

MAJOR DEPRESSIVE DISORDER TREATMENTS IN COMMUNITY MENTAL
HEALTH CLINICS

By

Jill K. McCarl

A dissertation to fulfill the requirements for a

DOCTOR OF PSYCHOLOGY IN COUNSELING PSYCHOLOGY

at

NORTHWEST UNIVERSITY

2018

Approved:

Larry W. Bailey, Ph.D., Chair

Becky Frink Sherman, Ph.D., Committee Member

Kevin A. Leach, Ph.D., Committee Member

Matt Nelson, Ph.D., Dean of College of Social and Behavioral Sciences

February 27, 2017

Abstract

Depression affects many individuals worldwide, indiscriminant of race, gender or age (Burnett-Zeigler, Zivin, Islam, & Ilgen, 2012; Cuijpers & Schoevers, 2004; Watters, 2010). In 2012, the World Health Organization (WHO) estimated that over 350 million people suffer from depressive symptoms worldwide. This statistic is alarming as people who are diagnosed with major depressive disorder not only suffer from the debilitating symptoms associated with major depression, but also have increased rates of death due to suicide (Cuijpers & Schoevers, 2004). Depressive disorders have been found to be associated with increased impairment in role functioning, poorer quality of life, mortality due to physical illness, and suicide (Burnett-Zeigler et al., 2012). Therefore, it is crucial that community mental health providers address the increase in mortality rates. This study focused on the efficacy and survival rates involving two treatment groups in a community mental health setting. The treatment groups consisted of two groups; one group of clients received psychotherapy treatment alone and the second group received combined treatments of pharmacology and psychotherapy. Both treatment groups were similar as all clients were diagnosed with major depressive disorder, received Medicaid benefits for underserved populations, and voluntarily attended treatment services. Psychological wellness was determined by using the Patient Health Questionnaire-9 (PHQ-9) at initial assessment and after six months of treatment. This study also tracked dropout rates between the two different treatment groups to determine if there was a difference in compliance rates between groups.

Keywords: Depression, psychotherapy, pharmacology, community mental health

Table of Contents

Acknowledgments.....	5
Chapter One.....	6
Literature Review.....	6
Major depressive disorder in Washington State community health clinics.....	7
Prevalence and effects of MDD.....	9
APA recommendations and treatment guidelines	11
APA phases of treatment.....	13
APA evidence-based treatment interventions.....	15
Combined treatment modalities.....	18
Rationale/Purpose of the Study/Significance of the Study	21
Research Question/Hypothesis.....	24
Chapter Two	27
Participants.....	27
Materials and Procedures.....	28
Assessments.....	28
Quantitative approach.....	31
Summary.....	32
Chapter Three	34
Findings.....	34
Quantitative Data Analysis.....	34
Descriptive statistics.....	34

Summary.....	40
Chapter Four.....	42
Discussion.....	42
Interpretation.....	42
Integration.....	43
Explanation and Limitations.....	47
Future Directions and Recommendations.....	49
Conclusion	51
References.....	53
Appendices	58

Acknowledgements

But if we hope for what we do not see, we eagerly wait for it with perseverance (Romans 8:25)

I am grateful for the support and the guidance of my committee members, support from friends, and support from my family and husband.

I would like to express my deepest gratitude to my Committee Chair, Dr. Larry Baily, for his excellent guidance, caring, patience, and providing me with an excellent atmosphere for me to grow into a doctor of psychology. I would like to thank Dr. Leach, who let me experience the statistics and research in ways that I never understood until working with him on this dissertation. I would also like to thank Dr. Sherman for guiding my research writing for the past couple of years and helping me to develop my background in psychology with an emphasis on social justice.

I also would like to thank Dr. Tara Fairfield, Dr. Laura Dahmer-White and Dr. G. Perez-Rosales as they mentored me through my internship and this dissertation. I would also like to thank my parents, my sister, and brother. They were always supporting me and encouraging me with their best wishes.

Finally, I would like to thank my husband, Lou McCarl. He was always there cheering me up and stood by me through the good times and bad. He spent many weekends in the Kirkland motels and area, supporting me in my weekend studies and keeping me focused on finishing my dream to complete the doctoral program at Northwest University.

Chapter One

Literature Review

Depression affects many individuals worldwide indiscriminant of race, gender, socioeconomic status, or age. In 2012, the World Health Organization (WHO) estimated that over 350 million people suffer from depressive symptoms worldwide. In 2013, American Psychiatric Association (APA) updated the criteria for diagnosis of major depressive disorder (MDD), which is found in the publication of the *Diagnostic and Statistical Manual of Mental Health Disorders* (5th ed.; *DSM-5*; APA, 2013)(Appendix A). Although the diagnosis of MDD has been standardized by the APA in the *DSM-5*, diagnosing depression in underserved populations can be challenging, as individuals are unlikely to be assessed throughout treatment by qualified clinicians, as many clients terminate services before the standard six month reauthorization period.

There are multiple APA-approved evidence-based treatment modalities for people suffering from major depression. Previous researchers have found that medications have been beneficial for the treatment of depression (Hollon et al., 2014; Köhler, Hoffmann, Unger, Steinacher, Dierstein, & Fydrich, 2013; Pampallona, Bollini, Tabaldi, Kupelneic, & Munizza, 2004). Although medications have demonstrated efficacy in decreasing depressive symptoms, medication alone does not address the psychology behind the depression, which often includes the individuals' beliefs, culture, and thoughts that impact their emotions and behaviors. With this recognized deficit, the APA has recommended using psychotherapy to elevate the core elements effecting people with MDD. Added to the complexity of treating MDD, underserved populations afflicted by homelessness, poverty, lack of medical support, and minimal primary support systems in

particular have increased barriers to receiving evidence-based psychological treatments for depression (Maslow, 1943).

This study focused on clients in an underserved population including Medicaid recipients receiving treatment for MDD in a community health clinic in Washington State. The researcher attempted to address how different treatment interventions for MDD, including psychotherapy and combined treatments of psychotherapy and psychopharmacology, support psychological wellness with participants in a community mental health agency. The researcher assessed the effect of psychological wellness with individuals struggling with MDD using the Patient Health Questionnaire-9 (PHQ-9) assessment to note increases or decreases in symptomology. Furthermore, this researcher assessed for improvement of symptoms between treatment intervention groups after clients received six months of treatment(s). Finally, the researcher identified if completion (survival) rates of participants differed between the two groups.

MDD in Washington State Community Mental Health Clinics. In Washington State, there is increased attention on how mental health resources are managed for individuals receiving mental health services by contracted community mental health agencies. Community mental health clinics (CMHC) serve clients who receive Medicaid services. Historically, Washington State's management of mental health monies were provided by Regional Support Networks (RSN). The primary responsibility of RSNs was to contract with agencies to provide mental health services to underserved populations, funded by Medicaid dollars. Regular audits were scheduled to determine appropriate utilization of allotted mental health monies and resources. CMHCs provide resources and treatments that focused on aiding individuals that marginalized, suffered from poverty,

struggled with homelessness, had limited access to health care, and diagnosed with a serious mental illness (TMRSN Contract, 2013). The current study built off previous researchers' studies (Blais et al., 2013; Cuijpers et al., 2009; Hollen et al., 2014; Siddique et al., 2012) regarding how evidence-based treatments, specifically in the context of CMHCs, are supporting increased psychological wellness for clients diagnosed with MDD. The above mentioned research were not completed in Washington State, yet completed in communities similar to the researched CMHC.

In 2009, Pierce County's RSN moved from being financially government-supported through Medicaid and a monitored mental health contractor to a for-profit, multicare agency known as Optum (Optum, 2013). This change was monumental for Washington's mental healthcare funding structure due to historical oversight was completed by counties entities verses a for-profit agency. Partly due to this philosophical and fiscal change, county funded RSNs have begun to restructure, evaluating and providing best service delivery strategies to serve clients in their counties. Washington RSN administrators have made changes focusing on the need for accountability of their mental health treatment providers. In 2015, RSNs were eliminated and larger Behavioral Health Organizations (BHO) were created to replace RSNs. With the new reorganization, BHOs eventually increased demands on community mental health providers, primarily focusing on positive client outcomes and episodic care. BHOs require CMHCs to provide clients with evidence-based practices, by providing documentation of the used treatment modality and demonstrate evidence of successful completion of episodic care. Legislative changes dictated higher accountability by having State auditors evaluate the effectiveness

of evidenced base treatment provided by contracted providers (TMRSN Contract, 2013), which are assessed with outcome measures.

As BHOs and multicare agencies address the increased need for mental health services, there continues to be higher demand for community mental health clinics to provide effective treatments including evidence-based treatments that support positive outcome measures (TMRSN Contract, 2013). In Washington State, the demand to provide mental health services has increased due to the expansion of the Health Care Reform. Many more residents qualify for mental health services where previously they did not meet the requirements for Medicaid benefits. With the increase of people who want mental health services and meet access to care standards (Washington Access to Care Standards, 2015), there is growing demand to treat clients effectively and timely. The increase in the number of clients that have health care insurance, directly affected how CMHC clients with mental health disorders, including MDD disorders, receive mental health treatments. BHOs and CMHCs are investing monies to train their staff in evidence-based treatment modalities to increase positive outcomes for clients with mood disorders, psychosis, and anxiety disorders. This study focused on clients receiving services for MDD.

Prevalence and effects of MDD. “Twelve-month prevalence of major depressive disorder in the United States is approximately 7% with marked differences by age group, such that the prevalence in 18-29-year-old individuals is three-fold higher than the prevalence in individuals age 60 years or older” (*DSM-5*, 2014, p. 165). This study included clients between the ages of 18-70, specifically capturing the higher prevalence rate of individuals.

Global attention has focused on a severe, treatable symptoms associated with MDD, including suicidal ideation, gestures or attempts, hopelessness and feelings of helplessness. Depressive disorders are not only associated with increased mortality rates, but also cause significant impairments in the individual's role functioning, poorer quality of life, mortality due to physical illnesses (Burnett-Zeigler et al., 2012). Thus, it is imperative that this study evaluated the effectiveness, gains or losses of psychological wellness with treatments facilitated in community mental health agencies.

The World Health Report captured data that illustrated an increase in mortalities at an alarming rate in recent years (WHO, 2012). The WHO Expert Advisory Panels and Committees have long suspected that these reported increases in mortality rates were due to increase in suicide rates (WHO, 2012). WHO estimated that over one million people worldwide commit suicide annually (WHO, 2012). Per WHO (2012), increased suicide rates are now approaching the classification of an epidemic, defined by WHO.

“In 2012, the WHO concluded that symptoms associated with depressive disorders are directly associated with increased mortality rates” (Cuijpers & Schoevers, 2004; WHO, 2012). Specifically, underserved populations are susceptible to increased deaths by suicide (Cuijpers & Schoevers, 2004). Underserved populations include communities that lack access to primary care services. These increased mortality rates are both alarming for mental health clinicians practicing psychology as well as the public at large. The growing demand for successful, evidence-based treatments that treat symptoms of depression are imperative for decreasing suicide attempts and increased mortality rates associated with MDD.

APA recommendations and treatment guidelines. The APA (2013) increased their focus and research on people suffering from depressive disorders, found in the newly revised *DSM-5*. The APA authors changed the categories found in the DSM-IV-TR from categorizing depressive disorders with Bipolar and Related Disorders to creating a category solely for Depressive Disorders. Lewandowski, K., Cohen, B., Keshavan, M., and Ongür, D. (2011), summarized the reason for this change in the following:

Whereas bipolar depression shares clinical features with unipolar depression (depressive symptoms, tendency toward an episodic course, family history, comorbidities), bipolar disorder also shares significant features with schizophrenia (symptomatology, genetic markers, family history, response of mania to antipsychotic agents). This lends support to the change made in *DSM-5* and is also consistent with observations that neurocognitive deficits and various neurobiological findings are seen across the spectrum of psychotic disorders, spanning schizophrenia through bipolar disorder to major depression.

Although there are differences, “The common feature of all of these disorders is the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual’s capacity to function” (*DSM-5*, 2013, p. 155). The *DSM-5* criterion changed minimally from the previously defined criteria found in the DSM-IV-TR. This study used the *DSM-5* diagnostic criteria for a diagnosis of MDD.

The APA (2010) identified and published recommended treatment guidelines for treating clients with MDD, found in an APA publication, *Practice guidelines for the treatment of patients with major depressive disorder*. These guidelines are currently aspirational in nature for clients receiving services in many community mental health

agencies. The APA provides guidelines for depression by strongly encouraging clinicians to use “evidence-based recommendations for the assessment and treatment of psychiatric disorders” (APA 2014). There is growing attention by BHOs, strongly suggesting the delivery of services include contractual agreements for providers to offer APA recommended evidence-based treatments. Although the APA has clear and concise treatment recommendations for providing mental health treatments to clients diagnosed with MDD, therapists working in CMHCs tend to offer an eclectic approach and treatment interventions for MDD that are not specifically evidence-based (APA, 2010). Eclectic approaches have been used for many decades, however recently there is more attention on outcome measures. Overall, research studies have promoted the use of evidence-based practices for treatment delivery for people with MDD, with an emphasis on using psychotherapy involving cognitive behavioral therapy (CBT) (Blais et al., 2013; Hollon et al., 2014; Thase, 2014).

Since the publication of the APA guidelines, there has been multiple randomized control trials focused on the efficacy of specific evidence-based treatments used for MDD. These include psychotherapy, pharmacology, and combined treatments for clients with depressive disorders (Blais et al., 2013; Hollon et al., 2014; Thase, 2014). The outcomes of these trials have led to APA practical guidelines for clinicians that incorporate the use of evidence-based treatment for depressive orders, specifically for major depressive disorder. The APA (2010) concluded that recommended treatments for MDD are: (1) psychiatric management; (2) pharmacology; (3) electroconvulsive therapy (ECT); (4) psychotherapy; and (5) combined treatments of pharmacology and psychotherapy.

APA phases of treatment. The APA guidelines for treating individuals diagnosed with MDD is divided into four distinct phases of treatment: (1) the *acute phase*; (2) the *continuance phase*; (3) the *maintenance phase*; and (4) the *discontinuance phase*. Two primary evidence-based treatments, psychotherapy and pharmacology, are recommended for treatment in all four phases.

Within the APA four phases of treatment, the writers recommended that multiple interventions be applied throughout the recovery process (APA, 2010). These interventions include psychiatric management, establishment of rapport, development of a therapeutic alliance, assessments, evaluation and plan for safety, assessment of living situation, assessment of functional impairments coordination with service providers, monitoring of psychiatric status, a tailored treatment plan, and provided education to the client and family members (APA, 2010). The APA has provided separate evidence-based guidelines that specifically address each phase in treatment.

The *acute phase* is commonly known as the *initial phase* and is estimated to last four to eight weeks in duration. The acute phase focuses on inducing remission of the depressive episode and attempting to return to baseline level of functioning (Armstrong, 2011, para. 1). Individuals with mild or moderate depression would benefit from psychotropic medication or depression-focused CBT, as mentioned in the previous paragraph (Armstrong, 2011; APA, 2010). The APA cautions that individuals experiencing psychosocial or interpersonal problems, intrapsychic conflict, or have been diagnosed with a personality disorder or learning disabilities may derive greater benefit from the use of combined treatments of psychotherapy and pharmacology (APA, 2010). Psychotherapy alone is not sufficient for individuals diagnosed with severe depression

with psychosis; instead, a combined psychotherapy and pharmacology treatment is recommended to address symptoms of psychosis (Armstrong, 2011). During the acute phase, it is recommended that physicians prescribe combined medications, including an antidepressant and an antipsychotic, with or without psychotherapy (APA, 2010).

The second phase of treatment is the *continuous phase*. It is imperative that during this phase, the patient should be monitored for signs of possible relapse (Armstrong, 2011; APA, 2010). The APA recommends that clinicians continually assess for severity of symptoms, side effects, adherence to recommended treatment, and functionality of the clients as they progress through this phase. There are multiple useful self-assessment tools that clinicians, medical providers, and psychologists use to determine fluctuations in depressive symptoms, the most commonly used being the Patient Health Questionnaire-9 (PHQ-9). Other frequently used tools include the Beck Depression Inventory-II (BDI-II), the Clinically Useful Depression Outcome Scale (CUDOS), Quick Inventory of Depressive Symptomology (QIDS), and the Zung Depression Scale. The APA recommends prescribing antidepressants and administering ECT while in the continuance phase, if previously prescribed in the acute state, to be used for the duration of 4-9 months (APA, 2010). APA also recommends that clients who began psychotherapy in the acute phase continue in the *continuous phase* of treatment.

After demonstrating increased stability and decreased symptomatology, individuals progress to the *maintenance phase* of treatment. APA recommends that patients who have had three or more episodes of major depression or chronic MDD, should proceed to the *maintenance phase* (Armstrong, 2011). In the *maintenance phase*, the APA recommends that clients continue to participate in psychotherapy with treatment

focusing on reducing the risk of recurrent symptomatology that led to past major depressive episodes (APA, 2010). In the maintenance phase, the authors of the APA guidelines recommend continued use of antidepressants, psychotherapy, and ECT, if these interventions were found useful in previous phases of treatment. In the maintenance phase, the frequency of individual psychotherapy sessions may be reduced in a therapeutic manner (Armstrong, 2011; APA, 2010).

During the fourth and final phase of treatment, the discontinuance phase, the APA recommends that individuals are assessed to determine whether it is appropriate to taper medication while decreasing pharmacotherapy sessions. The emphasis is on psychoeducation treatments specifically devoted to relapse prevention (Armstrong, 2011; APA, 2010). It is imperative to discuss the issue of treatment discontinuation and planning for the future, well in advance of the final session (APA, 2010, p. 20).

The APA identifies the use of pharmacological treatments in all four of the phases of treatment for MDD. In particular, during the acute phase, the authors of the APA guidelines recommend the use of pharmacological treatments, initially beginning with first-line antidepressant treatments. This includes selective serotonin reuptake inhibitors (SSRI) such as Effexor (Armstrong, 2011; APA, 2010). The APA references over-the-counter (OTC) remedies, including St. John's Wort and 5-hydroxytryptophan (5-HTP), yet cautioned against the use of OTCs in general, as these medications need to be monitored closely, and they have not been approved by the Federal Drug Administration (FDA).

APA evidence-based treatment interventions. Researchers have found mixed results while researching the benefits of treatment modalities for MDD. Painter (2012)

affirmed the APA's recommendations for evidence-based treatment interventions in his research focused on evidence-based practices in CMHCs. Painter (2012) completed a longitudinal study with 382 clients that received outpatient treatment services over the course of one year in a local, rural clinic in Texas. The results from Painter's (2012) study found that the best treatments for clients suffering from depressive symptoms were evidence-based interventions, specifically cognitive behavior therapy (CBT). Painter (2012) also found that clients who were served under the disease model of treatment (with biological, neurological, genetic, and environmental sources of origin) benefited at a higher rate than those that did not.

There are multiple types of treatment interventions offered for people with MDD in community mental health agencies. A newer medical treatment intervention, not currently funded for clients with Medicaid, is transcranial magnetic stimulation (TMS, 2008). TMS uses magnetic fields to stimulate nerve cells in the brain to improve symptoms of depression. Similar to electroconvulsive therapy, the FDA approved TMS as a treatment for individuals with MDD who have previously failed to respond to a first-line antidepressant. Many benefits have been discovered with the use of TMS treatments, particularly when compared to ECT treatments and/or sham treatments (the doctor goes through the motions of treatment without actually performing the treatment). In a study that evaluated the benefits of TMS, ECT, and sham treatments, TMS clients reported that TMS treatment felt less traumatic to their bodies than ECT, since they received treatments while awake and were aware of the intervention delivered. Additionally, clients experienced less time in recovery after TMS procedures than other interventions, allowing individuals to drive shortly after the procedure (Wier, 2015).

Between the years 2004-2009, the National Institute of Mental Health (NIMH) sponsored a multisite, randomized clinical trial of TMS (George et al., 2010; Wier, 2015). The sampled population included “treatment-resistant patients,” individuals that had experienced multiple medication treatments without a decrease in their symptoms associated with MDD. These patients were offered three weeks of TMS treatment with additional three weeks of TMS treatment as needed. Dr. Mark George, a neurologist/psychiatrist at the Medical University of South Carolina and the study’s co-chair, determined that patients who received TMS were four times more likely to achieve remission from depression compared with patients who received a sham treatment (George et al., 2010; Wier, 2015). Although TMS treatments have been reported by clients to be less invasive, George et al. (2010) found a thirty percent remission rate for individuals using TMS at the end of the full 6 weeks in contrast to the sixty percent remission rates for clients using ECT treatments alone. At this time, TMS is not generally offered as a treatment modality funded by BHOs as Medicaid does not cover this service.

An APA endorsed and recommended treatment for MDD offered regularly in CMHCs is psychotherapy. “Psychotherapy helps people identify the factors that contribute to their depression and deal effectively with the psychological, behavioral, interpersonal and situational contributors” (APA, 2014, p. 17-18). The APA has recommended the use of depression-focused psychotherapy during the acute phase of MDD. Specifically, there is “clinical evidence supporting the use of cognitive-behavioral therapy (CBT), interpersonal psychotherapy, psychodynamic therapy, and problem-solving therapy in individual and in group formats” (APA, 2010, p. 17-18). There are, however, multiple variations in therapies used to treat major depressive disorder.

Acceptance commitment therapy (ACT) is a third-wave CBT treatment that is becoming more popular amongst therapists in community mental health clinics. Dialectical behavioral therapy and person-centered therapy are also used to treat depression.

Arnow et al. (2013) conducted a study that evaluated which specific element of evidence-based treatments is responsible for the success behind psychotherapy treatments. The outcomes of the studies showed a relationship between the therapeutic alliance and treatment outcome in two distinct psychotherapies for chronic depression (Arnow et al., 2013). Researchers found that psychotherapy allows clients to discuss their concerns in a safe and warm environment. By facilitating this atmosphere, the client can explore his or her thoughts and feelings with a compassionate, empathetically-trained professional. Development of rapport is critical for exploring thoughts and feelings, however adding structured interventions have provided clients with long lasting techniques to counter depressive symptoms (Cuijpers et al., 2009; Painter, 2012). In summary, studies have demonstrated that using evidence-based interventions have decreased depressive symptoms for individuals suffering from major depressive episodes.

Combined treatment modalities. Combined treatments of psychotherapy and psychopharmacology treatments have been reported to be effective treatments for MDD (APA, 2013; Blais et al., 2013; Cuijpers et al., 2009). Treatment-as-usual (TAU) for major depressive disorders is defined by implementing a combination of antidepressant medications and psychotherapies (APA, 2000; Siddique et al., 2012). Blais et al. (2013) completed a study that sought to further explore the effectiveness of TAU for depression with psychiatric outpatient clients who received psychotherapy, pharmacotherapy, or combined treatment within an academic medical center” (p. 110). Blais et al. (2013)

completed initial and follow-up self-report assessments of 1,322 patients that received treatment for depression. The researchers found that all treatments provided clients with significant improvement with effect sizes surpassing our no-treatment benchmark” (Blais, et al., 2013, p 110). Specifically, Blais et al. (2013) found significant effectiveness when combined treatments were provided routinely.

Siddique et al. (2012) furthered previous research regarding specific interventions used for clients suffering from major depressive symptoms. The researchers completed a longitudinal study over the course of one year during which the researchers followed 267 minority women who received community mental health services for major depression in a rural populated area. The researchers used the Hamilton Depression Rating Scale to measure decreased depressive symptoms leading to increased psychological well-being. Siddique et al. (2012) concluded that clients that experienced moderate levels of depression had better results after six months of pharmacological treatments alone. After one year of treatment(s), Siddique et al. (2012) found that there was not a significant difference between clients who received psychotherapy treatment alone versus clients who received pharmacological interventions alone. Additionally, the researchers found no difference in improvement of symptoms for clients experiencing severe depression for either pharmacological treatments alone or psychotherapy alone. However, the researchers concluded that after one year of treatment, clients who specifically received CBT treatments demonstrated greater responses to treatment compared to other interventions.

Hollon et al. (2014) completed studies that furthered the evaluation of the effectiveness of cognitive therapy in conjunction with antidepressants compared to

antidepressants alone by measuring the rate of recovery in MDD randomized clinical trials. Hollon et al. (2014) used the Hamilton Rating Scale for Depression and the Longitudinal Interval Follow-up Evaluation to determine the effectiveness of treatment modalities used in their study. They found that combined treatment improved the rate of recovery versus antidepressants alone.

Recent studies have reinforced and supported the significance of Hollon et al.'s (2014) studies. Thase's (2014) research concluded that enhanced rates of recovery were higher for clients with severe nonchronic depression that received cognitive therapy combined with antidepressant medications (ADM) relative to ADMs alone. Some community mental health clinics have implemented practices that encourage combined treatments of psychotherapy and pharmacology to actively treat depression. This may be demonstrated by having clients work with both a therapist and a psychiatrist.

Cuijpers and colleagues (2009) investigated how psychotherapy and pharmacology affected the moods of clients diagnosed with acute depression. Cuijper et al. (2009) examined the healthcare records of clients who received only psychotherapy interventions compared to clients who received both psychotherapy and pharmacology. Cuijpers et al. (2009) completed a meta-analysis of 18 studies, which included a total of 1,836 clients diagnosed with depression and found that after one year of treatment, clients who received combined treatments (pharmacology and psychotherapy) showed slight improvements in mood for clients with acute depression. Research conducted by Blais et al. (2013) further evaluated the efficacy of recommended treatments for depression. "Research comparing combined therapy (psychotherapy and pharmacology) and monotherapy (psychotherapy or pharmacology) have tended to show a slight advantage

for combined therapy relative to either psychotherapy or pharmacotherapy alone” (Blais et al., 2013).

Steidtmann et al. (2013) were interested in investigating whether evidence-based treatments that were not working could be determined prior to decompensating.

Steidtmann et al. (2013) “focused on identifying the earliest treatment time point at which percentage of symptom reduction from baseline was a clinically useful predictor of eventual remission as well as the level of improvement at that time point that optimally predicts remission” (p. 785). Steidtmann et al. (2013) determined that individuals with chronic depression “who will not remit in structured, time-limited psychotherapy for depression, either with therapy alone or in combination with antidepressant medication, are identifiable prior to end of treatment” (p. 783). The researchers concluded that these findings may provide an operationalized strategy for designing adaptive psychotherapy interventions.

Köhler et al. (2013) also conducted research that led to further assessment of remission rates for MDD. They found in their study that remission rates were significantly higher in the combined treatment group (consisting of medication and CBT treatment) than in the psychotherapy care only group. In conclusion, much of the research into efficacy of treatment modalities and successful completion rates for MDD have been mixed.

Rationale/Purpose of the Study/Significance of the Study

Presently, BHOs have not required CMHCs provide evidence of successful treatment interventions or implementation of evidence-based treatments. However, BHOs that provide service contracts with community mental health agencies have begun to

modify previously held contracts to include deliverables that necessitate evidence-based practices. CMHCs are increasingly being instructed by their funders to provide evidence-based practices.

Experts in community mental health have challenged psychological organizations to further research that addresses the effectiveness of treatment interventions for clients diagnosed with MDD.

Patients, practitioners, and third-party payers seek guidance as to the type, amount, and cost of treatments that are effective for depression. The current state of the field is that there is no good method to predict which patients with depression will do better on medications versus psychotherapy and, within each treatment modality, which agent or approach is more effective. For most people with depression, the current evidence base does not point to either medication or psychotherapy as working better than the other. (Siddique et al., 2012, p. 996)

CMHCs continue to address ever-growing changes and developments in the ever-changing field of mental health treatment, including the democratization of technology, finance, and information sharing. Washington CMHCs have also felt increased demands from their funding sources to provide evidence-based treatments in an episodic manner. Privatized, for-profit, medical organizations have recently begun bidding on State contracts as RSNs aggregate into larger, multicounty BHOs. The increased need for advanced technology in electronic healthcare records, and the demand for evidence treatments that are fast and cost-effective continues to be of attention to awarded

contractors. These changes may directly affect community mental health agencies, including how current delivery of services are provided.

For this dissertation, the researcher examined clients served by a rural, semi-urban community mental health agency. These differing populations are due to using data from multiple sites in the region. This study attempted to further relevant research on treatments offered in CMHCs with a primary focus on outcome measures that demonstrate symptom reduction for client with MDD.

The researcher investigated the changes in psychological wellness of clients with MDD who received different treatment interventions. This study is relevant to healthcare administrations, mental health administrators, medical providers, community members, community safety providers, clients' families, and individuals affected by mental illness. Information gathered from this study was offered to the clinical leadership of the community mental health clinic where the study was completed. The outcome of this study may lead to changes in current treatment standards and protocols offered to clients with MDD at the CMHC. Lastly, there are few research studies on current practices in community mental health programs and the efficacy of using evidence-based treatments in CMHCs. Specific to this study, tracked dropout rates between the two different treatment groups to determine if there was a difference in compliance rates between groups.. Non-compliance was measured by discontinuation of services before achieving successful treatment. It was imperative to evaluate whether current CMHCs practices are helping clients' psychological well-being before implementing changes.

Due to impeding factors and personal interests, the researcher completed a quantitative, quasi-experimental study that examined currently used treatment modalities

for MDD offered in a Washington CMHC. Information was assessed using archival records. The efficacy of two treatments interventions was examined by using the PHQ-9 which measured changes in symptoms and increased psychological well-being. The researcher tracked completion rates of individuals in the study and investigated if there were difference of compliance between the two groups. This study furthered relevant research on actual treatments offered in CMHCs with a primary focus on the need for effective treatments for an underserved population

Limitations of this study included the naturalistic design, inconsistent pharmacological treatment, staffing shortages, and program design flaws. The researcher examined the differences in psychological well-being in two different treatment groups; one group experienced the combined treatment of different pharmacology interventions and psychotherapy and the other group received psychotherapy alone. The researcher used the Patient Health Questionnaire (PHQ-9), a highly valid and objective self-assessment tool, to detect changes in depressive symptoms over a six-month time frame. The PHQ-9 (See Appendix B) has been implemented by the CMHC to track therapy outcomes since 2014.

In summary, the researcher presented information and assessment of efficacy of current treatments for MDD at the CMHC. The researcher assessed for changes in psychological well-being with groups of individuals that received either psychotherapy alone or combined treatments of psychotherapy and pharmacology. This researcher also tracked completion rates of participants for the two different treatment groups.

Research Questions/Hypotheses

This researcher investigated how two specific types of treatment interventions,

psychotherapy and psychotherapy combined with psychopharmacology, affected psychological wellness for participants diagnosed with MDD in a CMHC. This researcher assessed different outcomes between the two treatment groups with PHQ-9 composite scores at the time the clients entered into CMHC services compared to PHQ-9 composite scores approximately six months after treatment. There are two hypotheses for this study:

H₁ : The participants who received combined treatments have increased psychological wellness compared to participants that received psychotherapy alone.

H₂ : There would be a higher rate of noncompliance with participants that received psychotherapy alone compared to participants who received combined treatment. Non-compliance was measured by dropping out prior to the end of recommended treatment.

Effective treatment interventions for individuals with major depressive disorder (MDD) in underserved populations can be challenging since individuals are not assessed regularly in primary care clinics. Across many cultures and underserved populations, somatic symptoms tend to be reported more frequently than emotional and behavioral symptoms. Treatment primarily is prescribed for physical symptoms, which does not address the individuals' beliefs, which may be negatively impacting their feelings and behaviors. Not only are underserved populations suffering from the tremendous symptomology of depression, but also have increased death rates due to suicide (Cuijpers & Schoevers, 2004). This study furthered research that evaluated the efficacy of evidence-based treatments supporting increased psychological wellness for clients

diagnosed with MDD by comparing two evidence-based treatment interventions provided by a CMHC in Washington State. The study included information regarding individuals' drop-out rates with treatments recommendations.

The demand for evidence-based interventions provided by qualified, competent clinicians continues to be an increasing need in community mental health agencies gaining significant attention of providers and BHOs. Both Medicaid and Medicare have provided financial and medical support for needed medical services for clients living in poverty and elderly and/or disabled clients. These underserved populations included individuals who were unable to work, received social security benefits, received assistance from Medicaid, and suffered from mental illnesses.

Chapter Two

This researcher assessed for changes in psychological well-being between groups of individuals that received different treatment interventions including psychotherapy alone and combined treatments of psychotherapy and pharmacology. This researcher focused on evaluating psychological well-being using the PHQ-9 as an objective self-assessment tool and questionnaire over two distinct times during treatment. Compliance of treatment was measured by dropout rates prior to completion of treatment.

Participants

Participants for this study were required to have a diagnosis of major depressive disorder (MDD) from a rural and semi-urban community mental health agency located in Washington. “The Avatar EHR system provides a common software platform for key processes, including treatment planning, clinical outcomes, and methadone dispensing” (IBM Technologies, 2015, Net smart Technologies, para. 1). This researcher reviewed medical records retrieved from the electronic healthcare record (EHR) AVATAR to determine eligibility for the study from January 2015 - December 2015. Participants were between 18-65 years of age. It was difficult to estimate the cultural diversity of the sampled participants because of the limitations of the demographic form offered at intake. The United Census Bureau (2015) estimated the community’s population was represented by the following groupings: approximately 86.7% Caucasian; 8.7% Hispanic; and 3.8% Native American. Fifty five point six percent of the studied community’s population is comprised of adults between the ages of 18-66. This study included both female, male and transgendered individuals.

Thirty-five participants met requirements for the study. Each had a diagnosis of MDD, including all specifiers, as outlined by the *DSM-5*. Participants in the study also met Washington's Access to Care Standards, were of lower socioeconomic standing, and had acute needs for mental health services. For this study, all participants in the population were actively receiving Medicaid benefits and met Medical Necessity as defined by the Washington State Access to Care Standards (2015), as this was a qualification of this community mental health agency. Clients that had co-morbidities were included in this study; however, the primary diagnosis for treatment had to be MDD. If a client's MDD diagnosis changed during the six months of treatment, which happened due to clarifying diagnosis, the client was excluded from the study and not included in the dropout rate. There was no control group for this study, as this was not an ethical option; all clients had a right to treatment when entering into services.

Materials and Procedure

The participants completed an intake assessment to enter into services at the community mental health clinic. The intake specialists were all mental health professionals that had a minimum of two years of supervised clinical, direct experience working with clients supervised by a trained and licensed supervisor.

Assessments. The intake assessment included the PHQ-9, which the agency implemented as an outcome measure in 2014. The intake specialist recommended types of treatment, reviewed the PHQ-9 assessment tool, and used the Level of Care Utilization System for psychiatric and addiction services (LOCUS) assessment tool to determine level of care. At the end of the intake process, clinicians provided a provisional diagnosis. The LOCUS assessment tool provided the intake clinician with recommendations for

treatment, authorization for services, and recommended utilization of services. Level of Care could range from one through four and provided recommendations of hours of service for an episode of care. Generally, episodes of care were over six months in duration.

The LOCUS has three main objectives. The first is to provide a system for assessment of service needs for adult clients based on six evaluation parameters. The second is to describe a continuum of service arrays which vary according to the amount and scope of resources available at each “level” of care in each of four categories of service. The third is to create a methodology for quantifying the assessment of service needs to permit reliable determinations for placement in the service continuum. (American Association of Community Psychiatrists, 2010, pp. 2)

The LOCUS tool assessed for six life domains and was a determinant of whether a client met access to care standards for community mental health services. The clinician assessed for six life domains, which included the risk of suicidality, homicidal intent and history, the client’s functional abilities, natural and professional support systems used, engagement in services, and the person’s insight into their symptoms associated with the request for services. The LOCUS assessment uses an algorithm to determine the intensity of services. Clients who met medical necessity for treatment by the Washington State Access to Care Standards (2015) were offered weekly psychotherapy sessions and encouraged to attend regularly. Although weekly psychotherapy was offered, many barriers prevented clients and clinicians from meeting weekly, including lack of transportation, loss of medical benefits, homelessness, chronicity of their mental health

symptoms, and clinician availability. These barriers were addressed in therapy sessions. The LOCUS was relevant to this project as it determined access to care and recommended treatment modalities.

Clients completed the PHQ-9 at the initial assessment and again after approximately six months of treatment. The PHQ-9 is a standardized questionnaire that is used for screening, diagnosing, monitoring, and measuring the severity of depression (Kronenke, Spitzer, & Williams, 2001). Higher scores (>15) on the PHQ-9 indicate high levels of symptomatology and lower scores (<14) indicate less symptomatology and better psychological wellness. The PHQ-9 was chosen by the agency due to the assessment's high validity. "PHQ scores ≥ 10 had a sensitivity of 88% and a specificity of 88% for major depression" (Kroenke et al., 2001, p. 607). Master's level clinicians were individually trained on scoring and interpretation of the PHQ-9, which increased inter-rater reliability. After the intake assessment, participants were assigned to one of two treatment groups: psychotherapy alone or pharmacology combined with psychotherapy.

Participants in this study were not randomly assigned to treatment groups due to the nature of conducting research at a community mental health clinic, so a quasi-experimental method was used for this study. Archival data was used for the period of initial assessment and after six months of treatment(s). In review of archival data, it was clear that clinicians did not consistently reassess client's symptoms by using the PHQ-9 at six months. Due to the inconsistent use of the assessment tool, the researcher compared the initial assessment with a PHQ-9 assessment completed after six-month interval, plus or minus 30 days. The researcher expanded plus/minus 30 days for the completion of the second assessment of each individual, acquiring more participants for this study.

If the client requested medication services or the clinician assessed that medication may be helpful due to the acuteness of the client presentation, then the intake clinician completed a medical referral for psychiatric services. The referral was based on severity of symptoms, suicide assessment, recent release from a psychiatric inpatient hospitalization, and presence of psychosis (deemed a Priority One). If the client met criteria for Priority One, they were referred for psychiatric services. The medical team staffed each case and determined the need for psychiatric care. The CMHC in this study was in transition and lost a few medical prescribers in the last year, which decreased the availability for less acute patients to meet with the medical/psychiatric department on an ongoing basis. During January 2016- August 2016, the agency attained LOCUM prescribers to help facilitate transitions between permanent prescribers

Quantitative approach. The researcher used a quasi-experimental quantitative approach to test the hypothesis that there was increased psychological wellbeing from the use of combined treatment interventions of psychotherapy and psychopharmacology for participants with MDD. The researcher used a mixed ANOVA to analyze and investigate interactions and main effects between variables. This design supported the evaluation of two differing treatment interventions effects on psychological wellness.

A mixed quasi-experimental design using a 2 X 2 mixed ANOVA was used due to two factors this researcher wanted to assess. One independent variable included a group factor that included the type of treatment(s) between subjects, including psychotherapy treatment alone and combined treatments of psychopharmacology and psychotherapy. The other factor was a within-subjects factor, comparing PHQ-9 scores at

initial assessment and six-months later. This included with-in subjects' participants assessed by a pre/post tests given during treatment

Prior to data analysis, the Institutional Review Board (IRB) approved the study. Data analysis and interpretation included a report of information on the number of participants that met the guidelines of this study. The researcher included how the independent variable impacted psychological well-being. The researcher was interested in the differences in survival rates for the participants in each treatment group. Survival analysis provided the ability to compare the risks for PHQ-9 time associated with different treatment groups, where the risk changes over time. In measuring drop-out times, the researcher defined the start point (Time 1) and end-point (Time 2) and the censored observations noted (Bewick, Cheek, & Ball, 2004, p. 1). The researcher evaluated for response bias, specifically the effect of non-responses to the assessment tool.

A mixed ANOVA was used to better understand if the outcomes were significant. Finally, the results were shared with the clinical leadership and used to promote changes in clinical practices as deemed appropriate.

Summary

In summary, this researcher investigated how two specific types of evidence-based treatment interventions affected psychological wellness over six months of treatment for participants diagnosed with major depressive disorder. The researcher evaluated the difference between drop-out rates between both treatment groups. Participants for this study included clients from a rural and semi-urban community mental health agency. Client information was retrieved using an electronic healthcare

record, AVATAR. At time of entry to services, participants were offered an intake assessment that included a provisional diagnosis; a provisional diagnosis of MDD was required for this study. The participants completed the PHQ-9 at initial assessment for treatment and after six months of treatment(s) to determine changes in psychological wellness.

The researcher hypothesized the participants who received combined treatments would have increased psychological wellness compared to participants that received psychotherapy alone. Secondly, the researcher hypothesized there would be a higher amount of participants that stayed in recommended services who received psychotherapy alone compared to participants who received combined treatment. Non-compliance was measured by drop-out rates prior to the end of recommended treatment.

Chapter Three: Data Analysis Process and Procedures

Findings

The researcher examined the relationships between how two common mental health treatments impacted psychological well-being for clients diagnosed with major depressive disorder. The researcher used drop-out rates to determine a difference in compliance between the differential treatment groups. Analysis of survival rates provided the ability to compare the risks for PHQ-9 time associated with the differential treatment groups, where the risk changed over time (Time 1 and Time 2). Survival times were measured defining the start point at the Intake PHQ-9 score (Time 1) and at the end-point, six months after intake (Time 2). The censored observations noted “[i]f a patient for some reason drops out of a study before the end of the study period, then that patient's follow-up time would also be considered to be censored” (Bewick, Cheek, & Ball, 2004, p. 1).

Quantitative Data Analysis

Descriptive statistics. Of the 35 participants, 54% of participants ($n = 19$) were included in the combined treatment group; 46% of participants ($n = 16$) were included in the psychotherapy treatment group. The participants all received care from the same community mental health clinic through the same agency; however, clinics were located in two counties. Standard agency policies and procedures in both counties were followed in the same manner. After the intake assessment, all clients in this study were offered APA-recommended treatment services to support their psychological wellness. In this study, the total sample was $N = 35$. After six months of treatment, survival rates were investigated for both treatment groups. Nominal variable in *Discharge* (compliance) with

five categorical levels showed that there were twenty-four participants within the level of *In Services after 6 months of treatment* ($n = 24$), which is about 69% of the sample data, followed by *Dropout after 6 months* ($n = 6$), which represents 17.10% of the sample, and *Other (loss benefit)* level ($n = 3$), accounted for almost 9% of the sample data. There was one participant ($n = 1$) in *Treatment completed*, and one participant ($n = 1$) in *Transfer out after 6 months*.

Including the whole sample of participants, the repeated measures at PHQ-9 baseline at intake, (the mean $M = 18.49$, $SD = 5.654$), indicated at one standard deviation, the average PHQ-9 measure ranged from 12.84 to 24.14 across all participants. At PHQ-9 post-test, the mean was 13.3 and the SD was 5.092.

Table 1

<i>Summary Statistics: Pre/Post-tests</i>		
	Pre-test	Post-test
N	35	35
Mean	18.49	13.31
Median	20	13
Std. Deviation	5.654	5.092
Minimum	4	5
Maximum	27	25
Skewness	-0.725	0.295
Std. Error of Skewness	0.398	0.398
Kurtosis	0.131	-0.39
Std. Error of Kurtosis	0.778	0.778

The researcher used three different methods for normality including the *Skewness Ratio Test*, *Homogeneity of Variance* (Sphericity of Assumption), and the *Shapiro-Wilk* test, which all illustrated approximation to normality. Approximation to normal distribution for both pre- and post-tests was established.

Table 2

Summary Statistics: PHQ9 Pre/Post-tests Between Subjects group

Tx Modality		Pre-test	Post-test
Combined Treatment	N	19	19
	Mean	19.89	15.21
	Median	20	16
	Std. Deviation	5.01	5.692
	Minimum	7	5
	Maximum	27	25
	Skewness	-1.172	-0.385
	Std. Error of Skewness	0.524	0.524
	Kurtosis	1.321	-0.283
	Std. Error of Kurtosis	1.014	1.014
Psychotherapy	N	16	16
	Mean	16.81	11.06
	Median	17.5	10.5
	Std. Deviation	6.069	3.151
	Minimum	4	6
	Maximum	27	17
	Skewness	-0.32	0.329
	Std. Error of Skewness	0.564	0.564
	Kurtosis	0.104	-0.6
	Std. Error of Kurtosis	1.091	1.091
Total	N	35	35
	Mean	18.49	13.31
	Median	20	13
	Std. Deviation	5.654	5.092
	Minimum	4	5
	Maximum	27	25
	Skewness	-0.725	0.295
	Std. Error of Skewness	0.398	0.398
	Kurtosis	0.131	-0.39
	Std. Error of Kurtosis	0.778	0.778

Table 2 illustrates that the combined treatment group had a mean PHQ-9 measure at pre-test of 19.89 and a standard deviation of 5.01. The mean PHQ-9 scores for the psychotherapy treatment group at pretest of 16.81, with an *SD* of 6.06. This is a total difference of 3.08. The combined treatment group's PHQ-9 scores at post-test dropped by a rate of 25%, with a mean of 15.21 and a standard deviation of 5.692. The psychotherapy treatment group's post-test PHQ-9 scores decreased by 34%, with a mean of 11.06 and a standard deviation of 3.15. There was a significant main effect for time, meaning the independent variable affected the dependent variable. This meant that overall, both treatments improved psychological wellbeing over time. There was a significant drop in average PHQ-9 scores across the overall sample from pre-test to post-

test. However, the results demonstrated that there was no statistically significant interaction, there was change effect for both treatment groups.

The researcher used mixed ANOVA to further analyze and investigate interactions and main effects between variables. This design supported the evaluation of two differing treatment interventions including combined treatment and psychotherapy treatment services effects on psychological wellness over six months of treatment.

A mixed ANOVA design was conducted to test mean differences between the independent variables across two time points using the PHQ-9 scale to determine the dependent measure. The appropriateness of this method was tested using Shapiro-Wilk, which demonstrated that normality and homogeneity of variances across levels of factors were satisfactory for both pre- and post-tests. The sample population included 35 participants that had a normal distribution, so the p-values are valid (Cohen & Cohen, 1983). No interaction effects were detected between the combination of PHQ-9 and group types ($F(1, 33) = 0.228, p > .05$). The researcher assumed sphericity was met because we have met equality of errors.

Table 3

Tests of Within Subjects Effects

Source		Type III Sum of squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power
Time	Sphericity Assumed	472.819	1	472.819	21.836	.000	.398	21.836	.995
Time+ TxModality	Sphericity Assumed	4.933	1	4.933	.228	.636	.007	.228	.075
Error(Time)	Sphericity Assumed	714.553	33	21.653					

The mixed ANOVA, (Table 3) revealed that the within-subjects main effect of the repeated measures of PHQ-9 for time was statistically significant ($F(1, 33) = 21.836, p < .001$) with partial ETA squared, $\eta^2 = 0.398$. Using Cohen's D Standard, these findings indicate a medium-to-large effect size, meaning the degree of the magnitude of the differences of the outcome variable across two time points have a medium (0.5)-to-large (0.8) differences. Finally, the observed rate of change from the baseline (Point 1) to time of Point 2 illustrated a decrease of 28% in PHQ-9 measure.

Results revealed that the main effect of the Treatment Modality (group types) factor was significant ($F(1, 33) = 7.332, p = .011$) with partial ETA squared, $\eta^2 = 0.182$, which indicated a large effect size. The test between subjects demonstrated statistical significance. This revealed that the degree of the magnitude of the differences between treatment groups have a medium difference while controlling for the effects of the repeated measures of time.

The Pairwise Comparison table illustrated the difference between groups. Assessing the mean differences, the combined treatment group had significantly higher PHQ-9 scores than the psychotherapy treatment group. At intake, the mean difference between groups was 3.62 points higher for the combined treatment group. At PHQ-9 test Time 1, the mean scores were rather close, however, after six months of treatment, the psychotherapy treatment group had a larger decrease in PHQ-9 scores at retest than did the combined treatment group.

The researcher hypothesized that participants who receive pharmacology combined with psychotherapy would have increased psychological wellness compared to clients who received psychotherapy alone after six months of treatment. Both treatment

groups demonstrated increased psychological well-being from Time 1 to Time 2.

Hypothesis 1 was not supported. The reason Hypothesis 1 was not supported was there was not enough evidence to support the study's assumption that combined treatment group should have lower PHQ-9 scores and be statistically different than the psychotherapy treatment group while controlling for the effects of the repeated measures of PHQ-9. In contrast, the psychotherapy treatment group demonstrated better psychological wellness after test Time 2 than the combined treatment group.

Although both groups demonstrated increased psychological well-being as evidenced by a reduction in depressive symptoms, the study's results did not support Hypothesis 1, which predicted that the combined treatment group would have greater improvement as compared to the psychotherapy only group. Results showed that the psychotherapy group experienced greater gains than the combined treatment group.

Regarding Hypothesis 2, the researcher hypothesized that there would be a higher rate of noncompliance with participants that received psychotherapy alone compared to participants who received combined treatment. Non-compliance was measured by dropping out prior to the end of recommended treatment. Treatment outcomes were divided into positive outcomes and negative outcomes. Survival rates were considered to have positive outcomes if clients were either still in treatment services or had completed treatment services. Clients that dropped out of services before being discharged or experienced the loss of medical benefits that resulted in premature termination were classified as having negative survival outcomes. The psychotherapy treatment group ($n = 16$) had nine positive outcomes after 6 months of treatment and seven negative outcomes, indicating that 43.8% of the psychotherapy treatment participants had negative outcomes.

The combined treatment group ($n = 19$) had 16 positive outcomes and three negative outcomes, indicating that 15.8% of the combined treatment group had negative outcomes. Although the results are not technically statistically significant, the sample size is small and the results ought to be considered preliminary findings.

Testing the second hypothesis, the study rejected the null hypothesis because there was sufficient evidence to support the study's assumption, which claimed that survival rates of the combined treatment group would be statistically different than the survival rate of psychotherapy treatment group. In other words, the results of this study supported the second hypothesis, which predicted that the psychotherapy treatment group would have greater rates of noncompliance as evidenced by a higher negative survival rate as compared to the combined treatment group. However, inferences from the alternative criterion should be approached with extreme caution since there may be a multiple factors that may include dependency of medications by those in the combined treatments group, which may be a causal factor for the prolonged survival rate of the combined treatment group.

Summary. This study found whether the intervention programs had a positive effect on the mean averages of the PHQ-9 measure during the length of the treatment services. Specifically, the study explored whether the mean differences were statistically significant between the treatment modality groups while controlling for the effect of the changes in PHQ-9 rate due to repeated time measures. The researcher furthered hypothesized that the combined treatment group would have lowered scores on the PHQ-9 scale at Time 2 than the psychotherapy treatment group, as an indication of increased psychological wellness. However, the results indicated the opposite; the psychotherapy

treatment group had considerably lower scores on the Pre/Post-PHQ-9 scale while controlling for the effect of time.

The researcher also wanted to investigate whether survival (completion) results between the two groups were different from each other, given the event of dropping out prior to completion of treatment. The results indicated that the survival results were statistically different between the two treatment groups; however, as indicated above, inferences from such results are to be made with caution knowing that there may be other factors influencing a person's continued participation in the combined treatment program.

Chapter Four

Discussion

The purpose of this study was to assess for changes in psychological well-being between two groups of individuals that received different treatment interventions, psychotherapy alone and combined treatment of psychotherapy and psychopharmacology. This researcher evaluated psychological well-being with the PHQ-9, an objective self-assessment tool and questionnaire, at the start and end of treatment. The researcher tracked compliance of treatment of individuals in the study through dropout rates prior to completion of the study. Archival data was used for the period of initial assessment and after six months of treatment(s). Due to the inconsistent use of the assessment tool, the researcher compared the initial assessment with a PHQ-9 assessment completed after six-month interval, plus or minus 30 days. The researcher expanded plus/minus 30 days for the completion of the second assessment of each individual, acquiring more participants for this study.

Interpretation

For Hypothesis 1, there was not enough evidence to support the study's prediction that the combined treatment group would have lower PHQ-9 scores and be statistically significant from the outcomes of the psychotherapy treatment group.

Regarding Hypothesis 2, the researcher hypothesized there would be a higher rate of noncompliance with participants that received psychotherapy alone compared to participants who received combined treatment. Non-compliance was measured by dropping out of recommended treatment prior to the end of recommended treatment. The results of the study support the prediction that the combined treatment group would have

lower dropout rates than the psychotherapy group. The null hypothesis was rejected because there was sufficient evidence to support the study's hypothesis that survival rates of the combined treatment group would be statistically different than the survival rate of psychotherapy treatment group. The combined treatment group had a higher survival rate than the psychotherapy treatment group estimation. The combined treatment group had one person that dropped out of services, whereas the psychotherapy treatment group had 5 people leave treatment. The results of the study support the prediction that the combined treatment group would have lower dropout rates than the psychotherapy group. The difference between dropout rates may be due to multiple variables, including medication dependency, risk of termination withdrawal symptoms, loss of medical coverage, and differing severity in symptomology.

Integration

Within the APA four phases of treatment for major depressive disorder (MDD), the writers recommended that multiple interventions be applied throughout the recovery process. The APA-recommended interventions are psychiatric management, establishment of rapport, development of a therapeutic alliance, assessments, evaluation, plan for safety, assessment of living situation, assessment of functional impairments coordination with service providers, monitored psychiatric status, a tailored treatment plan and provided education to the client and family members (APA, 2010). The APA provided separate evidence-based guidelines that specifically address each phase in treatment. This study aligned with the APA-recommended treatment and interventions, yet was uniquely assessed at a community mental health agency. In particular, this researcher found that in a six-month period, psychotherapy resulted in greater depressive

symptom reduction than the combined treatments of psychotherapy and pharmacology together.

There were many historical studies that focused on controlled setting, i.e. psychiatric inpatient settings, yet just a few focused on outpatient services. A reason for the lack of CMHC research may be due to the difficulty of consistent treatment sessions, environmental stressors and compliance of treatment. Painter (2012) affirmed the APA's recommendations for evidence-based treatment interventions reported in his longitudinal study on evidence-based practices in CMHCs. In his study, 382 clients were provided outpatient treatment services over the course of one year. The participants were located in a local, rural clinic in Texas similar to the rural clinic in this study. Painter's (2012) results indicated that the best results for clients suffering from depressive symptoms came through psychological interventions, primarily psychotherapy. Specifically, Painter (2012) found that after a year of assessing differing treatment modalities, clients who received evidence-based interventions, specifically cognitive behavior therapy (CBT), reported significantly fewer symptoms than clients who received basic case management services. The current study supports Painter's (2012) findings that psychological interventions, primarily psychotherapy, held the best results for improved psychological wellness. Although this study did not specifically focus on the type of psychotherapy delivered (e.g., CBT), this study's outcomes evidenced increased psychological wellness after six months of psychotherapy, which is consistent with Painter's (2012) research.

Siddique et al. (2012) furthered earlier research of effective treatment modalities focusing on specific interventions used with clients suffering from symptoms of major

depressive disorder. The researchers completed a longitudinal study over a one-year span in which the researchers followed 267 minority women who received community mental health services for major depression in a rural area. The researchers used the Hamilton Depression screening tool to determine increased psychological well-being. Siddique et al. (2012) concluded from their study that clients who experienced moderate levels of depression had superior results after six months of pharmacological treatments alone.

Secondly, Siddique et al. (2012) found that after one year of treatment, there was not a significant difference between clients who received psychotherapy treatment alone versus clients who received pharmacological interventions alone. However, the researchers concluded that after one year of treatment, clients who received psychotherapy (specifically CBT) demonstrated better responses to treatment. In contrast, this current study only looked back at six months after starting treatment. A limitation found in this study is that the researcher had a shorter length of review of treatment modalities; therefore, it is unclear if the results would have been the same after one year of treatment. This study supported the conclusions from the study by Siddique et al. (2012) that psychotherapy demonstrated increased psychological wellness for its clients.

This contemporary study agrees with the historical findings that combined treatments of psychotherapy and psychopharmacology treatments have been reported to be effective treatments for major depressive disorders (APA, 2013; Blias et al., 2013; Cuijpers et al., 2009). This outcome was previously illustrated in the study by Hollon et al. (2014) that furthered the evaluation of the effectiveness of cognitive therapy with antidepressants versus antidepressants alone. Hollon et al. (2014) used the Hamilton Rating Scale for Depression and the Longitudinal Interval Follow-up Evaluation to

determine the effectiveness of treatment modalities used in their study. Hollon and colleagues (2014) evaluated the effectiveness of cognitive therapy with antidepressant medications (ADM) versus antidepressants alone on the rate of recovery in MDD randomized clinical trials. They found that “combined treatment enhanced the rate of recovery versus treatment antidepressants alone” (p. 1157). This study’s first hypothesis supported Hollon et al.’s findings that combined treatment enhances psychological wellness (2014). Furthermore, the finding that participants stay in services longer when participating in combined treatments might also reflect what the study found.

In contrast, this study did not support the research conducted by Blais et al. (2013), which further evaluated the efficacy of recommended treatments for depression. Blaise et al. (2013) reported, “[r]esearch comparing combined therapy (psychotherapy or pharmacology) and mono-therapy (psychotherapy or pharmacology) have tended to show a slight advantage for combined therapy relative to either psychotherapy or pharmacotherapy alone.”

In summary, much like historical research, this research had mixed results. Overall, this study supported recommended treatment modalities offered by APA guidelines. This study uniquely assessed clients offered treatment for MDD at a CMHC in rural and semi-urban settings. In rural settings, there tends to be difficulty employing consistent prescribers. There are many factors that influence this inconsistency, such as lack of funding, decreased pay structures, and the fact that community mental health settings tend to be the first employment options for students graduating from their master’s programs resulting in high turnover rates. CMHCs also struggle with maintaining consistent staffing, as these agencies tend to be platforms for newly

graduated students. This study uniquely differed from previous research, as it is the only study that reported on survival rates of two groups of participants receiving treatment for MDD. In contrast to previous studies, this study used the PHQ-9, an objective self-assessment tool for psychological wellness, while previous research used the Hamilton Depression Screen. Although different assessment tools were used, the outcomes of the studies support similar historical findings, primarily in regards to using evidence-based treatments for improved psychological wellness.

Explanation and Limitations

This study had a few areas of limitations that require consideration. The sample size was much smaller than anticipated for using archival data. This was primarily due to clinician error when administering the PHQ-9 at Time 2. It is a clinic requirement to reassess every six months and if the study had recruited new incoming clients, clinicians informed about the study may have been timelier with reassessment. Due to this limitation, the researcher used a much smaller sample size, which decreased the generalizability of the findings. This limitation could be remedied in the future by monitoring the clinicians and distribution of the PHQ-9 at six-month intervals.

Another limitation to this study was the differences between the baseline PHQ-9 scores of the two treatment groups. The mean on the PHQ-9 pretest for the combined group stated at 19.89 and for the mean for psychotherapy alone group was 16.81. The mean difference between the treatment groups was the combined treatment group had higher PHQ-9 scores by 3.62 points. Although each group started at different pretest scores, the researcher assessed for mean difference between both groups to determine improvement of psychological wellness. I am curious if the PHQ scores were higher and

had less decrease for the combined group because the groups were inherently unequal to begin with. People requesting medications or being told they need medications are likely to be more symptomatic, which may make it harder for them to have the same rate of improvement especially if medications take 4-6 weeks to reach maximized effect. Many times clients may need more than a couple of medication changes to reach maximum benefit.

Future studies may want to consider randomizing participant assignment to treatment groups, since this study allowed participants and clinicians to select the treatment method through its naturalistic design. By using a randomizing participant assignment, the researchers may be able to further investigate treatment outcomes and dropout rates. There may be differences in symptom severity, cultural beliefs about treatment, and affective stability, which may have led the groups to have such differing baseline means in this study.

A third limitation in this study was the use of the PHQ-9 questionnaire rather than the Hamilton Depression Rating Scale as previous researchers. Using another assessment tool limited this researcher in comparing results with outcomes from previous studies.

Other limitations in this study included the inconsistent medical and pharmacological treatments (the use of LOCUM MD's) due to the lack of consistent and frequent medical appointments. Another limitation, is constant staffing shortages, both therapists and psychiatrists. The lack of staffing of both professions affects the frequency of services for the client. This could have impacted outcomes. Lastly, there is need for

further investigation regarding program design flaws and supervision. One noted in this study was the lack of consistency of therapists using the PHQ-9 sequentially.

Future Directions and Recommendations

This researcher examined how differing intervention, including pharmacology combined with psychotherapy and psychotherapy alone impacted participants' psychological well-being and treatment completion. The independent variables were selected due to significant literature supporting both treatment interventions as recommended evidence-based practices by the American Psychiatric Association (APA, 2010). Providers whom serve clients in the field of community mental health will continue to challenge communities to further research that addresses the effectiveness of treatment interventions for clients receiving treatment for MDD. Siddique et al.'s summary came to the same conclusion with their study in 2012.

Patients, practitioners, and third-party payers seek guidance as to the type, amount, and cost of treatments that are effective for depression. The current state of the field is that there is no good method to predict which patients with depression will do better on medications versus psychotherapy and, within each treatment modality, which agent or approach is more effective. For most people with depression, the current evidence base does not point to either medication or psychotherapy as working better than the other. (Siddique et al., 2012, p. 996)

Much like Siddique et al.'s research, the researcher believes this study will be relevant for healthcare administrations, mental health administrators, medical providers, community members, community safety providers, first responders, clients' families and individuals affected by mental illness.

Results from this study were presented to the community mental health clinic leadership at the CMHC study site. The outcome of this study may lead to changes in current treatment standards and future service modalities offered to clients with MDD at CMHCs. This CMHC may use results of this study to apply for grants supporting EBPs and to provide data to BHOs. One recommendation that the researcher provided included to have all therapists trained in cognitive behavioral therapy plus. This training is evidence-based and supports measuring outcomes of treatments. This training would also provide common language for therapists and will meet the BHO's requirement for all clinics to have evidence-based treatments offered in their clinics. Another recommendation that the researcher provided to the team was to standardize when to use assessment tools. This not only benefits the client, in ways of seeing how treatment is helping or not helping with symptoms, as well as supports the continued use of such treatment.

For future study, it is imperative to evaluate if current CMHCs' practices are improving clients' psychological well-being prior to implementing practice changes. This knowledge can affect funding options in supporting new programs offered by the CMHC. During this study, the Children's Mental Health team was provided BHO funding for cognitive behavioral therapy. This was funded by the BHO, as it met the requirement that all CMHCs serving children will use an evidence-based program by 2017. Unique to this study, the researcher examined clients served in rural and semi-urban community mental health clinics. Further research would be beneficial if there was a study that closely looked at the two clinics in terms of progress. This is the first research study completed at

this CMHC and may significantly support expansion of psychotherapy services offered to the public.

Washington State and BHOs are beginning to mandate evidence-based practices to be deliverables at CMHCs. At this time, CMHCs are able to choose which evidence-based treatments they can offer; however, there are workgroups that are currently meeting to decide if the State should be more directive in their contracts with their providers on which treatments to provide. Having more data about current efficacy rates may also be helpful if CMHCs are required to submit outcome based data to BHOs in the future. Studies such as this, may influence how BHO's choose to share their financial resources with CMHCs they contract.

Conclusion

The researcher investigated whether the intervention programs offered at a CMHC had a positive effect on the mean scores of the PHQ-9 questionnaire during a predetermined length of the treatment services. The study wanted to explore whether the mean differences were statistically significant between the treatment groups while controlling for the effect of the changes in PHQ-9 rate due to repeated time measure. Specifically, the study hypothesized that the combined treatment group would have lower scores on the PHQ-9 scale when compared to the psychotherapy treatment. However, the results indicated the opposite; the psychotherapy treatment group had considerably lower scores on the post-test PHQ-9 questionnaire.

The study also investigated whether completion rates between the two groups were different from each other, given the event of dropping out after six months of treatment. The results indicated that the survival rates were statistically different;

however, inferences from such results are to be made with caution knowing that there may be many factors that influence continuation of services. This researcher questions if drug-dependence on psychiatric medications may be a key factor in influencing a person's continued participation in the combined treatment program. This study attempted to further relevant and current research focused on actual treatments offered in community mental health clinics with a primary focus, and legislative demand, of effective treatments for major depressive disorder.

References

- American Association of Community Psychiatrists (2010). *Locus level of care utilization system for psychiatric and addiction services*. Retrieved from <http://www.dhs.state.il.us/page.aspx?item=32545>
- American Psychiatric Association (2014). *Practice guidelines for the treatment of patients with major depressive disorder* (3rd ed.). Retrieved from <http://psychiatryonline.org/guidelines>
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Armstrong, C. (2011). APA releases guideline on treatment of patients with major depressive disorder. *American Family Physician*, 83(10), 1219-1227.
- Arnow, B., Steidtmann, D., Blasey, C., Manber, R., Constantino, M., Klein, D., & Kocsis, J. H. (2013). The relationship between the therapeutic alliance and treatment outcome in two distinct psychotherapies for chronic depression. *Journal of Consulting and Clinical Psychology*, 81(4), 627-638. doi:10.1037/a0031530
- Bewick, V., Cheek, L., & Ball, J. (2004). Statistics review 12: Survival analysis. *Critical Care*, 8(5), 389-394. <http://doi.org/10.1186/cc2955>
- Blais, M. A., Malone, J. C., Stein, M. B., Slavin-Mulford, J., O'Keefe, S. M., Renna, M., & Sinclair, S. J. (2013). Treatment as usual (TAU) for depression: A comparison of psychotherapy, pharmacotherapy, and combined treatment at a large academic medical center. *Psychotherapy*, 50(1), 110-118. doi:10.1037/a0031385

- Burnett-Zeigler, I., Zivin, K., Islam, K., & Ilgen, M. A. (2012). Longitudinal predictors of first time depression treatment utilization among adults with depressive disorders. *Social Psychiatry and Psychiatric Epidemiology*, *47*(10), 1617-1625.
doi:10.1007/s00127-011-0465-6
- Cohen, J., & Cohen, P. (1983.) *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). New Jersey: Lawrence Erlbaum.
- Cuijpers P., & Schoevers, R. (2004). Increase mortality in depressive disorders: A review. *Current Psychiatry Reports*, *6*(6), 430-437.
- Cuijper, P., van Straten, A., Warmerdam, L., & Anderson, G. (2009). Psychotherapy versus the combination of psychotherapy and pharmacotherapy in treatment of depression: A meta-analysis. *Depression and Anxiety*, *26*, 279–288.
- George, M. S., Lisanby, S. H., Avery, D., McDonald, W. M., Durkalski, V., & Pavlicova, M. (2010). Daily left prefrontal transcranial magnetic stimulation therapy for major depressive disorder: A sham-controlled randomized trial. *Archives of General Psychiatry*, *67*(5), 507–516.
- Health Care Administration (2015). Access to Care Standards. Retrieved from http://www.hca.wa.gov/medicaid/billing/documents/guides/mental_health_svc_mpg.pdf
- Hollon, S., DeRubeis, R., Fawcett, J., Amsterdam, J., Shelton, R., Zajecka, J., Young, P., & Gallop, R. (2014). Effect of cognitive therapy with antidepressant medications vs antidepressants alone on the rate of recovery in major depressive disorder: a randomized clinical trial. *American Medical Association Psychiatry*, *71*(10), 1157-1164. doi: 10.1001/jamapsychiatry.2014.1054.

IBM Technologies (2015). Netsmart Technologies. Retrieved from

<http://www.bing.com/search?q=Avatar+Electronic+Health+Record&FORM=R5FD>

Köhler, S., Hoffmann, S., Unger, T., Steinacher, B., Dierstein, N., & Fydrich, T. (2013).

Effectiveness of cognitive-behavioural therapy plus pharmacotherapy in inpatient treatment of depressive disorders. *Clinical Psychology Psychotherapy*, 20(2), 97–106. doi: 10.1002/cpp.795

Kroenke K., Spitzer R. L., & Williams J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606-613.

Lewandowski, K., Cohen, B.M., Keshavan, M.S., & Ongur, D. (2001). Relationship of neurocognitive deficits to diagnosis and symptoms across affective and non-affective psychoses. *Schizophrenia Res.*, Dec; 133, (1-3):212-7.

Maslow, A. (1943). A theory of human motivation. *Psychological Review*, 50, 370-396.

Optum (2013). Optum: Pierce county regional support network. Retrieved from

<https://stg-www.optum.com/content/dam/optum/resources/whitePapers/BSPUB0119S003JVPierceCty-WR.pdf>

Painter, K. (2012). Evidence-based practices in community mental health: Outcome evaluation. *Journal of Behavioral Health Services & Research*, 39(4), 434–444. doi: 10.1007/s11414-012-9284-0

Pampallona S., Bollini P., Tibaldi G., Kupelnick B., & Munizza C. (2004). Combined pharmacotherapy and psychological treatment for depression: A systematic review. *Archives of General Psychiatry*, 61(7), 714-719.

- Siddique, J., Chung, J. Y., Brown, C. H., & Miranda, J. (2012). Comparative effectiveness of medication versus cognitive-behavioral therapy in a randomized controlled trial of low-income young minority women with depression. *Journal of Consulting and Clinical Psychology, 80*(6), 995-1006. doi:10.1037/a0030452
- Spitzer, R., Williams, J., & Kroenke, K. (2009) *PHQ-9*. Retrieved from www.phqscreeners.com/pdfs/02_PHQ-9/English.pdf phq-9/pszier
- Steidtmann, D., Manber, R., Blasey, C., Markowitz, J. C., Klein, D. N., Rothbaum, B. O., & Arnow, B. A. (2013). Detecting critical decision points in psychotherapy and psychotherapy and medication for chronic depression. *Journal of Consulting and Clinical Psychology, 81*(5), 783-792. doi:10.1037/a0033250
- Thase, M.E. (2014). Large-scale study suggests specific indicators for combined cognitive therapy and pharmacotherapy in major depressive disorder. *American Medical Association Psychiatry, 71*(10):1101-1102.
doi:10.1001/jamapsychiatry.2014.1524..html
- Thurston Mason County Regional Support Network/Behavioral Health Resources contract, (2013) WA.
<http://quickfacts.census.gov/qfd/states/53/53067>
- United States Census Bureau (2015). *State and County Quickfacts: Thurston County*. Retrieved from <http://quickfacts.census.gov/qfd/states/53/53067>
- Watters, Ethan. (2010). *Crazy like us: The globalization of the American psyche*. New York: Free Press.
- Wier, K. (2015). Can magnets cure depression? Transcranial magnetic stimulation is gaining ground as a therapy for treatment-resistant depression. *APA, 46*(2), 50.

The World Health Organization (2010). *Fact sheet N369*. Retrieved from
<http://www.who.int/mediacentre/factsheets/fs369/en/>

Appendix A

DSM-V Major Depressive Episode Criterion and Specifiers

DSM-V Major Depressive Episode Criterion and Specifiers

Cecil R. Reynolds, PhD Randy W. Kamphaus, PhD Major Depressive Disorder 296.xx
(F32.x and F33.x Disorder 296.xx (F32.x and F33.x))

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure. Note: Do not include symptoms that are clearly attributable to another medical condition.

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). (Note: In children and adolescents, can be irritable mood.)

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

3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (Note: In children, consider failure to make expected weight gain.)

4. Insomnia or hypersomnia nearly every day.

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

6. Fatigue or loss of energy nearly every day.

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

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

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

B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

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

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

E. There has never been a manic episode or a hypomanic episode. Note: This exclusion does not apply if all of the manic-like or hypomanic-like episodes are substance-induced or are attributable to the physiological effects of another medical condition.

Specify: with anxious distress, with mixed features, with melancholic features, with atypical features, with mood-congruent psychotic features, with mood-incongruent psychotic features, and with catatonia.

Coding note: Use additional code 293.89 (F06.1). With peripartum onset, with seasonal pattern (recurrent episode only).

Appendix B

Patient Health Questionnaire-9

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

Over the <u>last 2 weeks</u> , how often have you been bothered by any of the following problems? <i>(Use “✓” to indicate your answer)</i>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment. 2. If there are at least 4 3s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder - if there are at least 5 3s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder - if there are 2-4 3s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient. Diagnoses of Major Depressive Disorder or Other

Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up 3s by column. For every 3: Several days = 1 More than half the days = 2
Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying PHQ-9 Scoring Box to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

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

Interpretation of Total Score

Total Score Depression Severity 1-4 Minimal depression 5-9 Mild depression 10-14

Moderate depression 15-19 Moderately severe depression 20-27 Severe depression

PHQ9 Copyright © Pfizer Inc. All rights reserved. Reproduced with permission. E-MD

® is a trademark of Pfizer Inc.