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Improving Provider Adherence to Guidelines and Screening for Adult Depression in Primary Care

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IMPROVING PROVIDER ADHERENCE TO GUIDELINES AND SCREENING FOR ADULT DEPRESSION IN PRIMARY CARE

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Abstract

The purpose of this QI project was to improve provider adherence to the Institute for Clinical Systems Improvement (ICSI) Guidelines for Adult Depression in Primary Care to enhance the screening, diagnosis, treatment, and management of adult major depressive disorder (MDD). MDD is a widespread, disabling, and treatable psychiatric disorder that is primarily treated and managed by primary care providers (PCPs). Untreated depression is prone to become chronic and can lead to pain, suffering, disability, increased morbidity and mortality, and premature death, with serious repercussions for the individual and society. Universal and routine screening in primary care for depression in adults, in combination with adequate systems of support, is recommended by ICSI guidelines and has been found to be a cornerstone in the management of MDD. Despite this, depression remains underrecognized, underdiagnosed, and undertreated in primary care. The project objectives aimed at aligning the clinic with ICSI's guidelines to increase screening for depression, routine assessment for the severity of symptoms, referrals to behavioral health specialists (BHS), and minimize suicide risk. An MDD protocol was developed and all adult patients were universally and routinely screened for depression using PHQ-2 and/or PHQ-9 over an 8-week period. Project interventions were successful at initiating change toward improving provider adherence to ICSI guidelines. Screening rates for depression, routine assessment rate for the severity of symptoms, provider adherence rate to the suicide protocol, and the referral rate to a BHS increased from pre-intervention to post-intervention.

Keywords: Major depressive disorder, MDD, primary care, adult depression, depression screening, PHQ-9

Impact of Depression

Major depression is a common and treatable psychiatric disorder that affects over 300 million individuals globally and roughly 9% of the U.S. population (Maurer, Raymond, & Davis, 2018; World Health Organization [WHO], 2018). This disabling disorder is associated with astronomical medical costs and is linked to diminished role functioning and quality of life and increased morbidity and mortality; it is also linked with major co-morbidities such as arthritis, cardiovascular disease, asthma, cancer, diabetes, hypertension, and chronic respiratory and pain conditions (Institute for Clinical Systems Improvement [ICSI], 2016; Kessler & Bromet, 2013). If left untreated, major depression can lead to extensive pain, suffering, disability, increased morbidity and mortality, and even death (ICSI, 2016; Maurer et al., 2018).

Approximately 13 to 16% of adults in the United States will endure symptoms of depression in their lifetime, and nearly 4 to 8% of adults suffer from major depression in a given year (American Psychiatric Association [APA], 2017). A majority of Americans with depression seek care and treatment in primary care setting, with PCPs prescribing 79% of antidepressant medications and providing care for nearly 60% of patients with depression (Barkil-Oteo, 2013; ICSI, 2016; Maurer et al., 2018). Yet PCPs fail to recognize major depression in up to one half of their patients with depression (APA, 2017; ICSI, 2016; Maurer et al., 2018). Consequently, less than one half of adult patients experiencing major depression actually receive treatment, with only 20 to 40% of those being treated showing significant improvement over a 12-month period (ICSI, 2016). Routine screening for depression in adults 18 years of age and over is recommended by the ICSI guidelines for *adult depression in primary care* and the U.S. Preventive Services Task Force (USPSTF) in combination with adequate systems of care in place, and is cornerstone for the recognition, diagnosis, treatment, and management of

depression (ICSI, 2016; Maurer et al., 2018). Despite the USPSTF's recommendation, screening rates for depression remain low in primary care, with less than 5% of adults being screened (APA, 2017a). With depression being underdetected, underdiagnosed, and undertreated in primary care, there is a crucial need for PCPs to be adequately skilled in the recognition, diagnosis, treatment, and management of major depression (ICSI, 201; Maurer et al., 2018). PCPs are instrumental for the improvement of the recognition, diagnosis, and treatment of major depressive disorder (MDD), and without adequate screening and adherence to evidence-based guidelines for depression the patient, their loved ones, and society will continue to suffer from the deleterious effects of this burdensome disorder (Cameron, Habert, Anand, & Furtado, 2014; ICSI, 2016; Maurer et al., 2018).

Statement of the Problem

Major depression is a common, disabling, and treatable psychiatric disorder that affects over 300 million people globally and 9% of Americans (WHO, 2018; Maurer et al., 2018). According to WHO (2018), depression is a leading cause of disability and is projected to become the second leading cause of disability globally by 2020 (Kessler & Bromet, 2013). This psychiatric disorder is associated with astronomical societal costs and greater functional impairment than many other chronic diseases, including arthritis and diabetes (Centers for Disease Control and Prevention [CDC], 2018). Rates of depression differ based on age, sex, income, and health behaviors (CDC, 2018).

Despite depression being a treatable disorder and the majority of patients with depression receiving care from PCPs, depression is typically underrecognized, underdiagnosed, and undertreated in the primary care setting (Cameron et al., 2014; Maurer, 2012;). In most cases, even with recognition and treatment, outcomes are less than optimal, with greater than 75% of

depressed patients in the United States experiencing recurrence (Maurer, 2012). Untreated depression is likely to become a chronic disease and experiencing just one episode of depression places an individual at a 50% greater risk for experiencing another episode, only further increasing the chances of recurrence (APA, 2013). Untreated depression can lead to pain, suffering, increased morbidity and mortality, and even death from suicide, with serious repercussions for the individual, their family, and society (Maurer et al., 2018). Depression is underrecognized, underdiagnosed, and undertreated in primary care, highlighting the need for universal routine screening for adults per the USPSTF recommendations and adherence to evidence-based guidelines by PCPs, such as the ICSI (2016) guidelines for adult depression in primary care, to enhance the diagnosis, treatment, and management of MDD (APA, 2010; ICSI, 2016; Maurer et al., 2018).

Background and Significance

Depression is a widespread mental health disorder that is on the rise and affects nearly 300 million people of all ages globally (WHO, 2018). Major depression is one of the most common mental disorders in the United States and, according to the 2016 National Survey on Drug Use and Health study, approximately 16.2 million American adults suffer from depression, which roughly equates to 6.7% of the adult population (National Institute of Mental Health [NIMH], 2017). The 12-month prevalence of MDD in the United States is nearly 7%, with females experiencing 1.5 to 3-fold higher rates (8.5%) compared to males (4.8%) (APA, 2013; NIMH, 2017). Incidence of depression globally is 3% (Jesulola, Micalos, & Baguley, 2018).

Depression is one of the leading causes of injury and disability worldwide and is associated with higher rates of chronic disease, significant health care needs and utilization, impaired functioning, increased mortality from suicide, premature death, and overall higher

morbidity and mortality (CDC, 2018; Kessler & Bromet, 2013; WHO, 2018). Individuals with major depression have an overall increased risk of mortality 1.4 times greater than that of the general population and are more prone to premature death than the general population as a result of untreated mental or physical health issues (Funk, Drew, & Knapp, 2012). Mental health is crucial to an individual's wellbeing, to strong family and interpersonal relationships, and to live a full and valuable life (Office of Disease Prevention and Health Promotion, 2018). Mental health and physical health are indistinguishably connected and it is well established throughout the literature that depression is significantly correlated with the risk, occurrence, management, progression, and outcomes of severe chronic diseases and conditions such as diabetes, stroke, hypertension, asthma, arthritis, cancer, cardiovascular disease, arthritis, and a multitude of chronic pain conditions and mental health disorders that account for higher mortality rates and premature death in comparison with the general population (Kessler & Bromet, 2013; Office of Disease Prevention and Health Promotion, 2018). Individuals with depression often have comorbid conditions, and undiagnosed or untreated depression can lead to worsened outcomes in cardiovascular disease, cancer, and other conditions (ICSI, 2016).

The burden of depression has an impact on the depressed individuals, but can also adversely affect their families, society, and the health care system as a whole (CDC, 2016). The direct financial impact or economic burden is pretty straightforward and measures health care expenditures, which were estimated to be $210.5 billion dollars in 2010 for depression, and included workplace costs, direct costs, and suicide-related costs (Greenberg, Fournier, Sisitsky, Pike, & Kessler, 2015). The indirect financial impact is all other costs related to depression, which is not as straightforward as the direct financial impact. Depression is costly on the individual level in many ways, as it tends to be associated with higher risk of morbidity and

mortality, premature death particularly related to suicide, functional impairment, low education level, marital disruption, reduced role functioning, elevated risk of comorbidities, low income, low work performance, and unemployment, which only compound the financial burden (Scrandis & Watt, 2013). The burden of depression nationally and globally is astronomical, as higher costs are associated with increased health care needs (Maurer, 2012). Although there are known efficacious treatments available for depression, fewer than half of the individuals affected receive adequate treatment, which is linked to higher health care costs and poor health outcomes (Maurer, 2012; WHO, 2018). Another issue contributing to the global burden and rising costs associated with depression is the misdiagnosis or mismanagement of the disease (WHO, 2018).

Depression can be recurrent or persistent, and substantially impairs cognitive, social, physical, and overall functioning (Jesulola et al., 2018). The underlying cause of depression is complex with a number of factors being implicated in the pathogenesis (Jesulola et al., 2018). Despite continued research efforts in the understanding of the pathogenesis of depression, the precise mechanisms in which depression develops is unknown which is partly due to depression being a complex and heterogenous disorder with numerous potential etiologies (Jesulola et al., 2018). A number of factors alone and in combination, such as genetics, biogenic amine deficiency, environmental, immunologic, endocrine, and neurogenesis, have been identified in the literature as playing a role in the pathophysiology of depression (Jesulola et al., 2018). Evidence supports the role of particular neurotransmitters such as the 5HT serotonin receptors, Norepinephrine (NE), and Dopamine (DA) in the development and clinical manifestation of depression and is aligned with the monoamine hypothesis that proposes that reduced availability of these monoamine neurotransmitters results in decreased neurotransmission and neurocognitive function, which may consequently lead to depression (Jesulola et al., 2018). Although evidence

suggests that genetics plays a role in the development of depression, only a small number of genetic polymorphisms have significant relationships with MDD, and include the APOE, GND3, MTFHR 6771T, SLC6A3, SLC6A4, and the DRD4 genes (Jesulola et al., 2018). Hormonal and endocrine dysfunction, Hypothalamus-Pituitary-Adrenal axis dysfunction, and a number of immunological or inflammatory cytokines have also been correlated to the pathogenesis of depression (Jesulola et al., 2018).

The *Diagnostic and Statistical Manual of Mental Disorders, 5th ed.* (DSM-5) classifies mental health/psychiatric disorders, includes diagnostic criteria for depression, and per ICSI guidelines, should be utilized by the PCP to establish the diagnosis of depression (APA, 2013; ICSI, 2016). Classic symptoms of depression include a depressed mood, loss of interest in activities, difficulties with concentration, feelings of guilt, sadness, or worthlessness, and suicidal ideation (APA, 2013; ICSI, 2016; Kessler & Bromet, 2013). Per the DSM-5, depressive disorders include MDD, persistent depressive disorder (dysthymia), premenstrual dysphoric disorder, disruptive mood dysregulation disorder, substance/medication induced depressive disorder, depressive disorder due to another medical condition, other specified depressive disorder, and unspecified depressive disorders, with two of the most common forms consisting of MDD and persistent depressive disorder (APA, 2013; NIMH, 2016). The common feature of all of these depressive disorders is the presence of a sad, depressed, irritable mood accompanied by cognitive and somatic disturbances that affect the individual's functional capacity; the duration, timing, and presumed etiology are what differs among the disorders (APA, 2013).

MDD represents the classic condition within the depressive disorders and requires five or more of the following symptoms: depressed mood (most of the day), marked loss of interest/pleasure in activities, significant and unintentional weight loss/gain or changes in

appetite, insomnia/hypersomnia, psychomotor agitation/retardation, fatigue/loss of energy, feelings of worthlessness/excessive or inappropriate guilt, decreased ability to think or concentrate/indecisiveness, recurrent thoughts of death/suicidal ideation/suicide attempt. Per the DSM-5 diagnostic criteria, these must be present nearly every day, with the exception of weight change and suicidal ideation, and must be present during the same 2-week period and represent a clear-cut change from previous functioning (APA, 2013). At least one of the symptoms must be either depressed mood or loss of interest or pleasure in order for the diagnosis to be established (APA, 2013; ICSI, 2016). MDD diagnostic criteria requires the episode to be of at least two weeks' duration, with symptoms that cause clinically significant distress or impairment in social, occupational, or other areas of functioning that cannot be attributable to a substance or medical condition (APA, 2013; ICSI, 2016). In addition, the episode must not be better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other schizophrenia spectrum/psychotic disorders (APA, 2013). Finally, the patient should never have had a manic or hypomanic episode, although this exclusion does not apply if the mania or hypomania was substance or medically induced (APA, 2013; ICSI 2016).

Current evidence-based treatment of MDD includes a pharmacologic approach alone or in combination with non-pharmacological approaches such as cognitive behavioral therapy (CBT) or psychotherapy, and/or Electroconvulsive Therapy (ECT), depending on the symptoms and severity as recommended in the ICSI 2016 guidelines (APA, 2010; ICSI, 2016; Maurer, 2012). Selection of the initial treatment approach should consider clinical features such as the severity of symptoms, the presence of co-occurring conditions, and other factors such as prior treatment history or responses and patient preferences (Anderson, 2011; APA, 2010; ICSI, 2016). Pharmacologic evidence-based treatment with first-line antidepressants such as Selective

Serotonin Reuptake Inhibitors, Serotonin Norepinephrine Reuptake Inhibitors, Norepinephrine Dopamine Re-uptake Inhibitors, or mirtazapine are recommended for a period of at least six months per the ICSI 2016 guidelines, with assessment of efficacy at four weeks to be determined by a 50% reduction in symptoms and tolerance of side effects, which can be measured using the Patient Health Questionnaire-9 (PHQ-9) (Anderson, 2011; APA, 2010; ICSI; 2016; Maurer, 2012). Re-evaluation of efficacy should be performed at six, eight and 12 weeks and if there is not a 50% reduction in symptoms by eight weeks, the antidepressant should be substituted for another first-line antidepressant (Anderson, 2011; APA, 2010; Maurer, 2012). Maintenance with first-line antidepressant should continue at an optimal and tolerated dose for at least six months (Anderson, 2011; APA, 2010; Maurer, 2012).

The overall treatment goals for depression aim to achieve remission of the depressive episode (i.e., PSQ-9 score of less than 5), resolution of depressive symptoms, a return to the patient's baseline level of functioning, and a prevention of future relapse (APA, 2010; Anderson, 2011; Cameron et al., 2014; ICSI, 2016). The PHQ-9 assessment should be used routinely for subsequent visits by PCPs as a management tool to monitor the severity and treatment outcomes of depression (ICSI, 2016). This measurement-based approach to depression care, with consideration of PHQ-9 results and side effect evaluation in combination with evidence-based treatment algorithms, can help guide the PCP in the treatment of depression and toward remission for the patient (ICSI, 2016; Siu et al., 2016). The PHQ-9 assessment is also a valid tool to assess the risk for or presence of suicide ideation and can be used by the PCP to help determine if urgent referral to crisis specialty care is needed (ICSI, 2016; Siu et al., 2016).

Adequate screening, assessment, diagnosis, and treatment is needed to reduce the incidence, prevalence, and recurrence of depression as well as the chronicity of the disease, and PCPs are instrumental in reducing the burden of depression and improving the quality of care.

With fewer than half of all individuals who experience depression seeking treatment, PCPs should promote awareness, adequately screen, and help to reduce the stigma surrounding mental health, in an effort to overcome barriers to access to care (ICSI, 2016; Mauer 2012; WHO; 2017). Despite the availability of various efficacious treatments for depression, the risk of relapse remains extremely high with recurrences, severity, and treatment resistance ever-increasing (Gilli, Vicens, Roca, Anderson, & McMillan (2015). Considering these issues, PCPs should work at developing interventions geared toward preventing relapse or recurrence of depression and for overall prevention, as these are major concerns regarding the long-term management and care of patients with depression (Gilli et al., 2015). Routine screening for depression and adherence to the ICSI (2016) health care guidelines for adult depression in primary care can help guide PCPs in achieving improved recognition, diagnosis, and treatment of MDD in the primary care setting.

Assessment

An independent family medicine practice located in an urban city of South-Central Texas was the site for implementation of an evidence-based quality improvement project aimed at aligning the clinic with the ICSI 2016 guidelines for adult depression in primary care for the screening, diagnosis, treatment, and management of patients with MDD. The staff involved in the project at the clinic included the providers (one physician, three physician assistants), four receptionists, three medical assistants, one licensed vocational nurse, one referral coordinator, and an office manager.

The clinic sees an average of 600 patients per week. Roughly 1% of patients are 12 to 17 years of age, 17% are 18 to 24 years of age, 26% are 25 to 44 years of age, 34% are 45 to 64 years of age, and 22% are 65 years of age and over. Patients' ethnic/racial backgrounds are

60.4% Hispanic, 56.2% White Non-Hispanic, 1.4% Black, 1.3% Asian, and 0.7% classified as "other." The male to female ratio is estimated at 50:50. A majority of the patients speak Spanish or English, with the greatest preference typically being Spanish. All of the clinic's staff are bilingual and speak both English and Spanish, with the exception of one staff member. Demographics of the patients served at the clinic are comparable to those of the county in which it is located (Health Collaborative 2016; U.S. Census Bureau, 2016). Approximately 27% of patients seen within the clinic over 6 months (June 2018-December 2018) sought psychiatric services or care, with 21% of those patients having a diagnosis of MDD.

A community health needs assessment for the county in which the clinic is located identified depression as being one of the community's top priorities and the most common mental health issue requiring complex solutions and interventions (Health Collaborative, 2016). This predominately Hispanic community has low income and poverty rates that are higher than average in comparison to national rates, as well as low educational levels and health literacy, which contributes to the community's increased risk for depression (Health Collaborative, 2016). Key barriers to care identified for those with mental illness within this community were a lack of involvement and awareness of behavioral health issues by PCPs, a low number of referrals to behavioral health specialists by PCPs, a heavy reliance on medications by PCPs for mental health issues when other interventions may be necessary or potentially more effective, and a lack of collaboration with or connection by PCPs to behavioral health resources within the community (Health Collaborative, 2016). According to the National Alliance on Mental Illness, Hispanics are less likely to utilize behavioral health specialty services, further highlighting the need for improvements in care at this clinic for patients with depression (Health Collaborative, 2016). With the clinic's patient population and surrounding community being predominately

Hispanic, having multiple health disparities, and at an increased risk for depression, there is a critical need to enhance the management of depression at this clinic.

An October 2018 microsystem assessment was performed, and indicated that the clinic and the providers lacked the uniform use of evidence-based guidelines for the screening, diagnosis, treatment, and management of MDD. Various guidelines were being utilized by the providers when providing care for depressed patients, with diagnosis being based primarily on the DSM-IV diagnostic criteria for depression. Screening of patients for depression was not being conducted in the clinic and clear evidence-based protocols were lacking regarding the treatment, referral, and follow-up for patients with MDD. A protocol was also lacking for the management of patients with depression expressing suicidal ideation and/or those posing an imminent threat to the safety of themselves or others. The providers lacked a uniform approach regarding this issue and indicated that the patient was typically advised to seek care at a local emergency department and if the patient refused, a relative of the patient was notified to help convince the patient to seek emergency care. However, if the patient refused to seek emergent care as advised, it was uniformly expressed by the providers that they could not intervene any further unless the patient was actively harming themselves or someone else in the clinic. This established a need for provider education and a protocol to address this safety concern.

The clinic's referral resources for mental health specialists were very limited and outdated. The ICSI guidelines call for the universal and routine screening for depression in adult patients, use of the DSM-5 for the diagnosis of MDD, and an adequate system of care in place and aligned with evidence-based guidelines to ensure accurate diagnosis, effective treatment, and appropriate follow-up for the management of MDD. The clinic lacked uniform use of evidence-based guidelines for the screening, diagnosis, treatment, and management of patients with MDD.

Readiness for Change

Results of the October 2018 microsystem assessment and the ICSI guidelines were discussed and reviewed with key stakeholders and it was established that the clinic was not aligned with the ICSI's 2016 guidelines for adult depression in primary care. Prior to being apprised of the ICSI guidelines, the providers had been unaware of the recommendation for universal and routine screening of adult patients for depression and the clinical utility of PHQ-9 for the screening, monitoring of severity and treatment outcomes, and management of depression. Successive review of the guidelines indicated that a protocol needed to be developed to align the clinic with the ICSI guidelines. The providers in the clinic were motivated to improve the quality of care for depression in the clinic and were very receptive to the project. All staff and providers in the clinic expressed enthusiasm and a desire to participate in the project and the implementation of the evidence-based ICSI guidelines for adult depression in primary care in the clinic as a way to improve the quality of care.

Project Identification

Purpose and Objectives

The purpose of this evidence-based quality improvement project was to improve adherence of the clinic's PCPs to the ICSI's 2016 health care guideline for adult depression in primary care, and consequently improve the quality of care provided for adult patients with major depressive disorder. The ICSI guidelines call for routine screening for depression in adults aged 18 and older, with adequate systems of care in place, and can be used by PCPs to support the effective diagnosis, treatment, and management of major depression in the primary care setting.

The objectives of this evidence-based quality-improvement project were to:

1. Increase screening for depression for adult patients from the pre-intervention rate of 0% to 90% in 8 weeks, using Patient Health Questionnaire-2 (PHQ-2) and PHQ-9.
2. Increase the percentage of adult patients with an established diagnosis of depression who are routinely assessed for severity of symptoms from the pre-intervention rate of 0% to 50% in 8 weeks, using PHQ-9.
3. Increase provider adherence rate to the MDD Suicide Protocol from the pre-intervention rate of 0% to 100% in in 8 weeks for patients who scored positive to question 9 of PHQ-9.
4. Increase the percentage of referrals for adult patients with depression to mental health specialists as appropriate, per the ICSI 2016 guidelines for adult depression in primary care, from the pre-intervention rate of 0% to 50% by the completion of the eighth week of project implementation.

Anticipated Outcomes

By meeting these objectives, there will be an increase in the recognition of depression in adult patients, in the assessment of the presence and severity of depressive symptoms, in provider adherence to the MDD suicide protocol, and in referrals for adult patients with major depression to behavioral health specialists as appropriate, per evidence-based guidelines. The clinic will align with the USPSTF's recommendation for universal routine screening for depression in adults and will be in compliance with the ICSI's 2016 guidelines for adult depression in primary care.

Summary and Strength of Evidence

Depression is a widespread, debilitating, and treatable psychiatric illness most commonly managed and treated within the primary care setting (ICSI, 2016). A majority of patients in the

United States with depression are being seen and treated in the primary care setting and, despite effective treatment being available, outcomes remain suboptimal in primary care. Extensive literature supports the assertion that depression is underdetected, underdiagnosed, and undertreated by PCPs (ICSI, 2016; Siu, 2016; WHO, 2018). Screening is key in the prevention of depression, as effective recognition, diagnosis, and treatment is linked with lower chronicity, morbidity and mortality, recurrence, and incidence (CDC, 2017; Maurer, 2012; Maurer et al., 2018; Scrandis & Watt, 2013). The USPSTF found substantial evidence that screening improves the accurate identification of depression in adult patients in primary care settings, yet screening rates for depression continue to remain astoundingly low in primary care (ICSI, 2016; Siu et al., 2016).

The ICSI guidelines and the USPSTF recommend routine universal screening for depression in all adults, 18 years of age and over, at least annually when accompanied by systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up (ICSI, 2016; Maurer et al., 2018; Scrandis & Watt, 2013). Although screening for depression in adults in primary care is supported within the literature as being beneficial with adequate systems of care in place, evidence fails to distinguish the optimal timing and intervals for screening or what actually comprises adequate systems of care (ICSI, 2016; Siu et al., 2016).

Screening for depression is commonly done with validated tools such as PHQ-2 and PHQ-9, which are cornerstones in supporting the diagnosis of depression and for monitoring progress with treatment (ICSI, 2016; Maurer et al., 2018; Siu et al., 2016). The PHQ-2 assessment is a brief, valid, and reliable two-question screening tool that can be used for initial intake and routine screening for depression (ICSI, 2016; et al., 2016; Siu et al., 2016). One of the most efficacious screening tools used in primary care is PHQ-9, which has been validated to

detect depression and monitor the presence and severity of depressive symptoms (ICSI, 2016; Scrandis & Watt, 2013). If a patient screens with a positive PHQ-2 result, PHQ-9 screening tool can be administered and is supported in the literature as being an effective tool in the primary care setting to confirm the diagnosis, assess the severity of symptoms and suicidality, and monitor response to treatment for depression (ICSI, 2013; Maurer et al, 2018; Mitchell, Yadegarfar, Gil, & Stubbs, 2016; Siu et al., 2016). The PHQ-9 assessment is identified extensively throughout the literature as being an effective management tool for depression and can be used routinely for follow-up visits to monitor the severity and treatment of outcomes (ICSI, 2016; Mitchell et al., 2016; Siu et al., 2016). The clinical utility of PHQ-9 for the management of depression in primary care is extensively supported in the literature, as it can be used by PCPs to help guide and modify treatment plans (ICSI, 2013; Maurer et al., 2018; Mitchell et al., 2016; Siu et al., 2016). PHQ-9 results and side effect evaluation, combined with evidence-based treatment algorithms, can help PCPs to push patients with depression toward remission (ICSI, 2013; Maurer et al., 2018; Mitchell et al., 2016; Siu et al., 2016).

A multitude of studies suggest that screening for depression in clinical practice without adequate systems of care in place is of minimal benefit (Cameron et al, 2014; ICSI, 2016; Maurer, 2012; Mitchell et al., 2016; Siu et al., 2016). Programs implementing depression screening in conjunction with adequate support systems are emphasized as being crucial and beneficial (Cameron et al, 2014; ICSI, 2016; Maurer, 2012; Mitchell et al., 2016; Siu et al., 2016). Adequate systems of care are commonly identified in the literature as having sufficient clinical staff to ensure that patients are screened and, if the patient screens positive, that evidence-based care is being provided to ensure appropriate diagnosis, treatment, referral, and follow-up (Cameron et al, 2014; ICSI, 2016; Maurer, 2012; Mitchell et al., 2016; Siu et al.,

2016). The lowest level of support necessary to implement effective screening for depression was supported in the literature as requiring, at a minimum, a staff member to advise PCPs of positive screening results, and a protocol that facilitates referral to evidence-based treatment for depression (Cameron et al, 2014; ICSI, 2016; Maurer, 2012; Mitchell et al., 2016; Siu et al., 2016). A meta-analysis of 52 randomized controlled trials compared the effects of treatment with antidepressants alone versus combined treatment with antidepressants and psychotherapy for adult patients with depression, and results indicated that monotherapy with antidepressants may not constitute optimal treatment for depression and that combined treatment to include antidepressants and psychotherapy is more effective than antidepressant medication alone for the treatment of depression (Cuijpers et al., 2014). A multidisciplinary team-based approach that encompasses self-management support and care coordination is widely supported in the literature as being effective for the management of depression in primary care (Cameron et al, 2014; ICSI, 2016; Maurer, 2012; Siu et al., 2016). Recent studies have found that approximately 25 to 60% of individuals contemplating suicide seek attention for a medical problem from a PCP in the weeks prior to death and typically do not seek psychiatric help, which highlights the need for adequate systems to be in place in primary care settings to help identify and monitor patients at risk for suicide (SAMHSA-HRSA, 2019). A multitude of literature supports the recommendation of screening patients for suicidal ideation using a standardized screening tool such as PHQ-9 (Ingelse, 2016). The PHQ-9 assessment can be used to identify individuals at risk for suicide and has been found to be more reliable than clinical judgement or assessment alone (ICSI, 2016; Ingelse, 2016; SPRC, 2017). Further research is needed to identify, assess, and address barriers in establishing adequate systems of care (ICSI, 2016; Mitchell et al., 2016; Siu et al., 2016).

Methods

Project Intervention

Prior to project implementation, screening for depression or suicide ideation with a validated instrument was not being conducted by PCPs within the clinic. Referrals to a behavioral health specialist for patients with a diagnosis of MDD were very infrequent and were not based on evidence-based guidelines for depression. Overall, the clinic lacked uniform use of evidence-based guidelines by PCPs for screening, diagnosis, treatment, and management of patients with MDD. Routine screening for adults 18 years of age or older for depression in the primary care setting using PHQ-2 and PHQ-9 has been shown to improve detection, diagnosis, and outcomes of depression (ICSI, 2016). PHQ-2 is a valid assessment instrument for detecting depression and has been established to be up to 97% sensitive and 67% specific in adults (Maurer, 2012). The PHQ-2 assessment scores range from 0 to 6, with a cut point of ≥ 3, which suggests clinically significant that should prompt further screening and assessment with PHQ-9 (ICSI, 2016). PHQ-9 is a valid assessment tool for measuring depression severity, and for detecting and monitoring depression in the primary care setting, with a sensitivity of 0.77 and a specificity of 0.85 in adults (ICSI, 2016). PHQ-9 can be used by PCPs to help identify depression and to guide and monitor treatment. However, these screening tools should only be used by PCPs to enhance and not replace the clinical interview (ICSI, 2016). Screening of the general adult population with the combination PHQ-2 and PHQ-9 can improve the detection, diagnosis, outcomes, and functioning for patients with depression (ICSI, 2016).

Prior to project implementation, one-on-one interactive education was carried out with each PCP on the screening, diagnosing, treatment, referral, and management of MDD and included the screening procedure using PHQ-2 and PHQ-9, how to score and interpret PHQ-2

and PHQ-9, DSM-5 criteria for diagnosing MDD, how to translate PHQ-9 depression scores into practice based on DSM-5 criteria and ICSI guidelines, PHQ-2 and PHQ-9 screening timing and interval, how to assess and minimize suicide or homicide risk, when to refer to a behavioral health specialist, and how to use PHQ-9 scores to monitor treatment response and severity of MDD (see Appendix M). Each PCP in the clinic was provided with a copy of the clinic's MDD Provider Handbook, which included a copy of the ICSI 2016 guidelines, copies of the PHQ-2 assessment and PHQ-9 assessment with instructions on how to score and interpret the forms, a copy of DSM-5 criteria for MDD (see Appendix J), a copy of MDD in primary care (see Appendix K), a copy of the clinic's MDD provider algorithm (See Appendix L), a copy of MDD provider treatment recommendation table (see Appendix M), and a copy of the clinic's MDD suicide protocol for the assessment, management, and, minimization of suicide risk (see Appendix N). The project implementation plan was discussed through one-on-one interactive education sessions provided to all clinic staff regarding their roles and responsibilities during the implementation phase of the project. Laminated copies of the MDD provider algorithm and the MDD provider treatment recommendation table were posted in each patient room within the clinic for provider referral. Laminated copies of the first two pages of the MDD suicide protocol were posted for reference on the wall in the provider area, near the referral coordinator's desk, near the office manager's desk, and on the counter in the front reception area. Data collection sheets were color coordinated according to provider in order to track weekly provider adherence screening rates.

Also prior to project implementation, a referral system was initiated and established with a nearby psychiatric outpatient clinic. Collaboration between the psychiatrist/owner of the psychiatric practice and the medical director/owner of the clinic was fostered in an effort to

increase referrals to mental health specialists, as suggested in ICSI guidelines. An online referral portal was established by the nearby psychiatric outpatient clinic in the EHR at the project site/clinic in which same-day/immediate or routine referrals could easily be made online by the PCPs, as needed.

Beginning on day one of implementation, all adult patients aged 18 years and older being seen in the clinic were administered PHQ-2 form in English or Spanish, based on their language preference, by the front desk receptionist to screen for depression. Verbal consent from the patient to administer PHQ-2 was obtained by a front desk staff member, who filled in the applicable section of the data collection forms, which were color coded and selected based on the provider seeing the patient. Once the PHQ-2 form was completed, the patient returned the form to the front desk receptionist, who then placed it with the patient's face sheet and appropriate data collection sheet in a bin for the Licensed Vocational Nurse (LVN) or Medical Assistant (MA) responsible for triaging and rooming the patient. The LVN or MA took the completed PHQ-2 form, data collection form, and the patient’s face sheet with them as they roomed the patient and obtained vital signs. The LVN or MA scored the PHQ-2 form and made note on the patient’s face sheet and data collection form of the PHQ-2 score and result. The LVN or MA then determined whether or not the patient had a previous or existing diagnosis of depression by reviewing the face sheet with previous diagnoses listed and by asking the patient. If the patient had a current or previous diagnosis of depression, or if they screened positive for depression using PHQ-2 with a score of at least three or greater, the LVN or MA administered PHQ-9 to the patient in their room to complete while they were waiting to be seen by their PCP.

The PCP interpreted the PHQ-2 results and then scored and interpreted the results of the PHQ-9 test. The PCP used the PHQ-9 assessment to help determine the severity of depressive

symptoms and to establish a baseline for patients without a previous diagnosis of depression or for the monitoring of treatment response and severity of depressive symptoms for patients with a previous diagnosis of MDD. The PCP assessed all patients with a positive PHQ-2 result for suicidal ideation using Question 9 of the PHQ-9 and in accordance with the clinic's MDD suicide protocol. The PCP followed the MDD provider algorithm, the provider treatment recommendation table, and the clinic's MDD suicide protocol for the assessment and minimization of suicide risk and for the treatment of the patient. The PCP recorded the PHQ-9 score, whether or not the patient had a positive response for Question 9 of PHQ-9, whether or not the patient was assessed for SI, whether or not the patient was positive for SI, and whether or not the patient was referred to a mental health specialist, to include the reason the referral was made or not made on the data collection form.

Referral of the patient to a behavioral health specialist, for inpatient evaluation or treatment, or for further psychiatric treatment was made by the PCP and based on their clinical judgment and the clinic's MDD provider algorithm, MDD provider treatment recommendation table, and the MDD suicide protocol. After seeing the patient, the PCP was responsible for filing the data collection sheets in a file folder according to the day of the week.

The implementation phase was conducted over an eight-week period in which every adult patient aged 18 and older was initially screened for depression using PHQ-2. Patients with a previous diagnosis of depression or who screened positive for depression using PHQ-2 (score ≥ 3) were also administered PHQ-9 and screened further for depression to help establish a diagnosis and/or baseline of MDD, assess the severity of depressive symptoms, and assess for the presence of suicidal ideation. All patients with a previous diagnosis of MDD during the eight-week implementation phase were administered PHQ-9 routinely at every visit to monitor

treatment response and the severity of depressive symptoms. All patients being seen by a provider in the clinic during the first eight weeks of project implementation were included in post-intervention data collection and analysis.

Data Collection sheets were kept in a file folder and stored in a locked drawer in the clinic's provider area. The data collection sheets were reviewed weekly in the clinic and data was entered and tracked using an excel spreadsheet. Weekly screening rates were calculated for the providers by comparing the daily ledger of their patients to their total number of data collection forms for each day. Results for provider adherence were posted weekly in the clinic's breakroom to encourage provider adherence and project participation.

Organizational Barriers and Facilitators

Organizational barriers identified included resistance to change by staff; time constraints for PCPs and front desk receptionists related to the implementation of screening, which is a fast-paced and time sensitive environment; and high staff turnover. PCP resistance to referring patients with depression to behavioral health specialists was another barrier to the project, and to increasing referral rates to behavioral health specialists, as this was viewed by a majority of the PCPs as losing revenue. Unforeseen circumstances occurred in which only three providers were able to participate for a duration of 6 weeks during project implementation, with only two providers participating the entire 8-week duration of project implementation. Lastly, high turnover of front desk staff occurred during project implementation, which required modifications to be made to the screening process with PHQ-2. Consequently, the LVN or MA, instead of the front desk reception staff, were responsible for administering both the PHQ-2 and PHQ-9 screening tools while rooming and triaging the patients for the remaining phase of project implementation.

Potential project facilitators included the clinic staff's willingness to change and improve processes for the diagnosis, treatment, and management of MDD, and increased visits and reimbursements for the clinic related to screening with PHQ-2 and PHQ-9. The providers were very open to collaborating with behavioral health specialists to improve care for adult depression. Collaborations between the owner of the primary care clinic in which the project was implemented and with a psychiatrist and owner of a nearby psychiatric outpatient facility was fostered and established, which resulted in a system for referral and collaborative care. An electronic referral portal was implemented by the office manager of the psychiatric facility into the EHR at the clinic, in which providers could schedule same-day or routine psychiatric appointments for patients in need of referral. The providers were very satisfied with the user friendliness of the referral portal and uniformly expressed that having a psychiatric referral source with immediate availability would increase the referral rate to behavioral health specialists, because a perceived barrier to patients being referred was the long wait times to be seen by a behavioral health specialist.

Ethical Considerations

Screening for depression can lead to false positive results and consequent inappropriate diagnosis and treatment (Sheehan & McGee, 2013). Literature suggests that screening alone cannot be used to establish the diagnosis of depression and is only beneficial with adequate systems of care in place to ensure accurate diagnosis, treatment, and follow-up (Siu et al., 2016). Screening positive for depression also involves implications for confidentiality and informed consent (Sheehan & McGee, 2013). Confidentiality should be maintained at all times and consent should be obtained from the patient prior to screening for depression regarding the disclosure of information and how it will be used (Sheehan & McGee, 2013). At the clinic,

patient confidentiality of positive screening results was maintained at all times and patients were made aware of how the screening results would be handled. Verbal consent from the patient was obtained by clinical staff prior to administration of PHQ-2 and/or PHQ-9.

Screening for suicide risk in patients can pose ethical concerns for providers, as the ICSI guidelines recommend emergency detention for patients who refuse treatment and are deemed to be imminently dangerous to themselves or others (ICSI, 2016). Seeking emergency detention for a patient requires the provider to report the threat to local law enforcement and breach patient confidentiality (ICSI, 2016). Consequently, the provider may be confronted with an ethical and legal dilemma in which the duty to maintain the patient's confidentiality conflicts with the duty to protect the patient's and public's health and safety. Currently, there is no national consensus on whether a provider has a duty to warn individuals who are not his or her patients who could foreseeably be endangered, to protect them, or both (McMullen, Howie, & Philipsen, 2013). Although national consensus doesn't exist regarding the duty to warn, the seminal case (*Tarasoff v. Regents of the University of California,* 1976) set a standard of duty to protect third parties against harm and, although only legally binding in California, has had far reaching implications and has set legal standards in many states across the nation (Barloon & Hilliard, 2016). In accordance with Texas Health and Safety Code §611.004 (2005), Texas is a permissive state and the healthcare provider has no duty to inform law enforcement of a threat of violence and is granted a permissive duty to warn, with the decision of whether to warn or not to warn being left up to the provider (McMullen et al., 2013). Providers should consider the legal, ethical, and moral aspects and be familiar with pertinent rules, laws, and regulations to help address the dilemma and to avoid any possible legal action (McMullen et al., 2013).

Results

In order to evaluate outcomes for the project, the percent change from pre-intervention to post-intervention was calculated for each objective after 8 weeks of intervention implementation (see Figure 1). The percentage increase calculation can be used to measure the success of the project objectives and to determine if goals were met, as the pre-intervention number for each objective was zero. The percentage increase calculation can be determined by working out the difference between the two numbers (number of patients' post-intervention minus number of patient's pre-intervention), which determines the percentage increase. The percentage increase calculation can then be used to determine if screening for depression with PHQ-2 and PHQ-9 for adult patients increased, if the percentage of adult patients with depression who were assessed by PCPs for the presence and severity of depressive symptoms increased with use of PHQ-9, if the percentage of providers adhering to the MDD suicide protocol increased, and if the percentage of referrals for adults with depression to a behavioral health specialist increased using the ICSI guidelines for (see Table 1).

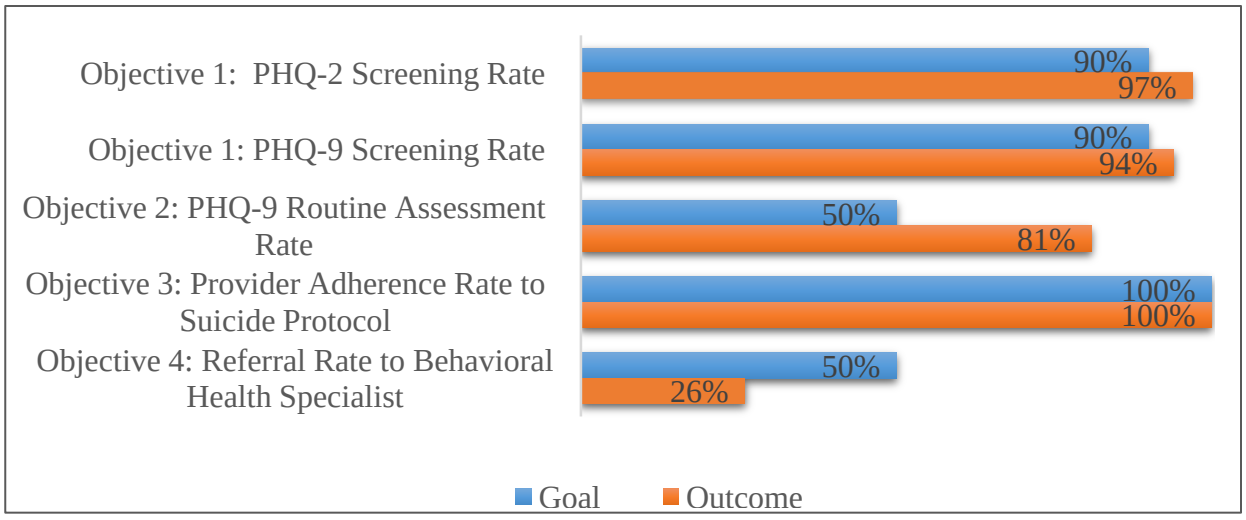

Figure 1. Objective outcomes: Percent change from pre-intervention to post-intervention for each objective.

Objective 1

The first objective aimed to increase the screening rates for adult depression by 90% using PHQ-2 and PHQ-9. During the 8-week project implementation period a total of 2,312 adult patients were seen in the clinic and were eligible for initial screening for depression with PHQ-2, with 2,242 (97%) of those patients actually being screened (see Figure 2). Of the 2,242 patients, 670 (30%) screened using PHQ-2 scored positive (PHQ-2 score ≥ 3), with 71 out of the 670 (11%) patients scoring positive already having an existing diagnosis of depression, and 599 out of the 670 (89%) patients scoring positive without a previous diagnosis of depression. Of the 2,242 patients, 86 (4%) screened using PHQ-2 scored negative with an existing diagnosis of

Table 1

Demographic Characteristics of Patients

Characteristics	*n* = 2,312	%
Gender		
Male	1,087	47%
Female	1,225	53%
Race/Ethnicity		
White (Non-Hispanic)	1,018	44%
Hispanic	1,225	53%
African American	23	1%
Other	46	2%
Age (in years)		
18–24	486	21%
25–44	786	34%
45–64	647	28%

depression and were also eligible for further screening with PHQ-9. The total number eligible for further screening with PHQ-9 were 756 patients. A total of 711 of the 756 eligible patients (94%) were actually screened using PHQ-9 (see Figure 3). Of the 711 adult patient, 585 (82%) without a previous diagnosis of depression were screened for depression to establish a baseline using PHQ-9, while 126 (18%) of adult patients with a previous or existing diagnosis of depression were screened further for depression using PHQ-9 to monitor the severity of depressive symptoms and treatment response (see Figure 5). Of the 585 patients who scored positive on PHQ-2 without an existing diagnosis of depression and who were screened further with PHQ-9, 205 (35%) scored positive for depression (PHQ-9 score ≥ 10) and were newly diagnosed (see Figure 4). Total screening rates for all adult patients during project implementation using PHQ-2 was 97% (see Figure 2), while the total screening rate using PHQ-9 was 94% (see Figure 3). The screening rates for depression in adults increased from the pre-intervention rate of 0% to post intervention by 97% using PHQ-2 and by 94% using PHQ-9 (see Figure 1).

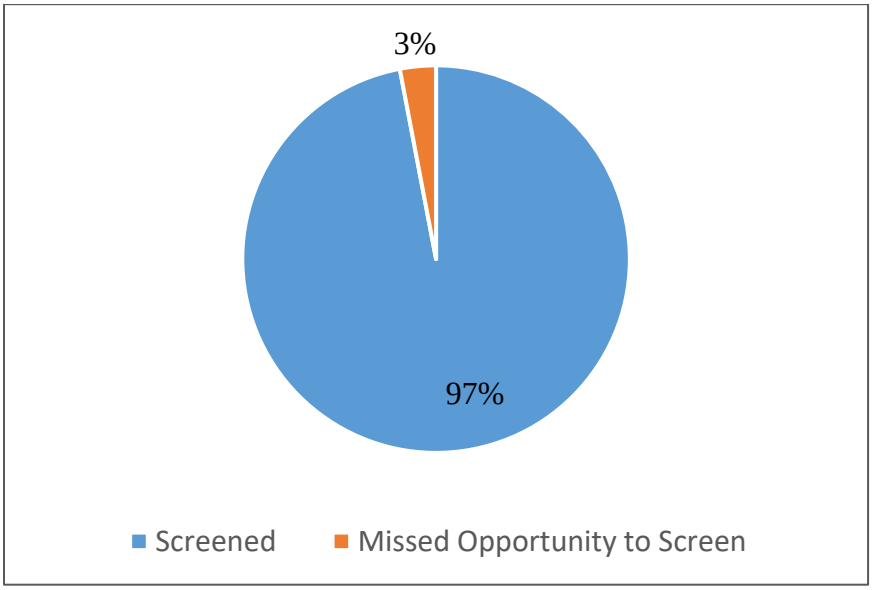

Figure 2. Eligible patients screened for depression by PCP using PHQ-2 (*n* = 2,312).

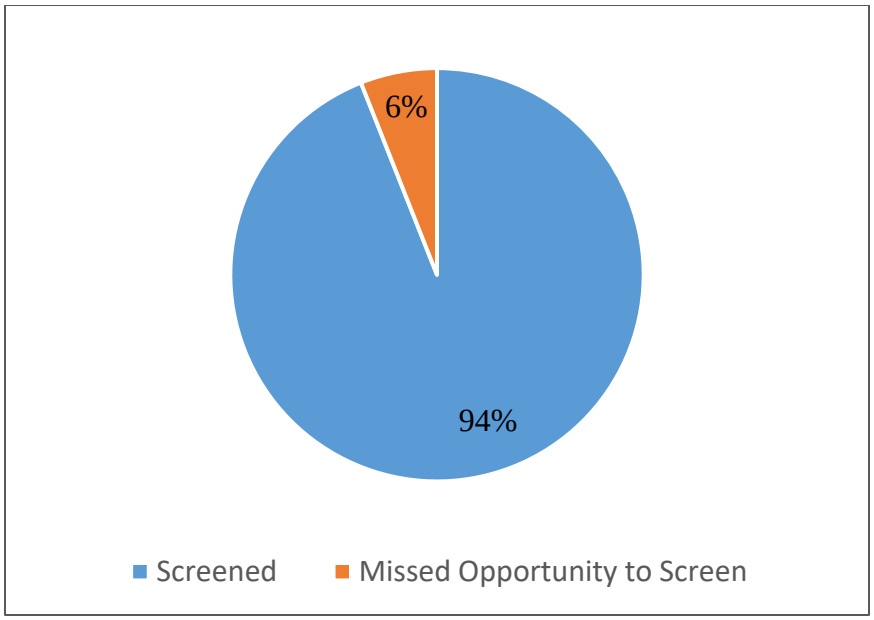

Figure 3. Eligible patients screened for depression by PCP using PHQ-9 (*n* = 756).

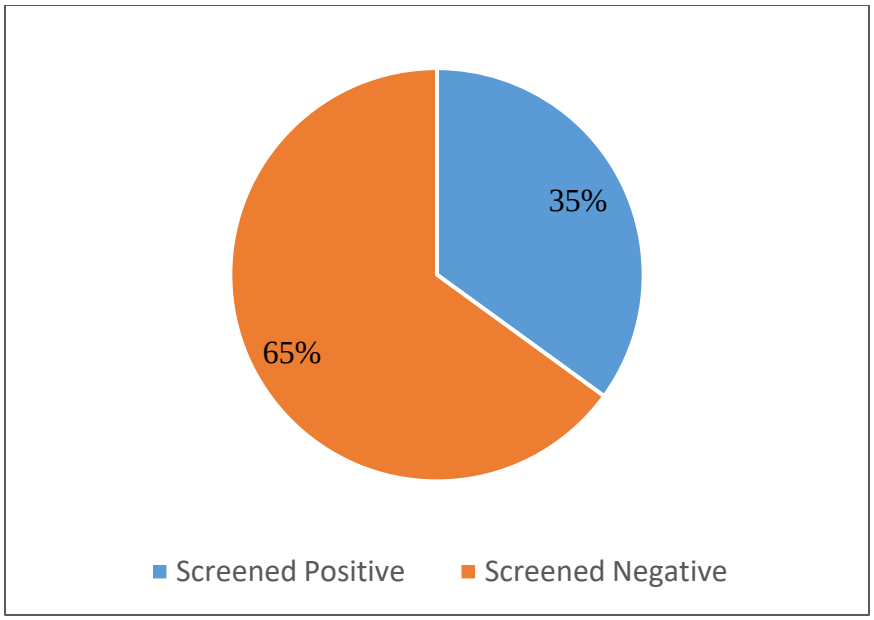

Figure 4. PHQ-9 Screening results for patients without a previous diagnosis of depression (*n* = 585).

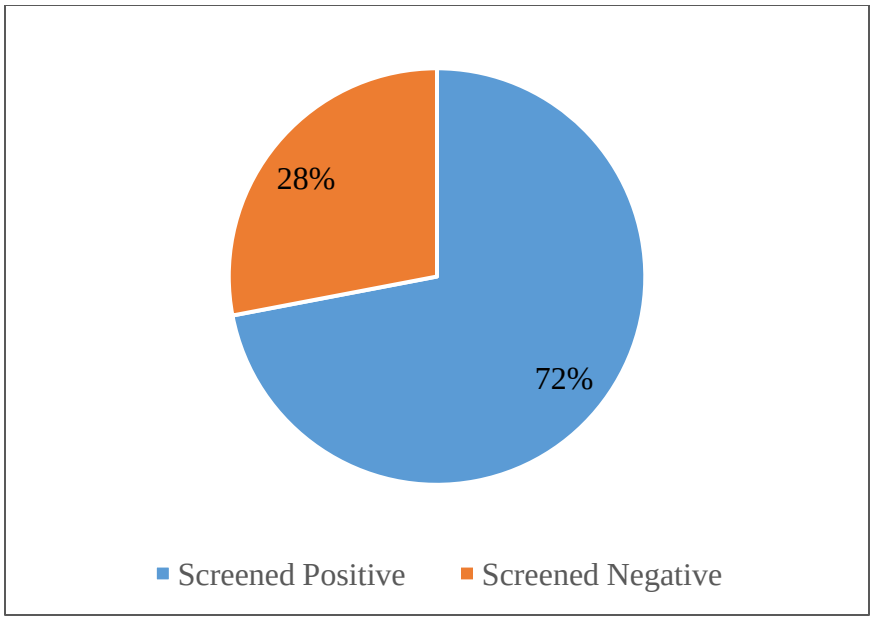

Figure 5. PHQ-9 screening results for patients with a previous diagnosis of depression (*n* = 126).

Objective 2

The second objective aimed to increase the percentage of patients with depression who were routinely screened for the severity of symptoms using PHQ-9 by 50% post intervention. A total of 157 adult patients with an existing diagnosis of depression were initially screened in the clinic during project implementation using PHQ-2 and were eligible for further screening using PHQ-9. Of the 157 patients eligible to be screened with PHQ-9, 126 patients (81%) were actually screened to assess the severity of depressive symptoms (see Figure 6). Overall, screening and assessment in patients with depression by PCPs for the severity of depressive symptoms using PHQ-9 increased from a pre-intervention rate of 0% to a post-intervention rate of 81% (see Figure 1).

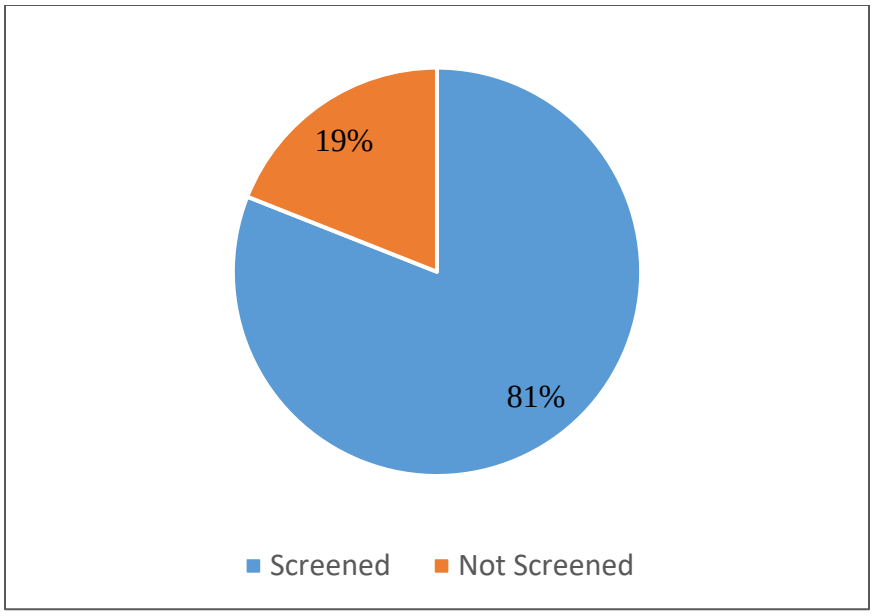

Figure 6. Patients with a previous diagnosis of depression that were screened and assessed by the PCP using PHQ-9 (*n* = 126).

Objective 3

The third objective aimed to increase provider adherence to the MDD suicide protocol by 100% for patients responding positively to question 9 of PHQ-9. A total of 711 patients were assessed by the PCP for suicidality using Question 9 of PHQ-9. Of the 711 patients, 14 (0.02%) who were screened with PHQ-9 had a positive response to question 9 (see Figure 7). The providers adhered 100% to the MDD suicide protocol for the 14 patients scoring positive to question 9 of PHQ-9, with all 14 patients being further assessed for suicide, referred, and followed up appropriately, per the MDD suicide protocol. Of the 14 patients responding positive to Question 9 of PHQ-9, only 3 of those patients (21%) were actually deemed to be of high suicide risk and were appropriately and immediately referred to a behavioral health specialist (see Figure 8).

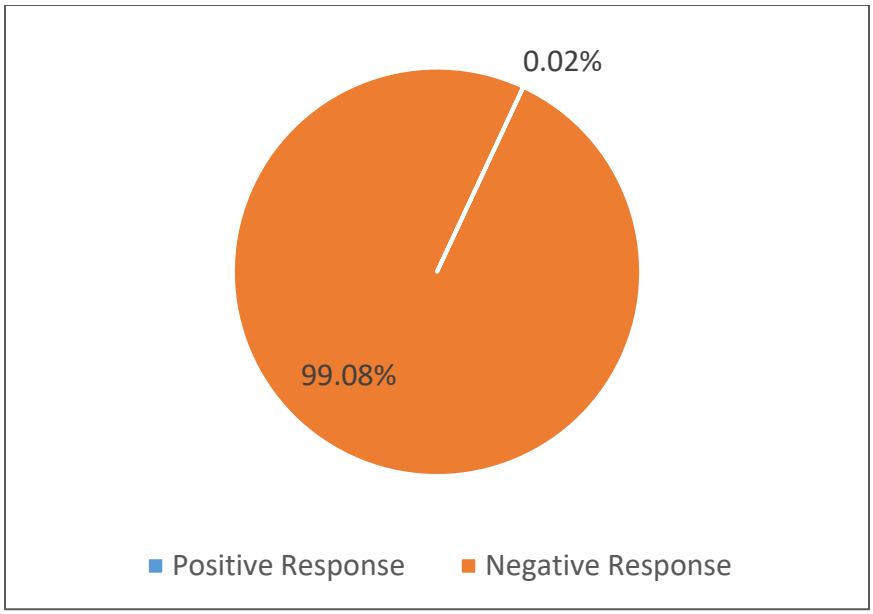

Figure 7. Patient responses to Question 9 of PHQ-9 (*n* = 711).

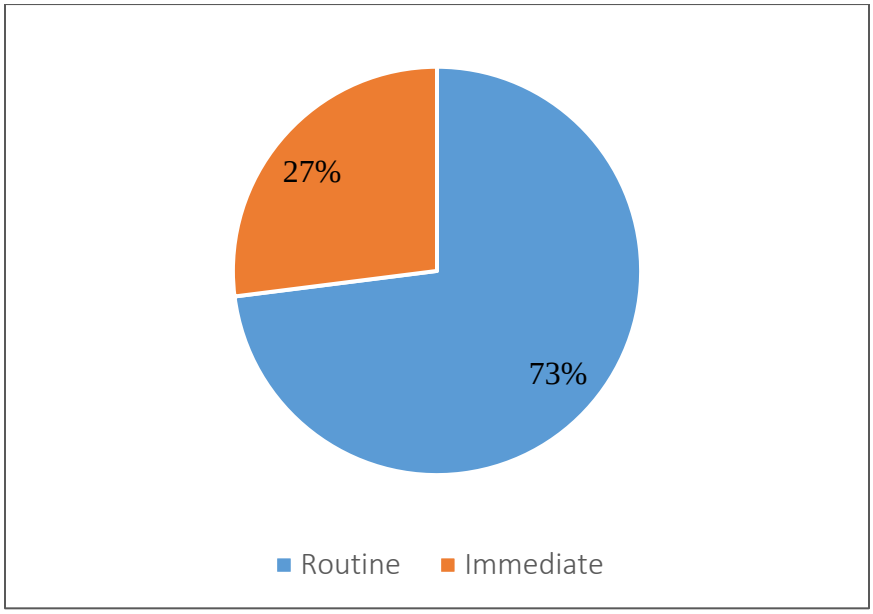

Figure 8. Referral types made by the PCP to a behavioral health specialist for patients responding positively to Question 9 of PHQ-9 (*n* = 14).

Objective 4

The fourth objective aimed to increase the referral rate for patients with depression to a behavioral health specialist per ICSI guidelines by 50%. A total of 75 out of 288 patients (26%) eligible for referral to a behavioral health specialist who either had depression (PHQ-9 score ≥ 10) or were deemed a high suicide risk were referred to a behavioral health specialist. Of the 75 referrals made, 72 (96%) were for routine referral to a behavioral health specialist, while the remaining 3 (4%) were made for immediate referral due to high suicide risk (see Figure 9). Of the 288 patients, 213 (74%) with depression (PHQ-9 score ≥ 10) who were eligible for referral to a behavioral health specialist were not referred (see Figure 9). The reasons for non-referral to a behavioral health specialist were documented by the providers on the data collection form and were categorized as either not being indicated, not being needed as treatment was being provided by the PCP, or due to an other unspecified reason, with 41 patients (19%) being documented by the providers as "not indicated," 134 patients (63%) being documented as not being made due to "treatment being provided by the PCP," and the remaining 38 patients (18%) being documented as not being referred due to "other" reason (see Figure 10). Although the objective goal was not specifically met, the referral rate for patients with depression to a behavioral health specialist using the protocols and ICSI guidelines increased by 26% post-intervention, falling short of the goal of 50% (see Figure 1).

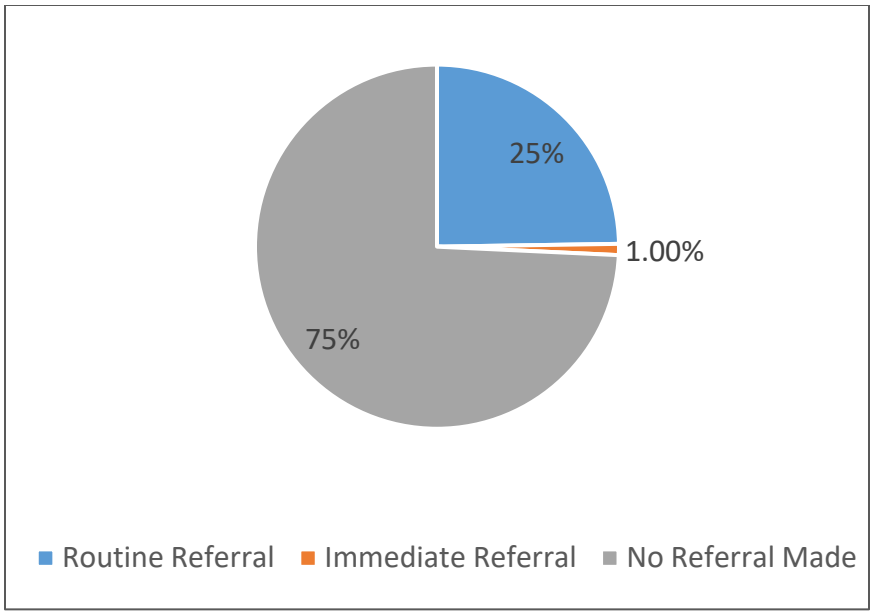

Figure 9. Referral types made by PCP for eligible patients to a behavioral health specialist (*n* = 288).

Discussion

Although this quality improvement project successfully increased the screening rates for depression using PHQ-2 and PHQ-9, the overarching aim was to improve provider adherence to ICSI guidelines for the treatment and management of adult depression, to improve the quality of care and patient outcomes. The MDD protocols developed for this project were useful at initiating change toward improving provider adherence to evidence-based guidelines for adult depression. However, additional time and further exploration would be needed beyond the scope of this project to fully determine if the quality, efficiency, and effectiveness of care were improved for adults with depression and to identify and adequately address any specific areas of weakness.

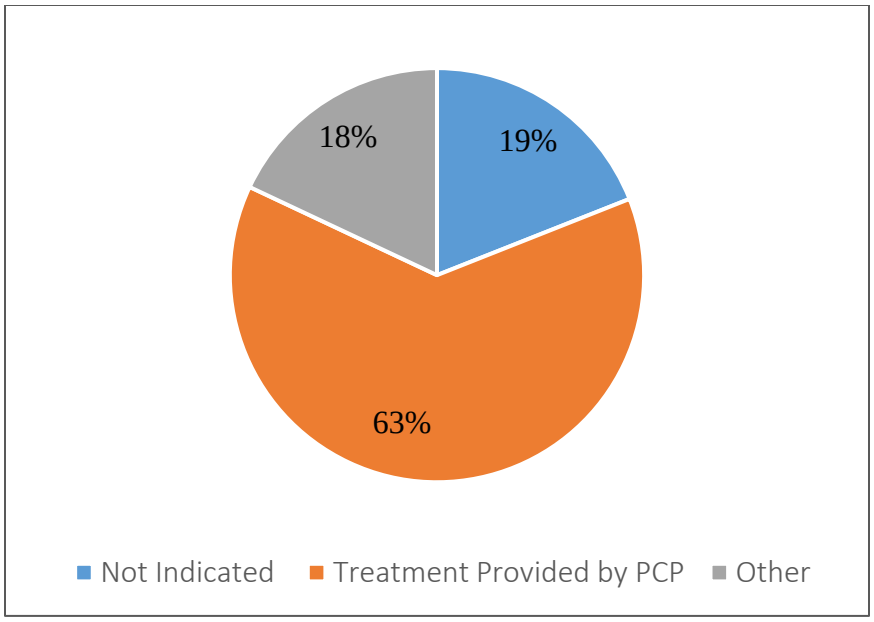

Figure 10. Reasons per PCP for non-referral of eligible patients to a behavioral health specialist (*n* = 213).

The project successfully increased screening rates and the recognition and diagnosis of depression for patients being seen in the clinic who may have otherwise gone undetected. However, research extensively supports that screening alone does not translate into significant improvements in care and patient outcomes (Picardi et al., 2016). Previous studies targeting depression screening in primary care settings have demonstrated the significance of having adequate resources and systems of care in place to allow for further evaluation, treatment, and follow-up, if needed, as screening without support is futile and can create a potential for liability (ICSI, 2016; Siu et al., 2016). Evidence also supports a need for collaborative care between PCPs and behavioral health specialists, in combination with screening, as being crucial to improving treatment adequacy, patient outcomes, and the quality of care for adult patients with depression in primary care settings (Cuijpers et al., 2014; ICSI, 2016). Collaborative care and additional psychotherapy have been supported extensively in the literature as being more beneficial to

patients with depression in comparison with pharmacotherapy alone, with psychotherapy being the most strongly linked to long-term prevention of relapse (Ostergaard & Moldrup, 2011).

Overall, the interventions were successful in improving provider adherence to ICSI evidence-based guidelines for the screening, treatment, and management of depression in adults. Screening rates for depression using PHQ-2 and PHQ-9, the routine assessment of the severity of depressive symptoms in depressed patients using PHQ-9, provider adherence rate to the MDD suicide protocol, and the referral rate for adults with depression to a behavioral health specialist increased from pre-intervention to post-intervention. The MDD provider handbook and protocols developed for the clinic were useful in identifying, treating, and managing care for adult patients with depression and for minimizing and managing the risks of suicide. The MDD provider handbook was a valuable means to keep the providers informed of how to properly screen, diagnose, treat, and manage care for adult patients with depression and for those at risk for suicide, and provided adequate tools and resources for protocol completion. The MDD protocol, which includes the MDD provider treatment algorithm, the MDD provider treatment recommendation table, and the MDD suicide protocol is transferrable to other primary care clinics and can be modified as needed to fit the individual needs of the clinic and staff.

Limitations

A major limitation to the project was the time constraint, as the project implantation phase could only be conducted for a period of 8 weeks, making it challenging to determine the impact the interventions had on improving the quality of care for adults with depression (ICSI, 2016). The PHQ-9 assessment, in addition to being a valid standardized tool to screen for depression, can also be used as measurement-based tool by the provider to quantify baseline severity of depressive symptoms and to monitor treatment response. The measurement-based

approach using PHQ-9 can help the provider determine the efficacy of treatment by comparing the baseline PHQ-9 score to the PHQ-9 score/s performed during subsequent visits (Anderson, 2011; APA, 2010; Maurer, 2012). A 50% reduction in depressive symptoms, or of the PHQ-9 score, should be achieved within 8 weeks from the initiation of treatment, with a PHQ-9 score of less than 5 indicating remission of the depressive episode (APA, 2010; Anderson, 2011; Cameron et al., 2014; ICSI, 2016). PHQ-9 scores can be used by the provider as a measurement-based approach to ascertain treatment response, remission rates, and recurrence rates and can help guide the patient to remission (ICSI, 2016; Siu et al., 2016). However, project implementation was limited to 8 weeks and more time would be needed to fully measure treatment response, remission rates, and recurrence rates to determine the effectiveness of the routine use of the PHQ-9 in improving patient outcomes.

Although screening with PHQ-2 and PHQ-9 for depression improved the recognition of depression and suicide risk in patients, positive screening results for depression and suicide risk resulted in increased time and utilization of resources. Time constraints associated with screening for depression was a barrier voiced by staff during project implementation, as additional time was required by providers to discuss PHQ-2 and PHQ-9 screening results and related treatment interventions. Despite this barrier, the clinic's MDD protocol helped serve as a guide for the clinical staff and efficiency of care seemed to improve as they became more familiar with the protocol.

Referrals to behavioral health specialists per ICSI guidelines could not adequately be measured by this project, as the measures used (PHQ-9 scores of ≥ 10; high suicide risk) did not fully capture all ICSI's guideline recommendations for referral to a behavioral health specialist. In addition, the data collection form only captured two specific reasons for non-referral, which

included “not indicated” and “treatment being provided by PCP,” and one non-specific reason of “other.” The “other” option, which was to be completed by the provider on the data collection form, was followed by a blank space, with the intention of having the provider specify the reason by filling in the blank. However, providers did not write out the “other” reason and instead circled the option, which did not provide insight into other possible reasons for non-referral. Further exploration would be needed to determine areas of weakness and in-depth reasons for non-referral in order to improve referral rates for depressed patients to behavioral health specialists per ICSI guidelines.

Recommendations

With the project’s findings and limitations in mind, it should be recognized that screening for adult depression in primary care is only beneficial in combination with adequate practices being in place to enhance the diagnosis, treatment, and management of care. Screening for depression alone does not translate to improved patient outcomes and quality of care (Picardi et al., 2016). Collaborative care to include support from behavioral health specialists in combination with screening has been associated with improved recognition of depression, patient adherence to treatment, treatment adequacy, and patient outcomes in primary care settings (Jiao, Rosen, Bellanger, Belkin, & Muennig, 2017). In order to enhance the results of this project, a collaborative care approach should be utilized to monitor the severity of depression, to provide adequate follow-up, and to ensure psychiatric referral for patients who are not improving or responding to treatment (Jiao et al., 2017).

Time constraints related to screening for depression and positive screening results proved to be a major barrier for the clinical staff. The two-step screening approach with PHQ-2 and PHQ-9 was performed using paper screening tools, which had to eventually be scanned and

downloaded into the EHR, creating increased utilization of resources and time. Having the screening tools already built into the EHR and having the patients complete PHQ-2 and PHQ-9 for every visit electronically prior to or upon check in may overcome the time and resource barriers and may help to sustain the improved screening rates. It may also be beneficial to have the MDD protocol integrated into the EHR to save time, improve provider adherence to evidence-based guidelines, and ensure adequate diagnosis, treatment, referral, and follow-up.

The MDD protocol should continue to be used as a guide to improve provider adherence to evidence-based guidelines and to enhance care and outcomes for adults with depression. PCPs should continue to employ the measurement-based approach using PHQ-9 as a management tool for depression, and routinely for follow-up visits, to monitor the severity and treatment outcomes and to help guide and modify treatment plans. Treatment response, remission, and recurrence rates should be measured regularly to successfully evaluate the impact that the interventions have on improving quality of care for adults with depression and to continually sustain and/or improve outcomes. Further exploration should be conducted to determine the specific reasons for non-referral of depressed patients by PCPs to behavioral health specialists to improve the referral process and better align the clinic with ICSI guidelines.

Implications for Practice

Development and adherence to evidence-based protocols by PCPs for the screening, diagnosis, treatment, and management of adult depression in primary care can help push patients toward remission and improve patient outcomes and overall quality of care. Implementation of a suicide protocol can be useful in improving the recognition, assessment, and minimization of suicide risk in depressed patients in the primary care setting. Findings of this evidence-based quality improvement project support screening for depression in adults in the primary care

setting using PHQ-2 and PHQ-9 can improve the recognition of depression in patients, which may have otherwise gone undetected and untreated. Overall, screening for depression in adults in combination with having adequate systems of care in place to ensure proper diagnosis, treatment, follow-up, and management of depression is a cornerstone in improving quality of care and patient outcomes.

With depression being underdetected, underdiagnosed, and undertreated in primary care, Advanced Practice Registered Nurses can be instrumental in the improvement of the recognition, diagnosis, and treatment of MDD. The Advanced Practice Registered Nurse is in a key position to provide oversight and to successfully implement the necessary changes to improve provider adherence to evidence-based guidelines for the screening, diagnosis, treatment, and management of adult depression in primary care. Implementation of a similar MDD protocol with evidence-based guidelines and adequate screening for depression has the potential to significantly impact not only the patient, but also their loved ones and society as a whole.

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Appendix A

PHQ-2 in English

NIDA Clinical Trials Network

Patient Health Questionnaire-2 (PHQ-2)

Instructions:

Please respond to each question.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Give answers as 0 to 3, using this scale:

0=Not at all; 1=Several days; 2=More than half the days; 3=Nearly every day

1. **Little interest or pleasure in doing things**

☐0 ☐1 ☐2 ☐3

2. **Feeling down, depressed, or hopeless**

☐0 ☐1 ☐2 ☐3

Instructions

Clinic personnel will follow standard scoring to calculate score based on responses.

Total score: _ _

Developed by Drs. R.L. Spitzer, J.B. Williams, K. Kroenke and colleagues with an educational grant from Pfizer, Inc. No permission required to reproduce, translate, display or distribute.

Appendix B

PHQ-2 in Spanish

Cuestionario sobre la salud del paciente-2 (PHQ-2)

Durante las *últimas 2 semanas*, ¿qué tan seguido ha tenido molestias debido a los siguientes problemas?	Ningún día	Varios días	Más de la mitad de los días	Casi todos los días
1. Poco interés o placer en hacer cosas	0	1	2	3
2. Se ha sentido decaído(a), deprimido(a) o sin esperanzas	0	1	2	3

For office coding: _____0 _____+_____+_____+_____

= Total Score _____

Adapted from the patient health questionnaire (PHQ) screeners (www.phqscreeners.com). Accessed October 6, 2016. See website for additional information and translations.

Appendix C

PHQ-9 in English

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME:_____ **DATE:**_____

Over the last *2 weeks,* how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
add columns		+	+	
(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card).	TOTAL:			

10. If you checked off *any problems,* how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult _____
- Very difficult _____
- Extremely difficult _____

Appendix D

PHQ-9 in Spanish

PHQ9P

CUESTIONARIO SOBRE LA SALUD DEL PACIENTE-9 72883
(US Spanish version of the PHQ)

Durante las <u>últimas 2 semanas</u>, ¿qué tan seguido ha tenido molestias por cualquiera de las siguientes dificultades?	**No del todo**	**Varios días**	**Más de la mitad de los días**	**Casi todos los días**
1. Poco interés o placer en hacer cosas	0	1	2	3
2. Sintiéndose decaído(a), deprimido(a), o sin esperanzas	0	1	2	3
3. Dificultad en caer o permanecer dormido(a), o dormir demasiado	0	1	2	3
4. Sintiéndose cansado o teniendo poca energía	0	1	2	3
5. Pobre de apetito o comer en exceso	0	1	2	3
6. Sintiéndose mal con usted mismo(a) – o que usted es un fracaso o que ha quedado mal con usted mismo(a) o con su familia	0	1	2	3
7. Dificultad en concentrarse en cosas, tales como leer el periódico o ver televisión	0	1	2	3
8. ¿Moviéndose o hablando tan lento, que otras personas podrían notarlo? O lo contrario – muy inquieto(a) o agitado(a) que usted ha estado moviéndose mucho más de lo normal	0	1	2	3
9. Pensamientos de que usted estaría mejor muerto(a) o de alguna manera lastimándose a usted mismo(a)	0	1	2	3

SCORING FOR USE BY STUDY PERSONNEL ONLY
_0_ + _____ + _____ + _____
=Total Score: _____

Si usted marcó <u>cualquiera</u> de los problemas, ¿qué tan <u>difícil</u> han afectado estos problemas en hacer su trabajo, encargarse de tareas del hogar, o llevarse bien con otras personas?

Para nada difícil	**Un poco difícil**	**Muy difícil**	**Extremadamente difícil**
☐	☐	☐	☐

 EPI0905.PHQ9P

Confirmo que la información en este formulario es correcta.	Iniciales del paciente:	Fecha:

_____ MRN _____ PROVEEDOR

F:\INSTITUT\CULTADAP\PROJECT\MK2783\Etude2783\Final-versions\PHQ9\PHQ-9ussq.doc-19/12/2005

Appendix E

PHQ-2 Scoring and Interpretation

PHQ-2 Scores and Recommended Actions

The PHQ-2 consists of the first 2 questions of the PHQ-9. Scores range from 0 to 6. The recommended cut point is a score of 3 or greater. Recommended actions for persons scoring 3 or higher are one of the following:

- Administer the full PHQ-9
- Conduct a clinical interview to assess for Major Depressive Disorder

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2. Kroenke K(1), Spitzer RL, Williams JB, Löwe B. The Patient Health Questionnaire Somatic, Anxiety, and Depressive Symptom Scales: a systematic review. *Gen Hosp Psychiatry*. 2010 Jul-Aug;32(4):345-59.

Adapted from the patient health questionnaire (PHQ) screeners (www.phqscreeners.com). Accessed October 6, 2016. See website for additional information and translations.

Appendix F

PHQ-9 Scoring and Interpretation

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME:_____ **DATE:**_____

Over the last *2 weeks,* how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

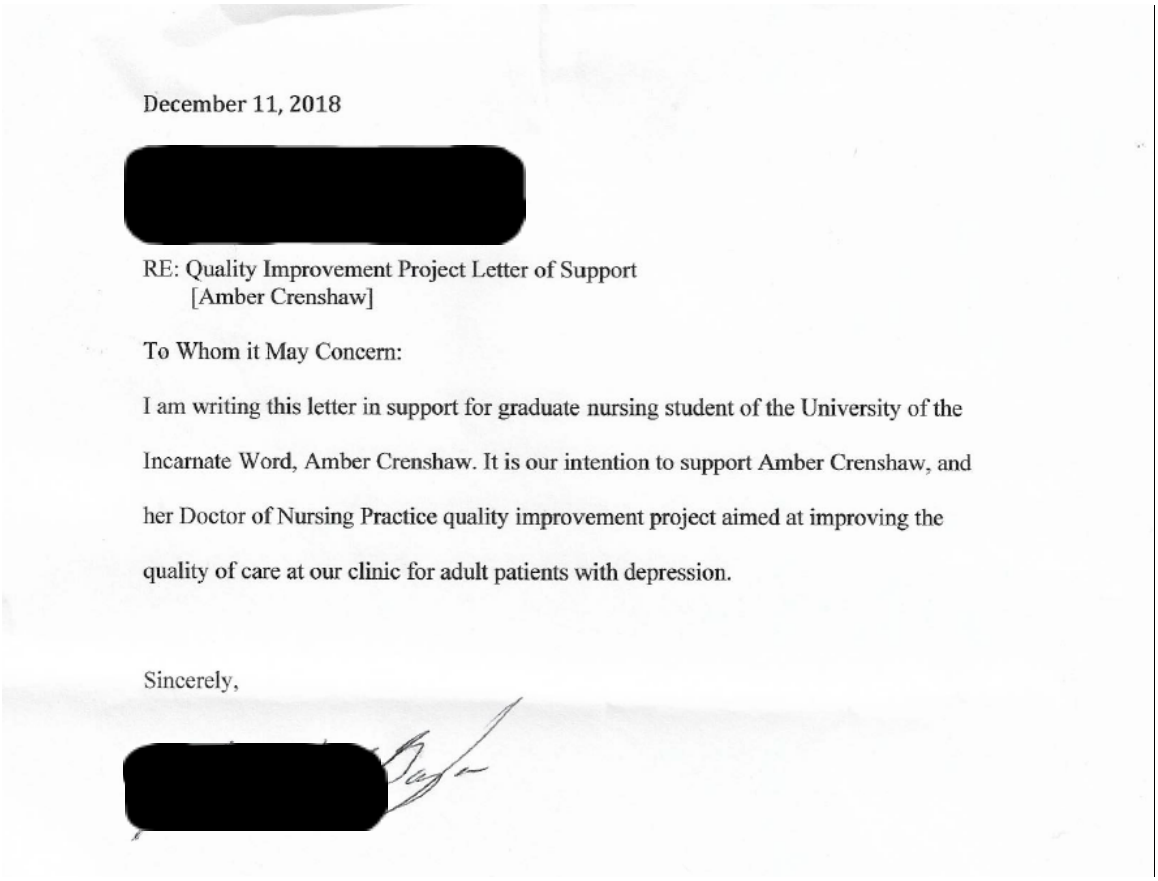
	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
	add columns		+	+

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL:

10. If you checked off *any problems,* how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all _____ Somewhat difficult _____ Very difficult _____ Extremely difficult _____

Appendix G

Letter of Support



December 11, 2018

[redacted]

RE: Quality Improvement Project Letter of Support
[Amber Crenshaw]

To Whom it May Concern:

I am writing this letter in support for graduate nursing student of the University of the Incarnate Word, Amber Crenshaw. It is our intention to support Amber Crenshaw, and her Doctor of Nursing Practice quality improvement project aimed at improving the quality of care at our clinic for adult patients with depression.

Sincerely,

[redacted]

Appendix H

MDD Provider Handbook & Education Plan

MDD Provider Handbook Materials: Copy of the ICSI Guidelines for each PCP, copies of the PHQ-2 and PHQ-9 in English and Spanish with instructions on how to score and interpret, copy of DSM-5 diagnostic criteria for MDD, copy of clinic's MDD Provider Treatment Recommendation Table: Translating PHQ-9 Scores into Practice, copy of MDD in Primary Care, copy of clinic's MDD Suicide Protocol for the assessment, minimization, and management of suicide risk, and copy of Data Collection Form

Education:

1) Screening Procedure using the PHQ-2 and PHQ-9
    a. Instructions on how to fill out forms
    b. Instructions on how to score forms
    c. Instructions on how to interpret scores
2) DSM-5 Diagnostic Criteria for MDD
3) MDD in Primary Care: Common presentations, risk factors, how & when to screen for depression using the PHQ-2 and PHQ-9, how to use the PHQ-9 to monitor treatment response, and when to refer to behavioral health specialist
4) MDD Provider Treatment Recommendation Table: How to translate PHQ-9 depression scores into practice based on DSM-5 criteria and ICSI guidelines
5) MDD Suicide Protocol to assess, minimize, and manage suicide risk
    a. How to screen for suicide ideation using Question 9 of PHQ-9
    b. How to assess suicide risk
    c. Suicide risk factors
    d. When to refer patient for inpatient psychiatric evaluation/treatment
    e. Texas Legislation regarding emergency detention (Texas Health and Safety Code 611.004 & 574.034)
    f. When, how, and who to contact for emergency detention
    g. Local & national suicide prevention resources
6) Duties and responsibilities for completion of Data Collection Form

Appendix I

DSM-5 Diagnostic Criteria for MDD

DSM-5 Diagnostic Criteria: Major Depressive Episode

To qualify for a diagnosis of major depressive episode, the patient **must meet criteria A through E:**

A. **Five or more of the following symptoms** have been present and documented during the same two-week period and represent a change from previous functioning; **at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.**

Note: Do not include symptoms that are clearly attributable to another medical condition.

1) Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful)

2) Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation)

3) Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day

4) Insomnia or hypersomnia nearly every day

5) Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)

6) Fatigue or loss of energy nearly every day

7) Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)

8) Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)

9) Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

B. The symptoms do not meet criteria for a mixed episode.

C. The episode is not attributable to the physiological effects of a substance or to another medical condition. Note: Criteria A-C represent
to a significant loss (e.g., bereavement, financia
medical illness or disability) may include feelings of intense sadness, rumination about the loss, insomnia, poor appetite and weight loss noted in Criterion A, which may resemble a depressive episode. Although such symptoms may be understandable or considered appropriate to the loss, the presence of a major depressive episode in addition to the normal response to a significant loss should also be carefully considered. This decision inevitably requires the exercise of clinical judgment based on the individual's history of and the cultural norms for the expression of distress in the context of loss.

D. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.

E. There has never been a manic episode or a hypomanic episode. Note: This exclusion does not apply if all of the manic-like or hypomanic-like episodes are substance induced or are attributable to the physiological effects of another medical condition. Severity is based on the number of criterion, the severity of those symptoms and the degree of functional disability.

- **Mild**, single episode ICD-10 F32.0, recurrent episode ICD-10 F33.0: Few, if any symptoms in excess of those required to make the diagnosis are present, the intensity of the symptoms is distressing but manageable, and the symptoms result in minor impairment in social or occupational functioning.

- **Moderate**, single episode ICD-10 F32.1, recurrent episode ICD-10 F33.1: The number of symptoms, intensity of symptoms, and/or functional impairment are between those specified for "mild" and "severe."

- **Severe**, single episode ICD-10 F32.2, recurrent episode ICD-10 F33.2: The number of symptoms is substantially in excess of that required to make the diagnosis, the intensity of symptoms is seriously distressing and unmanageable, and the symptoms markedly interfere with social and occupational functioning. Further specifications include:

- **In partial remission**, single episode ICD-10 F32.4, recurrent episode ICD-10 F33.41: Symptoms of the immediately previously major depressive episode are present, but full criteria are not met, or there is a period lasting less than two months without any significant symptoms of a major depressive episode following the end of such an episode.

- **In full remission**, single episode, recurrent episode ICD-10 F33.42: During the past two months, no significant signs or symptoms of the disturbance were present.

Appendix J

MDD in Primary Care

1

MDD in Primary Care

Common Presentations of Depression:
Common presentations for patients not complaining of major depression or anhedonia include:

- Multiple (5 or more/year) medical visits
- Multiple unexplained symptoms
- Work or relationship dysfunction
- Dampened effect
- Changes in interpersonal relationships
- Poor behavioral follow-through with activities of daily living/prior treatment recommendations
- Weight gain/loss
- Sleep disturbance
- Fatigue
- Memory/other cognitive complaints
- Difficulty concentrating/making decisions
- Irritable bowel syndrome
- Volunteered complaints of stress/mood disturbance

Non-Mood Presentations:

- Fatigue
- Pain
- Somatic complaints
- Sleep disturbances
- Sexual dysfunction
- Multiple medical visits
- Work/relationship dysfunction

Risk Factors for Major Depression:

- Family/personal history of major depression and/or substance abuse
- Recent loss
- Chronic medical illness
- Stressful life events that include loss (e.g. death of a loved one, divorce)
- Traumatic events (e.g. car accident)
- Major life changes (e.g. job change, financial difficulties)
- Domestic abuse or violence

Note: One previous episode of major depression is associated with a 50% chance of a subsequent episode, two episodes with a 70% chance, and three or more episodes with a 90% chance.

(Institute for Clinical Systems Improvement, 2016)

Screening for Major Depression:
The PHQ-2/PHQ-9 can be used to screen for depression

PHQ-2:

- Use the Patient Health Questionnaire (PHQ-2) as initial screening step and to universally screen adults for depression.
- Scores can range from 0 to 6, and a cut point ≥ 3 suggests clinically significant depression which should prompt either completion of the full PHQ-9 and a clinical interview to assess for MDD

PHQ-9:

- Use for patients screening positive with PHQ-2 (score ≥ 3) and for routine screening at every visit for patients with a current/previous diagnosis of depression.
- The PHQ-9 has been validated for measuring depression severity and is validated as a tool for both detecting and monitoring depression in primary care settings.
- **PHQ-9 as monitor and management tool:** The PHQ-9 is an effective management tool, as well, and should be used routinely for subsequent visits to monitor treatment outcomes and severity
    - It can help the clinician decide if/how to modify the treatment plan. Using a measurement-based approach to depression care, PHQ-9 results and side effect evaluation should be combined with treatment algorithms to drive patients toward remission
    - The primary objective is to use a standardized instrument that will quantify baseline intensity and document future progress, including response and remission rates
    - **Measuring Treatment Response using PHQ-9**:
        - **Partial Response:** defined as **25-50%** reduction in symptoms
        - **Response:** defined as a **50% or greater** reduction in symptoms
        - **Remission:** defined as PHQ-9 score of **less than 5**
        - A five-point drop in PHQ-9 score is considered the minimal clinically significant difference

(Institute for Clinical Systems Improvement, 2016)

- Screen for Suicidality using Question 9 of PHQ-9:
  - **High suicide risk:** urgent referral to crisis specialty health care is advised
  - **Low suicide risk:** patient can proceed with treatment in the primary care practice

When to Refer to Behavioral Health Specialist:
Referral or co-management with mental health specialty clinician if patient has:

- High suicide risk
- Inadequate treatment response
- Other psychiatric disorders such as bipolar, substance abuse, etc.
- Complex psychosocial needs/psychotherapy needs

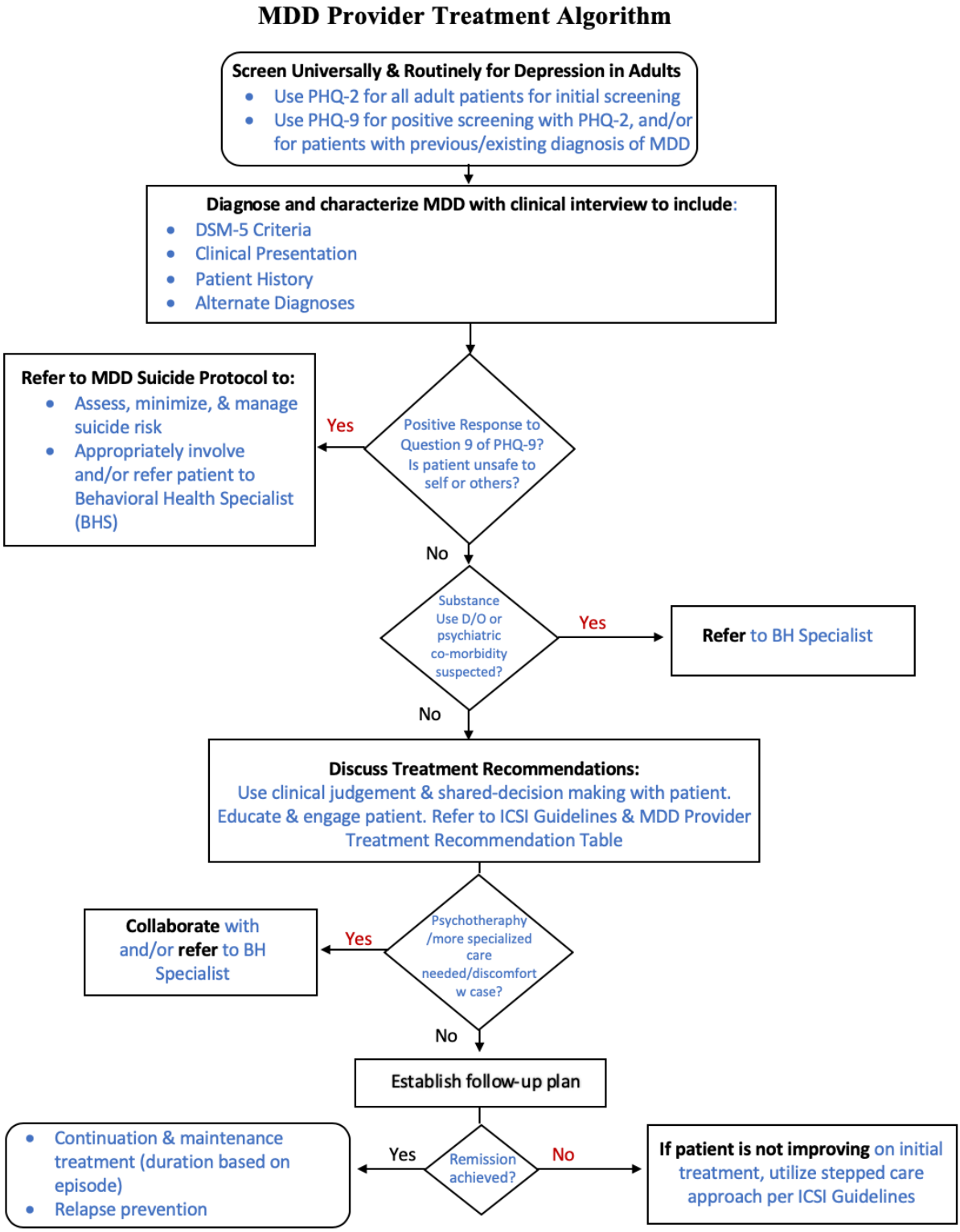
Involve same-day mental-health for any of these situations:

- Suicidal thoughts and/or plans that make the clinician uncertain of the patient's safety
- Assaultive or homicidal thoughts and/or plans that make the clinician uncertain about the safety of the patient or others
- Recent loss of touch with reality (psychosis)
- Inability to care for self/family Involvement could include:
  - Appointment with psychiatrist and/or psychotherapist
  - Phone consultation with psychiatrist and/or psychotherapist
  - Referral to the emergency department

(Institute for Clinical Systems Improvement, 2016)

Appendix K

MDD Provider Algorithm



(Institute for Clinical Systems Improvement, 2016)

Appendix L

MDD Provider Treatment Recommendation Table: Translating PHQ-9 Scores into Practice

MDD PROVIDER TREATMENT RECOMMENDATION TABLE: TRANSLATING PHQ-9 SCORES INTO PRACTICE

*At every level of severity, add education, physical activity, and behavioral activation to standard treatment recommendations.

Severity	PHQ-9 Scores	Possible Diagnoses	Treatment Recommendations
Undefined	Initial Score: 5-9	Does not meet criteria for major depressive disorder Consider for persistent depressive disorder	Stay in touch: a) If no improvement after one or more months, consider treating or referral to behavioral health. b) If symptoms deteriorate, start treatment or make a referral.
	Follow-up Score: 5-9	Partial remission	Continue stepped therapies approach. Combined psychotherapy and pharmacotherapy treatment.
Per DSM-5: Few, if any, symptoms in excess of those required to make the diagnosis are present, the intensity of the symptoms is distressing but manageable, and the symptoms result in minor impairment in social or occupational functioning.	10-14	Mild major depression	When unable to do combined therapy due to patient preferences, availability and affordability of the treatments, start with psychotherapy. Initially consider weekly contacts to ensure adequate engagement, then at least monthly. Combined psychotherapy and pharmacotherapy treatment.
Per DSM-5: The number of symptoms, intensity of symptoms, and/or [illegible]	15-19	Moderate major depression	When unable to do combined therapy due to patient preferences, availability and affordability of the treatments, start with psychotherapy. Initially consider weekly contacts to ensure adequate engagement, then at least every 2-4 weeks.
Per DSM-5: The number of symptoms is substantially in excess of that required to make the diagnosis, the intensity of the symptoms is seriously distressing and unmanageable, and the symptoms markedly interfere with social and occupational functioning.	[illegible]	Severe major depression	Combined psychotherapy and pharmacotherapy treatment. When unable to do combined therapy due to patient preferences, availability and affordability of the treatments, start with pharmacotherapy. Weekly contacts until less severe.
Meets DSM-5 criteria for persistent depressive disorder		Pure dysthymia	Consider starting with medication. Consider stepped care, which includes augmenting medications and adding [illegible] improve.
Meets DSM-5 criteria for persistent depressive disorder		Chronic major depression	Combined psychotherapy and pharmacotherapy treatment.

(Institute for Clinical Systems Improvement, 2016)

Appendix M

MDD Suicide Protocol

1

MDD SUICIDE PROTOCOL

IF PATIENT PRESENTS WITH SI OR SI DETECTED WITH SCREENING QUESTION 9 OF PHQ-9

- Suicide risk assessment performed for patient by provider
- Referral coordinator notified of patient's psychiatric referral needs
- With permission, patient's support person identified and notified by provider (e.g. family member, pastor, mental health provider, other support person)

IF PATIENT IS OF LOW RISK FOR SUICIDE

- Proceed with patient care per guidelines
- Provide suicide prevention resources to patient
- Refer patient to behavioral health specialist as needed/per guidelines

IF PATIENT IS OF HIGH-RISK FOR SUICIDE AND REQUIRES IMMEDIATE HOSPITALIZATION OR EMERGENCY DETENTION

- Same-day referral to mental health specialist or emergency detention required for:
  - SI/HI and/or plans that make the provider uncertain about the safety of the patient or others
  - Recent loss of touch with reality (psychosis)
  - Inability to care for self/family
- Contact San Antonio Police Department (SAPD), local emergency department (ED), or local psychiatric inpatient emergency/crisis center/facility (See Resources)
- Provider/Referral Coordinator will call to arrange transport of patient for inpatient psychiatric evaluation and/or care based on referral & psychiatric need/s
- Staff member to be present at all times with patient to wait for transport
- If patient is imminently dangerous & leaves clinic against medical advice, provider should contact SAPD at 210-207-7273/8590 and report incident

DOCUMENTATION AND FOLLOW-UP

- Provider will call urgent referral source to provide patient information
- Provider will document SI and/or HI and incident in the EHR
- Provider will follow-up with referral source to determine disposition of patient
- Provider will follow-up in with patient as appropriate per guidelines

(Institute for Clinical Systems Improvement, 2016)

2

RESOURCES

For Emergency Detention (If harm to self/others is imminent)

San Antonio Police Department	**911**

For Immediate Referral/Hospitalization (High Suicide Risk)

San Antonio Police Department	Non-Emergency #: 210-207-8590 or 210-207-7273
The Center for Health Care Services (CHCS) 601 N. Frio San Antonio, Texas 78207	1-800-316-9241 or 210-223-SAFE (7233) 24-Hr Crisis Helpline & Mobile Crisis Outreach Team
Laurel Ridge Treatment Center 17720 Corporate Woods Dr. San Antonio, Texas 78259	210-491-9400 or 1-800-624-7975
San Antonio Behavioral Healthcare Hospital (SABH) 8550 Huebner Rd. San Antonio, Texas 78240	210-541-5350/5300 or 1-877-514-0010
University Hospital 4502 Medical Dr. San Antonio, Texas 78229	Emergency Services: 210-358-8881, Inpatient Services: 210-358-1260, Outpatient Services: 210-358-3108, Main # 210-358-4000
Methodist Specialty & Transplant Hospital (MSTH) Psychiatric Inpatient Management Services 8026 Floyd Curl Dr. 6th floor San Antonio, Texas 78229	210-575-8229

For Same-Day Appointment with Behavioral Health Specialist

iKare Mood, Trauma, Recovery Clinic 8401 Datapoint Dr. Suite 900 San Antonio, Texas 78229	844-312-9422 or Online Provider Referral Portal @ https://ikare.mypatientclick.com/Login.aspx
The Center for Health Care Services Crisis Care Center 601 N. Frio San Antonio, Texas 78207	210-225-5481 or 210-223-SAFE (7233)

Patient Resources

The National Suicide Prevention Lifeline	1-800-273-TALK (8255)
The Center for Health Care Services 24-Hour Crisis & Substance Use Helpline	1-800-316-9241 or 210-223-SAFE (7233)

(ICSI, 2016; WICHE MHP & SPRC, 2017)

Screening for Suicidal Ideation Using Question 9 of PHQ-9:

- Suicidality is screened using Question 9 of PHQ-9
- If positive response for Question 9, assess patient further for SI
- If high suicide risk, urgent referral to crisis specialty health care is advised
- If low suicide risk, the patient can proceed with treatment in the primary care practice

Assessing for Suicidal Ideation:

Consider asking and documenting the following progression of questions:

1. Do you feel that life is worth living?
2. Do you wish you were dead?
3. Have you thought about ending your life?
4. If yes, have you gone so far as to think about how you should do so? Be specific, what method would you use?
5. Do you have access to a way to carry out your plan?
6. What keeps you from harming yourself?

Note: Many patients will not answer #4 directly or will add, "But I'd never do it." Give them positive feedback (e.g., "I'm glad to hear that") but do not drop the subject until she/he has told you the specific methods considered (e.g., gun, medication overdose, motor vehicle accident).

Suicide Risk Factors:

- Suicidal Ideation
- Previous history of self-harm attempts
- Previous history of suicide attempts
- Chemical dependency
- Personality disorder/physical illness
- Family history of suicide or violence
- Single status
- Recent loss by death
- Divorce or separation
- Insomnia
- Panic attacks and/or severe anxiety
- Diminished concentration
- Anhedonia
- Hopelessness
- Post-Traumatic Stress Disorder (PTSD)

(Institute for Clinical Systems Improvement, 2016)

- Literature suggests that a history of self-harm attempts, in combination with a history of well-developed suicide plans, place the patient at a greater eventual risk of completing a suicide attempt
- Circumstances such as clear past examples of a sense of competence to execute an attempt, a sense of courage to make the attempt, behaviors that ensure the availability of means and opportunity to complete, concrete preparations to enact the suicide plan, and a current episode of severe depression combine to pose a greater danger of eventual completed suicide
- Patients with comorbid major depressive episode and PTSD are more likely to have attempted suicide. Women with both disorders were more likely than men with both disorders to attempt suicide

When to Collaborate with Mental Health Specialist:

Consider collaborating with a behavioral health care clinician for the following:

- Patient request for psychotherapy
- Presence of severe symptoms and impairment in patient, or high suicide risk
- Presence of other psychiatric condition (e.g., personality disorder or history of mania)
- Suspicion or history of substance abuse
- Clinician discomfort with the case
- Medication advice (psychiatrist or other mental health prescriber)
- Patient request for more specialized treatment

When to Involve Mental Health Specialist:

Involve same-day mental-health for any of these situations:

- Suicidal thoughts and/or plans that make the clinician uncertain of the patient's safety
- Assaultive or homicidal thoughts and/or plans that make the clinician uncertain about the safety of the patient or others
- Recent loss of touch with reality (psychosis)
- Inability to care for self/family Involvement could include:
    - Appointment with psychiatrist and/or psychotherapist
    - Phone consultation with psychiatrist and/or psychotherapist
    - Referral to the emergency department

(Institute for Clinical Systems Improvement, 2016)

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About Emergency Detention:

If the patient is: mentally ill; imminently dangerous or if harm to self/others is imminent; and is refusing treatment:

- Provider can breach patient confidentiality & contact local law enforcement in accordance with Texas Health and Safety Code §611.004 (see below) to have the patient admitted to a mental health facility for further psychiatric assessment and treatment through emergency detention in accordance with Texas Health and Safety Code §573.001 (see below).
- Texas is a permissive state and the healthcare provider owes no duty to inform law enforcement of a threat of violence and is granted a permissive duty to warn with the decision of whether or not to warn being left up to the provider
- Provider should contact the San Antonio Police Department by calling 911 for emergency detention of patient

(McMullen, Howie, & Philipsen, 2013)

Texas Health & Safety Code 611.004

Sec. 611.004. AUTHORIZED DISCLOSURE OF CONFIDENTIAL INFORMATION OTHER THAN IN JUDICIAL OR ADMINISTRATIVE PROCEEDING.

(a) A professional may disclose confidential information only:

(1) to a governmental agency if the disclosure is required or authorized by law;

(2) to medical or law enforcement personnel if the professional determines that there is a probability of imminent physical injury by the patient to the patient or others or there is a probability of immediate mental or emotional injury to the patient;

(3) to qualified personnel for management audits, financial audits, program evaluations, or research, in accordance with Subsection (b);

(4) to a person who has the written consent of the patient, or a parent if the patient is a minor, or a guardian if the patient has been adjudicated as incompetent to manage the patient's personal affairs;

(5) to the patient's personal representative if the patient is deceased;

(6) to individuals, corporations, or governmental agencies involved in paying or collecting fees for mental or emotional health services provided by a professional;

(7) to other professionals and personnel under the professionals' direction who participate in the diagnosis, evaluation, or treatment of the patient;

(8) in an official legislative inquiry relating to a state hospital or state school as provided by Subsection (c);

(9) to designated persons or personnel of a correctional facility in which a person is detained if the disclosure is for the sole purpose of providing treatment and health care to the person in custody;

(10) to an employee or agent of the professional who requires mental health care information to provide mental health care services or in complying with statutory,

licensing, or accreditation requirements, if the professional has taken appropriate action to ensure that the employee or agent:

(A) will not use or disclose the information for any other purposes; and

(B) will take appropriate steps to protect the information; or

(11) to satisfy a request for medical records of a deceased or incompetent person pursuant to Section 74.051(e), Civil Practice and Remedies Code.

(b) Personnel who receive confidential information under Subsection (a)(3) may not directly or indirectly identify or otherwise disclose the identity of a patient in a report or in any other manner.

(c) The exception in Subsection (a)(8) applies only to records created by the state hospital or state school or by the employees of the hospital or school. Information or records that identify a patient may be released only with the patient's proper consent.

(d) A person who receives information from confidential communications or records may not disclose the information except to the extent that disclosure is consistent with the authorized purposes for which the person first obtained the information. This subsection does not apply to a person listed in Subsection (a)(4) or (a)(5) who is acting on the patient's behalf.

Added by Acts 1991, 72nd Leg., ch. 76, Sec. 1, eff. Sept. 1, 1991.

Amended by Acts 1995, 74th Leg., ch. 856, Sec. 8, eff. Sept. 1, 1995; Acts 1999, 76th Leg., ch. 1264, Sec. 1, eff. Sept. 1, 1999.

Amended by:

Acts 2005, 79th Leg., Ch. 138 (H.B. 741), Sec. 1, eff. September 1, 2005.

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Texas Health & Safety Code 574.034

HEALTH AND SAFETY CODE

TITLE 7. MENTAL HEALTH AND INTELLECTUAL DISABILITY

SUBTITLE C. TEXAS MENTAL HEALTH CODE

CHAPTER 573. EMERGENCY DETENTION

SUBCHAPTER A. APPREHENSION BY PEACE OFFICER OR TRANSPORTATION FOR EMERGENCY DETENTION BY GUARDIAN

Sec. 573.0001. DEFINITIONS. In this chapter:

(1) "Emergency medical services personnel" and "emergency medical services provider" have the meanings assigned by Section 773.003.

(2) "Law enforcement agency" has the meaning assigned by Article 59.01, Code of Criminal Procedure.

Added by Acts 2017, 85th Leg., R.S., Ch. 541 (S.B. 344), Sec. 1, eff. June 9, 2017.

Sec. 573.001. APPREHENSION BY PEACE OFFICER WITHOUT WARRANT.

(a) A peace officer, without a warrant, may take a person into custody if the officer:

(1) has reason to believe and does believe that:

(A) the person is a person with mental illness; and

(B) because of that mental illness there is a substantial risk of serious harm to the person or to others unless the person is immediately restrained; and

(3) believes that there is not sufficient time to obtain a warrant before taking the person into custody.

(b) A substantial risk of serious harm to the person or others under Subsection (a)(1)(B) may be demonstrated by:

(1) the person's behavior; or

(2) evidence of severe emotional distress and deterioration in the person's mental condition to the extent that the person cannot remain at liberty.

(c) The peace officer may form the belief that the person meets the criteria for apprehension:

(1) from a representation of a credible person; or

(2) on the basis of the conduct of the apprehended person or the circumstances under which the apprehended person is found.

(d) A peace officer who takes a person into custody under Subsection (a) shall immediately:

(1) transport the apprehended person to:

(A) the nearest appropriate inpatient mental health facility; or

(B) a mental health facility deemed suitable by the local mental health authority, if an appropriate inpatient mental health facility is not available; or

(2) transfer the apprehended person to emergency medical services personnel of an emergency medical services provider in accordance with a memorandum of understanding executed under Section 573.005 for transport to a facility described by Subdivision (1)(A) or (B).

(e) A jail or similar detention facility may not be deemed suitable except in an extreme emergency.

(f) A person detained in a jail or a nonmedical facility shall be kept separate from any person who is charged with or convicted of a crime.

(g) A peace officer who takes a person into custody under Subsection (a) shall immediately inform the person orally in simple, nontechnical terms:

(1) of the reason for the detention; and

(2) that a staff member of the facility will inform the person of the person's rights within 24 hours after the time the person is admitted to a facility, as provided by Section 573.025(b).

(h) A peace officer who takes a person into custody under Subsection (a) may immediately seize any firearm found in possession of the person. After seizing a firearm under this subsection, the peace officer shall comply with the requirements of Article 18.191, Code of Criminal Procedure.

Added by Acts 1991, 72nd Leg., ch. 76, Sec. 1, eff. Sept. 1, 1991.
Amended by Acts 2001, 77th Leg., ch. 367, Sec. 5, eff. Sept. 1, 2001.
Amended by:
Acts 2013, 83rd Leg., R.S., Ch. 318 (H.B. 1738), Sec. 1, eff. September 1, 2013.
Acts 2013, 83rd Leg., R.S., Ch. 776 (S.B. 1189), Sec. 1, eff. September 1, 2013.
Acts 2015, 84th Leg., R.S., Ch. 1 (S.B. 219), Sec. 3.1366, eff. April 2, 2015.
Acts 2015, 84th Leg., R.S., Ch. 1236 (S.B. 1296), Sec. 21.001(33), eff. September 1, 2015.
Acts 2017, 85th Leg., R.S., Ch. 541 (S.B. 344), Sec. 2, eff. June 9, 2017.

Appendix N

Data Collection Form

Receptionist: **Pt ID:**

Date: _____ Pt Name: _____ Age: _____

Please Circle:

Male Female

Hispanic White/Non-Hispanic Black Asian Other

MA/LVN:

1) Previous Dx of Depression? Yes No

2) PHQ-2 administered? Yes No **Score**: _____

***If no**, reason:* Not indicated Pt Refused Other

3) PHQ-9 administered? Yes No **Score**: _____

***If no**, reason:* Not indicated Pt Refused Other

Provider:

*For patients administered PHQ-9

1) Positive response for Question 9? Yes No
2) SI assessed? Yes No
3) SI documented in EHR? Yes No
4) Referral to MH Specialist? Yes No

***If no,** reason:* Not indicated Tx Provided by PCP Other:

***If yes,** reason:* Routine Referral Immediate Referral SI Risk Other: