Spring 2024

Integrating Behavioral Health into Family Medicine: Improving Access to Specialty Care for Medically Underserved Community Using a Collaborative Care Model

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Doctor of Nursing Practice Scholarly Project

May 5th, 2024

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Date of Submission: March 28th, 2024

Abstract

Primary care, an extension of family medicine remains a key access point for patients entering the healthcare system. Accessing specialty psychiatric services can be limited in rural communities due to provider shortages and geographical constraints. Primary care providers can facilitate improved access to behavioral health services by introducing a collaborative approach to the traditional medical model. This quality improvement initiative adopted the collaborative care model originally produced by the University of Washington to treat common mental health conditions in the medical setting (2023). A team consisting of a primary care provider, behavioral health case manager and psychiatric consultant served nine participants residing in a rural, medically underserved area in New Hampshire. Interventions optimized medical management for chronic health conditions and addressed behavioral health needs with evidence-based interventions, cognitive behavioral therapy, and motivational interviewing. Self-reported symptoms of depression, anxiety, and degree of resiliency by average score were tracked and used for analysis of patient outcomes. Overall, participants reported improved symptoms of depression and anxiety and increased resiliency and ability to cope with stress. The results revealed increased accessibility to specialty psychiatric care in less time than the national average, improved quality of life and psychological and medical stability for participants.

Keywords: primary care, collaborative care, rural health, depression, anxiety, resilience

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Integrating Behavioral Health into Family Medicine: Improving Access to Specialty Care for Medically Underserved Community Using a Collaborative Care Model

Introduction

Problem Description

Primary care serves as the entry-point into the healthcare system for many patients and offers a wide variety of healthcare services including acute care, chronic disease management, preventative, and palliative care (AAFP, 2023). Behavioral health concerns are common conditions addressed by primary care providers (AAFP, 2021). In 2021, the Center for Disease Control and Prevention (CDC) reported that 41% of all primary care visits involved addressing a behavioral health concern. The purpose of this quality improvement project is to integrate behavioral health services into the family medical setting and to evaluate their efficacy in meeting the needs of an underserved population using a collaborative care model (CoCM).

There are community mental health centers in New Hampshire, designed to address behavioral health conditions and substance abuse disorders. Due to national and state-wide staff shortages and increased consumer demand, particularly following the COVID-19 pandemic, these services are strained and wait times for entry are lengthy. Family primary care providers are trusted and accessible for patients and using an integrated care approach can offer access to psychiatric services without reliance on community or emergency services. With expert guidance provided by a psychiatric consultant and supported by a behavioral case manager (BCM), the primary care provider (PCP) will be positioned to help this vulnerable population by using a collaborative care model for evaluation, assessment, and treatment. Integrating behavioral health

services into family medicine has been well-established to improve patient outcomes from a physical and psychological standpoint (Bailey, et al., 2019).

In rural areas of Carroll County, New Hampshire, access to specialty health care services is limited due to geographical constraints, provider shortages and economical influences. Populational health goals for New Hampshire's Department of Health and Human Services (NHDHHS) (2022) include increasing access to primary care services in medically underserved areas and addressing the state-wide mental health crisis as the need for psychiatric care exceeds the current provider capacities. In 2021, New Hampshire had a population of 92,510 people living in a community without access to a mental health professional (NAMI, 2021). The family medical practice facilitating this quality improvement project will target current patients with a clinical presentation for deteriorating mental health or on a current wait list for specialty referral. In New Hampshire, residents are up to three times more likely to seek out-of-network mental health services resulting in higher costs to the patient and healthcare system (NAMI, 2021).

The national average waiting time for mental health services in 2021 was 40 days for adults and 35 days for children and adolescents (Yang et al., 2022). In New Hampshire, the average wait time to see a privileged psychiatric consultant is greater than the national average, estimated 60 days (DHHS, 2023). Using a collaborative care model to integrate behavioral health services into the primary care setting will improve access to psychiatric care and is an evidence-based way to improve patient outcomes. Seeking specialty consultation by an expert offers the primary care provider advanced specialty knowledge and will translate into advanced clinical practice.

The collaborative care model originated with Wayne Katon and colleagues at the University of Washington (UW) (1990). This collaborative care model was used with permission

from the University of Washington (2024). In the 1990's, Jurgen Unutzer piloted the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) study at UW, adding elements of the chronic care model into their design. The results demonstrated a 50% greater improvement in depression treatment outcomes in adults with significant patient and primary care satisfaction, reduction in overall healthcare costs and was aligned with the Institute of Health populational goals (IHI, 2008; Levine et al., 2005; Raney, 2015).

The behavioral health collaborative care model has consistently shown improved patient outcomes, increased access to mental health services and reduced health care costs in over 80 randomized controlled studies (AIMS, 2023; Reist et al., 2022). The CoCM team is centered around the patient and involves the primary care provider as the team leader, creating a behavioral health case manager position and contracting with a psychiatric consultant (Appendix A). The CoCM uses the team-based approach establishing evidence-based methods for intervention to provide effective behavioral health care for participants. Integrating behavioral health services into family medicine by using the collaborative care model aligns with the organization's mission statement of "*Wakefield Family Medicine is committed to providing compassionate, accessible, patient-centered, quality family care for all ages*" (2023).

Available Knowledge

A literature search was conducted using the University of New Hampshire library, database search of CINHAL and PubMed using keywords: primary care, mental health, collaborative care model, integration of behavioral health in primary care with Boolean terms: AND, OR. The collaborative care model as developed by the University of Washington: Advancing Integrated Mental Health Solutions (AIMS) Center has comprehensive online support, education and designated frameworks for successful integration (AIMS, 2023). National

medical institutions are often the pioneers for advancing technology and systems. Integrated medicine and the psychiatric collaborative care model has adapted for use by the Substance Abuse and Mental Health Services Administrations (SAMHSA) (2019), the Agency for Healthcare Research and Quality (AHRQ) (2020) and Dartmouth Hitchcock Medical Center: Behavioral Health Integration into Adult Primary Care Model Guideline (2017).

Addressing behavioral health concerns was a component of 45% of all primary care visits in 2021 (AAFP, 2021; CDC, 2021). Highlighting the opportunity for family practitioners, American Academy of Family Physicians (2021) reports that up to 80% of people with mental health disorders will visit a primary care provider within one year. In 2017, the Substance Abuse and Mental Health Services Administration found that 1 in 5 adults in the U.S. had an active diagnosis of mental illness and less than 50% received effective care (Ahrnsbrak et al., 2017; SAMHSA, 2019). In New Hampshire, people are three-times more likely to use out-of-network providers for psychiatric services which is significantly more expensive than affordable in-network primary care provider (NAMI, 2021). Several randomized controlled trials have demonstrated that successful integration of the collaborative care model has shown to improve access by delivering cost-effective services in the primary care setting (Kroenke & Unutzer, 2017; Reist et al., 2022).

Unaddressed behavioral health issues result in increased costs to the healthcare system through greater risk for subsequent chronic medical conditions, substance abuse, lost wages related to unmotivated, unproductive workers and increased healthcare costs (Unutzer et al., 2013). Depression and other mental illnesses can be disabling and impact that person's ability to function at a higher capacity due to poor stress management, frequent exacerbations of symptoms and reduced capacities (Reist et al., 2022). Mental health disorders are the leading

cause of disability worldwide (Goodrich et al., 2013; WHO, 2018). Improving mental health will translate into improved physical health, as there is a synergistic relationship between the mind and the body.

Americans have a 30% lifetime risk of depression; it's estimated that 42% of those people will seek help and only 20% will receive it due to lack of access, excessive wait times and personal perceptions of mental illness (Staab et al., 2021; Unutzer, et al., 2023). The national average of patients diagnosed with depression is 41% in primary care and fewer than 15% are in remission (Goodrich et al., 2013; Baumeister & Hunter 2012; WHO, 2018). In 2020, the Substance Abuse and Mental Health Services Administration (SAMHSA) responded to this crisis with the introduction of integrating behavioral health with primary care resource centers. Change on large scales can be a slow process however it is promising and encouraging.

In the largest randomized controlled trial focusing on depression by Cain (2007) reported that antidepressant therapy had similar patient outcomes for both primary care and psychiatric prescribers. Moreover, patients reported that they would prefer that their primary care provider prescribed (Keiu, 2021). There are many contributing factors and circumstances that lead to adverse mental health including social isolation, economic instability, genetic predisposition and/or exposure to trauma (Kieu, 2021). The CDC found that 41% of more than 5,000 surveyed in 2020 reported that their symptoms of anxiety and depression occurred during or continued from the COVID-19 pandemic (Czeisler et al., 2020).

In 2017, Medicare began making separate payments to providers who were providing their patients with behavioral health services allowing billing procedures once per calendar month with adaptions in 2018 and 2021, in support of the psychiatric collaborative care model (CMS, 2021). This change in policy has given primary care providers an opportunity to work

with psychiatrists in a collaborative effort to meet the evolving needs of the general population in a cost-effective and efficient manner.

It is well-known that the mental health crisis has been a progressive wave over our nation for the past two decades. With the enactment of the U.S. Mental Health Parity and Addiction Equity Act (MHPAEA) of 2008, the U.S. Patient Protection Act (2010) and the Affordable Care Act (2010), primary care providers can implement organizational change with a fiscal responsibility to better meet the mental health needs of our patients. Collaborative care models and practice reform reflect the innovations of healthcare systems, leaders, and stakeholders.

Rationale

The AIMS Center at the University of Washington (2023) serves as the main stakeholder and resource for providers seeking to use the psychiatric collaborative care model. As stated by AIMS (2023) "*providers that have specialty resources are more equipped to effectively treat patients. Patients are twice as likely to be seen in a timely manner (86 days vs. 614 days) using this model*". This is a population-based health care strategy designed to identify, track, and monitor treatment progression to ensure that patient's goals and clinical outcomes are met (AIMS, 2023). The CoCM is a team-based approach involving the primary care provider and introducing a behavioral health case manager and psychiatric consultant for assessment, diagnosis, intervention, treatment, and intensive counseling services (AIMS, 2023).

The collaborative care model has demonstrated value to the healthcare system and is an evidence-based model for integrating mental health services into family medicine and improving patient outcomes (Reist, 2022). Advanced clinical practice with specialized training aims to use of the whole-person approach using competent, adaptive strategies (Reavy, 2016). Family

medical practitioners are positioned to gain advanced practice knowledge and promote interdisciplinary collaboration by using team-based leadership from this intervention. The behavioral health collaborative care model is supported by a substantial body of evidence that demonstrates improved patient outcomes and increased access to psychological treatment services.

Chronic health conditions are common among patients with psychological illness and co-morbidities can contribute to mental illness (Goodrich et al., 2013). Patients often suffer from at least one co-morbidity, usually related to unhealthy health behaviors (NIHM, 2021). Example: diagnosis of chronic obstructive pulmonary disease secondary to heavy tobacco use, related to underlying substance abuse disorder (Baumeister & Hutler, 2012; NIHM, 2021). In 2019, the Lancet Psychiatry Commission reported that there is a link between physical health and mental health and the cardio-metabolic risk for those patients was up to two times higher. Addressing the root causes of mental illness could help improve the consequential conditions of illness. This strategic approach is an overreaching goal of the care team to improve the overall environment and health standards of the individual, family, and community.

The Quadruple Aim sponsored by the American Psychological Association (2017) is focused on improving the patient experience with their providers which intends to lead to better overall health, resulting in lower healthcare costs. This is a population-based framework with a focus on provider and patient satisfaction to reorient the healthcare system. The psychiatric CoCM is an evidenced-based model defined by the U.S. Community Preventative Services Task Force (2012) as a "*multicomponent, healthcare system-level intervention that reorganizes the delivery of care so that care managers link PCPs more effectively with patient and consulting psychiatrists to improve evidence-based treatment of mental disorders*".

Escalating healthcare costs have prompted payers and healthcare providers to seek alternative methods for providing cost-effective, quality and accessible care. The medical costs for patients with chronic medical conditions and comorbid mental health disorders can have a 2-fold increased risk (Levit et al., 2014; Melek, et al., 2014). Effective integration of the psychiatric collaborative care has the potential to save $26.3 billion in overall healthcare spending by reducing out-of-network claims, reduced emergency admissions and psychiatric hospitalizations (Melek et al., 2014).

Major depressive disorders are associated with a lower quality of life and chronic health conditions (Staab et al., 2021). Patients with depression are more likely to have medical co-morbidities including obesity, hypertension, COPD, hyperlipidemia, sleep disturbances, substance use and excessive alcohol use (Firth et al., 2019; Kieu, 2021). Generalized anxiety disorder (GAD) is characterized by excessive worry, apprehensive expectations that are difficult to control and cause significant distress occurring more days than 4 days per week for at least 6 months and associated symptoms of restlessness, fatigue, difficult concentrating, irritability, tension and sleep disturbances (APA, 2005; SAMHSA, 2016). Generalized anxiety disorders are among the most common mental illnesses diagnosed in primary care (Locke, Nell & Shultz, 2015). Family practitioners often use the generalized anxiety disorder scale (GAD-7) for symptomology and to better understand the severity of illness. There are effective treatment options available for depression and anxiety including use of psychoactive drug regimens, cognitive behavioral therapy and psychotherapy treatment options.

Resiliency is the successful adaptation and swift recovery after experiencing life adversities, emotionally traumatic experiences, or significant sources of stress (APA, 2022). A dimension of mental health in the WHO's definition of health explains that "*health is a state of*

complete physical, mental and social well-being and not merely the absence of disease" (2002). Positive mental health approaches and resilience development are aligned with the World Health Organizations (2022) global health initiatives. Resilience is built through positive influences and fostering a resilient climate (Bartley, 2006; Srivastava, 2011). Family medicine can integrate the concept of resiliency and build on this emotional potential but addressing subjective well-being and perceived self-efficacy with use of the brief resiliency scale (Appendix I). According to Smith (2008) the brief resiliency scale is a reliable means of assessing resiliency or the ability to cope and recover from stressful events with the goal to return to previous or higher state of mental well-being.

Evidence-Based Practice Model

This quality improvement initiative is based on the theoretical framework of the Wagner's Chronic Care Model (1996) that aims to transform the care of patients with chronic illness from a reactive approach to a proactive, population-based approach for the management and prevention of chronic illness (Wagner, 1996; Garland-Baird & Fraser, 2018). This framework recognizes that medical care should tend to the patient's prioritized health concern which reflects the overreaching goal to address the underlying chronic health conditions. The three basic components of the CoCM model are based on the principles of population-based care, measurement-based care, and stepped-care (AIMS, 2023). Population-based care aims to use validated symptom rating scales to identify targeted subgroups to initiate evidence-based interventions for designated health risks. Measurement-based care aims to facilitate the use and monitoring of validated screeners for early intervention and monitoring progress through program. Stepped care aims to use a conceptual population health approach to improve health

outcomes by designing intervention techniques based on the "5A's Model" for application to specific patient problems (Hunter et al., 2017).

The "5A's" model was developed by Whitlock, Orleans, Pender & Allen (2002) providing a format that applies to any patient in any clinical setting by addressing five components: assess, advise, agree, assist, and arrange for assessment and intervention. This patient-centered model helped to integrate behavioral health into primary care and offers a personalized action plans (Hunter et al., 2017). The "5A's" model of behavior change will be used for the evidence-based framework for guiding participants through the behavioral health intervention strategies. The "5A's" approach to organizing care tasks can be used by the primary care provider in collaboration with the consulting psychiatrist and behavioral case manager to address specific healthcare needs and to define the nature of the problem.

This flexible model produced personalized treatment plans, focused on specific behavior changes and was used by the entire healthcare team. The *assess* phase focuses on gathering relevant information on the problem and variables. The *advise* phase involves describing the options for intervention and expected outcomes. The *agree* phase gives patient's the autonomy to choose their course of action. The *assist* phase involves learning and teaching new information, developing new skills, and participating in home-based therapies. The *arrange* phase involves the healthcare professionals for interviewing, guidance on intervention and close monitoring throughout the program (Hunter et al., 2017). The patient-provider relationship strengthened their perception of positive potential by promoting human connection and unconditional support.

Specific Aims

The specific aim for this quality improvement project is to increase access to behavioral health services for established patients within a family medical practice located in a medically underserved community in New Hampshire. To increase accessibility to specialty psychiatric care, the primary care provider collaborated with a contracted, consulting psychiatrist to perform the initial and subsequent psychological, medical, and functional assessments that were used for diagnosis and treatment planning. This individualized and specialized care plan will be executed and closely monitored by the primary care provider in conjunction with a psychiatric consultant and behavioral case manager. The participant's autonomy in their own care is an essential component for self-care and resilience to overcome acute symptoms of illness.

Using a collaborative care model to integrate mental health services into family medicine will improve patient outcomes and address mental health disparities in our rural community. The initiative for this pilot program is a populational health strategy that focuses on general screening for mood disorders, identifying those affected, offering the team approach for treatment and continued monitoring (Reist et al., 2022). This pragmatic approach aims to integrate mental health services into the primary care setting as participants currently have an established relationship with the PCP. By maximizing interprofessional collaboration efforts between the primary care provider and a psychiatric consultant will increase the confidence and practical knowledge for family medical providers and ease access for this population.

The goal for this quality improvement project is to improve the psychological well-being of participants by improving their resiliency capabilities, reducing symptoms of depression and anxiety within the participant group in 8 weeks. Specific objectives for this initiative were to reduce symptoms of anxiety and depression in at least 50% of the participant group by 20% in 8

weeks and improve resiliency in 50% of the participant group by 15% by the end of the program. Performing comprehensive psychological, functional and physiological assessments will provide the foundation for creating an individualized treatment plan to meet these goals. Goals will be met by facilitating expert consultation with the mental health provider, ensuring close monitoring by the behavioral case manager and primary care provider will provide medical and counseling services. The CoCM is a team-based approach that offers support for the professionals, gives the patient additional resources, and will improve our relationships with specialists in our area.

This collaborative quality improvement project was conducted to determine if using interprofessional collaboration between the primary care provider and a psychiatric consultant, with the help of a behavioral case manager improved access to specialty care and resulted in improved patient outcomes. The team created an initial Plan-Do-Study-Act (PDSA) cycle to gauge their level of improvement readiness and goal setting. This was reviewed monthly to ensure adaptation and to make any adjustments as indicated (Appendix C). Through patient engagement and building on trusting relationships and this model increased patient participation in their health and assisted in self-management of their illness.

Methods

The collaborative care model team consists of the primary care provider, a behavioral health case manager, a consulting psychiatrist, and the patient (Appendix A)**.** Measurement-based care can address treatment gaps, offer close monitoring for early detection of deterioration, and need for intervention (Reist et al., 2022). It also has implications for population-level health benefits with use of standardized tools for screening for mood disorders. There are limitations to this approach as it requires data collection, analysis and decision-making based on metrics best suited for use of an electronic data tracker. For this quality initiative, the use of the PHQ-9,

GAD- 7 and BRS validated rating tools provided data to guide clinical practice. Implementation of CoCM requires practice change including interprofessional collaboration, billing procedures, population health objectives and motivational interviewing.

The practice setting for this quality improvement program was a rural family medical practice, located in Carroll County, New Hampshire. This area has been designated as a medically underserved area (MUA) by the State of New Hampshire since 2004 (HRSA, 2022). This family medical practice employs one full-time primary care provider, one half-time primary care provider, one medical assistant, and two office administrative assistants. The active patient caseload for the full-time family practitioner in 2023 was 2,309 (70.9%) of total patient panel of the practice. In 2023, 38% of their overall patient census was diagnosed with generalized anxiety disorder (ICD-10 code: F41.1) and 18% were diagnosed with depression (ICD-10 code: F32.0-F33.3). This subpopulation was 69% female, between the ages of 14-64. In 2022, 210 specialty referrals were processed for out-of-network psychiatric services and 6% received direct care.

Based on practice reports, 10.8% (22 patients) were awaiting specialty psychiatric referrals at the enrollment time of this collaborative care program. The target audience for this quality improvement project is the 10.8% (22 patients) that meet the criteria of awaiting specialty psychiatric referral for clinical presentation of mental illness and meet the criteria of insured, residing in a medically underserved area, requiring specialty behavioral health services, aged greater than 18 years and are currently an established patient at this family medical practice.

This quality improvement pilot program served 9 total participants. The stakeholders were the family nurse practitioner, behavioral case manager and psychiatric consultant. For educational purposes, a modification to this team will also include a practice mentor for clinical guidance in support of the primary care provider and behavioral case management. This role did

not have direct interaction with the psychiatric consultant or participants, however expert medical guidance was available if indicated. This model was financially supported by a private family medical practice and this organization assumed responsibility for all professional liabilities, billing procedures and contracting.

Participants were recruited voluntarily and signed written consent to participate without compensation. The behavioral health case manager and psychiatric consultant were monetarily compensated per office visit once monthly and the primary care provider was compensated by usual salary. This proposal was submitted to the University of New Hampshire (UNH)- DNP committee for approval prior to interventional phase and the UNH Department of Nursing Quality Review committee determined that this project does not constitute additional review by the UNH Institutional Review Board for protection of human subjects (2023). The primary care medical director determined it did not require IRB approval on their behalf and was designated as a quality improvement initiative.

Cost Benefit-Analysis

The collaborative care model has an approved reimbursement schedule by Medicare, and most commercial insurance payers followed suit. The fee schedule is based on the 2019 Medicare Physician Fee Schedule, non-facility national payment amounts as published. The primary care provider is the billing provider. A cost-benefit analysis was conducted and is based on a caseload of 9 participants, see Table 1. This model is a cost-effective strategy for primary care practices to integrate mental health services into their model (Goodrich et al., 2013). For this program to be implemented formally into the family medical practice, it would require an alignment of financial cost and benefits in consideration of employing a full-time behavioral case manager, use of a data tracker and greater EHR integration.

Table 1

Cost Benefit Analysis

Billing CPT Codes	**Description**	**Estimated Payment Amount**
99492	Initial CoCM, first 70 minutes	$162.18
99493	Subsequent CoCM, first 60 minutes	$129.38
99494	Each additional 30 minutes of care manager per calendar month	$67.03

Monthly Cost		
Behavioral Health Case Manager	$20 per monthly visit x 9	$180
Psychiatric Consultant	$45 per monthly visit x 9	$405.00
Monthly Revenue		
Initial Visit	$162.18 x 9	$1459.62
Subsequent Visit	$129.38 x 9	$1164.42
Total Profit- Initial Visit	$1459.62- $405 -$180	$847.62
Total Profit- Subsequent	$1164.42- $405- $180	$579.42

Table 2

Unexpected Costs

Unexpected Cost	**Total Amount**
Mediterranean Cookbook and Nutritional Guide	$80.91
Cognitive Behavioral Workbook	$169.99
Paper products and Printed Materials	$36.99

Postage and Mailers	$21.33
Total	$309.22

Intervention

The primary care provider was the billable provider throughout the program. Under CMS (2017) rule, primary care providers include physicians, nurse practitioners, physician assistants or certified nurse midwives. The role of the primary care provider was to identify patients, enroll them into the CoCM program, evaluate, and assess patients throughout the pilot program. Consenting participants met with their primary care provider for an initial consultation, and weekly for 8 weeks. The objectives of those visits were to gain a greater understanding of the patient's condition with use of standardized screening tools for baseline and continued monitoring and to use motivational interviewing throughout the treatment process. In collaboration with the psychiatric consultant, their expert opinion was offered on diagnosis and treatment planning including medication management and use of therapies. This was a leadership role for the PCP and will require system-level redesign through organizational leadership, decision-making support and linking professionals for collaborative care (Goodrich et al., 2013). The behavioral health case manager was used as the primary communicator between the PCP, psychiatric consultant and participant. Participant data was collected, evaluated, and analyzed at week 1, week 4 and week 8 and post-intervention at week 10.

The psychiatric consultant was a privately contracted, state licensed and board-certified psychiatric nurse practitioner and DNP with additional accreditation in substance abuse. The psychiatric consultant was given the participant's medical and behavioral health history with specific health concerns that need to be addressed, summary of clinical presentation, screening

tool scores and interpretation (Appendix E). The psychiatric consultant advised the primary care provider of recommendations using evidence-based knowledge. The psychiatric consultant typically does not meet directly with the participant. However, if a participant presented with continued regression or rapid deterioration, a prompt specialty referral for direct services was offered. The billing primary care provider has final decision-making and is responsible for prescribing privileges.

The Center for Medicaid Services does not specify formal education or specialized training requirements for the behavioral case manager but does recommend a licensed social worker (CMS, 2021). By design, the behavioral health case manager would work closely with the primary care provider and psychiatric consultant, facilitating communication between parties, provided biweekly counseling services, and forwarded updates, concerns and suggested modifications to the treatment plan appropriately.

In collaboration with the psychiatric consultant, following diagnosis, the primary care provider initiated treatment with psychoactive drug regimen if indicated and intensified chronic disease management with use medications if indicated with careful emphasis lifestyle and behavioral modification that included nutrition and diet, exercise, sleep and cognitive behavioral therapy. Using the Behavioral Health Intervention (BHI) Toolkit developed by Hunter et al. (2017), complimentary interventions were be deployed based on the functional assessment analysis which effectively addressed a wide variety of symptoms that could impair functioning. Incorporating coping strategies including relaxation training, mindfulness, goal setting, motivational interviewing, problem solving, self-monitoring, behavioral analysis, stimulus control and assertive communication helped augment therapy for greater health outcomes. Each of these behavioral modification training strategies were found to be effective and provided the

foundation for decreasing barriers to change and increasing motivation for home-based practice (Hunter et al., 2017).

Study of the Intervention

This behavioral health collaborative program served nine participants that were established patients at this family medical practice. Potential participants were contacted by telephone by their PCP office to discuss enrollment. Participants gave initial verbal consent for participation and written consent was obtained at the initial visit; participation was only allowed if explicit written consent was obtained. Participants met the criteria of being Medicare or commercially insured, previously diagnosed, or presenting with behavioral health concerns, awaiting specialty referral for direct psychiatric care and residing in a medically underserved area. Participants were selected if they demonstrated suboptimal treatment outcomes, require greater diagnostics and or recently experienced recurrent acute exacerbations of underlying psychiatric conditions.

Participants provided written consent for participation in the program and were given explicit explanation of expectations, benefits, and schedule. Participants provided written consent to disclose all private medical information to participating providers and allowed for anonymous data collection by the case manager and PCP. Participants provided written consent for billing procedures which include copays and Medicare Part B benefits and other deductibles still applied (Appendix D). All identifying information was decoded for anonymity. All private, protected, or sensitive health information including medical, psychiatric, substance use, infectious disease and medication history was protected by censorship, HIPPA compliant software, EHR safeguards and manually de-identified prior to distribution. Private health records were maintained using a secure server and shared electronically through a HIPPA-compliant fax

system or encrypted secure email. Participant records remain confidential and secure with the EHR system, Practice Fusion used by the medical practice.

The CoCM model requires an initial 70-minute primary care office visit (case manager time spent included) which involves comprehensive assessment, reviewing their current state of health, screening scores, creating, and implementing recommendations after establishing baseline participant data. The behavioral case manager was introduced at this time. An initial psychosocial evaluation was collected from the participant that included family history, eating and sleeping habits, substance use history, past and present mental and health history (Bailey, et al., 2019). The care plan was created in collaboration with the behavioral health case manager, psychiatric consultant and primary care provider and in agreement with the patient. Seeking expert knowledge in diagnostics, pharmaceutical regimens, and cognitive behavioral therapy.

At the initial consultation with the primary care provider, participants completed a PHQ-9 depression screening, GAD-7 anxiety screening, MDQ mood disorder screening, brief resilience score (BRS), the tobacco, alcohol, prescription medications and other substance (TAPS) tool-Part 1 for substance abuse screening, adverse childhood experience questionnaire for adults (ACES) for trauma screening and the PCL-5 to screen for post-traumatic stress disorder. The primary care provider collected and interpreted results were discussed with the participant and psychiatric consultant. Data records for all screening tools were used for baseline scores and the scores of the PHQ-9 depression screening, GAD-7 and resiliency scale at week 1, week 4, week 8 and week 10 (post- intervention) were used to monitor patient stability and measure outcomes.

The subsequent follow-up appointments with the primary care provider and psychiatric consultant occurred in week 2, 4 and week 8 with intermittent communication to relay modifications and progress reporting as indicated. Participants were scheduled weekly or

biweekly for in office or by telehealth for intensive support. The goal for these additional visits was to use motivational interviewing techniques and review medication tolerance, adherence, reinforce education and address weekly content in the cognitive behavioral therapy workbook (Appendix Q). Data collected was recorded on excel and using JMP for statistical analysis, data was displayed by bar graphs and categorical data tables. At the close of the program, participants returned to routine primary care without modifications to the traditional model of care. If indicated, participants with progressive or worsening mental health were referred to a psychiatric specialist and psychotherapist for direct care.

Measures

Integrating behavioral health services into primary care follows a set of measures designed by the Institute for Healthcare Improvement (2021) to examine results by outcome measures, process measures and balancing measures. Quantitative measures of the validated rating tools were used to demonstrate participant participation and symptom evolution. Qualitative measures of psychiatric conditions, medical conditions, correlating co-morbidities and overall resiliency were tracked, analyzed, and displayed to demonstrate participant outcomes. At the initial visit, all participants completed seven (7) validated screening tools for aid in the psychological assessment and presenting diagnosis.

The Patient Health Questionnaire (PHQ)-9 depression scale is a validated screening tool to detect depression and a meta-analysis conducted by Smithson & Pignone (2017) confirmed that this is the appropriate tool for primary care (Appendix F). This instrument is widely used in identifying, diagnosing, and determining severity of depression and was used for ongoing assessment throughout the program (Ford et al., 2020). The PHQ-9 incorporates DSM-IV diagnostic criteria, this tool rates the frequency of symptoms, the presence and duration of

suicidal ideation and assigns the weight to the degree to which depressive symptoms affect the patient's level of functioning (Kroenke, Spitzer & Williams (2001).

The Generalized Anxiety Disorder (GAD-7) is a validated screening tool used for identifying and reporting symptoms of anxiety (Johnson, et al., 2019) (Appendix H). This is a commonly used tool used in primary care. The Brief Resiliency Scale (BRS) was developed by Smith et al. (2008) was used to track participants' perception of their ability to recover from setbacks (Appendix I). A post-traumatic stress disorder screening (PTSD) tool (PCL-5) was developed by Weathers et al. (2013) and is widely used by the National Center for PTSD (2018) and is a twenty-question review of symptoms related to post-traumatic stress disorder (Appendix J). The tobacco, alcohol, prescription medications, and other substance (TAPS) tool, Part 1, was used to evaluate substance use and was adapted by the National Institutes of Health (2017) (Appendix K). The mood disorder questionnaire (MDQ) was used to determine if symptoms of bipolar disorder are present and provides initial screening for this disorder (Hirschfeld et al., 2000) (Appendix L).

Relevant social history including family dynamics and lifestyle were discussed. This is an important aspect to understanding the participant's environment and identifying influencing factors. The total number of participants that started the program and continued to participate throughout the 8-week program was collected along with demographic information. The scope of psychological disorders seen in this participant group was defined and correlated with medical co-morbidities and is displayed on Table 6.

Analysis

Baseline participant sociodemographic characteristics including sex, age, race, education level and location were collected and are displayed on Table 4. A compilation of the psychiatric diagnosis list was recorded and displayed in a categorical table, see Table 5. This represents the morbidity rate and occurrence rate of psychiatric illness within this cohort. A compilation list of medical co-morbidities including obesity, prediabetes, essential hypertension, seizure disorders was recorded and displayed on categorical table, see Table 6. Statistical descriptions of the PHQ 9, GAD- 7 and resiliency scale scores and progressive analysis were used for continuous monitoring the process and outcomes, see Table 8-13. This demonstrated improvement in psychological symptoms following the interventional techniques as implemented in this quality improvement initiative. Analysis of the interventional techniques used was conducted to display and correlate psychological diagnosis with chosen therapeutic interventions.

The study of this intervention demonstrated positive patient outcomes, enhanced interdisciplinary collaboration, and enhanced provider confidence. Collaborative care models have demonstrated efficacy in clinical practice and have improved primary care provider and patient experience. Using the collaborative care model can lead to better clinical outcomes, greater patient and provider satisfaction and reduce health care costs (AIMS, 2023).

Ethical Considerations

Integrated behavioral health services is a recent innovation for the healthcare system and organizations alike. There can be limitations to the guidance provided by ethical boards as circumstances and content that uniquely applies to integrated health require special attention. Given the different professional and ethical backgrounds of the involved healthcare

professionals, expectations and culture-of-standards should be addressed. There are limited studies to address the ethical issues involved in integrated care model (Hunter et al., 2017). Considerations for the healthcare team to address include recognizing racial and ethnic disparities that are contributing factors, agreement to provide high quality, safe, compassionate collaborative care and use evidence-based knowledge in practice.

Confidentiality, HIPPA and privacy standards applied, and a non-disclosure agreement was adopted between healthcare providers and the supporting organization. Transmitting and sharing sensitive health information was sent through secured networks, encrypted email, and private telephone conferencing. Additional safeguards of the private EHR system and HIPPA-compliant fax were used, which meets the national and state standards for privacy protection (Vemuri & Dunn, 2017). Integrated behavioral health care affects the patient's experience and there is a difference in professional expectations between providers and patients (Gibb et al., 2021). Aligning the expectations among the participants and healthcare providers is essential for building trusting relationships and making a meaningful, sustainable impact.

Results

In the recruitment period of this quality improvement program, 14 participants met the eligibility criteria and consented to participation, see Table 3. Participant demographics of age, sex, race, highest level of education and location are sorted by designation, distribution, range, average and relevance, see Table 4. The program had a dropout rate of 4 participants in the first week and a total of 9 participants completed the 8-week collaborative care program. Dropout rates were contributed to apprehension of change, transportation and medical decompensation leading to hospitalization.

Table 3

Participant Eligibility and Enrollment

Total # of Eligible Participants	**Total # of Participants Enrolled**	**Drop-Out Number**	**Total Participates that completed 8-week programming**
22	14	4	9

Table 4

Sociodemographic Characteristics of Participants

Demographic	**Designation**	**Distribution**	**Relevance**
Age	Years	Range: 39-76 Average: 57	Adult Population
Sex	Male: 1 Female: 8	Male: 11.1% Female: 88.8%	Majority Female
Race	Ethnicity	White: 88.8% Black: 11.1%	Majority Caucasian
Highest Level of Education	Earned Degree	Highschool – Master's	Varied Education
Location	Geographical	Rural vs. Urban	All living in rural, medically underserved area

In the evolution of this study, modifications were made based on specific areas of concern and individualized care plans were developed based on clinical presentation, see Table 7. Following the initial psychological and medical assessment, specialty referrals were processed (if indicated) to address chronic illness that contributed to mental health including pain management and neurology. A modification to the initial consultation included using the ACES screening tool and acknowledging the significance of childhood trauma on adult mental health (Appendix M). An additional safety screening for suicide awareness and including a suicide prevention plan with professional training was another modification to this initiative with clinical implications.

Table 5

Psychiatric Illness Occurrence Rate from Participant Group

Categorical Psychiatric Illness	***n***	***%***
Attention Deficit Disorder	2	22.2%
Cognitive Deficit	1	11.1%
Major Depression	5	55.5%
Generalized Anxiety Disorder	9	100%
Insomnia	2	22.2%
Post-Traumatic Stress Disorder	4	44.4%
Dysrhythmic Sleep Disorder	6	66.6%
Opioid Use	2	22.2%

n = 9

Table 6

Co-Morbidities: Chronic Medical Conditions

Chronic Medical Condition	***n***	***%***
Chronic pain syndrome	3	33.3%
Gastroesophageal Reflux	3	33.3%
Hyperlipidemia	5	55.5%
Hypertension	3	33.3%
Hypothyroidism	1	11.1%
Migraine Headaches	3	33.3%

Obesity	7	77.7%
Prediabetes	1	11.1%
Unspecified Seizure Disorder	1	11.1%
Type 2 Diabetes Mellitus	1	11.1%

n = 9

Table 7

Interventional Evolution of Study

Dated Week	**Activity**	**Objective**	**Intervention**	**Modifications**
Week 1: 12/01/23-12/08/23	Medical and Psychiatric History and Physical- Initial CoCM Visit	Eligibility, Enrollment, Written Consent, Initial Screenings, Participant Demographics, Addressing co-morbidities, Baseline lab studies.	Assessment and Evaluation	Addressed individualized treatment goal setting. Initiated specialty referrals.
Summary	Each participant was seen by PCP for 70-minute initial consultation and complete H&P. Introduction to case management.			
Initial Consultation Dates: 12/05-12/09/23	Specialty Consultation	Discuss clinical presentation, symptomology, medical and psychiatric H&P, discuss initial treatment planning including use of medications.	Evaluation, Treatment Planning, Care Coordination	Added ACES Screening Tool
Summary	PCP and consulting psychiatrist met for 20-30 minutes per participate consultation by secure, HIPPA compliant email and in-person. Evaluation and diagnosis defined and interpreted screening tools. Clinical impression and DSM-5-TR manual referenced for diagnosis. Initial treatment plan including psychiatric medication use established and PCP implemented.			
Week 2: 12/08-12/15/23	Treatment and Care Planning	Development and Implementation of Medical and Behavioral Health Care Plan	Psychiatric Treatment Planning Personal Action Plan: Assess, Advice, Arrange,	Created medical treatment plan than aligned with physical needs and personal goals.

			Agree, Assist and Arrange	
Summary	Each participate was seen by PCP for treatment planning and initiated use of therapies including diagnosis, individualized medical treatment plan for addressing co-morbidities, interpretation of screening tools and lab results, initiated use of psychiatric medications, initiated use of 7-week cognitive behavioral therapy workbook, addressed lifestyle modifications for nutrition, exercise and sleep hygiene.			
Week 3: 12/15-12/22/23	In-Office and Virtual Counseling Session with PCP and BH Case Manager	Behavioral Health Counseling	Continuity of Care, Patient Education and Reinforcement Personal Action Plan: Advise and Assist	Created personalized weekly goals with step-by-step instructions for success, follow up appointments scheduled with reminders.
Summary	Discussed strategies to change health behaviors, reviewed medication tolerance, efficacy, provide reinforcement of CBT workbook, review weekly planning for nutrition, exercise and sleep hygiene, goal setting.			
Week 4: 12/22-01/02/24	PCP- In Office Visit Subsequent Month CoCM Visit	Review and track progress of treatment efficacy, collecting symptomology data, completion of clinical notes on participant progress and address persistent needs.	Assess	Primary care evaluation for medical stability. Psychological evaluation of current state and medication use.
Summary	Each participant was seen for a subsequent 60 minute in office visit with primary care provider. Medication adherence, tolerance and efficacy was reviewed, discussed strategies for optimizing results and symptom relief. Addressed adjunct therapy progression in self-driven cognitive behavioral therapy, nutrition, exercise, and sleep hygiene. Repeated PHQ-9, GAD-7 and BRS validated screening tools were administered and collected.			
Subsequent Consultation Dates: 12/28/23-01/02/24	Collaborative Care Visit with PCP and Consulting Psychiatrist	Reviewed and discussed participant clinical presentation, reported symptoms, tolerance, and efficacy of medications. Collaborative decision making on adjustments to therapy.	Advise	Medication therapy. Incremental adjustments to dosages made as indicated.
Summary	Specialty consultation with consulting psychiatrist via secured email on week 4 progress and participant state of well-being. Collaborative decision making on adjustments to therapy and scheduled PCP follow up with participant to review.			
Week 5: 01/03-1/12/24	In-Office OR Virtual Counseling Session with PCP	Provide case management and counseling services.	Agree, Assist, Arrange	Added use of telehealth services due inclement weather
Summary	Each participant was seen by primary care provider for 30-minute visit to review tolerance and efficacy of medications, reinforcement for CBT workbook, lifestyle modifications and strategies to reach previously established goals.			

Week 6: 01/12-01/19/24	In-Office and Virtual Counseling Session with PCP	Provide case management and counseling services.	Agree, Assist, Arrange	Added use of telehealth services due to participant illness
Summary	Each participant was seen by primary care provider for 30-minute visit to review tolerance and efficacy of medications, reinforcement for CBT workbook, lifestyle modifications and strategies to reach previously established goals.			
Week 7: 01/19-01/26/24	In-Office Counseling Session with PCP	Reviewed end goals	Assess, Arrange	Started specialty referral process for continuity of care as indicated.
Summary	Each participant was seen by primary care provider for 30-minute visit to review tolerance and efficacy of medications, reinforcement for CBT workbook, lifestyle modifications and strategies to reach previously established goals. Discussed and created "hand-off" plan for those seeking specialty referral following the end of the program for continuity of care.			
Week 8: 01/26-02/09/24	In-Office PCP Visit Final CoCM Visit	Final data collection of screening tools, continuity of care, patient satisfaction	Assess, Advise, Agree, Assist, Arrange	Added patient satisfaction discussion and memorialized accomplishment for completing program with token of appreciation.
Summary	Final assessment for each participant, 60 min. PCP in office visit. Made collaborative agreement for psychiatric nurse practitioner to continue care and referred patients to counseling and therapy as indicated. A follow up plan and treatment goal setting was created for each participant for 1-mon, 3-mon and 6-mon for continued care in the primary care setting.			
Final Consultation Dates: 01/29-02/12-2024	Final Collaborative Care Visit with PCP and Consulting Psychiatrist Subsequent month CoCM Visit	Summarized participant medical and psychological presentation, current state of health, medication use, goals for optimization and developed follow up plan.	Advise	Added a 2-week telehealth visit to each participant's follow up plan to review the impression and discuss any changes following the consultation. Administered post-programming PHQ-9, GAD-7 and BRS screening tools to track progress.
Summary	Specialty consultation with consulting psychiatrist via secured email on week 8 progress and participant state of well-being, treatment goals and anticipatory care. Collaborative decision making for specialty referrals.			
Follow Up in Primary Care Setting	Following the final CoCM visit, each participant was given a 2- week telehealth visit, 1 month and 3 month in-office visit with primary care provider for continued care. Specialty referrals to counseling, therapy and psychiatry were processed for 55% of the participant group.			

Process Measures and Outcomes

The specific aim for this quality improvement initiative study was to use a populational health strategy to increase access to specialty psychiatric care by using the collaborative care model for those residing in a rural area. The main objectives for this program were to decrease symptoms of depression and anxiety and improve overall resiliency capabilities in response to stress. The location of this study was a family medical practice located in a medically underserved area in Carroll County, New Hampshire. At the start of this quality improvement project, 22 currently established patients at this practice were awaiting referral to psychiatric services. Of this group, 2 patients had confirmed appointments from a prior referral and 4 were ineligible for the program as they were under the age of 18. All 16 eligible participants were offered enrollment and 14 total participants initially enrolled with written consent to join the program. There was a drop-out rate of 4 participants. This program served 9 total participants as displayed on Table 3.

Integrating behavioral health services into the primary care setting increased access to specialty care for this community. The average wait time for an eligible adult to see a healthcare provider with prescriptive authority and behavioral case manager was 6.9 days from initial request. There were 83 total in-office or telehealth patient encounters and 27 total specialty consultations performed during the program.

The objectives for this collaborative care program were to improve the mental wellbeing and psychological stability of the participants and specifically to improve depression symptoms in 50% of the cohort group by 20% by the end of the program, using the PHQ-9 validated screening tool to monitor depression symptoms at baseline and every 4 weeks, adding one 2-week post-program analysis. The data for this measure was applied to a bar chart to show the

average reported depression symptoms and progression over a total of 10-week period. 88.8% of the participant group reported improved symptoms of depression, exceeding the goal of 50%. On average, depressive symptoms were reduced by 46.1%, exceeding the goal of 20% improvement in 8 weeks by 26.1% (Table 5). Key areas of the improvement in self-reported depression symptoms based the PHQ-9 tool were (over the last 2 weeks, how often have you been bothered by any of the following problems?) Question 1: “little interest or pleasure in doing things” and Question 3: “trouble falling asleep, staying asleep or sleeping too much” (Spitzer, Williams & Kroenke, 2001). See Appendix G for scoring and interpretation of the PHQ-9 questionnaire. Statistical description of the data for PHQ-9 scores are displayed on Table 8 and inferential analysis of a paired T- test was used for pre- and post- intervention comparison, see Table 9.

Another objective for this collaborative care quality improvement initiative was to improve the symptoms of anxiety and specifically to reduce anxiety symptoms in 50% of the participant group by 20% by the end of the program. Study results revealed 88.8% of the participant group reported improved symptoms of anxiety by an average of 35.9%, exceeding the goal of 20% improvement in 8 weeks by 15.9% (Table 10). Data tracking used the GAD-7 validated screening tool to monitor anxiety symptoms at baseline and monthly, adding one 2-week post-program assessment. The data for this measure was applied to an average bar chart to show the average reported anxiety symptoms and progression over a total of 10-week period, see Table 10-11. Inferential statistics using a paired T-test procedure was applied to the GAD-7 scores to draw conclusions about the population and measure the before and after results, see Table 11. Key findings of improvement from the GAD-7 self-reported symptomology were (over the last two weeks, how often have you been bothered by the following problems?) Question 1:

"feeling nervous, anxious or on edge" and Question 6: "becoming easily annoyed or irritable" (Spitzer et al., 1999).

Following psychological evaluation, 66.6% of the participant group met the diagnostic criteria from the DSM-5, ICD-10 code: F41.0 for generalized anxiety disorder. Generalized anxiety disorder was the highest occurring psychiatric disorder affecting the participant group, 100% of participants reported mild to severe symptoms of anxiety.

Table 8

Average Patient Health Questionnaire (PHQ-9) Progressive Analysis

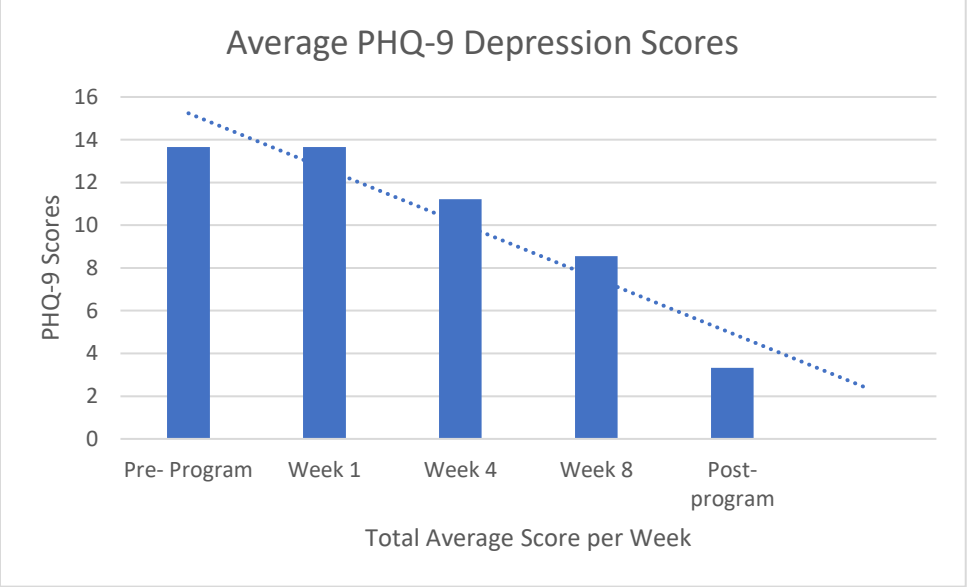


Table 9

Paired T Test – PHQ -9 scores Pre and Post Intervention

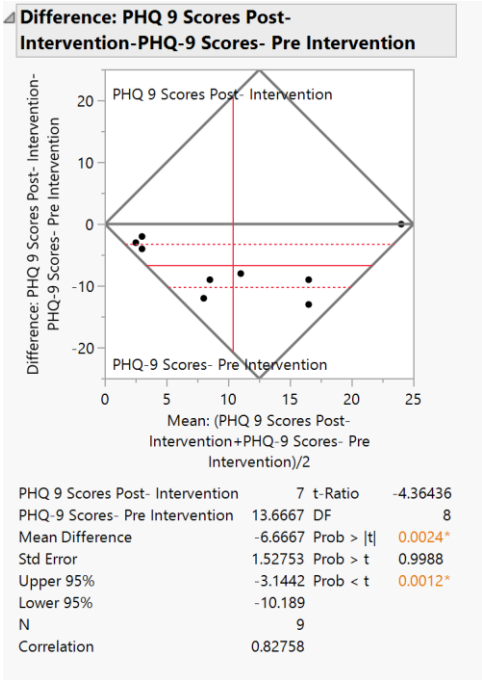


Table 10

Average Generalized Anxiety Disorder Screener (GAD-7) Progressive Analysis

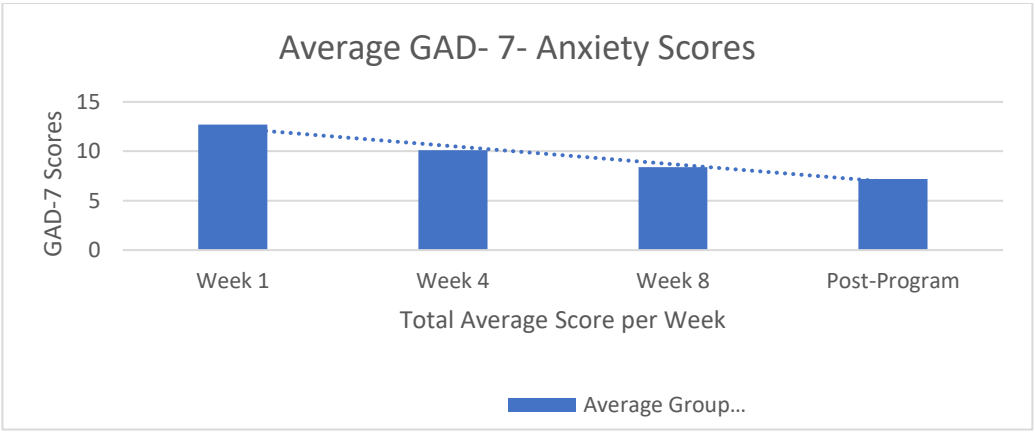
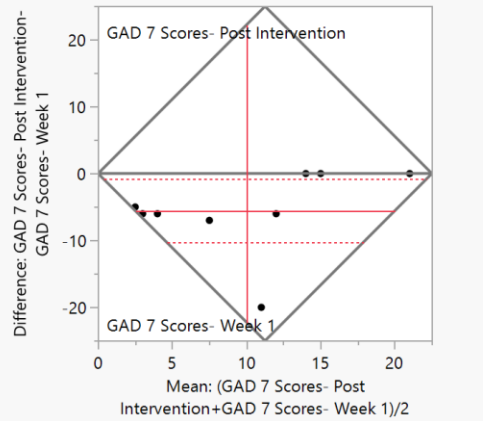


Table 11

Paired T Test- GAD- 7 scores Pre and Post Intervention

Difference: GAD 7 Scores- Post Intervention-GAD 7 Scores- Week 1



GAD 7 Scores- Post Intervention	7.22222	t-Ratio	-2.7027
GAD 7 Scores- Week 1	12.7778	DF	8
Mean Difference	-5.5556	Prob > |t|	0.0270*
Std Error	2.05556	Prob > t	0.9865
Upper 95%	-0.8154	Prob < t	0.0135*
Lower 95%	-10.296		
N	9		
Correlation	0.63203		

An overarching goal for this collaborative care quality improvement initiative was to improve the psychological wellbeing of participants by improving their coping abilities, degree of resilience to stress, specifically aimed to improve resiliency in 50% of the cohort group by 15% in the 8-week timeframe. The results of this study revealed that the average reported resiliency was increased by 7.2% in 66.6% of the group. The results failed to meet the expectations of a 15% increase in resiliency, however greater than 50% of the participant group did report improvement. Inferential statistics using a paired T-test procedure was applied to the BRS scores to draw conclusions about the population and measure the before and after results, see Table 13. Key findings of improvement based on the brief resiliency scale were seen in Question 5: “I usually come through difficult times with little trouble”; 44.4% agreed with this

statement by the end of the program. Strategies were discussed for coping and stress management and participants shared responsibility for longitudinal resiliency with self-management and motivation.

Table 12

Average Brief Resiliency Scale (BRS) Progressive Analysis

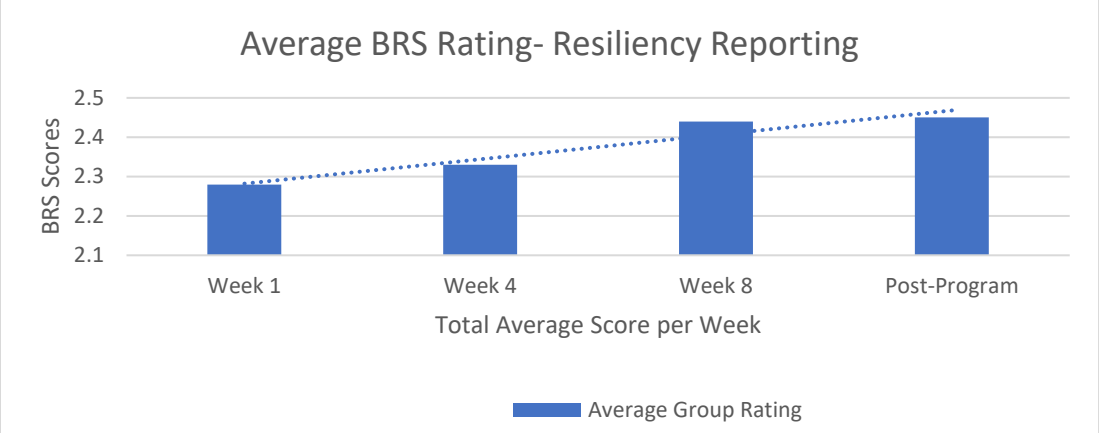
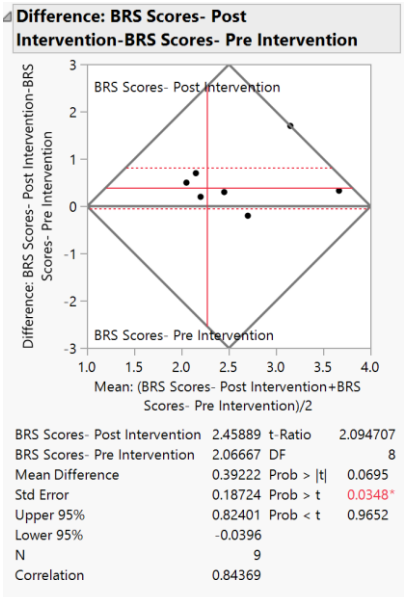


Table 13

Paired T Test- BRS scores Pre and Post Intervention



BRS Scores- Post Intervention	2.45889	t-Ratio	2.094707
BRS Scores- Pre Intervention	2.06667	DF	8
Mean Difference	0.39222	Prob > |t|	0.0695
Std Error	0.18724	Prob > t	0.0348*
Upper 95%	0.82401	Prob < t	0.9652
Lower 95%	-0.0396		
N	9		
Correlation	0.84369		

There was a correlation between obesity and mental illness in this case study. Based on initial medical exam results at week 1, 44.4% were obese (BMI 30 and above), 22.2% were overweight (BMI 25-29.9) and 22.2% were normal (BMI 18.5-24.9) (CDC, 2024). From the initial medical exam in week 1, the average BMI was 33.34 and following the intervention, on repeat exam at week 8, the average BMI was 29.2 (Table 14). 100% of the participant group experienced weight loss with an average weight loss of 7.4 lbs. among the participant group after the intervention.

Chronic disease management with medical optimization of care using current practice guidelines were sought and implemented. Clinical guidelines and target health goals with specific criteria were used including medication indications and need for specialty care. Medical conditions that were targeted are displayed on Table 6. The American Diabetes Association 2023 Standards of Care provided provider support for prevention, patient education and clinical guidelines for medication use in treatment of prediabetes and type 2 diabetes (ADA, 2023). The participants in this group with an elevated HbA1c (greater than the normal value 5.7%) diagnosed with prediabetes (HbA1c value 5.7%-6.4%) and type 2 diabetic (HbA1c value >6.4%) experienced an overall reduction in Hba1c by 1.9% (Table 15). Another clinical objective with positive outcomes was reducing or the use of opioids for chronic pain syndrome. 22.2% *(n=9*) participants were prescribed opioid analgesic therapy through pain care specialists; the affected participants reduced use by 50% overall by the end of the 8-week program. Alternative therapies with safer drug profiles, physical therapy and massage were used to replace opioid therapy.

Participants were asked to identify three goals (aside from our mutual goals of improved access, depression, anxiety symptoms and overall resiliency) that they would like to accomplish with this program. The three most common answers were weight loss, improved sleep and

starting an exercise regimen. Based on these collective responses, interventions based on nutrition, exercise and sleep hygiene were generated. BMI measurements were used for pre and post intervention analysis. Due to the high occurrence rate of obesity in this participant group, intensive counseling was provided with emphasis on healthy dietary habits and exercise, reduced alcohol intake and sleep hygiene (see Appendices N, O, R).

Table 14

Average BMI Values Pre and Post Intervention

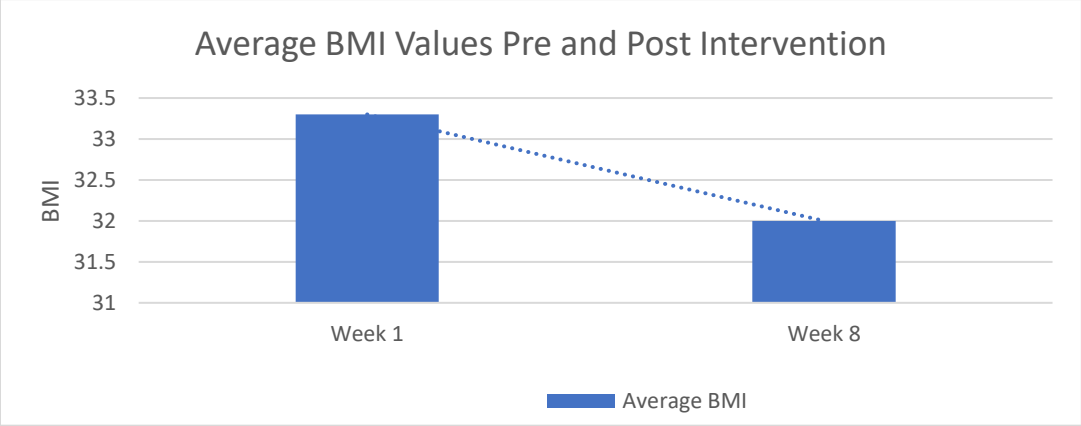
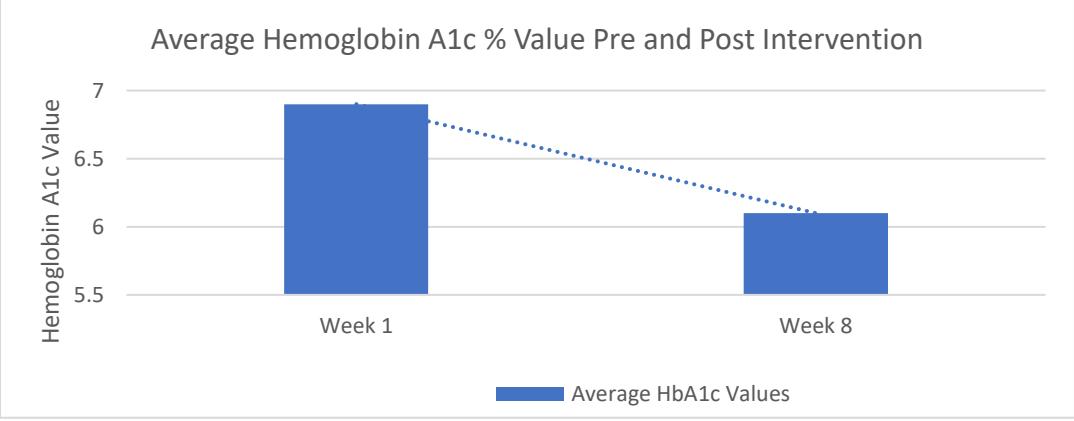


Table 15

Average Hemoglobin A1c % Value Pre and Post Intervention



Contextual Elements

Contextual elements that affected the intervention or health outcomes were categorized and displayed for explanation, see Table 17. Cognitive behavioral therapy (CBT) is a short-term focused treatment with strong empirical evidence with multiple randomized controlled studies that supports use. CBT aims to help the patient develop awareness and change the way patients think about their life experiences. CBT is a recommended critical component of treatment for mental illness and can complement medication therapy, or be used without medication, both methods have proven positive patient outcomes (CIMH, 2022). The primary care provider has developed a trusting relationship with their patient and this relationship sets the foundation for integrating this treatment approach. At the initial consultation with participant and primary care provider, participants were given a clear treatment plan, established autonomy, illness objectives and structured treatment plan with weekly self-driven CBT therapy homework (Appendix Q). The CBT workbook was kept private however the weekly chapter aims, strategies and reflections were discussed in counseling sessions with the primary care provider.

Contextual conditions that influence healthcare improvement involve integrating theoretical understanding and stakeholder input with empirical research findings. Research was conducted aimed to identify and understand the role of the context during the improvement planning, implementation, sustainability, and transferability phases to distil new knowledge to the design and development of future collaborative care models. Using a stepwise approach to assessing and reporting relevant context, identifying contextual factors based on theory, local history and the perspectives of multiple stakeholders at the beginning of the project. Collecting and analyzing contextual data at multiple time points during the study including reporting relevant contextual factors and how they affected important processes and outcomes (AHRQ,

2022). Contextual elements that affected the intervention of this project are displayed on Table 17.

Cognitive behavioral therapy is a pragmatic and problem-solution oriented approach to treating behavioral health conditions based on the information processing model and learning therapy (SPRC, 2022). A key component of CBT is individual case formulation as this functional assessment synthesizes the patient's biopsychosocial history and explains current symptoms, accounting for perpetuating and protective factors that influence how one person's thinks and perceives their experiences (SPRC, 2022). In this quality improvement initiative, participants were given a copy of "Retrain your brain: Cognitive Behavioral Therapy in 7 Weeks" by Dr. Seth Gillihan (2016) as a self-guided, at home reinforcement. The treatment modalities that were used for this quality improvement project were categorized as cognitive restructuring, behavioral activation, exposure, contingency management, stimulus control, skill deficit remediation and psychoeducation (Gillihan, 2016).

A large-scale comparative cohort study of safety planning interventions coupled with structured follow up reduced the risk of suicidal behavior by 50% and increased the odds of treatment engagement (Brown, et al., 2018). Suicide prevention and treatment planning started with screening for suicidal ideation and was discussed directly with participants reporting thoughts of self-harm (Appendix P). All participants were given the PHQ-9 validated depression screening tool on 4 different occasions which offered an opportunity for the care team to assess the risk of suicide among the participant group. The PHQ-9 depression screener incorporates the DSV-IV diagnostic criteria for depression and the presence and duration of suicide ideation. Based on continuous patient monitoring using validated tools, 3 participants were identified as at

risk for suicide by self-reporting that they had “thoughts that you would be better off dead or of hurting yourself in some way” (Table 16) which triggered an action plan (see Appendix F).

Table 16

Screening for Suicidal Ideation

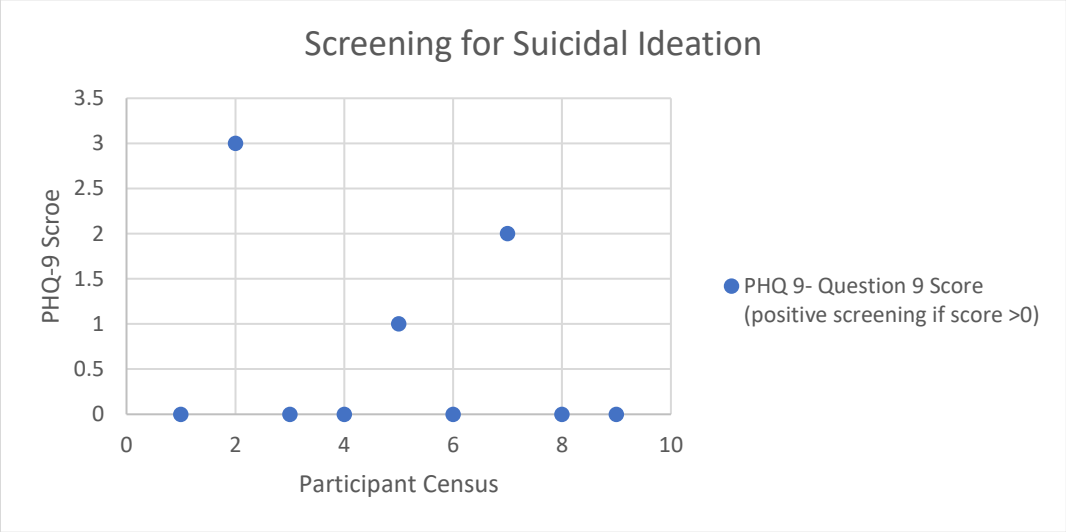
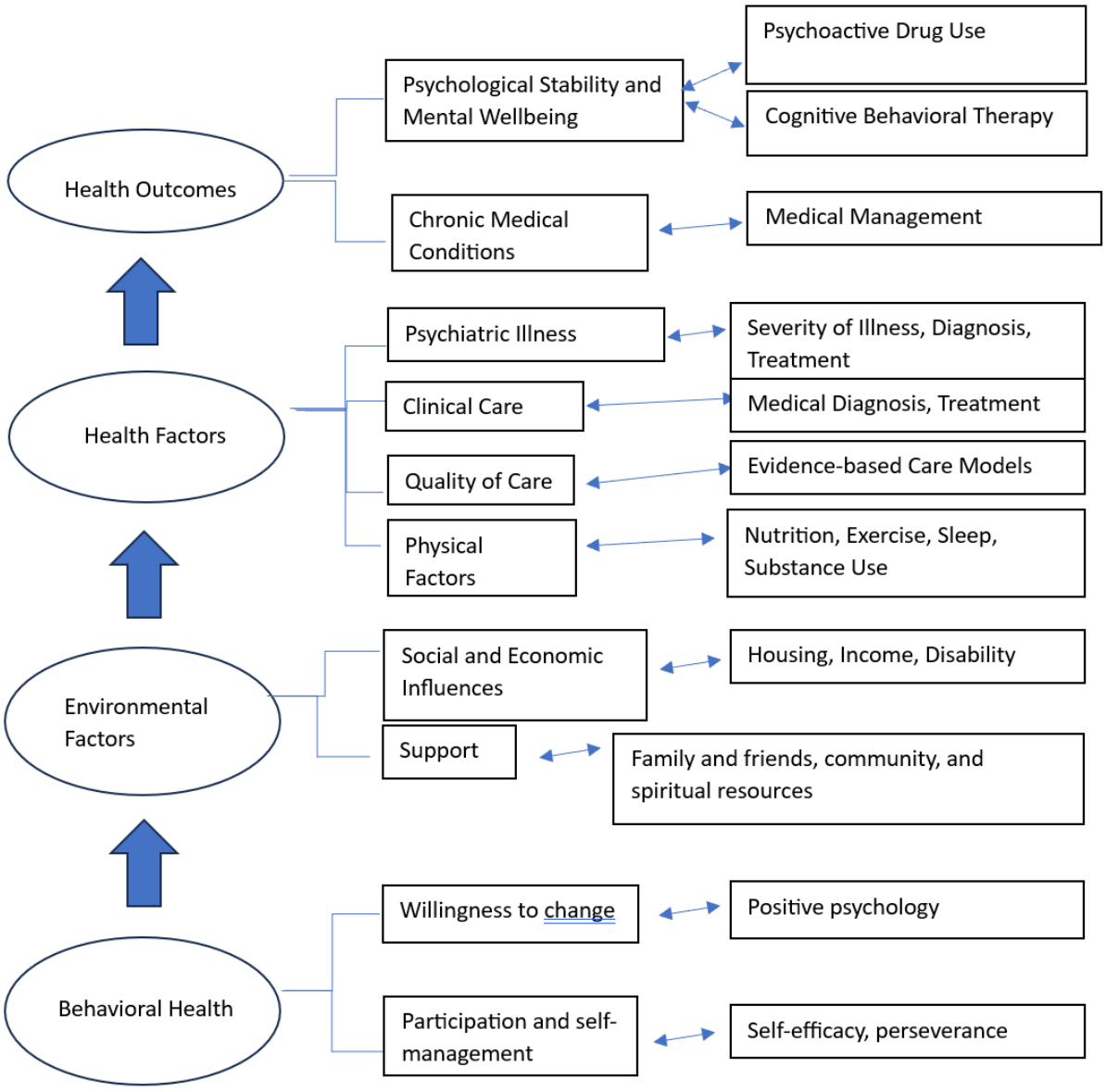


Table 17

Contextual Elements of the Intervention

Table 14. Contextual Elements Affecting Health Outcomes



Chronic sleep disorders including insomnia can reduce life expectancy and increase risk of cardiovascular events, compromised immunity, obesity and can also be a symptom of other psychiatric disorders such as depression and anxiety (AASM, 2022). Understanding the precipitating and influencing factors contributing to poor sleep is the essential first step in improving sleep. As recommended by the American Academy of Sleep Hygiene (2022) sleep issues were addressed during the intervention with cognitive behavioral therapy, sleep hygiene modifications, use of medications (if indicated) and mindfulness-based interventions (Appendix N).

Sleep disorders and disturbed sleep patterns are commonly seen in patients with psychiatric illnesses and must be present as a somatic symptom to meet DSM -5 diagnostic criteria for depression (Tolentino & Schmidt, 2018). Insomnia or sleep disorders can present as a symptom or contributing factor in the severity of disease (Chopra & Winkleman, 2023). Sleep disorders are a complex issue for many patients and disturbed sleep negatively affects the disease burden and impairs quality of life and increases the risk of suicide among this population (Chopra & Winkleman, 2023). Chronic sleep issues and mental health are linked as poor sleep contributes to the onset, recurrence, and maintenance of mental health disorders (Scott et al., 2021). Additional assessment for sleep-related disorders such as obstructive sleep apnea was performed, and testing was ordered by the primary care provider if indicated.

The American Psychological Association (2017) expresses the importance of using evidenced-based interventions in conjunction with standard practice guidelines in the treatment of mental health-related issues. The overreaching goal to improve symptoms of anxiety and depression and functional interventions were chosen based on empirical evidence and their compatibility with integrating behavioral health into primary care and the self-management

model of care (Hunter et al., 2017; Zhang et al., 2021). The “5A’s” framework was used for treatment planning and chosen interventions were developed based on clinical presentation, symptomology, and medical co-morbid conditions (Hunter et al., 2017).

Discussion

Summary

This program was aimed to increase access to specialty care using a collaborative care model and transform a primary care practice into an integrated medical center. The collaborative care model demonstrated significant benefits for the healthcare professionals and stakeholders by strengthening interprofessional relationships and participants demonstrated improved emotional and physical health. The innovative and revolutionary concept of integrative medicine has been influential in changing traditional models of care. This quality improvement initiative was productive in improving patient access, accentuating use of evidenced-based practices and supporting elaborate interventions.

Limitations

A contextual limitation for this quality improvement initiative was the need for a participant registry for data tracking and monitoring. The University of Washington AIMS Center (2023) has developed a caseload tracker for continuous patient monitoring and in reflection, this would have been a useful tool. Due to the cost of use, the funding organization used conventional means for collecting, tracking, and analyzing patient outcomes. For future integration and in response to higher participant volumes, a data tracker should be incorporated into the cost-benefit analysis. The role of the behavioral case manager was another limitation for this program. The role of the behavioral case manager would be best suited for a trained mental

health professional such as a licensed social worker. The role and responsibilities of the behavioral case manager were undertaken by the primary care provider and practice mentor for quality and control purposes.

Integrated family medicine and use of the collaborative care model require adjustments to the typical model of psychological assessment and the structured primary care visit, requiring specialized training for healthcare professionals. The primary care provider benefited from specialized training through the American Psychiatric Association online program: Collaborative Care for Primary Care Providers and Suicide Safer Care (2024). Incorporation of specialized training should be sought by all healthcare professionals using an integrated healthcare approach.

There were generalizable limitations in data collection with a small sample size and limited data points in measuring depression, anxiety and resilience symptoms based on the results of the validated screening tools. In future studies, data reporting should be conducted at more frequent intervals over a longer period for more accurate predictions.

Conclusions

The integration of behavioral health services into this family medical practice was an effective measure for increasing access to specialty care with the use of the collaborative care model. Participants had access to behavioral health services in less than 14 days. Implementation of integrated health care has societal benefits and longitudinal cost reduction for the healthcare system (Hine, Howell & Yonkers, 2008). The interventions of psychoactive drug use, chronic disease management with adjunct therapies focused on cognitive behavioral therapy, nutrition, exercise and sleep hygiene improved participant's reported symptoms of depression and anxiety and increased their self-reported resilience to future adverse life events. Primary care providers

are positioned to provide accessible and quality treatments for a variety of mental health conditions in the primary care setting.

The implications for practice from this quality improvement initiative were increased use of mood disorders screening tools for diagnosis and monitoring, use of psychoactive drug therapies and enhanced awareness for suicide prevention. Suicide prevention involves screening, assessment, risk formulation and prevention plans and the family medical practice is a key location for implementation. Provider confidence in medication and disease management improved through this experience and continued interprofessional relationships were enhanced.

Integrated care models support and facilitate multiple health care providers seeking advanced training to diversify their advanced practice. Using this comprehensive approach created a synergistic relationship among primary care providers, psychiatric consultants, and patients by working as a team to improve the quality of their lives. Introducing specialty care services into family medicine provided a unique opportunity for patients to access quality and coordinated health care that addresses the psychological conditions and physiological conditions to promote whole-person wellness.

Other Information

Funding

Wakefield Family Medicine, PLLC was the practice setting, employer, and source of funding for this quality improvement initiative. This organization was responsible for consulting fees, professional liabilities, office use, scheduling software, EMR, data tracking software and electronic communications throughout the program. This organization did not have a role in the design, interpretation or reporting features of the collaborative care program.

References

Advancing Integrated Mental Health Services (2023). AIMS Center. University of Washington. Retrieved from: AIMS Center | Advancing Integrated Mental Health Solutions in Integrated Care (uw.edu)

Ahrnsbrak, R., Bose, J., Hedden, S., Lipari, R., & Park- Lee, E. (2017). *Key substance use and mental health indicators in the United States*. Retrieved from: Key Substance Use and Mental Health Indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (samhsa.gov)

American Academy of Family Physicians (2021). *Integrating behavioral health into primary care*. Retrieved from: Integrating Behavioral Health Into Primary Care | AAFP

American Academy of Family Physicians (2021). *Now more than ever, mental health care needs family medicine.* Retrieved from: Now More Than Ever, Mental Health Care Needs Family Medicine | AAFP

American Academy of Sleep Medicine (2022). *Insomnia: Provider fact sheets*. Retrieved from: Provider Fact Sheet - Insomnia (aasm.org)

American Heart Association (2020). *10-minute workout anywhere.* Retrieved from: Microsoft Word - DS-16004 HFG 10-minute Video.docx (heart.org)

American Psychological Association (2017). *The quadruple aim: The value of psychological*

services in healthcare. Retrieved from: The quadruple aim: The value of psychological services in health care (apa.org)

Bailey, L., Wagstaff, G., & Little D. (2019). Bringing behavioral health into your practice through a psychiatric collaborative care program. *Journal of Family Practice Management, 26*(6), 11-16.

Bartley, M. (2007). *Capability and resilience: beating the odds. UCL Department of Epidemiology and Public Health*. Retrieved from: esrc capabilityandresilience (ucl.ac.uk)

Baumeister, H. & Hutter, N. (2012). Collaborative care for depression in medically ill patients. *Current Psychiatric Opinion, 25*(5), 405-414.

Boys Town (2023). *What is a safety plan? Your Life Your Voice*. Retrieved from: Safety Plan (parenting.org)

Center for Disease Control and Prevention (2021). *Mental health.* Retrieved from: Mental Health | CDC

Center for Disease Control and Prevention (2022). *Healthy weight, nutrition and physical activity*. Retrieved from: About Adult BMI | Healthy Weight, Nutrition, and Physical Activity | CDC

Center for Medicare and Medicaid Services. *Behavioral health integration services*. Retrieved from: Behavioral-Health-Integration-Services-(MLN909432)-2021-3-Print-Friendly (cms.gov)

Chopra, A. & Winkelman, J. (2023). *Sleep and mental health conditions*. Psychiatric Annals 53(11), 488.

Czeisler, M., lane, R., Petrosky, E. et al. (2020). Mental health, substance abuse, and suicidal ideation during the COVID-19 pandemic-Unites State, June 24-30, 2020. *Morbidity and Mortality Weekly Reports, 69*(32), 1049-1057.

Dartmouth Hitchcock Knowledge Map (2017). *Behavioral health integration into adult primary care model guideline*. Retrieved from: Behavioral Health Integration into Adult Primary Care Model Guideline (dartmouth-hitchcock.org)

Firth, J., Siddiqi, N., Koyanagi, A., Siskind, D., Rosenbaum, S. et al. (2019). The lancet psychiatry commission: a blueprint for protecting physical health in people with mental illness. *Lancet Psychiatry, 6*(8), 675-712.

Ford, J., Thomas F., & McCabe, R. (2020). Use of patient health questionnaire (PHQ-9) in practice: Interactions between patients and physicians. *Qualitative Health Research, 30*(13) 246-249.

Gillihan, S. (2016). Retrain your brain: Cognitive behavioral therapy in 7 weeks: a workbook for managing depression and anxiety. *Althea Press:* Berkley, California.

Goodrich, D., Kilbourne, A., Nord, K., & Bauer, M. (2013). Mental health collaborative care and its role in primary care settings. National Institute of Health. *Journal of Current Psychiatry, 15*(8), 383.

Health Resources and Services Administration (2022). *MUA find.* Retrieved from: MUA Find (hrsa.gov)

Hirschfeld, R., Williams, J., Spitzer, R., et al. (2000). Development and validation of a screening

instrument for bipolar spectrum disorder: The mood disorder questionnaire. *The American Journal of Psychiatry, 157*(1), 1873-1875.

Institute for Healthcare Improvement (2008). *Triple aim and population health.* Retrieved from: Improvement Area: Triple Aim and Population Health | Institute for Healthcare Improvement (ihi.org)

Kieu, A. (2021). Now more than ever, mental health care needs family medicine. AAFP. *American Academy of Family Physicians, 28*(3), 11A-11C.

Kroenke, K. & Unutzer, J. (2017). Closing the false divide: Sustainable approaches to integrating mental health services into primary care. *Journal of General Internal Medicine, 32*(1), 404-410.

Kroenke, Spitzer & Williams (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*(9), 606-6013.

Levine, S., Unutzer, J., Yip J. et al. (2005). Physicians' satisfaction with a collaborative disease management program for late-life depression in primary care. *General Hospital Psychiatry*, 27(1), 383-393.

National Alliance on Mental Illness (2021). *Mental health in New Hampshire.* Retrieved from: https://www.nami.org/mhpolicystats

National Institute of Mental Health (2021). *Chronic illness and mental health: Recognizing and treating depression.* Retrieved from: NIMH » Chronic Illness and Mental Health: Recognizing and Treating Depression (nih.gov)

New Hampshire Department of Health and Human Services (2022*). Behavioral health.*

Retrieved from: Behavioral Health | New Hampshire Department of Health and Human Services (nh.gov)

New Hampshire Department of Health and Human Services (2023). *New Hampshire community mental health agreement quarterly report.* Retrieved from: cmha-quarterly-report-sfy23-april-june-final.pdf (nh.gov)

Praed Foundation (2020). *Standard comprehensive adult needs and strengths assessment: 2020 reference guide*. Retrieved from: Microsoft Word - REFERENCE GUIDE_Standard Comprehensive ANSA 3.0_FINAL Hyperlink_2020.09.21.docx (praedfoundation.org)

Reist, C., Petiwala, I., Latimer J., et al. (2022). Collaborative mental health care. *Open Medicine 101*(52), 325-354.

Rith-Najarian, L. (2024). *Sleep hygiene checklist*. Harvard University.

Retrieved from: Sleep Hygiene Checklist_REVISED_C.pdf (harvard.edu)

Scott, A. Webb, t., St-James, M., Rowse, G. & Weich, S. (2021). Improving sleep quality leads to better mental health: A meta-analysis of randomized controlled trials. Elsevier. *Science Direct,* (60).

Smith, B. Dalen, J., Wiggins, K., Tooley, E., et al. (2008). The brief resilience scale: assessing the ability to bounce back. *International Journal of Behavioral Medicine, 15*(1), 194-200.

Smithson, S. & Pignone, M. (2017). Screening adults for pression in primary care. *North American Journal of Clinical Medicine, 101*(4), 807-821.

Srivastava, K. (2011). Positive mental health and its relationship with resilience. *Industrial Psychiatry Journal, 20(*2), 75-76.

Staab, E., Wan, W., Quinn, M., Campbell, A. et al. (2022). Integration of primary care and behavioral health services in a midwestern community health center: a mixed methods study. *Families, Systems, & Health 40*(2), 182-209.

Substance Abuse and Mental Health Services Administration (2023). *Integrated models for behavioral health and primary care.* Retrieved from: Integrated Models for Behavioral Health and Primary Care | SAMHSA

Suicide Prevention Resource Center (2022). *Cognitive behavioral therapy for suicidal behavior.* University of Oklahoma Health Sciences Center. U.S. DHHS.

Tolention, J. & Schmidt, S. (2018). DSM-5 criteria and depression severity: Implications for clinical practice. *Frontiers in Psychiatry, 9*(1), 450.

U.S. Community Preventative Services Task Force (2012). Recommendations from the community preventative services task force for collaborative care for the management of depressive disorders. *American Journal of Psychiatry, 42*(5), 521-524.

Unutzer, J., Chan, L., Hafer, E., Knaster J. et al. (2012). Quality improvement with pay-for-performance incentives in integrated behavioral health care. *American Journal of Public Health, 102*(6), 41-45.

Unutzer, J., Katon, W., Fan, W. et al. (2008). Long-term cost effects of collaborative care for late-life depression. *American Journal of Managed Care*, 14, 95-100.

Vemuri, M. & Dunn, L. (2017). Ethical and clinical issues in integrated care settings: patient privacy concerns and electronic health records. *American Psychiatry Publications, 15*(3), 301-305.

Veteran Affairs (2015). *Mediterranean diet*. Retrieved from: Mediterranean Diet (va.gov)

Wagner, E. Austin, B., & Koroff, V. (1996). Organizing care for patients with chronic illness. *Milbank, 74*(4), 511-544.

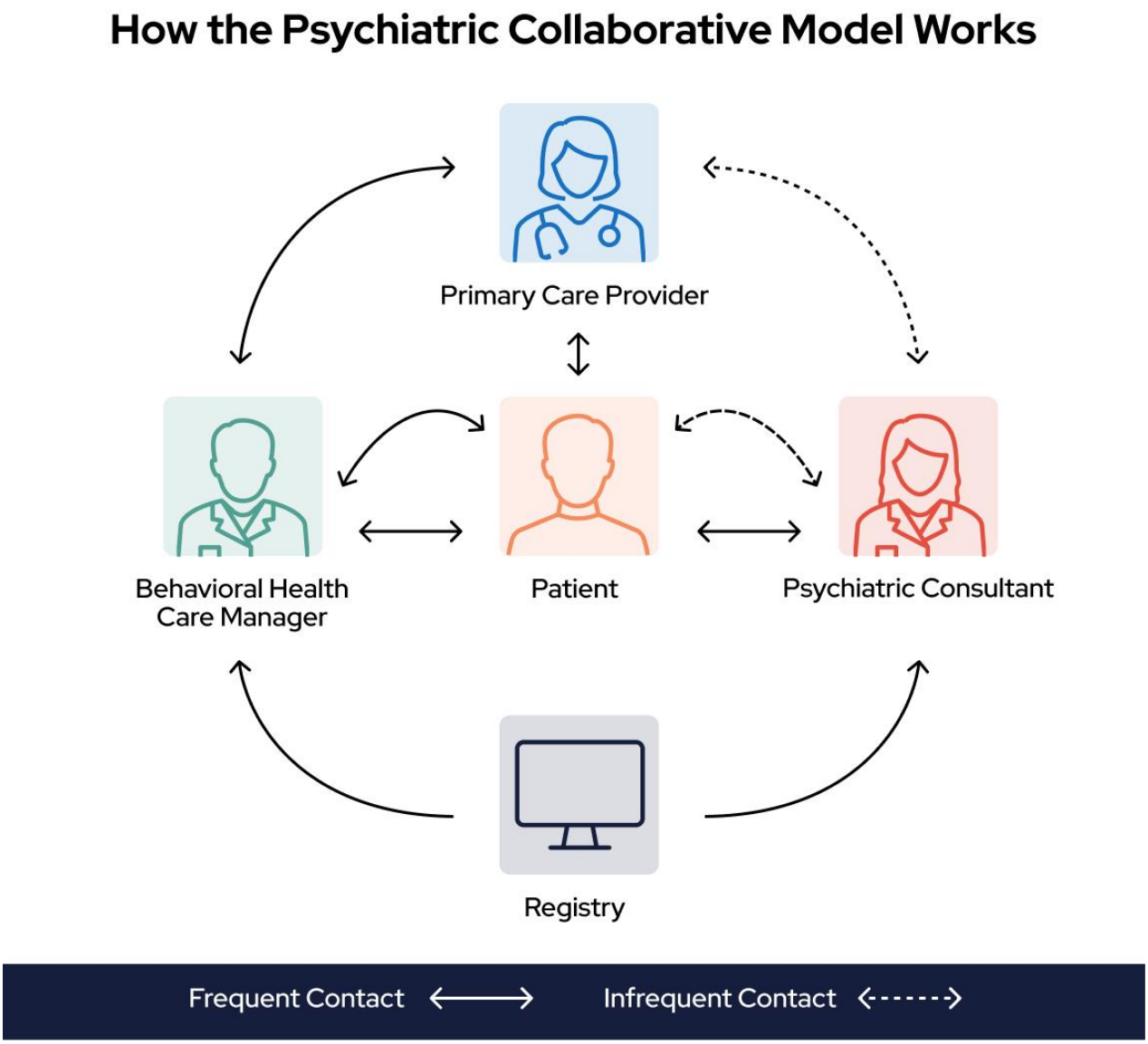
Weathers, F., Litz, B., Keane, T., Palmieri, P., Marx, B., & Schnurr, P. (2013). PTSD checklist for DSM-5 (PCL-5). National Center for PTSD. Retrieved from: PTSD Checklist for DSM-5 (PCL-5) - Fillable Form (va.gov)

World Health Organization (2018). *The global burden of disease: 2018 update*. Retrieved from: 6 June_18108_World Health Statistics 2018.pdf (who.int)

Yang, F., Wangen, K., Victor M., Solbakken, O., & Holman P. (2022). Referral assessment and patient waiting time decisions in specialized mental healthcare: an exploratory study of early routine collection of PROM. *BMC Health Services Research, 22*, 1553.

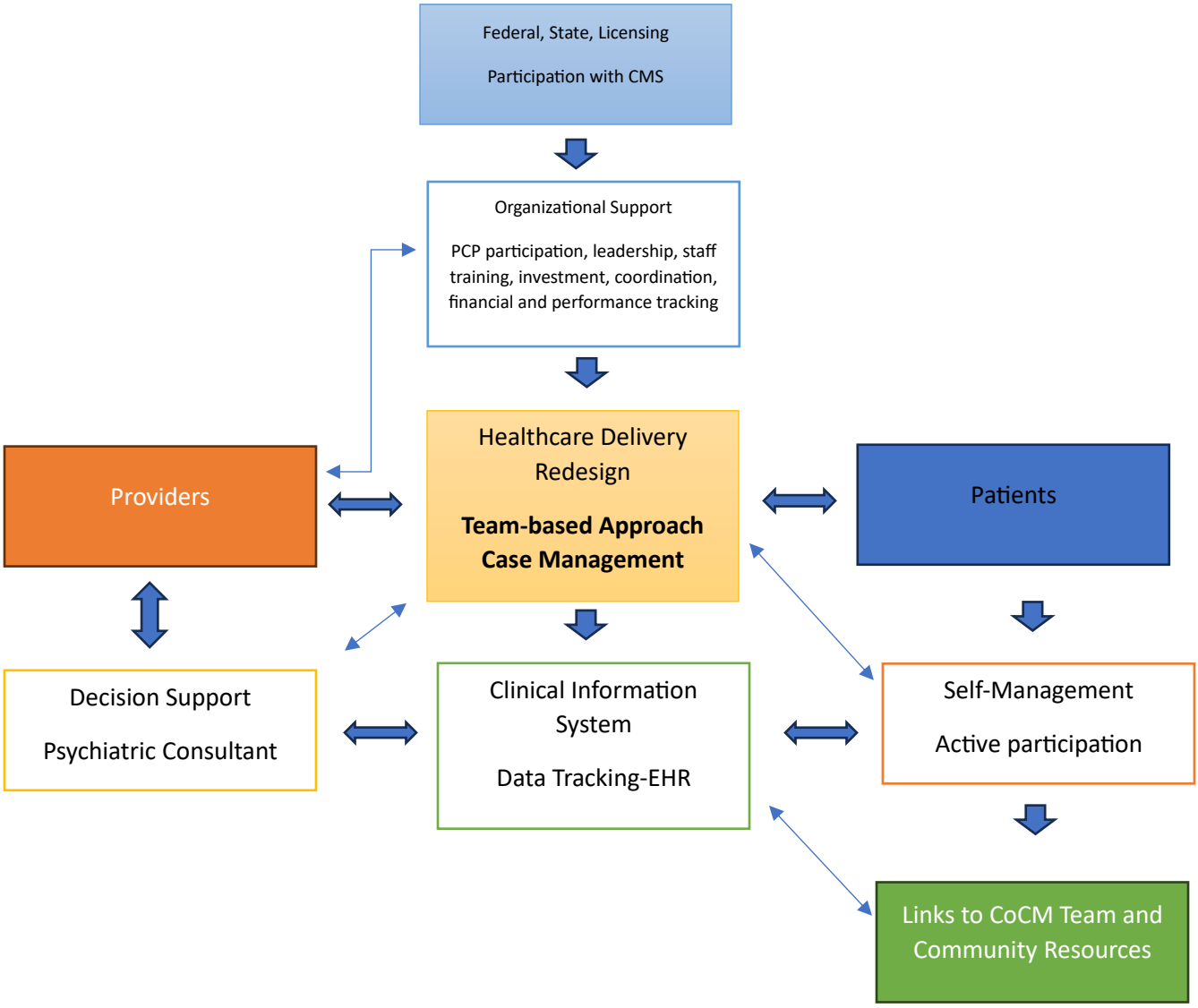
Zhang, D., Lee, E., Mak, E., Ho, C., & Wong, S. (2021). Mindfulness-based interventions: an overall review. Oxford Academic. doi: 10.1093/bmb/ldab005

Appendix A: Psychiatric Collaborative Care Roles and Communication



Advancing Integrated Mental Health Services (2023). AIMS Center. University of Washington. Retrieved from: AIMS Center | Advancing Integrated Mental Health Solutions in Integrated Care (uw.edu)

Appendix B: Main Components of the Collaborative Care Model



Appendix C: Plan-Do-Study-Act Cycle- Phase 1

ACT

Understand barriers to patient care, assessment, communication and adjust for success.

Describe modifications that are needed to improve team-based approach.

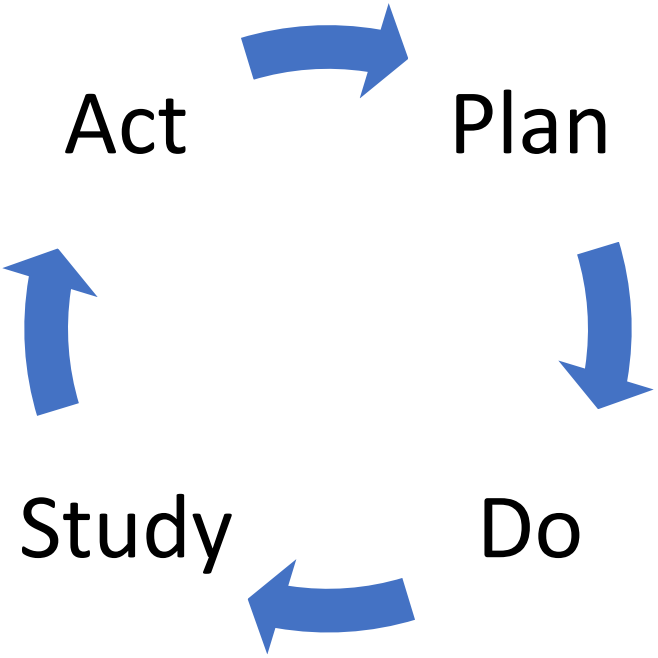
Create and implement a personal treatment plan with each participant and continue to monitor and track progress using evidence-based rating tools, motivational interviewing and aspects of cognitive behavioral therapy to improve overall resiliency.

PLAN: Phase 1

Observation: Access to psychiatric services in rural areas is limited. Many patients present to their primary care provider to address mental health concerns.

The PCP is reliable, accessible, and capable of conducting a patient assessment for psychological disorders.

8 week- Pilot Program to Integrate Behavioral Health Services into the Primary Care Setting



STUDY

Gather relevant patient data by in-person office visits, validated screening tools to assess, understand and intervene on current mental health issues.

Track patient outcome data to guide clinical practice.

Use interprofessional collaboration and effective communication in confidential patient consultation.

DO

The PCP can provide improved patient outcomes by using validated screening tools for assessment and collaborating with a consulting psychiatrist for diagnosis and treatment planning in collaboration with a behavioral case manager for greater communication and patient monitoring.

Appendix D: Written Consent Form

Integrating Behavioral Health into Primary Using the Collaborative Care Model: Pilot Program

University of New Hampshire, Nursing

Wakefield Family Medicine, PLLC

Written Consent

I, _____ (print name) consent to participate in this 8- week pilot program which includes participation in the initial, 4 week subsequent and 8 week subsequent visit. I consent to my health records including substance use, alcohol use, mental health and medical records be shared privately with the consulting psychiatrist for screening, evaluation and treatment purposes. I consent to insurance billing services using the Psychiatric Collaborative Care Model CoCM as benefited by Medicare.

_____ _____

Signature Date

_____ (Printed Name)

Appendix E: Psychological, Functional and Medical Initial Assessment

Psychological, Functional and Medical Assessment

Initial Consultation: Health Summary and Needs Assessment

PCP Health Summary with Participant Report of Current Complaints

- **Primary care impression, relevant health factors and areas of concern**
- **Patient report of health complaints, history and areas of concern**

Demographics

Age
Sex
Race
Highest Level of Education
Location (rural vs. urban)

Medical History

Medical History with diagnoses and severity of disease
Current Medication Regimen
Drug Allergies
Health Goals

Behavioral Health History

Psychiatric Diagnoses
Current Medication Regimen
Previous Medication Failures
Mental Health Goals

Treatment Goals

Diagnosis, Patient Education
Medication Management
Chronic Disease Management
CBT, Nutrition, Exercise, Sleep

Results and Interpretation of Validated Screening Tools

- **Original copies of screening tools provided for review of specific answers.**
- **Total and average scores per participant documented in clinical notes.**

Validated Screening Tool	**Purpose**	**Interpretation**
PHQ- 9 Patient Health Questionnaire	Depression Symptom Rating Suicide Screening*	Severity of condition, target areas for counseling, need for suicide prevention
GAD- 7 Generalized Anxiety Disorder	Anxiety Symptom Rating	Severity of condition, target areas for counseling
ACES	Childhood Trauma Screening	High ACES scores are often associated with mental illness and substance abuse.
PCL-5	Post Traumatic Stress Disorder	High PCL-5 scores are often associated with mental illness and substance abuse.
MDQ	Mood disorder and bipolar disorder screening	
BRS	Brief Resiliency Scale	Self-reported degree of resilience to recovering from adverse events
TAPS- Part 1	Alcohol, tobacco and drug use screening	Substance Abuse Screening, need for intervention

Appendix F: Patient Health Questionnaire (PHQ-9) Validated Rating Tool

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

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 fidgety 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 in some way	0	1	2	3

FOR OFFICE CODING 0 + _____ + _____ + _____

=Total Score: _____

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: The Patient Health Questionnaire (PHQ-9) Scoring

The Patient Health Questionnaire (PHQ-9) Scoring

Use of the PHQ-9 to Make a Tentative Depression Diagnosis:
The clinician should rule out physical causes of depression, normal bereavement and a history of a manic/hypomanic episode

Step 1: Questions 1 and 2
Need one or both of the first two questions endorsed as a "2" or a "3"
(2 = "More than half the days" or 3 = "Nearly every day")

Step 2: Questions 1 through 9
Need a total of five or more boxes endorsed within the shaded area of the form to arrive at the total symptom count. (Questions 1-8 must be endorsed as a "2" or a "3"; Question 9 must be endorsed as "1" a "2' or a "3")

Step 3: Question 10
This question must be endorsed as "Somewhat difficult" or "Very difficult" or "Extremely difficult"

Use of the PHQ-9 for Treatment Selection and Monitoring
Step 1
A depression diagnosis that warrants treatment or a treatment change, needs at least one of the first two questions endorsed as positive ("more than half the days" or "nearly every day") in the past two weeks. In addition, the tenth question, about difficulty at work or home or getting along with others should be answered at least "somewhat difficult"

Step 2
Add the total points for each of the columns 2-4 separately
(Column 1 = Several days; Column 2 = More than half the days; Column 3 = Nearly every day. Add the totals for each of the three columns together. This is the Total Score
The Total Score = the Severity Score

Step 3
Review the Severity Score using the following TABLE.

PHQ-9 Score	Provisional Diagnosis	Treatment Recommendation *Patient Preferences should be considered*
5-9	Minimal Symptoms*	Support, educate to call if worse, return in one month
10-14	Minor depression ++ Dysthymia* Major Depression, mild	Support, watchful waiting Antidepressant or psychotherapy Antidepressant or psychotherapy
15-19	Major depression, moderately severe	Antidepressant or psychotherapy
>20	Major Depression, severe	Antidepressant and psychotherapy (especially if not improved on monotherapy)

** If symptoms present ≥ two years, then probable chronic depression which warrants antidepressants or psychotherapy (ask "In the past 2 years have you felt depressed or sad most days, even if you felt okay sometimes?")*
++ If symptoms present ≥ one month or severe functional impairment, consider active treatment

Kroenke, Spitzer & Williams (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*(9), 606-6013.

Appendix H: Generalized Anxiety Disorder (GAD-7) Validated Rating Tool

GAD-7 Anxiety

Over the last two weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid, as if something awful might happen	0	1	2	3

Column totals _____ + _____ + _____ + _____ =

Total score _____

If you checked any problems, how difficult have they 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
☐	☐	☐	☐

Source: Primary Care Evaluation of Mental Disorders Patient Health Questionnaire (PRIME-MD-PHQ). The PHQ was developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues. For research information, contact Dr. Spitzer at rls8@columbia.edu. PRIME-MD® is a trademark of Pfizer Inc. Copyright© 1999 Pfizer Inc. All rights reserved. Reproduced with permission

Scoring GAD-7 Anxiety Severity

This is calculated by assigning scores of 0, 1, 2, and 3 to the response categories, respectively, of "not at all," "several days," "more than half the days," and "nearly every day."
GAD-7 total score for the seven items ranges from 0 to 21.

0–4: minimal anxiety

5–9: mild anxiety

10–14: moderate anxiety

15–21: severe anxiety

Appendix I: Brief Resilience Scale (BRS) Validated Rating Tool

Brief Resilience Scale (BRS)

Respond to each statement below by circling <u>one answer per row.</u>		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
BRS 1	I tend to bounce back quickly after hard times.	1	2	3	4	5
BRS 2	I have a hard time making it through stressful events.	5	4	3	2	1
BRS 3	It does not take me long to recover from a stressful event.	1	2	3	4	5
BRS 4	It is hard for me to snap back when something bad happens.	5	4	3	2	1
BRS 5	I usually come through difficult times with little trouble.	1	2	3	4	5
BRS 6	I tend to take a long time to get over setbacks in my life.	5	4	3	2	1

Scoring: Add the value (1-5) of your responses for all six items, creating a range from 6-30. Divide the sum by the total number of questions answered (6) for your final score.

Total score: _____ / 6

My score: _____ (average)

BRS Score	Interpretation
1.00 - 2.99	Low resilience
3.00 - 4.30	Normal resilience
4.31 - 5.00	High resilience

Smith, B.W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P. and Bernard, J. (2008). The Brief Resilience Scale: Assessing the Ability to Bounce Back. *International Journal of Behavioral Medicine*, 15, 194-200.

Appendix J: PCL-5- Post-Traumatic-Stress-Disorder Screening Tool

PCL-5

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Keeping your worst event in mind, please read each problem carefully and then select one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

Your worst event: _____

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
2. Repeated, disturbing dreams of the stressful experience?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
4. Feeling very upset when something reminded you of the stressful experience?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
8. Trouble remembering important parts of the stressful experience?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
12. Loss of interest in activities that you used to enjoy?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
13. Feeling distant or cut off from other people?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
15. Irritable behavior, angry outbursts, or acting aggressively?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
16. Taking too many risks or doing things that could cause you harm?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
17. Being "superalert" or watchful or on guard?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
18. Feeling jumpy or easily startled?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
19. Having difficulty concentrating?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯
20. Trouble falling or staying asleep?	0 ◯	1 ◯	2 ◯	3 ◯	4 ◯

PCL-5 (18 August 2023) National Center for PTSD Page 3 of 3

National Center for PTSD (2023). PCL-5 post traumatic stress disorder screening tool.

PTSD Checklist for DSM-5 (PCL-5) - Fillable Form (va.gov)

Appendix K: TAPS – Part 1: Substance Abuse Screening Tool

NIDA Clinical Trials Network
The Tobacco, Alcohol, Prescription medications, and other Substance (TAPS) Tool

TAPS Tool Part 1

Web Version: 2.0; 4.00; 09-19-17

General Instructions:
The TAPS Tool Part 1 is a 4-item screening for tobacco use, alcohol use, prescription medication misuse, and illicit substance use in the past year. Question 2 should be answered only by males and Question 3 only be females. Each of the four multiple-choice items has five possible responses to choose from. Check the box to select your answer.

Segment:
Visit number:

1. In the PAST 12 MONTHS, how often have you used any tobacco product (for example, cigarettes, e-cigarettes, cigars, pipes, or smokeless tobacco)?
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

2. In the PAST 12 MONTHS, how often have you had 5 or more drinks containing alcohol in one day? One standard drink is about 1 small glass of wine (5 oz), 1 beer (12 oz), or 1 single shot of liquor. (Note: This question should only be answered by males).
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

3. In the PAST 12 MONTHS, how often have you had 4 or more drinks containing alcohol in one day? One standard drink is about 1 small glass of wine (5 oz), 1 beer (12 oz), or 1 single shot of liquor. (Note: This question should only be answered by females).
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

4. In the PAST 12 MONTHS, how often have you used any drugs including marijuana, cocaine or crack, heroin, methamphetamine (crystal meth), hallucinogens, ecstasy/MDMA?
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

5. In the PAST 12 MONTHS, how often have you used any prescription medications just for the feeling, more than prescribed or that were not prescribed for you? Prescription medications that may be used this way include: Opiate pain relievers (for example, OxyContin, Vicodin, Percocet, Methadone) Medications for anxiety or sleeping (for example, Xanax, Ativan, Klonopin) Medications for ADHD (for example, Adderall or Ritalin)
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

National Institute on Drug Abuse (2017). *The tobacco, alcohol, prescription medications, and other substances (TAPS) tool*.

Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS) Tool (nih.gov)

Appendix L: Mood Disorder Questionnaire (MDQ) Validated Screening Tool

Mood Disorder Questionnaire (MDQ)

Name: _____ Date: _____

Instructions: Check (☑) the answer that best applies to you.
Please answer each question as best you can.

	Yes	No
1. Has there ever been a period of time when you were not your usual self and...		
...you felt so good or so hyper that other people thought you were not your normal self or you were so hyper that you got into trouble?	◯	◯
...you were so irritable that you shouted at people or started fights or arguments?	◯	◯
...you felt much more self-confident than usual?	◯	◯
...you got much less sleep than usual and found you didn't really miss it?	◯	◯
...you were much more talkative or spoke faster than usual?	◯	◯
...thoughts raced through your head or you couldn't slow your mind down?	◯	◯
...you were so easily distracted by things around you that you had trouble concentrating or staying on track?	◯	◯
...you had much more energy than usual?	◯	◯
...you were much more active or did many more things than usual?	◯	◯
...you were much more social or outgoing than usual, for example, you telephoned friends in the middle of the night?	◯	◯
...you were much more interested in sex than usual?	◯	◯
...you did things that were unusual for you or that other people might have thought were excessive, foolish, or risky?	◯	◯
...spending money got you or your family in trouble?	◯	◯
2. If you checked YES to more than one of the above, have several of these ever happened during the same period of time? *Please check 1 response only.*	◯	◯
3. How much of a problem did any of these cause you — like being able to work; having family, money, or legal troubles; getting into arguments or fights? *Please check 1 response only.* ◯ No problem ◯ Minor problem ◯ Moderate problem ◯ Serious problem		
4. Have any of your blood relatives (ie, children, siblings, parents, grandparents, aunts, uncles) had manic-depressive illness or bipolar disorder?	◯	◯
5. Has a health professional ever told you that you have manic-depressive illness or bipolar disorder?	◯	◯

This questionnaire should be used as a starting point. It is not a substitute for a full medical evaluation. Bipolar disorder is a complex illness, and **an accurate, thorough diagnosis can only be made through a personal evaluation by your doctor.**

Adapted from Hirschfeld R, Williams J, Spitzer RL, et al. Development and validation of a screening instrument for bipolar spectrum disorder: the Mood Disorder Questionnaire. *Am J Psychiatry.* 2000;157:1873-1875.

Appendix M: Adverse Childhood Experience Questionnaire for Adults

Adverse Childhood Experience Questionnaire for Adults
California Surgeon General's Clinical Advisory Committee

aces aware
SCREEN. TREAT. HEAL.

Our relationships and experiences—even those in childhood—can affect our health and well-being. Difficult childhood experiences are very common. Please tell us whether you have had any of the experiences listed below, as they may be affecting your health today or may affect your health in the future. This information will help you and your provider better understand how to work together to support your health and well-being.

Instructions: Below is a list of 10 categories of Adverse Childhood Experiences (ACEs). From the list below, please place a checkmark next to each ACE category that you experienced prior to your 18th birthday. Then, please add up the number of categories of ACEs you experienced and put the *total number* at the bottom.	
1. Did you feel that you didn't have enough to eat, had to wear dirty clothes, or had no one to protect or take care of you?	☐
2. Did you lose a parent through divorce, abandonment, death, or other reason?	☐
3. Did you live with anyone who was depressed, mentally ill, or attempted suicide?	☐
4. Did you live with anyone who had a problem with drinking or using drugs, including prescription drugs?	☐
5. Did your parents or adults in your home ever hit, punch, beat, or threaten to harm each other?	☐
6. Did you live with anyone who went to jail or prison?	☐
7. Did a parent or adult in your home ever swear at you, insult you, or put you down?	☐
8. Did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way?	☐
9. Did you feel that no one in your family loved you or thought you were special?	☐
10. Did you experience unwanted sexual contact (such as fondling or oral/anal/vaginal intercourse/penetration)?	☐
Your ACE score is the total number of checked responses	

Do you believe that these experiences have affected your health? ◯ **Not Much** ◯ **Some** ◯ **A Lot**

Experiences in childhood are just one part of a person's life story.
There are many ways to heal throughout one's life.

Center for Health Care Strategies (2021). *Adverse childhood experience questionnaire for adults.*

Adverse Childhood Experience Questionnaire for Adults (acesaware.org)

Appendix N: Sleep Hygiene Checklist

Sleep Hygiene Checklist and Tips for Better Sleep

Healthy sleep is important for physical and mental health. Good sleep hygiene habits can help improve your quality of sleep.

Prioritize Sleep

Try to get at least 7 hours of sleep per 24 hours.

Avoid all Electronics Before Bed

Bright lights, engaging applications and potential for emotional triggers can stall your brain from winding down and preparing for sleep.

Napping

If you are sleep deprived, taking a power nap (30 min. or less) may be helpful. Avoid daytime napping and rely on continuous sleep throughout the night.

Schedule

Keep a fixed sleep-wake time to promote a healthy sleep schedule.

Diet Changes

Avoid using caffeine, alcohol, nicotine or other stimulants at least 4 hours before bed.

Relaxation and Mindfulness

Avoid stimulating activities, try stretching, dim lighting, calm music, breathing exercises, heat.

Journaling and Reading

Consider making a worry-list, list of things to address tomorrow or writing about your feelings and thoughts in a private journal.

Sleep Environment

Make sure your bedroom is quiet, dark, at the right temperature, remove distractions, use white noise if desired and only use your bed for sleep. If you can't fall asleep within 20 minutes, rise from your bed, do something boring or relaxing and then try again.

Professional Help

Consult with your doctor about your sleep, review indications to test for sleep apnea or need for specialty referral.

Adapted from: Rith-Najaeian, L. (2024*) Sleep Hygiene Checklist REVISED C.*

Sleep Hygiene Checklist_REVISED_C.pdf (harvard.edu)

Appendix O: American Heart Association: 10-minute workout anywhere

American Heart Association.
Healthy for Good™

10-minute Workout Anywhere

Boost your heart rate and brain power with this quick home workout. For a digital version of this workout, visit **heart.org/movefor10**. Do each exercise at your own pace for 30 seconds with 30 seconds of cardio between exercises (such as high knees, march in place, jog in place). Rest as needed.

Try these tips:

Weight(s) can be small dumbbells, kettlebells or anything heavy you may have at home, like a purse, water bottle or gallon jug, backpack or book. Or make your own adjustable weight by loading a small tote bag with magazines or books.

Stabilize yourself as needed by holding or touching a wall, desk or stationary (non-rolling) chair. As you get stronger, test your balance by letting go of the support.

*Please speak with your health provider before starting an exercise program and with a fitness professional for adaptations that best meet your individual needs.

Shoulder Rolls

Activity: Standing or sitting with feet hip width apart, slowly roll both shoulders forward, up, back and down. Reverse direction.

Add Intensity: Hold hand weights down at sides.

Squats/Chair

Activity: Standing with feet hip width apart, keeping back straight, bend knees and hips as if to sit down in a chair with arms out in front of you. For squats, straighten back up and repeat. For chair pose, hold in "seated" position.

Add Intensity: Raise arms overhead or hold weight(s) at chest or shoulders.

Calf Raises

Activity: Standing or sitting with feet hip width apart, keep legs straight but not locked as you slowly lift heels and rise to tip-toe position, then lower back to floor.

Add Intensity: Do on one leg at a time while keeping raised foot at ankle or knee. Do at least 10 repetitions before switching to other side.

Side Bends

Activity: Standing or sitting with feet hip width apart and hands on hips or overhead, bend to one side and return to standing. Do at least 10 repetitions before switching to other side.

Add Intensity: Hold a weight down at your side (on working side), at chest level or overhead.

American Heart Association.
Healthy for Good™

Toe Taps

Activity: Standing or sitting with feet hip-width apart, lift knee to waist height, extend and tap toe on floor in front of you, lift knee again and return to standing. Alternate sides.

Add Intensity: Tap toe on the edge of a wastebasket, chair or desk instead of the floor.

Pushups/Plank

Activity: Standing with feet hip-width apart, place hands shoulder-width apart on stable surface such as wall, desk edge or stationary (non-rolling) chair, walk feet out behind you until body and legs are in a straight line at about 45-degree angle with floor. To begin hold in plank position (make sure to tighten abs) and bend and straighten at elbows. You may also do pushups from the floor (begin with knees on the ground and work up to full pushups).

Add Intensity: Lift one leg behind you and hold during pushups or plank. Repeat for other leg.

Neck Stretch

Activity: Standing or sitting with feet hip-width apart and shoulders down and back, look straight ahead and tilt ear toward shoulder until you feel the stretch. Hold for about 10 seconds. Repeat to other side and forward.

Add Intensity: With hand on top of head in each position, apply light pressure to increase stretch.

Leg Lifts

Activity: Sitting at the front edge of a chair with feet flat on the floor, straighten one leg out in front of you and hold in place for a few seconds. Return foot to floor and repeat and alternate legs.

Add Intensity: Instead of sitting on chair, support your weight with your hands.

Thigh/Glute Squeeze

Activity: Sitting at the front edge of a chair with feet flat on the floor, squeeze glutes and thighs together and hold for at least 10 seconds.

Add Intensity: Hold a book or other sturdy item between your knees without using your hands.

Forward Bend

Activity: Sitting at the front edge of a chair with feet flat on the floor, fold forward with chest to thighs and head dropped forward. Relax and take a few deep breaths.

Add Intensity: Do forward bend in standing position with knees slightly bent.

Learn more ways to Move More at heart.org/HealthyForGood

American Heart Association (2020). *10-minute workout anywhere*.

: Try the 10-Minute Home Workout | American Heart Association

Appendix P: Suicide Safety Plan

WHAT IS A SAFETY PLAN?

A Safety Plan is a brief written list of coping strategies and sources of support.

No doubt you can drive from your home to your school without even thinking twice. But what if you have to make that same trip in heavy fog or through a blizzard? Even though it's a route you are very familiar with, it's harder to navigate your way if your vision is impaired. When that happens, you might use GPS, read street signs, look for landmarks and watch lane markings on the road.

A Safety Plan is like a roadmap for your life. Just like a map can help you find your way when you are going somewhere, a Safety Plan can point you in the right direction when you get lost or become overwhelmed by problems or emotions.

When might you need a Safety Plan? The reasons for creating a Safety Plan cover many different situations:

- If you are having thoughts of hurting yourself.
- If you are worried about someone hurting you.
- If you are experiencing emotional pain.

Although a Safety Plan is typically meant to keep you physically safe, it also can help with your emotional wellness. Addressing each of the items listed below can help you, through a Safety Plan, be emotionally healthy throughout your life.

1. **Triggers/Warning Signs:** What causes you to feel emotional pain?
   How can you tell when those feelings are starting to become a problem?
2. **Coping Skills/Distractions:** How can you work through your problems?
   What can you do to take your mind off of the things that are bothering you?
3. **Social Settings:** Where can you go to avoid being alone?
   What social settings can provide you with an outlet or means of temporary escape?
4. **Supportive People:** What friends, family or others do you trust to ask for help?
5. **Professionals:** Who would you contact during a real crisis or an emergency?
6. **Safe Environments:** Where is your safe space?
   What do you need to avoid or remove to keep it a safe space for you?
7. **Reasons for Living:** What motivates you to keep going? Who or what do you care about most?

To create a workable Safety Plan, be sure to complete it *before* a problem or crisis occurs. You may also find that your answers to the questions above change over time, so review and update it regularly.

Take some time today to think about what will work best to keep *you* safe and emotionally healthy in the future.

YOUR Life YOUR Voice from BOYS TOWN

yourlifeyourvoice.org | boystown.org Page 2

Reach out and get the help you need! BOYS TOWN NATIONAL HOTLINE® **800-448-3000**

WHAT IS A SAFETY PLAN?

Creating a Safety Plan

A Safety Plan is a brief written list of strategies that can help you cope with life's challenges. It outlines steps you can use to deal with any negative thoughts and emotions you might experience.

1. **Triggers/Warning Signs**
   What causes these feelings?
   How can you recognize when you start to feel bad?
2. **Coping Skills/Distractions**
   What helps you to take your mind off your problems?
3. **Social Settings & People**
   What social settings could provide you with an outlet or means of temporary escape?
4. **Supportive People**
   What friends, family or others do you trust to ask for help?
5. **Professionals**
   Who could you contact during an emergency/crisis?
6. **Safe Environment**
   What might you need to avoid or remove (e.g., harmful objects)?
7. **Reasons for Living**
   What motivates you to keep going? Who or what do you care about most?

TEXT VOICE to 20121
or
CALL 1-800-448-3000

YOUR Life YOUR Voice from BOYS TOWN

yourlifeyourvoice.org | boystown.org Page 3

Reach out and get the help you need! BOYS TOWN NATIONAL HOTLINE® **800-448-3000**

Boys Town (2023). *What is a safety plan? Your Life Your Voice*. Safety Plan (parenting.org)

Appendix Q: Cognitive Behavioral Therapy Plan and Highlights

Weekly Progression	**Area of Study**	**Purpose**
Initial Consultation	Psychoanalysis differences between Freudian understanding of the mind and CBT approach emphasizing the power of thoughts that drives our emotions and actions.	Getting familiar with cognitive behavioral therapy and benefits of use, understanding anxiety and depression
Week 1	Understanding the challenges, barriers to change	Setting goals
Week 2	Identifying areas for change, addressing specific behaviors, treatment approach of behavioral activation.	Reviewing treatment plan and goals
Week 3	Seeking where the value in major areas of your life and strategies to support each value.	Identifying thought patterns
Week 4	Planning activities, completing goals and making adjustments to align with goals.	Breaking negative thought patterns
Week 5	Planning enjoyable and important activities, structured planning for productivity.	Time and task management
Week 6	Pushing through avoidance, stress management, sleep and overcoming fears through exposure, challenging validity of fears and resilience.	Facing Adversity
Week 7	Regaining health and function, continued effort for practice.	Reflections

Adapted from: Gillihan, S. (2016). *Retrain your brain: Cognitive behavioral therapy in 7 weeks: A workbook for managing depression and anxiety.* Calisto Publishing: Naperville, Illinois.

Appendix R: Mediterranean Diet and Nutritional Planning

Mediterranean Diet

Choosing a diet similar to one eaten by people living around the Mediterranean Sea may lower the risk of cardiovascular disease and have additional health benefits. The diet is mostly plant-based with high amounts of fresh vegetables, fruits, nuts, dried beans, olive oil, and fish. Follow these tips to eat the Mediterranean way!

Food/Food Group	**Recommended Intake***	Tips
Vegetables	4 or more servings each day (one portion each day should be raw vegetables)	A serving is 1 cup raw or ½ cup cooked vegetables. Eat a variety of colors and textures.
Fruits	3 or more servings each day	Make fruit your dessert
Grains	4 or more servings each day	Choose mostly whole grains. 1 serving = 1 slice bread or ½ cup cooked oatmeal
Fats/Oils 	Olive Oil: 4 Tablespoons or more each day 	Choose extra virgin olive oil (EVOO) and use in salad dressings and cooking; choose avocado or natural peanut butter instead of butter or margarine
Dried Beans/Nuts/Seeds	Nuts/Seeds: 3 or more servings each week Beans/Legumes: 3 or more servings each week	1 ounce or 1 serving = 23 almonds or 14 walnut halves; 1 serving of beans = ½ cup
Fish and Seafood	2-3 times each week 	Choose salmon, sardines, and tuna which are rich in Omega-3 fatty acids
Herbs and Spices	Use daily	Season foods with herbs, garlic, onions and spices instead of salt
Yogurt/Cheese/Egg Poultry	Choose daily to weekly	Choose low-fat yogurt and cheeses; choose skinless chicken or turkey in place of red meat
Alcohol/Wine	Men: 1-2 glasses each day Women: 1 glass each day	Always ask your medical team if alcohol is ok for you to consume.

***Serving sizes should be individualized to meet energy and nutrient needs.**

- Red meats, processed meats, and sweets should be limited

08/2015

VA HEALTH CARE Defining EXCELLENCE in the 21st Century

Adapted from: Veteran Affairs (2015). *Mediterranean diet*. Mediterranean Diet (va.gov)