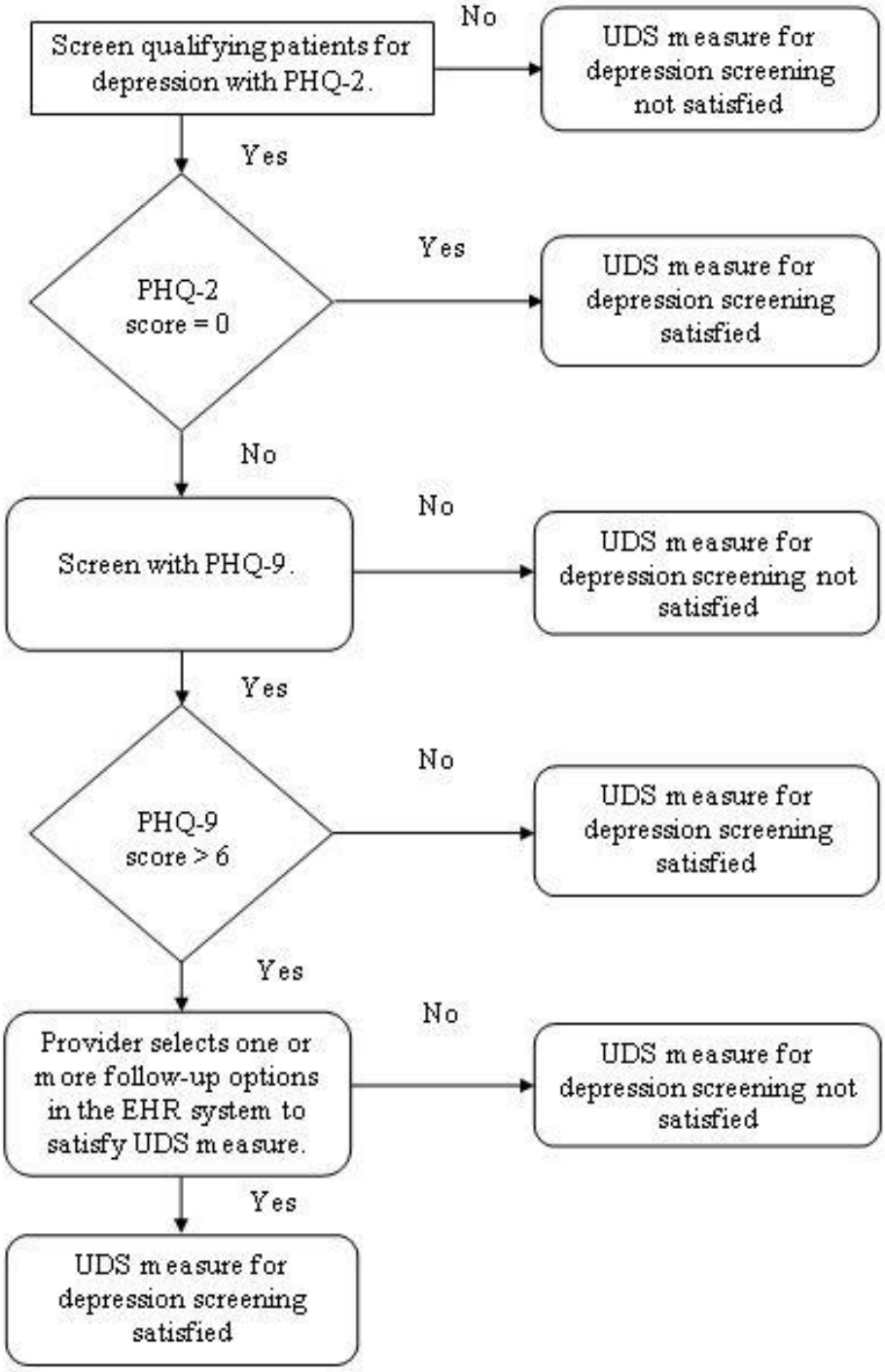

Figure 1. Depression screening workflow.

As defined in Section 2 of this paper, depression screening is a reportable UDS quality measure mandated by the HRSA that reflects the number of qualifying patients who received depression screenings and follow-up plans when their depression score was positive (HRSA, 2018d). The follow-up plan may include one or more of several interventions, such as pharmacological treatment, suicide risk assessment, and referral to a qualifying specialist (HRSA, 2018d). According to the UDS, the measure applies to all qualifying patients, i.e., patients ages 12 or older who had a visit during the calendar year and were not screened for depression during that year. (HRSA, 2018d). Based on the UDS criteria, the patients excluded from screening were those who had an active diagnosis of depression or bipolar disorder, patients who were seen for urgent care, patients who refused to participate, and patients who had a condition that may have affected the accuracy of the results (HRSA, 2018d).

The feedback from the QI data analyst was requested by using the evaluation template presented in Appendix B and summarized in Table 4. The findings revealed that the data used by the organization to determine the rate of depression screenings and served as the main reason to initiate the organization's QI initiative was incorrect due to an error within the EHR system. The error was associated with the PHQ-2 and PHQ-9 reports not being linked properly by the EHR system, which has led to a drop in the number of the registered depression screenings. After the error was reported to the EHR vendor and corrected by the QI data analyst, the rate of YTD depression screenings increased to 75%. On the one hand, this finding revealed a major data validity issue that was not considered in the RCA by the organization's QI team. On the other hand, the

finding was positive and revealed that the organization's QI plan had facilitated the increase in the depression screenings to levels that were higher than the state and national averages and the institutional 53% that was initially communicated. Nonetheless, the institutional goal was 98% and at minimum 60%-61%, therefore, the question that remained unanswered at this stage of the evaluation was what prevented the organization from achieving even higher depression screening rates.

Table 4

EHR System Data Collection and Validity Evaluation

Criterion 1	**Criterion 2**	**Criterion 3**	**Test result(s)**	**EHR system evaluation statement**
1. The EHR test patient satisfies the criteria for screening according to the UDS depression measure denominator criteria.	n/a	n/a	Is the patient included in the total count of patients that need to be screened? **Response:** Yes	Proper EHR system function.
2. The EHR test patient does not satisfy the criteria for screening according to the UDS depression measure denominator criteria.	n/a	n/a	Is the patient excluded from the total count of patients that need to be screened for depression? **Response:** No	Proper EHR system function.
3. The EHR test patient has a negative PHQ-2 result.	n/a	n/a	Is the patient reported in the EHR system as screened for depression? **Response:** No	Proper EHR system function.
4. The EHR test patient has a positive PHQ-2 result.	PHQ-9 is completed.	Follow-up depression plan is not documented	Is the patient reported in the EHR system as not screened for	Proper EHR system

(table continues)

		.	depression? **Response:** Yes	function.
5. The EHR test patient has a positive PHQ-2 result.	PHQ-9 is not completed.	Follow-up plan is not documented	Is the patient reported in the EHR system as not screened for depression? **Response:** Yes	Proper EHR system function.
6. The EHR test patient has a positive PHQ-2 result.	PHQ-9 is not completed.	Follow-up depression plan is documented .	Is the patient reported in the EHR system as not screened for depression? **Response**: Yes	Proper EHR system function.
7. The EHR test patient has a positive PHQ-2 result.	PHQ-9 is completed.	Follow-up depression plan is documented .	Is the patient reported in the EHR system as screened for depression? **Response:** No	EHR system error, the patient should have been counted as screened.
8. Any criterion for screening is not satisfied.	n/a	n/a	Does the EHR system generate alerts for depression screenings? **Response**: Yes (only if 12 months have passed since last depression screening).	Proper EHR system function with limitations to alert for screening during the next calendar year unless 12 months have passed.

Note. Based on deidentified data from organizational EHR reports on a test patient. Published with permission.

Limitations of the EHR system. Further analysis showed that the current EHR system had several major limitations related to its ability to exclude certain patients from being screened for depression and its capacity to generate comprehensive depression screening reports. The EHR systems' capabilities did not allow for patient exclusions, i.e., all patients ages 12 and older who were seen at the clinic were counted in the

depression screening ratio denominator. According to the UDS Manual, the patients who can be excluded from the denominator include those who refuse to participate, patients who are in urgent or emergent situations, have an active diagnosis of depression or bipolar disorder, patients whose functional capacity or motivation to improve may impact the accuracy of results of standardized assessment tools (HRSA, 2018). As a result of these patient exclusions, caution should be applied when including all age-appropriate patients in the denominator as this could cause errors. Although such an approach might increase the number of reported depression screenings, it could also include patients that could produce false-positive depression screening results and lead to utilizing additional resources for further assessment and follow-ups.

The EHR system also had limitations regarding the reports it could generate. The system had the capacity to generate a report indicating that a depression screening has not been performed on a certain patient but could not inform the user which step of the depression screening process had failed, i.e., the PHQ-2, PHQ-9, or follow-up phase. In this regard, the system also did not have the capability of efficiently generating reports for the type of follow-up activities assigned to the patient. The EHR system also was not capturing the provision of alternative follow-up activities that could have satisfied the UDS criteria for depression screenings, such as the additional evaluation for depression during the patient visit, pharmacological interventions, and suicide risk assessment. In this regard, some staff activities related to the depression screenings were not automatically captured by the EHR system. Generating a report to analyze the percentage of the follow-up activities was not feasible as it involved the use of time-

consuming and inefficient manual operations by the data analyst. Therefore, patients with positive depression screenings who were started on medication and not provided a referral were not counted by the system as screened for depression and were not captured and reported due to EHR system limitations.

Problem analysis. The organization's QI team used the RCA problem-solving method to identify the root causes of the low depression screening scores problem. The problem with the low depression screenings was well-understood by the organization's QI team. However, the root causes that were identified were limited, likely due to the use of the RCA as a single method for analysis.

The organization used the RCA technique as the only approach to identify and correct the causes of low depression screenings. The QI team was able to identify several root causes of the problem, including the need for additional training due to the implementation of multiple and confusing changes, staff turnover, lack of knowledge about how the depression screening process works, time constraints, new leadership, administrative hassle, lack of understanding the importance of paperwork for patient care, no warm-handoff process for depression, behavioral health staff turnover, and ineffective staff training due to differences in learning styles. The root causes were listed in a bullet point format but were not categorized or ranked.

Although the RCA method is a valuable tool for problem-solving and has been broadly applied in healthcare to discover the causes of a major problem, its use as a standalone approach for continuous QI processes has significant limitations. The RCA is a tool that provides a reactive assessment of past events and it is unreliable when used

alone for the development of sustainable system-level solutions in healthcare (Kellogg et al., 2017). The RCA teams frequently focus on a single reason to explain poor performance and ignore the relationships between various levels and aspects of the system design (AHRQ, 2019). The solutions proposed by the RCA teams to correct a problem and promote long-term QI frequently have been weak, ineffective, and unsustainable (AHRQ, 2016; Kellogg et al., 2017). The RCA method was initially designed to find errors that caused catastrophic events in high-risk industries, such as aviation and nuclear power, and RCA teams tend to focus on a single cause and linearly-connected events rather than taking a systems view of the events (AHRQ, 2016). When used in healthcare, the RCA method frequently establishes trivial findings, such as employees forgetting to perform a task due to imperfect human memory (Kellogg et al., 2017). As a result, organizations often rely excessively on limited or ineffective solutions that do not improve sustainability, such as policy enforcement and educational interventions (AHRQ, 2019; Kellogg et al., 2017).

Regarding understanding the root causes, the QI team focused their efforts on searching for root causes within the clinical department and missed an opportunity to consider other potential root causes, such as data validity, technology issues, organizational culture, and patient education about depression screenings. Such an approach essentially defined the problem as strictly departmental and excluded considerations of system-wide deficiencies.

The use of the RCA as a sole method for analysis instead of taking a more comprehensive approach likely contributed to the lack of questioning and verifying the

validity of the data at the beginning of the initiative, as suggested by the clinical staff, and led to viewing the problem as a clinical versus organization-wide issue. The lack of adequate EHR capabilities for data capturing and reporting limited the organization's ability to measure and track various outcomes associated with depression screening. The evaluation of the organization's QI teams' understanding of the process as it relates to the goals in this step of the FOCUS-PDSA model revealed that the goals were partially met and recommendations for further adjustments were formulated.

Step 5: Select an intervention to improve the process. Once the QI team determines the root causes of the problem, it is important to develop a comprehensive list of solutions to select from (ACC, 2013). This step of the evaluation was applied to evaluate the solutions suggested by the organization's QI team. The DNP project evaluation team members used the following questions for their assessment:

1. What were the selected interventions to improve the process?
2. How the proposed intervention would facilitate the planned short-term and long-term outcomes?
3. Were written instructions for the interventions prepared and readily available for the staff regarding the depression screening workflow, i.e., the steps that need to be performed to satisfy the depression screening criteria?
4. Were alternative solutions identified and discussed?
5. Did the proposed interventions extend beyond addressing the root cause of the recent drop in depression screenings?

6. Was the selected strategy for solving the problem reasonable with regard to cost, policy and procedure alignment, unintended consequences, organizational priorities, staff demands, and resources?

The organization's QI team based their expectations and interventions for improvement solely on the RCA tool and addressed a single cause, the lack of knowledge about how to complete the process of depression screenings. A positive finding from the evaluation was that the interventions related to staff education were well-described and documented. However, since other findings in the RCA were not addressed and the RCA method has limited use in QI projects, the selected interventions were not comprehensive. Alternative interventions were not discussed, but there was a plan for preparing written instructions for the selected intervention. Further evaluation of the organization's QI initiative as it relates to identifying the interventions showed that the cost of the interventions and the available resources were not documented by the organization's QI team. However, feedback received from one member of the evaluation team revealed that the costs were discussed during the meetings. Unintended consequences as a result of the interventions were not discussed by the QI team, the proposed plan was not discussed with the stakeholders before its implementation, and strategies for overcoming resistance to change were not discussed. Considering the concerns for staff turnover and time constraints, the organization's QI team could have benefited from discussing activities to enhance the buy-in from the key stakeholders. The evaluation of the organization's solutions suggested by the QI team as it relates to the goals in this step of

the FOCUS-PDSA model revealed that the goals were partially met and recommendations for further adjustments were formulated.

Step 6: Plan the improvements. Once the interventions have been selected, the QI team develops a plan for implementing the changes (ACC, 2013). This step of the evaluation was applied to assess the planning for the interventions and the approaches to facilitating organizational change. The DNP project evaluation team members used the following questions for their assessment:

1. Was buy-in obtained from the key stakeholders?
2. Were the cost and available resources considered?
3. How were the resources determined, allocated, and evaluated?
4. Were the interventions aligned with the organizational policies, procedures, and priorities?
5. Were unintended consequences considered?
6. Were staff demands, resistance to the plan, and strategies for overcoming resistance to change considered before the QI plan implementation?
7. Was the proposed plan discussed with the stakeholders before the implementation?

As the organization's QI team did not use a framework for the development of the QI initiative, including for its planning, implementation, evaluation, and dissemination phases, the process was not well organized. A positive finding in the evaluation of the planning the improvements step of the FOCUS-PDSA model was that the organization's intervention to educate the staff was appropriate, aligned with the organizational policies,

procedures, and priorities to improve quality, integrate behavioral health into primary care, and increase the rate of depression screenings; however, this intervention may have been insufficient to fully address the issue as it did not address other root causes. As discussed in Step 5, unintended consequences as a result of the interventions were not discussed by the QI team when the intervention was selected and therefore unintended consequences and staff buy-in were not considered during the planning for the intervention. Costs were not documented as part of the planning for the intervention. The lack of a framework for the development of the organization's QI initiative led to gaps in the planning for the interventions. The evaluation of the organization's QI team's planning for the interventions as it relates to the goals in this step of the FOCUS-PDSA model revealed that the goals were partially met and recommendations for further adjustments were formulated.

Step 7: Do or implement the plan. Once the plan for change has been developed, the QI team proceeds with its implementation (ACC, 2013). This step of the evaluation was applied to assess how the plan was implemented and what data were used to measure its success. The DNP project evaluation team members used the following questions for their assessment:

1. How was the plan implemented?
2. Were the changes implemented as planned?
3. Were the changes initially implemented on a small scale?
4. How were the project outcomes measured?
5. Was the data collected as planned?

6. How was the project success measured?

The organization's QI plan was implemented as planned by providing additional training to the entire clinical staff and thus reinforcing the clinic's policies. Paper copies of the educational materials were provided to the employees during the training sessions but the electronic versions of the documents were not shared and it was challenging to locate them on the organization's network. The data during the implementation phase was collected on a daily basis and the outcomes measuring the number of depression screenings were communicated with the stakeholders as planned, on a monthly basis. Additional measures for the success of the initiative were not introduced. The implementation of the plan did not consider initially introducing the change on a small scale to establish the effectiveness of the measure and reduce change fatigue. The evaluation of the organization's QI teams' implementation of the plan as it relates to the goals in this step of the FOCUS-PDSA model revealed that the goals were partially met and recommendations for further adjustments were formulated.

Step 8: Study the results. After the intervention has been implemented, the QI team studies the results by analyzing the data and comparing to the planned results. This step of the evaluation was applied to assess the results from the intervention and determine whether additional changes were needed. The DNP project evaluation team members used the following questions for their assessment:

1. Were the results evaluated?
2. How were the results from the implementations studied?
3. Were new learning opportunities identified?

4. Were additional changes discussed?
5. Were the findings communicated with the stakeholders?

The results were evaluated by the QI team, but the team was not able to explain the fluctuations in the depression screening rates and the lower-than-planned results. This could have been as a result of using the RCA rather than a formal QI evaluation model. The limitations of the RCA were discussed in greater detail in Step 4. Additional changes and new interventions were not discussed and the QI team continued to provide the same intervention. Focusing solely on reinforcing the staff technical knowledge about the EHR system could explain the fluctuations in the organization's depression screenings rates. The training reinforced the employee knowledge about how to operate a cumbersome EHR system that required the memorization of multiple steps and technical details without considering addressing other root causes or providing solutions related to reducing the burden of remembering these multiple critical pieces of information (AHRQ, 2019; Kellogg et al., 2017). The evaluation of the organization's QI team's assessment of the results from the intervention as it relates to the goals in this step of the FOCUS-PDSA model revealed that the goals were partially met and recommendations for further adjustments were formulated.

Step 9: Act on the findings. Once the QI team members study the effectiveness of the intervention, they must decide whether the intervention should be implemented on a larger scale, modified, or abandoned. This step of the evaluation was applied to assess the need for improvement of the existing interventions plan. The DNP project evaluation team members used the following questions for their assessment:

1. How was the impact of the project evaluated?
2. Was the success of the QI plan quantified?
3. Did the project improve depression screening rates?
4. Was it determined whether further changes or improvements were warranted?
5. Were sustainability and dissemination strategies discussed?
6. How were sustainability and dissemination of the plan organized and executed?

The initial project success was satisfactory, showing 60% and 70% monthly depression screening rates for May and June. However, the reported monthly rate for July was 46% and the YTD increase as of July 2018 was only 4%. New learning opportunities, additional changes, and strategies for sustainability were not discussed, identified, or initiated. The evaluation of the organization's QI teams' understanding of the need for improvement of the existing plan as it relates to the goals in this step of the FOCUS-PDSA model revealed that the goals were not met and recommendations for further adjustments were formulated.

The findings based on the FOCUS-PDSA model above revealed several deficiencies in the work of the organization's QI team. The goals of the FOCUS-PDSA were partially met in eight of the steps and not met in one category. The DNP student provided recommendations for each of the findings.

Unanticipated Limitations or Outcomes

During the process of the organization's QI project evaluation, the DNP student encountered several unanticipated limitations. The main limitation was the inability to generate reports that could be used to better understand the gaps in the depression

screening process due to the limitation of the EHR system. The technical limitations of the EHR system prevented the DNP student from analyzing additional information about the weaknesses of the current depression screening process and providing a more detailed response to the project question. With the existing narrow reporting capabilities of the EHR system, it was not possible to determine how the depression screening rate would have changed if the EHR system captured and reported the alternative follow-up option described in the UDS Manual, such as pharmacological interventions and suicide assessment that were also included as recommendations by the DNP student. For the above reason, it was not possible to determine with certainty during what stage of the depression screening process most depression screening deficiencies occur. However, other important, non-EHR-related findings of the organization's QI initiative were discovered and reported.

Two other unexpected limitations were the QI team's lack of knowledge and formal training about how to develop a comprehensive QI project and the lack of enthusiasm to collaborate with the DNP student exhibited by some members of the organization's project team. The lack of knowledge about project development has led to insufficient and poorly organized documentation and work on the project. There was no clear distinction between the planning, implementation, dissemination, and evaluation phases of the project and the amount of information in the meeting minute documents was low. While the organization incorporated the RCA framework into the QI plan, that framework only supported the identification of some of the root causes, but did not outline or support other phases of the QI project development.

Despite the organization's QI team willingness and efforts to improve its depression screening rates, there were situations of notable hesitancy, concerns, and reluctance to collaborate with the DNP student on this project. In this regard, the process of obtaining permission and engaging the members of the QI team to participate required additional efforts and persuasion. Some members of the DNP project team required additional time to respond and in-person reminders to provide or approve the requested information. The above issue may be worth addressing by the organization's leadership and the DNP student provided recommendations.

Implications and Findings

Individuals. The findings in the project revealed deficiencies in the depression screening process that have implications on both employees and patients. The DNP student recommended a variety of concepts, tools, strategies, and frameworks that could be used by the organization to facilitate the improvement of the depression screening process and establish the foundation of integrated care and QI sustainability. Frontline staff members are major stakeholders in the QI process and experts in patient care. In this regard, this project provided not only an evaluation of the organization's QI initiative but also a blueprint for identifying and engaging key members of the organization in future QI project developments, regardless of their level of training and experience in QI. Enhanced employee knowledge about the QI process is expected to produce champions of change and provide support for the organization's QI efforts, staff cohesiveness, patient empowerment, and the development of a sense of ownership of the QI process. Employees who become active participants in the QI process can have a positive impact

on patient education, access to care, and the management of depression at the individual level.

Communities. As the screening and management of depression is a public health issue, the suboptimal performance in FQHCs affects not only the institutions' quality measures performance but also the communities served by them. The process of continuous QI, health promotion, and disease prevention within the communities is significantly dependent on all health care team members' motivation to continuously ask the questions "How are we doing?" and "Can we do it better?" (National Learning Consortium [NLC], 2013). As this project emphasized employee engagement and sustainability, the positive impact of the project on staff and individual patients would contribute to improving the overall well-being of the community.

Institutions. In this project, the DNP student suggested the development of organizational culture and employee mindset that view patient outcomes as the main reason for using quality measures. The frontline staff should be seen as the owner of the QI process, and the leadership should be seen as a guide and collaborator in the processes of QI and sustainability. As demonstrated in this project, it is essential for healthcare organizations to include project evaluation as part of the project development cycle and analyze organizational problems from a systems perspective. It is important for organizations to provide adequate guidance and support to staff with little training in QI to reduce the risk of insufficient utilization of scientific evidence and theory (Reed & Card, 2016). The selection of the members of the QI team, their preparedness to

participate in QI projects, and the guidance provided to them during the QI process are crucial for the success of QI projects and the process of continuous QI.

Systems. The FQHCs were created to operate in provider shortage areas and manage underserved populations (HRSA, 2018a). Therefore, inadequate planning, implementation, dissemination, and evaluation of QI initiatives, such as increasing the rates of depression screenings, would lead to inefficient use of resources and increase the costs within the healthcare system. The DNP project underscores the application of systems thinking and the use of evidence-based practices in the management of QI initiatives. The findings in this project could generate interest in further clinical projects to determine the capacity of small, independent FQHC organizations to utilize research findings and meet the federal government's requirements for QI and integrated care.

Potential Implications to Positive Social Change

DNP projects are comprehensive scholarly works that carry significant potential to promote positive social change. This DNP project addressed the gap in practice, which was the low depression screening rate at the facility of interest and promoted positive social change in several ways. Most importantly, the project leader promoted a patient-oriented approach to care by introducing strategies that facilitate integrated care and patient centeredness.

Integrated care brings opportunities for positive social change that includes enhanced patient learning, reduced stigma associated with discussing mental illnesses, and increased patient confidence in the management of depression and other mental health illnesses (Institute for Clinical and Economic Review [ICER], 2015). Moreover,

the integration of behavioral health and primary care services would increase access to care for people with depression (ICER, 2015). Patients who participate in integrated care programs are more likely to take ownership of their care through motivational interviewing and other behavioral health methods and improve their overall health status (Ross et al., 2018).

Placing the patient in the center of the healthcare system is a profound change in the traditional model of care that requires healthcare delivery reorganization, an organizational cultural shift, and technological improvements (ICER, 2015). The recommended EHR reporting capability that takes into consideration the individual and aggregate patient depression scores could improve the level of care integration and patient outcomes. This project contains recommendations about the use of a variety of tools to facilitate the empowerment of patients and staff, enhance their participation in the decision-making process, and ultimately promote positive social change.

Recommendations

Addressing the Gap In Practice

The recommendations were divided and presented in two categories, recommendations that were directly related to the increase in the rate of depression screenings and additional recommendations that would improve the integration of care that could also indirectly contribute to the increase in the rate of depression screenings. Directly related recommendations are presented first. Then, a summary of the findings and directly-related recommendations for each category of the FOCUS-PDSA model are presented in Table 5. Indirectly related recommendations are presented last.

Directly-related recommendations. These recommendations include proposed small and large changes within the organization that could directly impact the rate of depression screenings. The changes are not presented in a specific order and their implementation could be accomplished based on the organization's capacity for change. The following recommendations are directly related to the increase in the rate of depression screenings:

- Consider using one or more theoretical frameworks, such as the ones used in this paper, to organize the work on the planning, implementation, evaluation, and dissemination of the QI initiative (See Appendix H).
- Consider improving the QI team overall organization and work.
- Consider providing formal training in QI and project development to address the lack of experience of nearly all QI team members.
- Specify what criteria were used to select the organization's QI team members and whether they had previous experience with QI projects. Consider using a tool for the QI team selection process, such as the one presented in Appendix C.
- Consider including other employees in the QI team that could provide additional expertise in direct patient care, the depression screening process workflow, and the impact on the overall patient care, such as frontline nurses and providers.
- Develop QI team meeting ground rules, such as the ones recommended in Appendix E).
- Determine all internal and external stakeholders, including patients, and discuss how they could potentially be affected by the changes in the depression screening process.

- Clearly indicate the roles of the QI team not only for the project implementation phase but also for the planning, evaluation, and dissemination phases of the QI project. Use a tool, such as the one presented in Appendix D, to assign roles that help organize the work of the QI team, such as team leader, team facilitator, recorder, timekeeper.
- Use a tool to develop the meetings' agenda, improve the documentation of all activities, and organize the work of the QI project team, such as the one presented in Appendix F.
- Consider using the RCA method in combination with another model or framework, such as the FOCUS-PDSA, as demonstrated in this paper to provide structure of the QI process and fully engage the stakeholders who do not have previous experience with QI projects, improve the sustainability of the project, and support the organization's continuous QI.
- When using the RCA method, consider dividing the factors into separate categories to visualize the findings and prompt the members of the QI team to consider other possible root causes (See Appendix I).
- Consider enhancing the effectiveness of the RCA method by ranking the causing factors and initially focusing on the most important problems. Using the Pareto chart to display and rank the major root causes and the Pareto 80-20 rule, according to which 20% of the causes produce 80% of the effects, could facilitate this process (Hultman & Baum, 2017).

- Consider modifying, upgrading, or replacing the current EHR system to efficiently and effectively collect and manage the data needed for the QI initiative, report all elements of the depression screening process, including the type of follow-up activities. Validate the EHR data periodically to avoid reporting errors.
- Include the activities, other than referrals, that are considered adequate follow-up interventions and meet the UDS requirements for positive depression screenings, including additional evaluation for depression, suicide risk assessment, pharmacological interventions, and other follow-up activities for the diagnosis or treatment of depression (HRSA, 2018).
- Consider using additional measurements of the QI project success, such as the YTD percent of goal and the ratio of the achieved YTD increase and the planned YTD increase. This will provide additional quantification of the organization's QI plan success.
- Consider excluding the patients who do not require depression screening according to the UDS manual, including those who refuse to participate, who are in urgent or emergent situations, who have an active diagnosis of depression or bipolar disorder, and patients whose functional capacity or motivation to improve may impact the accuracy of results of standardized assessment tools (HRSA, 2018d).
- Consider using the Columbia Suicide Severity Rating Scale of 2008 for timely suicide risk assessment following a positive depression screening and also for satisfying the UDS criteria for a positive depression screening follow-up (CIHS, 2018).

- Consider improving the processes of planning, implementation, evaluation, and dissemination of the findings.
- Consider interventions other than staff education and policy reinforcement to address the major root causes that were discussed, such as the multiple confusing workflow changes, staff turnover, lack of overall understanding of the process, and time constraints.
- Consider discussing the implementation plan and obtaining feedback about potential unintended consequences with the key stakeholders, including the clinical staff, before the implementation.
- To minimize the effects of change fatigue consider using the PDSA cycles as described in this paper for initial small-scale testing of the planned interventions, such as with one team for a short period of 1-2 weeks before the interventions are considered effective and a decision for a large scale implementation is made. It is essential for healthcare organizations to encourage a sense of ownership and allow the staff to determine whether the change represents an improvement in practice (Minnier, 2014).
- Consider strategies for engaging the clinical staff, enhancing broader buy-in from the key stakeholders, and reducing the resistance to change, which is generally unavoidable and should be expected. Identify and work with the project champions and early adopters.
- Consider using a change theory to guide the efforts, such as Kotter's Change Theory (See Appendix J).

- Consider additional strategies for sustainability and dissemination of the progress that was gained (See Appendix K). Organizational leaders need to be aware that changes are sustainable only when they are perceived by the staff as valuable (Minnier, 2014).

Table 5 presents a summary of the findings and directly-related recommendations. The left column of the table provides a description of the FOCUS-PDSA steps. The results of the evaluation are presented in the middle column. The specific recommendations for each step of the FOCUS-PDSA model are presented in the right column.

Table 5

Summary of the Key Findings and Directly-related Recommendations

FOCUS-PDSA Step	Evaluation	Recommendations
1. Find a problem or process to improve. The DNP project evaluation team used the following questions to review the need for organizational change and the characteristics of the problem statement.	As shown for each evaluation question in this category.	• Goals in this category were partially met. • Continue the QI process of identifying problems and process for improvement.
1.1. Was a problem or process for improvement identified?	Yes. The purpose of the organization's QI project was to integrate behavioral health and primary care services and increase the low depression screening rate in the organization.	Goal met. No recommendation.
1.2. How was the practice problem identified?	Monthly reports showed low depression screening rates.	Goal met. No recommendation.
1.3. Was the practice problem clearly defined?	Yes.	Goal met. No recommendation.

(table continues)

1.4. Was the problem statement properly formulated based on the Specific- measurable-attainable-relevant-timely (SMART) goals or another goal setting tool?	Yes.	Goal met. No recommendation.
1.5. Was the priority of the need for organizational change identified?	It was not documented, but it can be concluded that it was a high priority.	Improve documentation.
1.6. Were the stakeholders identified?	No.	Determine all internal and external stakeholders, including patients, and discuss how they could potentially be affected by the changes in the depression screening process.
2. Organize a team to improve the process. The DNP project evaluation team used the following questions to analyze the structure of the team, selection of the team members, team member roles and knowledge about the problem.	As shown for each evaluation question in this category.	• Goals in this category were partially met. • Consider improving the QI team organization and work. • Consider using one or more theoretical frameworks to organize the work on the planning, implementation, dissemination, and evaluation of the QI initiative. • Develop QI team meeting ground rules, such as the ones recommended in Appendix E.
2.1. Was a QI project team organized to facilitate the process?	Yes.	Goal met. No recommendation.
2.2. How were the QI team members selected?	Not documented.	• Specify what criteria were used to select the

(table continues)

		organization's QI team members and whether they had previous experience with QI projects. • Consider using a tool for the QI team selection process, such as the one presented in Appendix C.
2.3. Were the people included in the QI team familiar with the problem and process?	Most members had a general understanding of the problem and process. The medical assistant was the only member of the team who was using the depression screening tool on a regular basis.	Consider including other employees in the QI team that could provide additional expertise in direct patient care, the depression screening process workflow, and the impact on the overall patient care, such as frontline nurses and providers.
2.4. Were the roles of the team members within the organization related to the issue discussed in the project?	Yes.	Goal met. No recommendation.
2.5. Were the team members assigned specific roles?	Not documented but according to one member of the evaluation team such discussion occurred. Some role assignment can be assumed.	• Improve documentation. • Clearly indicate the roles of the QI team during all stages of the project. • Indicate team leader, team facilitator, recorder, timekeeper. • Use a tool, such as the one presented in Appendix D, to assign roles that help organize the work of the QI team. • Use a tool to develop the meetings' agenda,

(table continues)

		improve the documentation of all activities, and organize the work of the QI project team, such as the one presented in Appendix F.
2.6. Did the team leader have previous experience with QI projects?	Not all members of the team were aware of who was the project leader. It was not documented who was the team leader. In addition, five members of the organization's six-member QI team, including the member who reportedly was selected as a team leader had very little or no experience in QI project development.	Consider providing formal training in QI and project development to address the lack of experience of nearly all QI team members.
2.7. What were the strategies for engaging the stakeholders?	Not discussed.	Consider using the RCA method in combination with another model or framework, such as the FOCUS-PDSA, as demonstrated in this paper to provide a structure of the QI process and fully engage the stakeholders who do not have previous experience with QI projects.
3. Clarify the problem and review the current knowledge of the process. The DNP project evaluation team used the following questions to evaluate the team's understanding of the current process and problem, the importance of the depression screening	As shown for each evaluation question in this category.	• Goals in this category were partially met. • Continue the QI process of providing information necessary for the understanding of the current process, problem, and the data necessary to measure the process.

(table continues)

quality indicator, and the data necessary to measure the process.		
3.1. Was the existing process clarified?	Yes.	Goal met. No recommendation.
3.2. Were the problem and current knowledge of the process clarified with the QI team members and the staff?	Yes.	Goal met. No recommendation.
3.3. Were written instructions readily available for the staff regarding the depression screening workflow, i.e., the steps that need to be performed to satisfy the depression screening criteria?	Written instructions regarding the depression screening workflow were not readily available for the QI team and the rest of the staff.	Provide written instructions that are easy to find on the organization's network.
4. Understand the problem and the root causes of process variation. The DNP project evaluation team used the following questions to evaluate data and RCA methods.	As shown for each evaluation question in this category.	• Goals in this category were partially met. • Continue the QI process of routine data validation and understanding of the RCA method limitations.
4.1. How was the data collected?	Monthly depression screening reports.	Consider bi-monthly data collection and reporting during change implementations.
4.2. Were the quantity and quality of the data adequate, i.e., was the data valid and sufficient?	Incomplete data quantity due to limitations of the EHR system reporting capabilities. The validity of the data was not tested by the organization's QI team at the beginning of the QI initiative. Limitations of the EHR regarding various aspects of meeting the UDS criteria were present.	• Consider upgrading or replacing the current EHR system to efficiently and effectively capture the data needed for the QI process, report all elements of the depression screening process, including the type of follow-ups.

(table continues)

		• Include activities, other than referrals, that are considered adequate follow-up interventions that meet the UDS requirements for positive depression screenings. • Validate the EHR data periodically to avoid reporting errors.
4.3. Were the variations and their impact on the current process identified?	Yes.	Goal met. No recommendation.
4.4. Were the problem and the root causes of the process variation analyzed and ranked by the QI team?	RCA was used. The root causes that were identified were limited, due to the use of the RCA as a single method for analysis. The root causes were not ranked.	• The RCA method frequently establishes trivial findings, such as employees forgetting to perform a task due to imperfect human memory and produces limited or ineffective solutions that do not improve sustainability, such as policy enforcement and educational interventions. • Consider using the RCA in combination with another model or framework to improve the sustainability of the project and support the organization's continuous QI process. • When using RCA, consider dividing the factors into separate categories to visualize the findings and prompt the members of the QI

(table continues)

		team to consider other possible root causes. • Consider enhancing the effectiveness of the RCA method by ranking the causing factors by using the Pareto chart and the Pareto 80-20 rule. Initially focus on the most important problems.
5. Select an intervention to improve the process. The DNP project evaluation team used the following questions to evaluate the suggested solutions.	As shown for each evaluation question in this category.	• Goals in this category were partially met. • Continue the QI process of implementing interventions that address additional, systems-level root causes.
5.1. How the proposed intervention would facilitate the planned short-term and long-term outcomes?	Staff education about how to complete the process of depression screenings was expected to improve the depression screening rates.	• Staff education is an important intervention. However, understand the limitations associated with reinforcing the employee knowledge about how to operate a cumbersome EHR system that requires the memorization of multiple steps and technical details. • Consider addressing other root causes or providing solutions related to reducing the burden of remembering multiple critical pieces of information.
5.2. Were written instructions readily available for the staff	Paper copies of the educational materials were provided.	Consider sharing the electronic versions of the

(table continues)

regarding the depression screening workflow, i.e., the steps that need to be performed to satisfy the depression screening criteria?		documents in a way that is easy to locate them on the organization's network.
5.3. What were the selected interventions to improve the process?	Staff education.	• Consider focusing on more than a single reason to explain the poor performance. • Consider the relationships between various levels and aspects of the system design to promote sustainability.
5.4. Were alternative solutions identified and discussed?	Alternative solutions were not documented and interventions for other root causes were not selected.	Consider interventions other than staff education and policy reinforcement to address the major root causes that were discussed, such as the multiple confusing workflow changes, staff turnover, lack of overall understanding of the process, and time constraints.
5.5. Did the proposed intervention extend beyond addressing the root cause of the recent drop in depression screenings?	No. The intervention addressed a single root cause. Other potential root causes, such as data validity, about depression screenings.	Analyze the problem from systems versus departmental perspective and take into consideration organizational factors, such as data quality, technology limitations, organizational culture, patient education, and leadership and QI team preparedness for QI project development.
5.6. Was the selected strategy for solving the problem reasonable with regard to cost,	Intervention to educate the staff was appropriate, aligned with the organizational policies,	Consider costs for both implementing the plan and not implementing the plan.

(table continues)

policy and procedure alignment, unintended consequences, organizational priorities, staff demands, and resources?	procedures, and priorities. Cost was reportedly discussed but not documented.	
6. Plan the improvements. The DNP project evaluation team used the following questions to evaluate the planned interventions and approaches to facilitating organizational change.	As shown for each evaluation question in this category.	• Goals in this category were partially met. • Continue the QI process of planning for the interventions by obtaining a broader buy-in from the key stakeholders. • Project success frequently depends on the employees' willingness to participate, therefore, identify and work with the project champions and early adopters.
6.1. Was buy-in obtained from the key stakeholders?	Buy-in was not obtained. The QI team did not use a framework for the development of the initiative, including for its planning, implementation, evaluation, and dissemination phases and the process was not well organized.	
6.2. Were the cost and available resources considered?	Reportedly discussed but not documented as part of the intervention planning.	Improve documentation and consider discussing costs.
6.3. Were the interventions aligned with the organizational policies, procedures, and priorities?	Yes.	Goal met. No recommendation.
6.4. Were unintended consequences considered?	No.	Consider how the proposed changes could generate

(table continues)

		unanticipated risks and benefits and affect other organizational structures, processes, and outcomes.
6.5. Were staff demands, resistance to the plan, and strategies for overcoming resistance to change considered before the QI plan implementation?	No.	Consider using a change theory to develop strategies for engaging the clinical staff, enhancing broader buy-in from the key stakeholders, and reducing the resistance to change, which is generally unavoidable and should be expected.
6.6. Was the proposed plan discussed with the stakeholders before the implementation?	No.	Consider discussing the plan with the stakeholders before the implementation to obtain feedback, gain support, and improve the chance of success.
7. Do or implement the plan. The DNP project evaluation team used the following questions to evaluate the implementation of the plan.	As shown for each evaluation question in this category.	• Goals in this category were partially met. • Continue the QI process of plan implementation by introducing initial changes on a small-scale for a limited period.
7.1. How was the plan implemented?	Staff education was provided. Paper copies of the educational materials were provided to the employees during the training sessions but the electronic versions of the documents were not shared and it was challenging to locate them on the organization's network.	Consider sharing the electronic versions of the documents before and after the implementation in a way that is easy to locate them on the organization's network.
7.2. Were the changes implemented as planned?	Yes.	Goal met. No recommendation.

(table continues)

7.3. Were the changes initially implemented on a small scale?	No.	To minimize the effects of "change fatigue " consider using the PDSA cycles, as described in this paper, for initial small-scale testing of the planned interventions, such as with one team for a short period of 1-2 weeks before the interventions are considered effective and a decision for a large scale implementation is made.
7.4. How were the project outcomes measured?	Data during the implementation phase was collected daily and the outcomes measuring the number of depression screenings were communicated with the stakeholders every month.	Consider shorter periods of data analysis and outcome communication, 1-2 weeks for small-scale changes.
7.5. Was the data collected as planned?	Yes.	Goal met. No recommendation.
7.6. How was the project success measured?	Depression screening rates were measured. Additional measures for the success of the initiative were not introduced.	• Consider using additional measurements of the QI project success, such as the YTD percent of goal and the ratio of the achieved YTD increase and the planned YTD increase. • The organization's project success in relation to the YTD percent of goal was 88% and the ratio of the achieved YTD increase and the planned YTD increase was 36%. • Consider adding additional measurements for care integration.

(table continues)

8. Study the results. The DNP project evaluation team used the following questions to evaluate the results from the intervention, determine whether additional changes are needed.	As shown for each evaluation question in this category.	• Goals in this category were partially met. • Continue the QI process of results evaluation by using a theoretical framework to identify new areas of improvement.
8.1. Were the results evaluated?	Yes.	Goal met. No recommendation.
8.2. How were the results from the implementations studied?	By running depression screening reports and establishing the rate of depression screenings.	Consider studying all aspects of the project implementation, including the unintended consequences.
8.3. Were new learning opportunities identified?	No. The team was not able to explain the fluctuations in the depression screening rates and the lower-than-planned results. Additional changes and new interventions were not discussed and the team continued to provide the same intervention.	Consider training providers to educate patients on how to reduce the stigma related to their participation in depression screenings and other behavioral health assessments.
8.4. Were additional changes discussed?	Not documented whether new changes were discussed but no new interventions were implemented.	• Improve documentation. • Use a theoretical framework to organize the work of the QI team and generate new areas of improvement.
8.5. Were the findings communicated with the stakeholders?	Yes.	Goal met. No recommendation.
9. Act on the findings. The DNP project evaluation team used the following questions to evaluate the need for improvement of the existing organizational plan.	As shown for each evaluation question in this category.	• Goals in this category were not met. • Continue the QI process of plan improvement by engaging the staff and

(table continues)

		using additional measures for project success.
9.1. How was the impact of the project evaluated?	Based on the changes in the rates of depression screenings.	Consider the impact with regard to patients, employees, the organization, the community, and the healthcare system.
9.2. Was the success of the QI plan quantified?	It was quantified as depression screenings rate. Additional quantification of the organization's QI plan success was not considered.	Consider additional quantification of the QI plan success, such as the YTD percent of goal and the ratio of the achieved YTD increase and the planned YTD increase.
9.3. Did the project improve depression screening rates?	The initial project success was satisfactory, showing 60% and 70% monthly depression screening rates for May and June. The rate for July was 46% and the YTD increase as of July 2018 was only 4%.	Consider analyzing the fluctuations in the depressions screening process and determining the effect of any confounding variables.
9.4. Was it determined whether further changes or improvements were warranted?	Additional changes were not discussed.	It is essential for healthcare organizations to encourage a sense of ownership and allow the staff to determine whether the change represents an improvement in practice.
9.5. Were sustainability and dissemination strategies discussed?	Strategies for dissemination and sustainability were not discussed.	• Organizational leaders need to be aware that changes are sustainable only when they are perceived by the staff as valuable. • Consider continuous staff engagement in the project.
9.6. How were sustainability and dissemination of the plan organized and	Dissemination was executed as before the QI project, in the form of monthly reports.	• Include other forms of dissemination, such as power-point

(table continues)

executed?		• presentations and staff meeting discussions. • As clinical performance is at large a function of the organization's culture, consider using leadership strategies for empowering the staff and building a culture of continuous QI and sustainability.
Summary of the findings. Determine the number of goals that were fully met, partially met, and not met.	The goals of the FOCUS-PDSA were partially met in eight of the steps and not met in one category. The DNP student provided recommendations for each of the findings.	Consider using one or more theoretical frameworks, such as the ones used in this paper, to fully engage the members of the QI team and organize the work on the planning, implementation, evaluation, and dissemination of the QI initiative.

Indirectly-related recommendations. The increase of depression screenings is crucial for the integration of behavioral health into primary care. The process of care integration is complex, involves the collaboration of employees representing multiple horizontal and vertical layers within the organization, and includes the management of both psychiatric and physical comorbidities accompanied by bi-directional referrals between the behavioral health and primary care providers. The following recommendations are related to the integration of care that could also have an impact on the depression screening rates:

- View and analyze the process of depression screening and behavioral health integration from a systems perspective and take into consideration organizational

factors, such as data quality, leadership preparedness for QI project development, and patient engagement.

- Use other tools and models for designing, implementing, and measuring this process such as the AHRQ Framework for Integrated Care, the Level of Integration Measurement Tool, the Self-Assessment Checklist for Integrating Behavioral Health and Ambulatory Care, and the Maine Health Access Foundation's Self-Assessment Evaluation Tool (AHRQ, 2015, 2016, n.d.-a, n.d.-b).
- Consider training providers to educate patients on how to reduce the stigma related to their participation in depression screenings and other behavioral health assessments and treatments.
- Develop strategies for behavioral health promotion and disease prevention.
- Consider addressing the concerns about employee hesitation or reluctance to participate in this project as it could represent a barrier to the development of a culture of interdisciplinary collaboration, QI, transparency, and open discussion of current organizational performance gaps; this could be associated with greater system-wide concerns, such as the lack of understanding of the importance of project evaluation as part of the project cycle, fear of repercussions, lack of confidence in QI project development, lack of employee empowerment, poor communication skills, time constraints, or employee burnout.
- As clinical performance is at large a function of the organization's culture, consider using leadership strategies to empower staff and build a culture of continuous QI such as the LEADS framework for leadership education (Barach, 2016).

- The LEADS framework could support a change in the organization's culture by addressing the five domains of leadership, including lead self, engage others, achieve results, develop coalitions, and systems transformation (Canadian College for Health Leaders [CCHL], 2016; Vilches, Fenwick, Harris, Lammi, & Racette, 2016).
- Consider expanding the capabilities of the EHR system regarding patient depression score progress as the system had multiple limitations, including the lack of capacity to provide efficient aggregate, population-based reporting on the patients' depression scores progress.

Contribution of the Doctoral Project Team

Most of the members of the doctoral project team were also members of the organization's QI team. In this regard, these team members had the difficult task of objectively evaluating their work and agreeing with the discussed gaps in the organization's QI project. As a project leader, the DNP student provided the impartial lens of a scholar-practitioner that fostered the necessary objectivity. Despite the initial hesitancy and the need for additional persuasion of some members of the team to participate and collaborate, ultimately all members of the team provided adequate information and contributed to the project. The members of the DNP project team, who also participated in the development of the organization's QI initiative, played a crucial role in clarifying some of the organization's QI team activities when they were not well-documented in the organization's meeting minutes documents. The conclusions and final recommendations of this project were developed with the approval of the majority of the team members. The framework that was used for the analysis of depression screenings

and the promotion of integrated care in this project could subsequently serve as a blueprint for organizational QI and the management of other clinical problems, especially those that carry a behavioral component, such as obesity, diabetes, compliance with therapy, dental care, smoking, and physical inactivity.

Strengths and Limitations

The evaluation of this QI plan revealed several strengths and limitations. One of the major strengths of the project was the recommended merged model for QI project evaluation that could also serve as a model for QI project development. The recommended merged model for QI project development and evaluation is easy-to-understand and applied by stakeholders who do not have previous experience with QI initiatives. Another strength of the project is addressing the issue of low depression screenings from a system-level versus departmental perspective. In this regard, the DNP student proposed shifting the emphasis from technical skills training to building a culture of QI for both the clinical staff and the leadership. The DNP student proposed recommendations to establish a pathway for the implementation of organizational changes and provision of education that enhances the clinical staff's and leadership's understanding of the ongoing process of QI and integrated care from a system perspective. In this regard, the DNP student recommended a variety of tools and models for QI, integrated care measurement, sustainability, and change management. The DNP student also recommended a greater emphasis on tracking patient progress as it relates to depression scores in addition to the number of patients that were screened.

One of the weaknesses of this project was the lack of sufficient data due to the suboptimal EHR system quality and reporting limitations. Additional data would have allowed further analysis of each step of the depression screening process and could have resulted in further recommendations. In addition, the project leader analyzed three months of data. A longer time frame may have revealed additional information for the evaluation.

Recommendations for Future Projects

QI and QI evaluation are complex processes that require thinking outside of the box and a certain amount of creativity. There is no single theory or model that can be applied to all QI evaluation projects. Organizational capacity and staff knowledge about the process of QI are crucial for the selection of the proper evaluation approach. DNP students should develop their projects by considering the interests of all major key stakeholders, including their educational institution, organization of interest, employees, and patients. Although evaluation projects developed by doctoral students are driven by scientific and altruistic motives, in general, they are designed to take a closer look at someone else's work and for that reason could cause resistance for participation and collaboration.

Section 5: Dissemination Plan

Institutional Dissemination

The dissemination of this scholarly work will be an important final step in presenting the results of this evaluation to the organization of interest. The project is reader-centered, or written with the consumer of healthcare information within and outside of the organization of interest in mind and is expected to be easy to understand by a broad audience within the healthcare system. In addition to publishing this project in a scholarly database, the dissemination plan will include the distribution of an electronic copy of the work to the organization's key stakeholders, including the senior leadership, core QI team, behavioral health team, and depression screenings QI team. In addition, a summary and access to the full text of the project will be provided to the entire staff. Key findings of the project will also be presented during staff meetings. The project may also be published in a peer-reviewed journal to reach a greater number of readers.

Nursing Profession

Although the work on this project reflects the organization of interest's specific structure, processes, outcomes, and culture, the proposed approach could be considered by other institutions and modified, adapted, and applied in a way that is compatible with their characteristics. The proposed frameworks, tools, and practical recommendations could be considered by a variety of external stakeholders and decision makers in a number of settings, including frontline nurses, nurse managers, behavioral health and primary care providers, QI officers, and administrators.

Analysis of Self

The work on this project aligned with my philosophical stance that primary care and behavioral health services should not be separated. After working on this project for more than a year, I can state with confidence that as a DNP professional, I have developed a unique set of knowledge and skills that combine expertise in organizational systems, QI, population health, project evaluation and development, and leadership. The completion of this evaluation project was challenging and yet rewarding and crucial for advancing my scholarly practice and skills in terms of transformational leadership, project evaluation, organizational assessment, systems thinking, and overall professional growth. One of the greatest challenges for me while fulfilling the role of a project leader was to maintain objectivity while evaluating the work of peers and colleagues, questioning existing practices, and providing constructive criticism. As a scholar and advanced practice clinician, I have advanced my knowledge related to depression screenings and integrated care. The QI evaluation and leadership skills that I have developed while working on the project have given me the knowledge and confidence to engage in similar initiatives in the future, face new challenges, and continue my journey as an agent of practice and social change.

Challenges, Solutions, and Insights

Working on this project forced me to step outside of my professionally challenging but well-controlled role as a clinical nurse practitioner and immerse myself into what I initially perceived as a complex world of project evaluation, an environment composed of interconnected and less predictable stakeholders and relationships.

However, my work was driven by my support of the idea that a DNP project such as this one could serve as a blueprint for increasing the access and quality of care for many people while helping clinicians and administrators develop the foundations of integrated care. As I am nearing the completion of this project, I clearly understand that DNP-prepared nurses are highly-trained healthcare professionals that bring unique expertise to healthcare. In my view, the future role the DNP nurses would be crucial not only for project development in healthcare organizations but also for the overall redesign of the healthcare system.

Summary

The purpose of this project was the evaluation of an existing QI initiative aimed at integrating behavioral health into primary care through increasing the rate of depression screenings in an FQHC. Two frameworks served as a theoretical basis for the evaluation through the formulation of a combined merged model that included the CDC's framework for program evaluation and the FOCUS-PDSA QI model. While both models are used as independent evaluative frameworks, a merged model approach such as that used in this project was not previously described in the literature. The rationale for the use of the merged model of evaluation instead of a traditionally used linear logic model was to provide a model that the organization could use in the future to solve the problem in addition to reporting the analysis of the initiative. The integration of the FOCUS-PDSA model into the evaluation process reflected the continuous nature of the depression screening QI process and provided a cyclical rather than linear connection between the

inputs, processes, outputs, and outcomes associated with the implementation of the planned interventions.

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Appendix A: Permission to use AACN's Levels of Evidence Copyrighted Material

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December 14, 2018

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Appendix B: EHR System Data Collection Evaluation Sheet

Item number / Criterion 1	Criterion 2	Criterion 3	Test result(s)	EHR system evaluation statement
1. The EHR test patient satisfies the criteria for screening according to the UDS depression measure denominator criteria.	n/a	n/a	Is the patient included in the total count of patients that need to be screened?	
2. The EHR test patient does not satisfy the criteria for screening according to the UDS depression measure denominator criteria.	n/a	n/a	Is the patient excluded from the total count of patients that need to be screened for depression?	
3. The EHR test patient has a negative PHQ-2 result.	n/a	n/a	Is the patient reported in the EHR system as screened for depression?	
4. The EHR test patient has a positive PHQ-2 result.	PHQ-9 is completed.	Follow-up depression plan is not documented.	Is the patient reported in the EHR system as not screened for depression?	
5. The EHR test patient has a positive PHQ-2 result.	PHQ-9 is not completed.	Follow-up plan is not documented	Is the patient reported in the EHR system as not screened for depression?	
6. The EHR test patient has a positive PHQ-2 result.	PHQ-9 is not completed.	Follow-up depression plan is documented.	Is the patient reported in the EHR system as not screened for depression?	
7. The EHR test patient has a positive PHQ-2 result.	PHQ-9 is completed.	Follow-up depression plan is documented.	Is the patient reported in the EHR system as screened for depression?	
8. Any criterion for screening is not satisfied.	n/a	n/a	Does the EHR system generate alerts for depression screenings?	

Appendix C: QI Team Selection Chart

Use the following grading scale to evaluate each candidate:

- 1= strongly disagree (this characteristic does not represent this individual)
- 2= disagree
- 3= neutral
- 4= agree
- 5= strongly agree.

Desired Characteristics	**Candidate's Initials and Score**									
Respected										
Team player										
Listener										
Communicator										
Problem solver										
Frustrated with current system										
Creative and innovative										
Open to change										
List area of skill/proficiency										
TOTAL SCORE										

Note: The QI Team Selection Chart was adapted from the "Improvement Teams" module by the HRSA (n.d.).

Appendix D: Roles and Responsibilities for QI Team Members Chart

Team Responsibilities	Team Leader	Team Facilitator	Team Member
Provide direction and focus to team activities	X		
Ensure productive use of team members' time		X	
Represent team to clinic management and quality committee	X		
Facilitating team meetings		X	
Ensure balanced participation by all team members		X	
Provide feedback and support to team leader		X	
Suggest problem-solving tools and techniques	X	X	X
Offer perspective and ideas and participate actively	X	X	X
Adhere to meeting ground rules	X	X	X
Complete assignment on time	X	X	X
Support implementation of recommendations	X	X	X
Keep up-to-date on QI training, research and methods	X	X	
Manage the team's time	X	X	
Take and distribute minutes of meetings		X	X

Note: The Roles and Responsibilities for QI Team Members Chart was adapted from the "Improvement Teams" module by the HRSA (n.d.).

Appendix E: QI Team Ground Rules

Ground Rule	Comments
1. Start the meeting on time.	
2. Have a prepared agenda with an objective and expected outcomes.	
3. End the meeting on time.	
4. Parking lot discussion items that don't relate to this meeting's objective.	
5. Complete action items as committed.	
6. One person speaks at a time.	
7. All team members are equals.	
8. Leave rank at the door.	
9. Address conflict by dealing with the issue not the person.	
10. Turn of cell phones / pagers.	
11. Notify the team in advance if you will be absent.	
12. Listen actively.	
13. Be a participant, not a lurker.	
14. What's said in the room, stays in the room.	
15. Have fun, but not at the expense of someone else's feelings.	
16. Be present, both physically and mentally.	

Note: The QI Team Ground Rules were adapted from the "Improvement Teams" module by the HRSA (n.d.).

Appendix F: Meeting Agenda Template

Team/Project Name:……..
Meeting Date: ……. Time: ……
Location: ……...
Team Members: ……

Content	**Start Time**
1. Clarify purpose and objectives	a.m./ p.m.
2. Select timekeeper and recorder, review roles	
a. Timekeeper	
b. Recorder	
3. Review prior action list	
4. Review agenda	a.m./ p.m.
5. Work through the agenda items	
a. …….	a.m./ p.m.
b. …….	a.m./ p.m.
c. …….	a.m./ p.m.
d. …….	a.m./ p.m.
e. …….	a.m./ p.m.
f. …….	a.m./ p.m.
g. …….	a.m./ p.m.
h. …….	a.m./ p.m.
i. …….	a.m./ p.m.
j. …….	a.m./ p.m.
6. Review key activities, information, and decisions	a.m./ p.m.
7. Plan next meeting agenda	a.m./ p.m.
8. Evaluate the meeting	a.m./ p.m.
9. Adjourn	a.m./ p.m.

Appendix G: Project Team Meeting Record

Team/Project Name: …….

Meeting Date: ……. Time: ……
Location: ……...

Meeting Outcomes/Decisions Reached:

1. ……
2. ……
3. ……
4. ……
5. ……
6. ……
7. ……

Actions Needed:

What	Who	When

Improvements for Next Meeting:

1. ……
2. ……
3. ……

Appendix H: QI Project Evaluation Questionnaire Based on the FOCUS-PDSA Model

FOCUS-PDSA Step	Evaluation	Recommendations
1. Find a problem or process to improve. Use the following questions to review the need for organizational change and the characteristics of the problem statement:		
1.1. Was a problem or process for improvement identified?		
1.2. How was the practice problem identified?		
1.3. Was the practice problem clearly defined?		
1.4. Was the problem statement properly formulated based on the Specific- measurable-attainable-relevant-timely (SMART) goals or another goal setting tool?		
1.5. Was the priority of the need for organizational change identified?		
1.6. Were the stakeholders identified?		
2. Organize a team to improve the process. The project evaluation team used the following questions to analyze the structure of the team, selection of the team members, team member roles and knowledge about the problem.		
2.1. Was a QI project team organized to facilitate the process?		
2.2. How were the quality improvement team members selected?		
2.3. Were the people included in		

the quality improvement team familiar with the problem and process?		
2.4. Were the roles of the team members within the organization related to the issue discussed in the project?		
2.5. Were the team members assigned specific roles?		
2.6. Did the team leader have previous experience with QI projects?		
2.7. What were the strategies for engaging the stakeholders?		
3. Clarify the problem and review the current knowledge of the process. The project evaluation team used the following questions to evaluate the team's understanding of the current process and problem, the importance of the depression screening quality indicator, and the data necessary to measure the process:		
3.1. Was the existing process clarified?		
3.2. Were the problem and current knowledge of the process clarified with the QI team members and the staff?		
3.3. Were written instructions readily available for the staff regarding the depression screening workflow, i.e., the steps that need to be performed to satisfy the depression screening criteria?		
4. Understand the problem and the root causes of process variation. The project evaluation team used		

the following questions to evaluate data and RCA methods:		
4.1. How was the data collected?		
4.2. Were the quantity and quality of the data adequate, i.e., was the data valid and sufficient?		
4.3. Were the variations and their impact on the current process identified?		
4.4. Were the problem and the root causes of the process variation analyzed and ranked by the QI team?		
5. Select an intervention to improve the process. The project evaluation team used the following questions to evaluate the suggested solutions:		
5.1. How the proposed intervention would facilitate the planned short-term and long-term outcomes?		
5.2. Were written instructions readily available for the staff regarding the depression screening workflow, i.e., the steps that need to be performed to satisfy the depression screening criteria?		
5.3. Were alternative solutions identified and discussed?		
5.4. What were the selected interventions to improve the process?		
5.5. Did the proposed intervention extend beyond addressing the root cause of the recent drop in depression screenings?		
5.6. Was the selected strategy for		

solving the problem reasonable with regard to cost, policy and procedure alignment, unintended consequences, organizational priorities, staff demands, and resources?		
6. Plan the improvements. The project evaluation team used the following questions to evaluate the planned interventions and approaches to facilitating organizational change:		
6.1. Was buy-in obtained from the key stakeholders?		
6.2. Were the cost and available resources considered?		
6.3. How were the resources determined, allocated, and evaluated?		
6.4. Were the interventions aligned with the organizational policies, procedures, and priorities?		
6.5. Were unintended consequences considered?		
6.6. Were staff demands, resistance to the plan, and strategies for overcoming resistance to change considered before the QI plan implementation?		
6.7. Was the proposed plan discussed with the stakeholders before the implementation?		
7. Do, i.e., implement the plan. The project evaluation team used the following questions to evaluate the implementation of the plan:		
7.1. How was the plan implemented?		
7.2. Were the changes implemented as planned?		
7.3. Were the changes initially implemented on a small scale?		
7.4. How were the project		

outcomes measured?		
7.5. Was the data collected as planned?		
7.6. How was the project success measured?		
8. Study the results. The project evaluation team used the following questions to evaluate the results from the intervention, determine whether additional changes are needed:		
8.1. Were the results evaluated?		
8.2. How were the results from the implementations studied?		
8.3. Were new learning opportunities identified?		
8.4. Were additional changes discussed?		
8.5. Were the findings communicated with the stakeholders?		
9. Act on the findings. The project evaluation team used the following questions to evaluate the need for improvement of the existing organizational plan:		
9.1. How was the impact of the project evaluated?		
9.2. Was the success of the QI plan quantified?		
9.3. Did the project improve depression screening rates?		
9.4. Was it determined whether further changes or improvements were warranted?		
9.5. Were sustainability and dissemination strategies discussed?		
9.6. How were sustainability and dissemination of the plan organized and executed?		

Appendix I: RCA Type of Factors

Type of RCA Factor	Comments
Institutional and regulatory.	
Organizational and management.	
Work environment.	
Team environment.	
Staffing.	
Task-related.	
Patient characteristics.	

Note: The RCA Type of Factors were adapted from the "Root Cause Analysis" by the AHRQ, 2019, retrieved from https://psnet.ahrq.gov/primers/primer/10/Root-Cause-Analysis.

Appendix J: Kotter Change Theory

Change Stage	Actions Needed	Threats
Create urgency.		
Form a powerful coalition.		
Create a vision for change.		
Communicate the vision.		
Empower others to act on the vision.		
Plan for and create short-term wins.		
Consolidate improvements and produce more change.		
Institutionalize new approaches.		

Note: The Stages of Change were adapted from the "Leading Change: Why Transformation Efforts Fail Improvement Teams" by J.P.Kotter, 2007, *Harvard Business Review, 85*(1), 96-103.

Appendix K: Strategies for Sustainability and Dissemination of Progress

Category	Considerations
1. Staff. a) Engagement. b) Education. c) Leadership.	
2. Organization. a) Infrastructure. b) Culture.	
3. Process. a) Adaptability. b) Measurement. c) Value.	

Note: Strategies for Sustainability and Dissemination of Progress were adapted from the "How to Build Sustainability Into the Innovation Process" by T. Minnier, 2014, retrieved from https://innovations.ahrq.gov/perspectives/how-build-sustainability-innovation-process.