Depression Screening Upon Admission at an Addiction Facility: A Quality Improvement Project

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DEPRESSION SCREENING UPON ADMISSION AT AN ADDICTION FACILITY: A QUALITY IMPROVEMENT PROJECT

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Eric Aniekwena BSN, RN
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Abstract

More than one in six Americans will have a diagnosis of a substance use disorder at some time in their life. According to the National Institute on Drug Abuse (2020), those with a substance use disorder will have an increased rate of having a comorbidity of depression or depression symptoms during treatment, leading to poorer outcomes. The purpose of this quality improvement project was to increase provider and staff adherence to the treatment standards outlined in the Veteran’s Affair/Department of Defense Clinical Practice Guideline for the Management of Major Depressive Disorder (Veteran’s Affairs/Department of Defense, 2016).

During this 10-week process, providers and staff were educated on the guidelines and were able to put what they learned into practice. Patients who were 18 years of age and older were screened upon admission to the addiction center for depression using the patient health questionnaire screening tools two and nine for depression. Patients were given treatment by providers and staff based on the Clinical Practice Guidelines. Treatment involved group cognitive behavioral therapy with or without a serotonin reuptake inhibitor, and education on depression. Some patients had another depression screening performed prior to discharge if applicable. Throughout this project, 100% of staff were educated on the guidelines, and 42 patients were screened for depression. Of the 42 screened, 69% had indications for treatment of depression or depression symptoms. Treating these patients’ depression increased the likelihood of improving outcomes after recovery. It is important to use current practice guidelines in addiction healthcare facilities to help improve patient outcomes for substance.

Keywords: patient health questionnaire 9, addiction, depression, substance use disorder, patient health questionnaire 2, depression screening
Depression screening upon admission at an addiction facility:
A quality improvement project

It is estimated that more than 18% of Americans will experience a substance use disorder (SUD) at some period in their life (Gabbard, 2014). Of these, 43% will have a comorbidity of a depression diagnosis or symptoms of depression during treatment (National Institute on Drug Abuse [NIDA], 2020). Patients with depression can have symptoms of worthlessness, lack of energy, and poor concentration (Gabbard, 2014). These symptoms can impede recovery, leading to poor outcomes. The risk of suicide also increases with patients that have depressive symptoms, but if depression is not assessed, these symptoms may be overlooked. Compared to patients suffering from either addiction or depression alone, those with both addiction and depression are prone to have a more intense and prolonged clinical course of treatment with less successful outcomes. Therefore, current practice guidelines endorse treating these co-occurring disorders at the same time (Vujanovic et al., 2017).

Current Guidelines

The Veterans Affairs & Department of Defense clinical practice guideline for the management of major depressive disorder (VA/DOD, 2016) calls for routine screening for depression and suicide in adults suspected of depression admitted within the facility. The guidelines recommend that all patients not currently receiving treatment for depression be screened for depression using the patient health questionnaire-2 (PHQ–2). Once depression is suspected the VA/DoD (2016) clinical practice guidelines recommend an acute safety risk assessment, a detailed depression assessment by the provider, and the use of the patient health questionnaire-9 as a quantitative measure of depression severity in the initial treatment planning and to monitor treatment progress.
Once depression is identified, the Substance Abuse and Mental Health Services Administration (SAMHSA) treatment improvement protocol recommends that psychotherapies like cognitive behavioral therapy or group cognitive behavioral therapy with or without antidepressant adjunct use be implemented to effectively lower the frequency of substance use and depressive symptoms (SAMHSA, 2020). This improves the functionality of the patient in the short term as well as in the long term. The VA/DoD (2016) clinical practice guidelines recommend similar interventions based on the PHQ–9 scores of patients. If cognitive behavioral therapy or group cognitive behavioral therapy is used with antidepressant adjunct they specify the use of a serotonin reuptake inhibitor as the first choice for antidepressant use.

Statement of the Problem

During a microsystem assessment of the addiction facility, it was determined that patients’ suicidal risk was being evaluated on admission. However, patients were not being screened for depression. A retrospective chart review of the electronic health record admitting assessment provided detailed questions of substance use disorders that patient would answer. Patient were also asked of history of mental illness, medical history, social support, environmental risk factors as well as an excerpt for suicidality. Patients who had a history of depression and suicidal ideation in the past did not receive any additional screening for current level of depression. Patients would report to staff on admission of having no support system, environmental risk factors like social isolation, feelings of hopelessness/helplessness yet did not receive a depression assessment or treatment for these symptoms of depression. Substance use disorders co-occur at high prevalence rates with mental disorders, such as depression (NIDA, 2020). With this in mind, active depression tools upon admission will need to be in place.
**Background and Significance**

While the SAMHSA treatment improvement protocol states there is no single assessment tool gold standard for identifying co-occurring disorders, there are traditional clinical tools that focus narrowly on specific problems (SAMHSA, 2020). The VA/DoD (2016) clinical practice guidelines state that when a patient is suspected of having depression, an assessment of acute safety risk should be implemented.

The VA/DoD recommends the use of the patient health questionnaire-9 (PHQ–9) as a quantitative measure of depression for those diagnosed with major depressive disorder in the initial treatment planning and ongoing monitoring of treatment progress prior to discharge. Substance use may lead to changes in roughly some of the same areas in the brain that are disrupted in other mental health disorders, like depression (NIDA, 2020). The PHQ–9 is a validated tool that evaluates depressive symptoms and suicidal ideation. It can be added to the treatment plan as a continuous means to assess depression severity and observe treatment response. The PHQ–9 can also be used to observe patients’ responses after the start of treatment when a change in treatment plans occurs and monthly until the depressive state has gone into remission. The PHQ–9 defines remission as a score of four or less maintained for a minimum of 1 month. Once remission is obtained, the VA/DoD (2016) clinical practice guidelines recommend that assessment for depression symptoms be continued periodically to monitor for relapse or recurrence. The PHQ–9 has been proven to be an effective, brief, cost-effective scale in identifying depression compared to other depression assessment tools (Dum et al., 2008).

Before a patient at the facility is given the PHQ–9, they will need to score a positive score on the patient health questionnaire-2 (PHQ–2). The PHQ–2 make up the first two items on the PHQ–9 and is used to identify suspected depression. A score of three or higher on the PHQ–2 make up positive score (Bentley et al., 2021).
New SUD patients admitted to an inpatient addiction are put in a new environment where to get better they must abstain drug use. Patients going through the change of not being able to do the substance they were once able to do so frequently can cause a significant amount of stress of which they had not yet learned to cope through. Increase stress is a known risk factor depression and can cause poor motivation (NIDA, 2018). To prevent this, the PHQ administration process following the VA/DoD clinical practice guidelines (2016) will need to be applied. Once depression is identified, the SAMHSA (2020) treatment improvement protocol recommends that psychotherapies like cognitive behavioral therapy or group cognitive behavioral therapy with or without antidepressant adjunct use be implemented to effectively lower the frequency of substance use and depressive symptoms. This improves functionality of the patient in the short term as well as in the long term. The VA/DoD clinical practice guidelines (2016) recommend similar interventions based on the PHQ–9 scores of patients.

Assessment

I completed an assessment of an addiction care facility located in a large urban city in the southern United States. The assessment took place in the fall of 2020 over a 3 month period following the clinical microsystems format of the Dartmouth Institute Microsystem Academy (2005).

Physical Structures

The addiction recovery facility encompasses three units: an intensive outpatient unit with a total of 32 beds, a residential unit with a total of 20 beds, and a transitional living unit with a total 20 beds. For purposes of this project the assessment focused on the residential unit, as this was where the project interventions took place. The facility consists of multiple buildings including a check-in building, a medical building, a kitchen/dining building, multiple lodging buildings, as well as therapy and recreational buildings. Aside from the medical building, each
building was 30 ft by 40 ft in estimated room size. The patient check-in building staffed with two mental health workers (MHW) and had a waiting room that accommodates 10 clients at a time. Due to the novel coronavirus (COVID19) pandemic patients had to call ahead and set up an appointment for when to come in. Once patients checked in, they were escorted to the medical building. The medical building was always staffed by two registered nurses. The medical building includes two patient examination rooms where providers assessed patients as well as, a provider’s office in the corner of the building, one restroom, two patient rooms where intense acute detoxification could be managed, a medication kiosk where patients could take scheduled or as needed medications, an area for laboratory test processing, a supplies area, and a medication storage area. The kitchen/dining area consisted of 20 sitting areas for patients’ dishes, and silverware that could accommodate 30 people at one time as well as a fruit station, a fountain drink dispenser, and a break room for staff. The residential hall is the only unit where patients are an inpatient in the facility. This means it is closest to most of the amenities in the addiction facility. The residential area consists of a recreational building where patients can exercise with free weights or run on the treadmill. The residential area contains 10 separate patient buildings, which holds up to two patients each. Inside each patient building is a day area with a small kitchen for a patient to put personal snacks as well as a microwave; there is also a bedroom which has two beds inside, and a bathroom with a sink, toilet, and a shower inside. The residential area is closest to the medical building where the phone area resides; patients could call outside of the facility to friends and family at certain times during the day. The residential hall is also the closest to the building used for group and individual therapy.
Purpose of Facility

The addiction recovery facility offers a unique approach to addiction treatment that helps patients achieve lasting recovery. The facility does not have a formal mission statement; but does offer collaborative addiction treatments for alcohol and drug rehabilitation.

Patients

The residential unit can accommodate up to 20 patients at a time. Patients can be male or female, and must be 18 years or older and diagnosed with an SUD to qualify for admission. If a patient identifies as transgender and meets other requirements for admission, the clinic accommodates by giving the patient their room without a roommate. Patients see a provider daily, and the type of healthcare professional that supervises the unit varies depending on the day. At the time of the assessment, there were a total of 13 patients at the residential unit. Representing the majority of patients, were nine men. Eight of the men were white and between the ages of 36 and 46 years. The remaining patient's age was 25 to 35 years. The last male was Black and fell into the age range of 47 to 57 years. There were four female patients at that time; three were females between 25 to 35 years of age, and one fell into the age range of 18 to 24 years. All females during this time were white. There were no patients during the assessment phase who identified as transgender. 13 SUD patients during the assessment phase only one was diagnosed and being treated for depression.

Professionals

The addiction recovery facility employed or contracted with one psychiatrist, two psychiatric mental health nurse practitioners (PMHNP), six registered nurses (RNs), eight MHWs, one addiction therapist, two cognitive-behavioral therapists, five counselors, two counselor intern students, and two case managers. The role of the RNs was to provide nursing care for patients including assessing patients, reporting uncommon findings to the provider;
completing intakes and admission assessment paperwork, administering medications, and documenting on all of the patients; and answering any patient questions within the RNs scope of practice. The RNs collected ordered lab specimens, and assisted providers during telehealth visits as required. The RN staff was assigned specific weekdays and, weekend shifts that were 12 hours in length either from 7:00 a.m. to 7:00 p.m. or 7:00 p.m. to 7:00 a.m. There was also a small number of as needed RNs that were assigned 12-hour shifts based on needs of the facility.

There were three or four MHWs assigned to the day shift from 7:00 a.m. to 7:00 p.m. and two or three MHWs assigned to the night shift from 7:00 p.m. to 7:00 a.m. based on patient census. The MHWs role varies each shift. MHWs might be assigned to the patient check in building, assigned to completing office duties like scheduling a patient visit, assigned to assist the therapists or counselors in group sessions, assigned to setup patients’ rooms, or escort patients to planned activities outside of the facility.

The psychiatrist and the PMHNPs would perform new evaluations on new patients and daily assessments on progress with patients. These providers would use information gathered during intake as a primary focus on what the initial evaluation would be focused on. The providers were able to prescribe medications they see fit to progress patient to a more favorable outcome. At least one provider would work a day, and alternate shifts dependent on the day. The PMHNPs are both doctorly prepared, and one is dual certified as a family nurse practitioner (FNP) as well. The dual certified nurse practitioner assesses a patient need for medical intervention upon patients request and when need arises.

The addiction therapist, cognitive-behavioral therapists, and counselors work in collaboration to bring needed individual or group therapy care to patients. The intern students work primarily with a counselor and sometimes hold group counseling sessions for patients.
Case managers primarily work with patients for aftercare setup. This means during their stay the case manager is looking for possible placement in either a group home or discharge to home with the right resources to get in contact with a sponsor and a suitable outpatient facility.

**Recovery Processes**

The average length of stay in the facility for a residential patient is 30 days. Patients are admitted on a voluntary basis and can choose to leave treatment at any time. A typical patient visit starts with the check in process that is conducted in the check in building. The patient is greeted by an MHW and an administrative staff member to go over what is expected while at the facility. Patients belonging are inspected for contraband. If any contraband is found patients are told to give the contraband to their family members or the contraband is placed in a safe until the patient is discharged. Patients are then escorted to the medical building by the MHW where patients are met by the RN.

Once the RN assumes care of the patient, vital signs are obtained as well as a complete intake and admission assessment performed. The RN also obtains a urine drug screen from the patient. Random urine drug screens are also performed throughout the patient’s stay. Most of the patient information obtained by the RN is recorded in the electronic health record (EHR). However, there is some paperwork that requires the patient to complete a paper document including a suicide screening tool and a fall risk questionnaire. Once the patient completes these documents the RN scans the completed papers into the EHR. Once the patient’s intake process is completed, the patient is escorted to the residential unit to settle in.

Patient records are accessible through the EHR system. The current EHR system is accessible by all of the professional staff. EHR access includes clinical progress notes, group session notes, patients’ schedules, financial intake information, patients’ medical intake
information, current issues related to recovery, treatment plans, laboratory results including drug screens, appointments, discharge planning notes. Paper charting is not used in this facility.

Throughout patients’ stays, they have daily visits with their provider, attend voluntary alcoholic anonymous or narcotic anonymous meetings on the weekends, attend group therapy sessions twice a day, meet with their individual counselors, and take their prescribed medication regimen. Additionally, patients also participate in recreational activities such as yoga and meditation.

Despite having a structured itinerary, patients had approximately a 2 hr period of free time during the day. This time was used by the patients to participate in recreational activities, ask for as needed medications, or use the telephone. I also noted that although cognitive behavioral therapy and counseling was voluntary, the majority of patients attended every session.

**Patterns and Need for an Intervention**

The microsystem assessment revealed that patients’ suicidal risk was being evaluated but patients’ depression risk was not being addressed despite the VA/DoD (2016) clinical practice guidelines indicating the need to assess for both. As previously described, the facility was able to readily access suicide risk in the form of a questionnaire that was completed by the patient during the intake and admitting assessment process. The completed suicide risk form was scanned into the patient’s EHR. This indicated that it was possible to implement other risk assessment tools and scan those documents into the EHR. Providers are able to easily access all scanned documentation in the EHR before interacting with the patient.

The facility had weekly interdisciplinary team meetings with at least one person from each profession in attendance to discuss active patients in the facility. Patient privacy is maintained during these meetings; however, any patient identified as being at risk for suicide was discussed by the team. Even though this information was readily available in the EHR, it
was important for the team to discuss all notable information to reduce patients’ suicide risk. I was able to determine that assessing patients’ depression risk and discussing these risks in the interdisciplinary team meetings would not have a significant impact on the facility routine, would help the facility be in compliance with current clinical practice guidelines, and could have a substantial impact on patient outcomes.

**Readiness for Change**

After I completed my assessment of the facility, I met with administrators, the chief executive officer (CEO), providers and other staff to discuss my findings. I highlighted that the facility was not currently meeting the VA/DoD (2016) clinical practice guideline and suggested implementing the use of the PHQ–9 to assess for depression risk at admission, every 30 days, and prior to discharge. The CEO and providers were quite familiar with the PHQ–9 assessment tool and had no qualms with the proposed intervention. After a brief discussion with the staff about the VA/DoD clinical practice guidelines, the staff was eager to learn more and were inquisitive about when the proposed implementation would begin. The CEO was more than happy to give letter of support as shown in Appendix A (See Appendix A).

**Project Identification**

**Purpose**

The purpose of this quality improvement (QI) project was to increase adherence to the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016) for adults admitted to an inpatient addiction recovery facility.

**Objectives**

1. Educate 100% of providers working within the addiction recovery facility on the screening and treatment standards outlined in the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016).
2. Educate 100% of staff on the proper screening for depression and suicidal ideation of adult patients admitted to the addiction recovery facility using the PHQ–9 as outlined in the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016).

3. 100% of individuals who score positive on the patient health questionnaire-2 (PHQ–2) will complete the PHQ–9.

4. Increase the percentage of adult patients screened for depression and suicidal ideation upon admission to the addiction recovery facility with the PHQ–9 from the pre-intervention rate of 0% to 95% by the completion of the project implementation period.

5. Increase provider adherence rate to the treatment standards outlined in the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016) for patients who have a positive score (> 4) on the PHQ–9 from 0% to 95% by the completion of the project implementation period.

6. Increase the PHQ–9 periodic reassessment rate at least every 30 days or sooner if discharge before 30 days as outlined in the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016) of patients within the addiction recovery facility from 0% to 95% by the completion of the project implementation period.

**Anticipated Outcomes**

1. 100% of providers will be educated on proper usage of the PHQ–9 by the completion of the project implementation period

2. 100% of staff will be educated on proper usage of the PHQ–9 by the completion of the project implementation period
3. 100% of individuals who score positive on the PHQ–2 will complete the PHQ–9

4. 100% of the completed PHQ–2 scores will be scanned and documented into the facility’s EHR system

5. 100% of the completed PHQ–9 scores will be scanned and documented into the facility’s EHR system

6. Providers will adhere to the treatment standards outlined in the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016) at least 95% of the time.

7. Assembly with providers and staff to recognize and address possible barriers to 95% completion rate

**Summary and Strength of the Evidence**

Literature used for evidence in the project was found using PubMed, Medline, Cochrane Library, and CINAHL. Quality of evidence was measured using the John Hopkins Nursing Evidence-Based Practice scale described by Dang & Dearholt (2018). Multiple articles ranged used in this project ranged from level I evidence like from systematic reviews and meta-analysis of randomized controlled studies to level VII evidence like the expert opinion of authorities and/or reports of expert committees. Articles included had to have evidence regarding screening tools that can be used for SUD patients that have a comorbidity of depression or are actively being treated concurrently for SUD and major depressive disorder (MDD). Unlike individuals experiencing either disorder alone, individuals having both disorders are more likely to undergo a severe and chronic display of clinical symptoms with far worse treatment outcomes. Thus, current practice guidelines recommend treating these co-occurring disorders simultaneously. (SAMHSA, 2020; Stein et al., 2017; Vujanovic et al., 2017). There is no single gold standard
assessment tool for co-occurring SUD and MDD. Instead, the traditional clinical tools that focus narrowly on a single problem are most commonly used (SAMHSA, 2020).

PHQ–2

The PHQ–2 has been used in studies and shown to be an effective screening tool for depression in patients with a substance use disorder (Stein et al., 2017; Bryan et al., 2021). However, it was found that the PHQ–2 in conjunction with the PHQ–9 showed far better accuracy than the PHQ–2 alone. Levis et al. (2020) conducted a meta-analysis that included a total of 10627 participants from 44 studies to evaluate the accuracy of the PHQ–2 alone and in combination with the PHQ–9 for screening to detect major depression. The study showed that the PHQ-2 had less specificity than the use of PHQ–2 and PHQ–9. The PHQ–2 followed by the PHQ–9 for applicable patients may be the ideal approach, as it shows higher sensitivity or specificity than the PHQ–2 alone. The PHQ–2 is made up of the first two items in the PHQ–9 which measure depressed mood and anhedonia. Items on the questionnaire use a Likert scale that rates from 0 (not at all) to 3 (nearly every day). The lowest score an individual can have on this tool is 0 and the highest is 0. A score of 3 or greater is considered a positive score (Bentley et al., 2021). This can be used as the first step in identifying for depression evaluation with the entire PHQ–9.

PHQ–9

Dum et al. (2008) conducted a cross-sectional study on 108 SUD patients in a treatment center to evaluate the psychometric properties of the Beck Depression Inventory–II (BDI–II) and the PHQ–9 with alcohol and drug abusers. The study showed that the BDI–II and PHQ–9 depression scales had good psychometric properties and were similarly correlated with SUD severity levels. It was notable that the PHQ–9 was faster and free to use for providers. Both
scales were equally recommended for use with individuals with substance abuse disorders (Dum et al., 2008).

Delgadillo et al. (2011) conducted a validation study on 103 patients with SUD to test the reliability and validity in this population. This study brought positive results as it showed the PHQ–9 to be a valid and reliable tool for this population. Emphasizing the ease of administration and how brief it took to fill out, made it a useful clinical tool (Delgadillo et al., 2011).

The 9-item PHQ–9 assesses the frequency of depressive symptoms in the past 2 weeks. Like the PHQ–2, it uses a Likert scale that rates from 0 (not at all) to 3 (nearly every day). Scores range from 0 to 27, a score of 5 or higher may warrant intervention and retest in a month (MacArthur Initiative on Depression & Primary Care, 2009). Interventions of psychotherapy or antidepressant usage are warranted with a score greater than 10. The PHQ–9 is a public domain measure and can be freely downloaded without the worry of copyright issues (Kroenke, 2017).

Screening tools are a necessity and exceptionally important when treating an illness. Benefits for the usage of the PHQ–9 for depression screening have been shown for initial and ongoing usage throughout care (American Psychiatric Association, 2016; Arbuckle et al., 2013; VA/DOD, 2016).

**Cognitive Behavioral Therapy**

Traditional Cognitive Behavioral Therapy (CBT) approaches for the treatment of SUD depression are well-studied and have been shown to be the preferred treatment of choice (Vujanovic et al., 2017). Individuals in CBT will learn to identify and adjust problematic behaviors by using a range of different skills which can be applied to stop drug abuse as well as address a range of additional issues that often co-occur with it (NIDA, 2018). A key point in
CBT is to help patients anticipate a likely problem and increase a patients’ self-control as well as assisting them build effective coping skills. Some techniques used in CBT include evaluating the positive and negative consequences of an action, self-monitoring, identifying situations that can be problematic and put one at risk for a poor outcome (Wenzel et al., 2016). Along with this being effective in SUD, it is also a first-line treatment used in MDD (Wheeler, 2013). Research shows skills an individual will learn through CBT will remain after successful completion of treatment.

CBT can be used as a single therapeutic approach to treat MDD in patients with SUD or can be used in combination with antidepressant medication therapy. CBT, as a single therapeutic approach or in combination with medications, is a cornerstone to successful long-term outcomes for many individuals with drug use disorders or other mental illnesses (NIDH, 2020). Protocols like the SAMHSA Treatment Improvement protocol recommends psychotherapies such as individual CBT or group CBT with or without adjunct antidepressant use to effectively lower frequency of substance use and depressive symptoms (SAMHSA, 2020).

**Antidepressant Therapy**

Antidepressant therapy is used to treat the major depressive disorder as well as reduce the chance of relapse. A plethora of antidepressants are used to successfully treat MDD, the most commonly used the first line is the SSRI (Clevenger et al., 2018; Gabbard, 2014; Sadock at al., 2014; Sadock et al., 2018). SSRIs work by inhibiting the reuptake of serotonin which then increases serotonin activity in the body. SSRIs have fewer effects on neurotransmitters like adrenergic, histaminergic, and cholinergic receptors than other antidepressants. This leads to far fewer side effects from SSRIs compared to others which makes this antidepressant a more viable option (Chu & Wadhwa, 2021; Sadock et al., 2018). According to the VA/DoD (2016) clinical
practice guidelines a PHQ–9 score of 11 or higher calls for CBT use with or without an SSRI for treatment. The use of CBT with an SSRI can increase the probability of a positive treatment outcome.

Methods

Project Framework and Description

The framework used for this project was the plan-do-study-act (PDSA) model for clinical improvement. The PDSA cycle is a quality-improvement process, that helps in introducing a new program into a complex environment, such as an addiction facility. This works by advancing a plan to examine the change (Plan), initiating the test (Do), perceiving and learning from the consequences of the test (Study), and determining what modifications if need be should be made to the test (Act) (Coury et al., 2017). In this project data was collected using a retrospective chart review during the assessment phase. This was to determine where the gap was between the facility’s current practice and the VA/DoD (2016) clinical practice guidelines lie. Once gaps were identified I worked with the providers and staff to come up with a plan for the facility to adhere to the VA/DoD (2016) clinical practice guidelines (plan phase). Suitable interventions like the education of providers and staff, and implementation of the PHQ–9 administration process were then implemented in the facility (do phase). Each intervention was measured consistently throughout the project. This was to evaluate the facilities progress towards carrying out the interventions (study). The ongoing evaluations throughout the project required me to make adjustments to ensure the interventions were being done properly.

Provider and Staff Education

I developed education using key points from the VA/DoD (2016) clinical practice guidelines. Education for providers was different than education given to other staff due to their role. One-on-one interactive education was carried out with each provider on the screening,
diagnosing, treatment, referral, and management of MDD according to the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016). These sessions lasted anywhere from 20-30 minutes’ dependent on if questions were being asked on the process. Clarification was not needed during provider education. Education on VA/DoD (2016) clinical practice guidelines, as well as scores for the PHQ–2 and PHQ–9, were given to staff; This included group education seminars lasting 25-30 minutes’ dependent on questions. Staff were educated on the entire process. During a second seminar for staff, I clarified staff only need to attend one meeting as some staff already attended. Another change resulted in doing a seminar at night for those staff who only work nights to accommodate their schedules. All were required to sign in as proof of attendance.

Administration of the PHQ

The PHQ–2 was administered to every patient upon admission to the addiction facility. The lowest score a patient can get on this questionnaire is zero and the highest is six. If a patient had a score greater than three, it was considered to have a positive screening score. Patients who scored positive then needed to complete the PHQ–9.

The PHQ–9 is only administered to a patient who has a positive screening score on the PHQ–2. The lowest score on the PHQ–9 a patient can have is zero the highest is a score of 27. A score less than five is considered minimal depression and is not subject to any special considerations according to the VA/DoD guidelines. Patients who scored a five or higher up admission had to do one again in 30 days or before discharge if sooner than 30 days. The RN puts results for PHQ under the admission section in the EHR. A clinical alert will be generated in the system notifying the provider to review the admission note with the admitting PHQ results.
**Therapeutic Management of Depression**

Patients with PHQ–9 scores from 5 – 10 will receive supportive counseling and education from trained staff. This will be given in the form of open-ended questions staff will learn as well as brochures given to patients on what to do if symptoms worsen. These patients will be re-scored every month and on discharge. If at any time the patient’s score increases to 11 or greater, the patient will be started on CBT with or without the use of an SSRI and will be scored every 30 days and upon discharge. Coordination and communication with cognitive-behavioral therapists will be implemented for effective CBT. Patients with moderate to high scores of 11– 20 will be started on CBT with or without an SSRI as appropriate. These patients will be scored every 30 days and upon discharge. If a patient’s subsequent score is equal to or less than 10, the patient will be scored in 30 days while continuing the SSRI. If a patient’s score increases during PHQ–9 monitoring, a medication adjustment may be warranted. At discharge, if a patient was prescribed an SSRIs, they will receive a prescription for the SSRIs and a referral to a mental health provider, as indicated. The provider will prescribe SSRI if needed.

I constructed the quality improvement project plan based primarily on the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016) recommendations. This included implementation of the PHQ–9, treatment based on scores, and education tactics. These are the elements provided by the project leader for the planning phase:

1. Prior to project implementation, each provider will receive one-on-one interactive education on the screening, diagnosing, treatment, referral, and management of MDD according to the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016).
2. Prior to project implementation, all staff will be educated about the guidelines and the proper administration of the PHQ–9.

3. Implement process for administration of the PHQ–9.
   a. Patients will be given the PHQ–2 initially; if the score is positive the PHQ–9 will be given.
   b. During the initial admission assessment RN staff will complete the PHQ–9 and enter it into the EHR. Once done, a clinical alert will be generated in the system notifying the provider to review the admission note with the PHQ–9 result.
   c. For scores greater than 4, appropriate treatment will be initiated based on the standards outlined in the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016).

4. The provider will implement treatment based on the PHQ–9 score and as outlined by VA/DoD guidelines.
   a. Patients with scores between 5 and 10 will receive supportive counseling and education from trained staff. This will be given in the form of open-ended questions from staff and patient brochures on what to do if symptoms worsen. These patients will be rescored every month, and upon discharge. If at any time a patient’s score increases to 11 or greater, the patient will be started on CBT with or without SSRI and will be scored every 30 days and upon discharge. Coordination and communication with cognitive behavioral therapists will be implemented for effective CBT.
b. Patients with moderate to high scores between 11 and 20 will be started on CBT with or without an SSRI as appropriate. These patients will be scored every 30 days, and upon discharge. If a patient’s subsequent score is less than or equal to 10, the patient will be scored in 30 days while continuing the SSRI. If a patient’s score increases during PHQ–9 monitoring, a medication adjustment may be warranted.

c. At discharge, if a patient was prescribed an SSRI, they will receive a prescription for the SSRI and referral to a mental health provider as indicated. The provider will prescribe the SSRI if needed.

5. The objectives will be monitored via weekly review of the EHR for each patient admitted to the addiction recovery facility during the implementation period.

Project Implementation

I began the 10-week implementation period in late January 2021 starting with the education of providers. All were accustomed to use of the PHQ administration, so education involved a review of the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016) associated with the PHQ–2 and PHQ–9. I also discussed where the scores could be found in the EHR. Providers were reassured that their role in this project was to interpret the PHQ–2 and PHQ–9 found in the EHR and then determine which therapeutic interventions would be implemented based on the VA/DoD clinical practice guidelines. The providers were not responsible for administering the PHQ–2 or PHQ–9 screening tools. That task fell to the staff. Each provider worked a different schedule, so meeting with them individual based on their schedule instead of as a group seemed to be the simplest way of completing the education process for them. This process was completed within the 1st week of the implementation period.
Education of the staff began the 2nd week of the implementation period. I sent a group email to staff informing them that there were a total of four educational meetings they could attend regarding the implementation of this project. Two of the meetings were scheduled late morning on a weekday, one was scheduled on a weekday night, and one was scheduled on a weekend evening. This was done to accommodate staff members’ schedules. While some staff had heard of the PHQ–2 and PHQ–9, not all of the staff were familiar with the assessment tools nor were they familiar with the VA/DoD clinical practice guidelines. Therefore, all of the staff were educated on the process of handing out the PHQ–2 and PHQ–9 assessment tools, scoring the PHQ–2 and PHQ–9 assessment tools, and entering the results in the EHR for all new admissions. Each staff was given a copy of the PHQ–2 (see Appendix C) and PHQ–9 screening tool (see Appendix B). During these educational sessions, staff learned about their roles and responsibilities in implementation of the project. RNs were instructed on when to have patients complete the PHQ–2 and the PHQ–9 as well as where to input the results in the EHR so the providers could see the results. MHWs and the other staff were also provided the same education about depression and the use of the PHQ–2 and PHQ–9 as a screening tool as well as information about how the brochures would be distributed. During one of the educational meetings one of the staff members identified an important issue that needed to be discussed. The staff member asked how they would prevent patients from feeling singled out since only the patients scoring high on the PHQ–9 got brochures. This was an excellent point. To avoid this, the staff and I decided every week I would present a patient education session on depression. The responsibility of this presentation would transition to trained staff as the project progressed. This presentation was for all new patients regardless of PHQ scores. After the presentation, the brochures were handed out to all patients (see Appendix E). The patient presentations on
depression took place on Mondays during free time lasting approximately 10 minutes from weeks 4 to 10 of the implementation period. These presentations were voluntary for the patients, but majority of patients attended. Although this was voluntary, patients who attended had to sign in, so patients who did not attend were accounted for. This was to give them the brochure which, was passed during the presentation.

New patients began receiving the PHQ–2 and PHQ–9 depression screenings at the time of admission during week 3 of the implementation period. The staff pointed out to me that it would be simpler for all new patients to complete the entire PHQ–9 screening tool rather than having them complete the PHQ–2 and then take the PHQ–9 if they had a score of (provide the cut point score here). Since the PHQ–2 were the same first two questions on the PHQ–9, this was something that I was amenable to implement in the project. The RNs would scan the entire PHQ–9 into the EHR, patient who score positive on the PHQ–2 and had a score of 5 or greater on the admitting PHQ–9 will take another PHQ–9 before discharge; This revision in the project took place in week 4 and seemed to work more efficiently than the original plan of implementing the PHQ–2 first.

During week 3 of the implementation period I began to monitor the RNs and providers in person on a daily basis to ensure that the screening process and importing of results into the EHR were done correctly. I was able to change to a more random monitoring schedule beginning in week 4 since the providers and staff were demonstrating consistent compliance with the project implementation plan. I also accessed to the EHR system ensure that documentation of PHQ results were imported into the system.

Patient who scored 11 or greater on the PHQ–9 were encouraged by staff to attend all group CBT therapy sessions. The patients’ willingness to attend most if not all of the CBT
therapy sessions is most likely due to the rapport they had built with the staff. During week 3 of the project implementation process, I obtained permission from providers to discuss the patients’ PHQ–2 and PHQ–9 scores during staff meetings. This helped to ensure that each patient who scored a positive PHQ–2 or PHQ–9 would now have at least one professional staff member from each shift that was aware of patients at risk for depression even if a professional staff member had forgotten to check the EHR. This also helped facilitate discharge planning as the professional staff could identify those patients close to discharge that would need to take another PHQ–9 assessment prior to discharge.

Barriers

A barrier of this project was the possibility of noncompliance by the patients. Patient were able to decline any part of the quality improvement project they did not want to do.

Facilitators

Facilitators of this project included the administrators, staff, providers and the CEO of the facility. All of these individuals felt comfortable to voice their thoughts and concerns on the new process, with the vast majority of the feedback being positive. Although some individuals needed clarification on the implementation plane, there was no backlash regarding the proposed changes.

Ethical Considerations

After obtaining a letter of support from the CEO (see Appendix A), the project plan was submitted and reviewed by the University of the Incarnate Word Institutional Review Board (IRB) and was deemed to be a quality improvement project and exempt from IRB approval (see Appendix D). I took deliberate precautions to ensure that no sensitive personal health information was collected in order to maintain compliance with the Health Insurance Portability and Accountability Act (HIPAA) requirements. Once the results of patients’ PHQ–2 and PHQ–9
assessments were scanned into the EHR, the physical copies of the documents were disposed of properly in accordance with HIPAA guidelines. All patients participated in this project on a voluntary basis and could refuse any part of the process at any time.

**Results**

The first 2 weeks of the implementation process focused primarily on education of the providers and staff. By the end of the 1st week, 100% of the providers had completed the one-on-one interactive educational session with me that addressed the screening, diagnosing, treatment, and referral of MDD according to the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016). I was able to meet the first anticipated outcome, which was to have 100% of providers educated on proper usage of the PHQ–9 by the completion of the project implementation period.

During the 1st week only one educational seminar was held and 28.8% of staff were able to attend. During the 2nd week the amount of staff attending the educational sessions rose exponentially. This was due to the multiple seminars held during this week. By the end of the 2nd week 96.5% of staff had attended the required educational sessions. The remaining 3.5% of the staff who did not attend were in the process of leaving their positions within the next 2 weeks. By week 4 of the project implementation, those staff members who were leaving their positions were no longer employed by the facility, which meant that 100% of the staff had attended the required educational sessions. I was able to meet the second intended anticipated outcome which was to have 100% of staff educated on the proper usage of the PHQ–9 by the completion of the project implementation period.

By week 3 of the project implementation period, new patients admitted to the facility were given the PHQ assessments and treatment was ordered in accordance with the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016)
based on the level of depression diagnosed using the PHQ assessments. There were 42 patients admitted to the facility during weeks 3 to 10 of implementation period (see Figure 1). Patients admitted before week 3 were not included in these results as provider and staff education was not complete. The lack of admissions in week 4 was due to inclement weather as described under limitations. The demographical information of these 42 admissions can be found in Table 1.

**Figure 1**

*Patient Census*

![Patient Census Chart](image)

The vast majority of patients admitted during the project implementation period were white males between 25 to 46 years of age. Since this was an adult facility, there were no admissions of patients younger than 18 years of age. Interestingly enough, there were also no admissions of patients 64 years of age or older. Insurance status was unavailable.

I met with staff and providers to discuss possible barrier and one that was brought up multiple times was patient compliance as we were unsure how patients would react to the new depression screenings and possible depression treatment in this facility. With this discussion I was able to meet my seventh intended anticipated outcome which was to assembly with
Table 1

Patient Demographics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>No. (%) of Patients (n = 42)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>66.7%</td>
</tr>
<tr>
<td>Female</td>
<td>33.3%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>85.7%</td>
</tr>
<tr>
<td>Black</td>
<td>11.9%</td>
</tr>
<tr>
<td>Asian</td>
<td>2.4%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>14.3%</td>
</tr>
<tr>
<td>25-35</td>
<td>33.3%</td>
</tr>
<tr>
<td>36-46</td>
<td>33.3%</td>
</tr>
<tr>
<td>47-57</td>
<td>16.7%</td>
</tr>
<tr>
<td>58-64</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

providers and staff to recognize and address possible barriers to 95% completion rate.

Noncompliance did not seem to be an issue as all of the individuals admitted to the facility during the project implementation period completed the PHQ–2 or the first two questions of the PHQ–9. All PHQ–2 scores and PHQ–9 scores were scanned and documented into the facilities EHR system. I was able to meet the fourth intended anticipated outcome which was to have 100% of the completed PHQ–2 scores will be scanned and documented into the facility’s EHR system. I was also able to meet the fifth intended anticipated outcome which was to have 100% of the completed PHQ–9 scores will be scanned and documented into the facility’s EHR system. Patients were more than willing to do what was need for far better treatment outcomes. Out of the completed PHQ–2 s or the first two questions of the PHQ–9 s, 29 patients scored a 3 or
higher and were subject to completing the entire PHQ–9. Out of these 29 patients, 29 completed the PHQ–9. I was able to meet the third intended anticipated outcome, which was to have 100% of individuals who scored positive on the PHQ–2 to complete the PHQ–9. 27 patients scored between 5-27, which triggered implementation of the VA/DoD Clinical Practice Guidelines for the Management of Major Depressive Disorders (2016). All of these patients repeated the PHQ–9 prior to discharge (See Figure 2). Those who scored 5-27 prior to discharge were evaluated and depending on score and discharge assessment by provider were prescribed an SSRI. All patients were referred to an outpatient mental health care facility.

**Figure 1**

**Patients Screened**

93% of positive patients screened attended all scheduled group CBT sessions, and 24% were started on an SSRI along with CBT based on scores and assessment by providers. No patients
solely had SSRIs for treatment. 76% of positive patients solely had CBT for treatment without the use of an SSRI.

Discussion

Objective 1, which called for 100% of providers will be educated on proper usage of the PHQ–9 by the completion of the project implementation period for was completed in the 1st week of implementation. The project leader worked with each provider and provided education within their schedules. Education on this outcome was based on the VA/DoD (2016) clinical practice guidelines. Topics on what to do for suspected depression PHQ administration were discussed. While providers were familiar with the PHQ administration process this was never used in this facility. Assessment for the patient’s acute risk to self was also reviewed. Guidelines state that acute risk for self-harm should be assessed upon every assessment a provider has with the patient with suspected depression. This was the same as standards used in this facility, as all patients are assessed for acute self-harm risk at every provider assessment. Treatment with CBT with or without SSRI usage was also discussed. Providers were lectured on the use of SSRIs being at their discretion based on their evaluation and PHQ scores. This had differed from what was already in place as the PHQ was not implemented at the facility before.

Objective 2, which called for 100% of staff will be educated on proper usage of the PHQ–9 by the completion of the project implementation period was completed by the 4th week. I had directed education seminars on proper usage of the PHQ administration following the VA/DoD (2016) clinical practice guidelines on all staff but one by the 2nd week. The staff member in question was expected to be terminated in the following weeks which led to 100% education on all staff once termination was complete. Education on depression was also included in the seminar. While an overview of depression is not in the guidelines, I felt this was needed
for some staff like the MHWs who do not have a psychiatric background. Like outcome number one, education on treatment for the VA/DoD (2016) clinical practice guidelines was given.

Due to education, objective 3, which called for 100% of individuals who score positive on the PHQ–2 will complete the PHQ–9 was completed without issues. The VA/DoD (2016) clinical practice guidelines call for patients who have scored a positive PHQ–2 to complete the PHQ–9. This was done by the RNs upon admission. This was done effectively to have a 100% complete rate and adhered to guidelines with no changes. In VA/DoD (2016) clinical practice guidelines the PHQ–9 was used as an indicator of depression severity, this did not change upon implementation.

Objective 4, which called for 100% of the completed PHQ–2 scores to be scanned and documented into the facility’s EHR system, was complete. Objective 5, which called for 100% of the completed PHQ–9 scores, will be scanned, and documented into the facility’s EHR system was complete. These two outcomes changed from what was stated in the VA/DoD (2016) clinical practice guidelines, as the guidelines do not specify how to store completed scores of the PHQ–2 and the PHQ–9. An EHR electronic system is used throughout healthcare systems to collect as well as store a patient’s important information (Ehrenstein et al., 2019). Providers were able to see files remotely, which made response times more efficient. In this improvement quality project, the was considered important information that can lead to better treatment outcomes for the patient. For these reasons, it was important to have these outcomes.

Objective 6 which called for providers to adhere to the treatment standards outlined in the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016) to at least 95% of the time was complete. The providers' past expectations and increased by 100%. Currently, the VA/DoD (2016) clinical practice guidelines are working on
developing effective strategies to evaluate the intended adherence rate on clinical outcomes. This implies that the current rate expectation for adherence is not yet 100%.

Objective 7, which called for me to assemble with providers and staff to recognize and address possible barriers to 95% completion was complete. Barrier inefficiency was quickly fixed to make the project run smoother for staff as well as patients. While this was not in the VA/DoD (2016) clinical practice guidelines it was important to collaborate with staff to build communication and increase the likelihood of successful outcomes for patients as well as the facilities.

Many significant changes occurred for the betterment of this addiction facility during this QI project. Patients who participated in this project most likely would not have been assessed and treated for comorbid depression as the project site did not offer a depression screening tool beforehand. Patients data of comorbid depression during SUD treatment from this project showed a 26% gain from 2020’s national average of 43% in this population (NIDA, 2020). This was an interesting find as it showed a possibility of an increase in comorbid depression in this population in the upcoming future.

**Limitations**

During week 4 of the project implementation period there was inclement weather, which effected power, heating, road closures, and access to the facility. New patients were unable to seek help at the facility due to these conditions. Furthermore, discharges from the facility were postponed in order to ensure the safety of the patients. This effected the implementation schedule. Another limitation to implementing this project was the coronavirus (COVID-19) pandemic which may have limited the number of patients coming into the clinic for recovery. COVID-19 has affected the world for more than a year and continues to result in high numbers of deaths. Although vaccinations had started in the United States before the implementation
period, most people in the United States had not received their vaccination which could have stopped unvaccinated patients from seeking help for their addiction.

**Recommendations**

It is recommended that the facility should highly consider the continued use of the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (VA/DOD, 2016) in adults admitted for inpatient addiction recovery facility. This quality improvement project did not require any significant modifications to the facilities current processes in order to be effective. This made for little to no backlash from staff and providers. The transition into the implementing phase was relatively easy for all staff involved which benefitted patient with possible depression or depressive symptoms. Depression is often an overlooked comorbidity in patients with SUD and can significantly affect the patient outcomes if not addressed (SAMHSA, 2020). This project was implemented to address this issue in an inpatient setting, but it may also apply to other inpatient populations. Geriatric and rehabilitation inpatient facilities often have patients who are susceptible to depression (Almomani & Bani-issa, 2017), so it is important to have a depression screening process in place in order to address this to ensure better treatment outcomes for these patients. Larger facilities may have less flexibility in how providers and staff are educated on the clinical practice guidelines for MDD. Patients with cognitive issues may need assessment tools like PHQ–2 and PHQ–9 to be altered to answer depression questions.

**Sustainability**

The educational sessions on the use of the PHQ–2, PHQ–9, and the clinical practice guidelines was the most significant change in this facility, resulting in 100% of staff and providers receiving the education. The knowledge gleamed from these educational sessions is foundational for sustainability of the depression screening and clinical practice guideline driven
treatment for future patients with SUD who have a comorbidity of depression admitted to this facility. The implementation of the PHQ–2 and PHQ–9 process has no significant cost associated with it, so these screenings can be continued with no financial strain to the facility. Since providers and staff at this facility are trained in CBT and medication therapies and since these therapies are readily available at this facility, adherence to the clinical practice guidelines for MDD can continue to be implemented in this practice. This facility already has all of the infrastructure and resources necessary to continue implementation of this projects interventions.

**Implications for Practice**

Some positive outcomes expected at addiction facility treatment center are to reduce substance abuse or achieving a substance-free life, maximize the multiple aspects of life functioning learned at facility and to prevent or reduce the frequency and severity of relapse (SAMHSA, 2020). Assessing all new patient admissions for depression at an adult inpatient addiction facility gives these patients a better likelihood of a successful recovery process and can improve patient outcomes after the inpatient recovery process is complete. This also helps identify patients with thought of self-harm that otherwise may have been missed. Once learned facility can take precautions to prevent a possible incident that can leave a facility liable

This approach is cost effective to the facility and patient as well. When depression is caught early on, less invasive treatment is necessary for effective treatment. The less treatment needed the lower the cost for the facility and patient.

**Conclusion**

To be effective, SUD treatment must address the individual’s drug addiction and any associated psychological, medical, social, vocational, and legal problems (NIDA, 2018). Not treating a patient’s comorbidities can lead to more complex clinical management, increased healthcare cost, and far worse outcomes (Bellatreche et al., 2020). DNP essential VI which calls
for inter-professional collaboration to improve patient and population health outcomes (Zaccagnini & Pechacek, 2019) was a key element to the project.

The DNP-prepared nurse practitioner should serve as an effective collaborative team leader and participant; they should participate in the works of the interprofessional team as well as assume leadership of the team when appropriate (Zaccagnini & Pechacek, 2019). Collaboration between the providers, staff, and myself were needed throughout the implementation of this project to ensure its success. Without this effective collaboration this quality improvement project may not have been as successful as it was.
References


Gabbard, G. (2014). Gabbard’s treatments of psychiatric disorders (5th ed.). American
Psychiatric Association.


Appendix A

Letter of Support

Re: Depression Screening upon Admission at an Addiction Facility

The [redacted] is aware of your Doctoral Nursing Improvement Project. We understand that the involvement of our facility in assisting you to accomplish this project includes but may not be limited to nursing assistance, space, etc.

As CEO of the New choice treatment centers, I have read through your proposal and support the involvement of our Facility in this project and look forward to working with you.

Sincerely,

[Redacted]
### Appendix B

**PHQ–9 Questionnaire**

**PATIENT HEALTH QUESTIONNAIRE (PHQ-9)**

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

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?

<table>
<thead>
<tr>
<th>Difficulty Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not difficult at all</td>
<td></td>
</tr>
<tr>
<td>Somewhat difficult</td>
<td></td>
</tr>
<tr>
<td>Very difficult</td>
<td></td>
</tr>
<tr>
<td>Extremely difficult</td>
<td></td>
</tr>
</tbody>
</table>

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Appendix C

PHQ-2 Questionnaire

The Patient Health Questionnaire-2 (PHQ-2)

<table>
<thead>
<tr>
<th>Over the past 2 weeks, how often have you been bothered by any of the following problems?</th>
<th>Not At all</th>
<th>Several Days</th>
<th>More Than Half the Days</th>
<th>Nearly Every Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Feeling down, depressed or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix D

Human Subjects Research Determination

2/9/2021

Project Lead: Eric Aniekwona
Project title: Depression Screening at an addiction facility

Eric:

Your project titled Depression Screening at an addiction facility was deemed to be Not Regulated Research.

Your proposed project was reviewed and found to not meet federal regulatory requirements for human subject research and does not require approval via the IRB process. Please use the IRB number N01-004 when inquiring about or referencing this determination.

No further review of the project as proposed is required. Should you determine at any point you wish to add additional elements to the project, please contact us before initiating those components, as this may impact the determination.

For information regarding the IRB or the review process, please contact me at (210) 605-5685.

Sincerely,

Ana Hagendorf, PhD, CPRA

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Appendix E

Co-Occurring Depression Brochure

Many people struggle with both a substance use and a mental disorder. These questions can help you decide whether you need help with substance use, a mental health issue, or both. For people who suffer from both, receiving treatment for both is important for getting better. Treatment works: Recovery starts with understanding that you may have one or both of those problems.

☐ Over the past 2 weeks, have you felt down, depressed, or hopeless?

☐ Over the past 2 weeks, have you felt little interest or pleasure in doing things?

☐ In the past year, have you had times when you could not stop worrying or when your thoughts were racing so much you could not think clearly or at all?

☐ In the past year, have you thought about ending your life or had thoughts about suicide?

“ IF YOU HAVE HAD THOUGHTS OF NOT WANTING TO LIVE, OR HARMING YOURSELF OR ANYONE ELSE, TALK TO SOMEONE IMMEDIATELY OR CALL 1-800-273-TALK (1-800-273-8255) OR 1-800-SUICIDE (1-800-784-2433) NOW.”
In the past year, did you have a hard time paying attention at school, work, or home?

Have you ever felt you should cut down on your drinking or drug use (use less alcohol or drugs)?

Have people annoyed (irritated, angered, etc.) you by criticizing your drinking or drug use?

Have you ever felt bad or guilty about drinking or drug use?

Have you ever taken a drink or a drug (not prescribed) first thing in the morning (an eye-opener) to steady your nerves or get rid of a hangover?

In the past, have you ever:

(for men) had 5 or more drinks in a day?

(for women or anyone over age 65) had 4 or more drinks in a day?

used recreational or prescription drugs to get high?

Unless you answered “never” to all of the above questions, talk to your doctor, a nurse, or a counselor about the details. They can help you decide what to do next. They may also help you find more information and resources. Look on the back of this brochure for additional ways to get help.
Resources

For information on treatment for co-occurring mental and substance use disorders, go to http://www.co3c.samhsa.gov or http://www.samhsa.gov/treatment/.

To find a nearby drug and/or alcohol treatment clinic, call (800) 662-HELP (4357) (English and Espanol) or (800) 487-4889 (TDD) or go online to: http://www.samhsa.gov/treatment.

You can also find help in the yellow pages under “Alcohol Abuse,” “Drug Abuse,” or “Mental Health Services,” or in the government (blue) pages of the phone book under your local health department.

Some of these clinics can provide treatment for both substance use and mental health disorders.

A better, healthier life may be closer than you think.

This consumer brochure was created to accompany the publication Substance Abuse Treatment for People With Co-Occurring Disorders, 812 in SAMHSA’s Treatment Improvement Protocols (TIP) series. The TIP series and its affiliated publications are available free from SAMHSA’s Health Information Network (HIN). Call 1-877-SAMHSA-7 (1-877-726-4772) (English and S households) or go to http://www.ncbi.nlm.nih.gov/.

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