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Adult Depressive Disorders

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ADULT DEPRESSIVE DISORDERS

by

Lisa A. Butler

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ADULT DEPRESSIVE DISORDERS

by

Lisa A. Butler

A Research Paper Submitted in Partial

Fulfillment of the Requirements

for the Degree of

Master of Science

in the field of Rehabilitation Administration and Services

Approved by:

Thomas D. Upton, Chair

Graduate School

Southern Illinois University Carbondale

May 5, 2020

AN ABSTRACT OF THE RESEARCH PAPER OF

Lisa A. Butler, for the Master of Science degree in Rehabilitation Administration and Services, presented on May 5, 2020, at Southern Illinois University Carbondale.

TITLE: ADULT DEPRESSIVE DISORDERS

MAJOR PROFESSOR: Dr. Thomas D. Upton

Research has consistently demonstrated that depression has been the mental health problem reported most often in the United States. It is increasingly important for counseling professionals to possess a depth of current understanding related to the adult depressive disorders and their often subtle differences in symptomology, co-morbidity, and treatment outcomes. The current research was aimed at further developing that essential heightened clinical awareness of those nuances and the emergent treatment methods that may have the potential to enable more effective interventions and more positive treatment outcomes for the countless adult individuals who experience this often serious and enduring mental illness. A literature review was conducted in order to achieve a more comprehensive understanding of the seemingly complex and overlapping characteristics of the adult depressive disorders currently defined in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA; DSM-5; 2013). Studies that involved the diagnosis or treatment of adult depressive disorders and meta-analyses of the effectiveness of treatment methods or patient outcomes were included. Participants in the primary studies included adults of various ages across the lifespan and with varying levels of depression severity. Results affirmed the urgency of the need for an enhanced understanding and more effective treatments and interventions with regard to this often debilitating metal illness. One limitation was the broad scope of the study, leaving conclusive evidence difficult to differentiate amid the diverse foci in the literature. The majority of the studies were focused on the prevalent age group known to experience depressive

disorders, those between the ages of 30 to 60 years of age. The greater portion of the studies

investigated also focused on the most common diagnosed depressive disorder, major depressive

disorder. The concept of a lifetime depression continuum which is inherent to all individuals and

which surges or retracts depending on the intensity of the current life struggles, provides a

unique lens through which to view the approach to individualized counseling strategies. The true

parameters of grief and bereavement, although recently amended by the DSM-5, should also be

investigated further.

ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

Need for the Study

The American Psychiatric Associations' *Diagnostic and statistical manual of mental disorders* (2013) provides diagnostic criteria and characteristics specific to the numerous classifications of adult depressive disorders that many consider broad and complex, having a great deal of subtle differences in symptomology and a significant amount of overlap and consistent co-morbidity with various other mental health disorders. Therefore, the depressive condition tends to be difficult to thoroughly understand and adequately treat in clinical settings. This type of clinical conundrum can lead to misdiagnosis and ineffective treatment and interventions, leaving the client's core problems poorly-addressed and the client vulnerable to an increased risk of relapse. The inconclusive knowledge base and the emergent nature of current research relative to the depressive disorders will require that clinicians possess a thorough understanding of the adult depressive disorders in order to advance effective practices and positive client outcomes in the field of rehabilitation counseling and in all human services.

Purpose of the Study

The purpose of the current research was to examine the knowledge base regarding adult depressive disorders. The study attempted increase understanding about the diagnosis and treatment of adult depressive disorders. It was hoped that the study findings would aid in the improved effectiveness of mental health practices, while highlighting specific areas for potential future study that might enhance the efficacy of clinical practice still further.

Statement of the Problem

The existing theoretical conceptualization and empirical body of knowledge regarding the

adult depressive disorders are diverse and splintered throughout the various human services and medical and allied health fields. There is significant complexity and overlap with regard to the characteristics and symptomology, as well as, with the understanding of appropriate and effective treatment methods within the various adult depressive disorders. The current review of literature sought to promote greater unification and understanding through an examination of the varying conceptualizations of adult depressive disorders and their impacts on the decision making and behavioral processes of adults. It was believed that an enhanced awareness concerning the adult depressive disorders might facilitate increased expertise with regard to the critical importance of attention to the effective treatment of this increasingly pervasive mental health problem.

Research Questions

The current literature review explored the general characteristics associated with the depressive disorders in the adult population, along with treatment methodologies currently considered best practices, and what the expected mental health outcomes are with regard to this salient psychological barrier to holistic wellness. The research questions included the following:

- How are adult depressive disorders described?

- How are adult depressive disorders treated?

- Can adult depressive disorders be cured?

- What are the impacts of adult depressive disorders over the lifespan?

Significance of the Study

The study has significance in the ability to increase understanding of the ways that the depressive disorders and their treatment both facilitate and impede an adult individuals' capacity to attend to the demands of daily living. The study has further significance in the ability to

enhance clinical practice and to promote more effective treatment strategies, and thereby, facilitate a more holistic well-being in the lives of the adult population. Additionally, the study has the ability to contribute to the knowledge base and the development of a greater understanding of the true valence of the importance in understanding the nuanced diagnoses and the complex treatment options associated with the adult depressive disorders.

Limitations and Delimitations

One limitation of the study was the disparity in conceptualizations of the adult depressive disorders throughout the literature. Another limitation was the vast number of experimental treatments continuing in the experimental phase and, as yet, inconclusive in their outcomes. Delimitations included the common occurrence of at least some form of address of the subject in academic journals and books dating to the 1950s and before.

Definition of Terms:

Depressive disorder – the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly effect an individual's capacity for daily functioning.

Antidepressant discontinuation syndrome – a set of symptoms that may occur following sudden cessation or significant reduction of antidepressant medication dosage that has been taken for one month or more.

Dysphoria (dysphoric mood) – intense feelings of depression, discontent; includes indifference to the world around one.

Dysthymia – the presence of two or more of the following while depressed: poor or overindulgent eating; insomnia or hypersomnia; low energy or fatigue; poor concentration or difficulty making decisions; low self-esteem; feelings of hopelessness.

Episode (episodic) – a specified duration of time during which the client has developed or experienced symptoms that meet the diagnostic criteria for a given mental disorder and depending on the type of mental disorder, an episode may denote a certain number of symptoms or a specified severity or frequency of symptoms and may be further differentiated as a single (first) episode or a recurrence or relapse of multiple episodes when appropriate..

Melancholia (melancholic) – a mental state characterized by very severe depression.

Mixed symptoms – the specifier 'with mixed features' is applied to mood episodes during which subthreshold symptoms from the opposing pole are present and these congruent 'mixed' symptoms are relatively simultaneous, but may also occur closely juxtaposed in time as a waxing and waning of individual symptoms of the opposite pole (i.e., depressive symptoms during hypomanic or manic episodes, and vice versa).

Mood – a pervasive and sustained emotion that impacts one's perception of the world and including common examples such as depression, elation, anger and anxiety; contrasted to affect which refers to more fluctuating changes in emotional 'weather,' mood refers to a more pervasive and sustained emotional 'climate;' mood types include the following: dysphoric (unpleasant, such as sadness, anxiety, or irritability); elevated (exaggerated feeling of well-being, or euphoria or elation which may be described as 'high,' 'ecstatic,' 'on top of the world,' or 'up in the clouds);' euthymic (in the normal range, implying absence of depressed or elevated mood); expansive (lacking restraint in the expression of feelings and often includes overvaluation of one's significance or importance); irritable (easily annoyed and provoked to anger).

Seasonal pattern – a pattern of the occurrence of a specific mental disorder in selected seasons of the year.

Stress – the pattern of specific and nonspecific responses to stimulus events that disturb a person's equilibrium and tax or exceed the ability to cope.

Stressor – any emotional, physical, social, economic, or other factor that disrupts normal physiological, cognitive, emotional, or behavioral balance.

Stressor, psychological – any life event or life change that may be associated temporally (and perhaps causally) with the onset, occurrence, or exacerbation of a mental disorder.

Stressor, traumatic – any event(s) that may cause or threaten death, serious injury, or sexual violence to an individual, a close family member, or a close friend.

Subsyndromal – below a specified level or threshold required to qualify for a particular condition; medical conditions that do not meet full criteria for a diagnosis, but can be identified and related to a full-blown syndrome.

Syndrome – a grouping of signs and symptoms, based on their frequent co-occurrence that may suggest a common underlying pathogenesis, course, familial pattern, or treatment selection.

CHAPTER II

RESEARCH METHOD AND REVIEW OF LITERATURE

The literature review was conducted through a basic search of the combined library resources in the One Search database at Southern Illinois University at Carbondale, Illinois. The following keywords were used for the search of peer-reviewed articles in academic journals published between 2015 and 2020: adult depressive disorders; depression; major depressive disorder; anti-depressant medications; treatments for depression; and neurobiology of depression. A variety of perspectives relative to adult depressive disorders and appropriate treatments were discovered within that literature, as well as, in books in the author's personal library. The current study seeks to examine the variances in duration, timing and presumed etiology of depressive disorders in order to better understand and treat these serious and very common conditions.

Prevalence of the Adult Depressive Disorders

Depression (i.e. major depressive disorder, clinical depression) occurs, and recurs for most, so frequently in the U.S. that it has been referred to as the common cold of mental health (Rottmann, 1986). Depression is a common, but serious mood disorder that affects the way people think, feel, and function in daily life (i.e. sleeping, eating, and working/learning). More than simply experiencing a difficult period, depression may be diagnosed if symptoms persist for longer than two weeks (National Institute of Mental Health, 2020). Depression is a major contributor to the overall global burden of disease, effecting 264 million people of all ages, and is the leading cause of disability worldwide (World Health Organization, 2020). In the United States, it is estimated that approximately 20 million people, or 10% of the adult population experienced at least one depressive episode during the past year (National Alliance on Mental

Illness, NAMI; 2020). However, that number is thought to be misleading, as depression is

believed to be significantly underreported due to the social stigma associated with the condition

(Morrison, 2007). Still, depression remains the most common symptom presented in both

inpatient and outpatient mental health settings (Morrison, 2007; Seligman and Reichenberg,

2013). Although depression affects people of all ages and of all racial, ethnic, and

socioeconomic backgrounds, it has been shown to be more pervasive among some groups.

Studies have shown that those who live in poverty and those who belong to racial minority

groups experience more severe depression along with poorer overall outcomes (NAMI, 2020;

Sohn, 2016).

Depression is the mood symptom most frequently noted on the Mental Status

Examination (MSE), a clinician's statement regarding observations of a client (appearance,

attention, activity, mood/affect, flow of speech, content of thought, cognition/intellectual

resources, insight/judgment) which is performed during a psychiatric interview (Morrison,

2007). Depression is the most common symptom presented following a traumatic event and

following the onset of chronic illness and disability (CID). Parker and Patterson (2012) noted

that certain psychosocial reactions (or personal experiences) comprise these reactionary stages

that may also include long-term anxiety and adjustment difficulties in the process of community

reintegration. In addition, experiences related to the essence of Dr. Elizabeth Kubler-Ross'

(1969) stages of death (denial, anger, bargaining, depression, and acceptance) may also the

severity and duration of a depressive disorder. Considered a loss-triggered response, depression

is typically encompassed by feelings of helplessness, hopelessness, despair, self-deprecation,

poor self-esteem, and isolation which have been linked to most experiences representative of the

onset and maintenance of an adult depressive disorder. Left untreated, or inadequately addressed,

depression can lead to substance abuse, increasingly risky sexual activity, and suicide which can all be devastating to individuals and families (Murthy, 2016). Early detection and appropriate diagnosis, along with a treatment plan that may include psychotherapy, medication and conscious efforts to make healthy lifestyle choices can facilitate remission and long-term wellness (National Alliance on Mental Illness, 2020). According to the National Center for Health Statistics (2020) data report on depression in U.S. household populations, the vast majority of those who experience depression do not receive even a minimal degree of adequate treatment.

Diagnoses of the Adult Depressive Disorders

Although commonly referred to as simply depression, the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, (DSM-5; 2013) categorizes adult depressive disorders into a number of syndromes including that include the following: disruptive mood dysregulation disorder; major depressive disorder; persistent depressive disorder (dysthymia); premenstrual dysphoric disorder; substance/medication-induced depressive disorder; and unspecified depressive disorder. All of the depressive disorders share the characteristics of sadness, emptiness, and irritable mood along with cognitive and somatic changes that significantly impact functioning. The difference among the depressive disorders stems from variations in duration, timing, and the presumed etiology of each. Evidence suggests that various degrees of depression overlap (e.g. mild depression often progresses in stages through moderate depression and into severe depression later) and many professionals believe that the depressive disorders should be viewed as existing on a lifespan continuum, or spectrum (Alves, Fleck, Boni, and daRocha, 2017; Benazzi, 2006; Morrison, 2007). At the most severe point, or points on that continuum is the potential for attempted or completed suicide, thought to

be the most extreme response to depression perceived as unbearable. Suicide remains the 10th leading cause of death in the U.S. and that rate increased 33 percent from 1999 through 2017 (National Center for Health Statistics, 2020; Weir, 2019).

Major depressive disorder (MDD) is considered the classic condition within the depressive disorders and is also known as clinical depression, which is characterized by discrete episodes that last two weeks or more. It is most common, however, for episodes to last considerably longer. Changes in affect (emotion), cognition (mental processes), and neurovegetative functions (bodily processes related to the maintenance of life), along with inter-episode remissions are common. Although this disorder is most often recurrent, it is also possible to base the diagnosis on a single episode. Clinicians should carefully consider the characteristic differences between normal sadness and grief and those of a major depressive episode. Bereavement can lead to great suffering, but it generally does not bring about a major depressive disorder. When occurring together, the depressive symptoms and prognosis tend to be severe. In the past, depression was categorized as two types, endogenous (coming from within) or exogenous or reactive (a reaction to an external event such as the loss of job or the death of loved one). As the diagnostic criteria became more detailed, the term reactive depression fell out of use because of the difficulty in defining the appropriate precipitants for that type of depression.

> [T]he diagnosis of major depression has a major shortcoming: Although it offers the illusion of precision, it obscures the fact that in reality, depression has many causes. Because they are encompassed by one name, we are tempted to view very different patients as having the same illness, and *that* encourages us to prescribe similar treatments (often antidepressant medication) for all. Of course, many patients respond well to the standard regimens, but [many clients experience] major depressions occurring in contexts

that should suggest treatments other than antidepressant medications. (Morrison, 2007, p. 131)

In essence, there are numerous physical conditions that can form the underlying cause for a depressive disorder (e.g. AIDS, cancer, chronic obstructive lung disease, diabetes mellitus, hyperthyroidism, sickle cell disease, and so on). Antidepressant medications, as well as, many other medications can also be an underlying cause for mood disorders (e.g. antianxiety agents, Antabuse, antihypertensives/cardiovascular agents, antipsychotics, corticosteroids, muscle relaxants, oral contraceptives, and etcetera). The clinician should become familiar with the numerous physical illnesses and medications that may be the root cause of a client's depression. Equally important is the awareness that the depressed client may require at least two diagnoses. For example, the client may experience recurrent dysthymia over the course of his or her life, while an episode of major depressive disorder (MDD) may compel the client to seek the current counseling. The combination of these two disorders is often diagnosed as double depression, but it frequently goes undiagnosed, and clients typically fall back into symptoms of dysthymia following treatment for MDD.

Dual diagnoses is typically comprised of two disorders from different chapters of the diagnostic manual (e.g. schizophrenia and substance use disorder), however, and the symptoms of double depression can have the appearance of a single illness. Research findings have increasingly demonstrated that there are not many differences within the many types of depression occurring over long periods of time (e.g. chronic major depression without full inter-episode recovery, double depression, and major depression with existing dysthymia). Rather, chronic depression may be a spectrum disease, sometimes improving or worsening, but never fully resolving. Studies suggest that clients with double depression may experience only minor recovery with continuing symptoms. In addition, these individuals are more likely to have greater comorbidity with still other disorders and to have hypomanic episodes as well. It may be necessary to

provide cognitive behavioral therapy (CBT) trauma-focused cognitive behavioral therapy (TF-CBT), and/or eye movement desensitization and reprocessing (EMDR) therapy in addition to antidepressant medication in those instances (Morrison, 2007).

The boundary between clinical depression requiring treatment and the natural grieving process is difficult for many clinicians to discern. Previously, diagnostic criteria have limited the symptoms of bereavement to a period of two months, while research has continuously proven scientifically that that time frame was not realistic and the diagnostic criteria appear to be evolving accordingly. Bereavement is different from depression in its brevity and severity, but it is also triggered by memories of those lost (the non-bereaved depressed simply feel bad) and is unresponsive to antidepressant medications. Bereaved people rarely have severe feelings (e.g. guilt, worthlessness, suicidality) or seriously impaired activities of daily living (e.g., psychomotor impairment). More recently, the concept of complicated bereavement, or traumatic grief, has been linked to impaired function and less successful outcomes. Similar to post-traumatic stress disorder (PTSD), the symptoms include the following: preoccupation/longing for the deceased; disbelief/inability to accept the death; anger/resentment over the death; and avoidance of reminders of the loss.

Although depression related to the loss of a career or a marriage are not considered bereavement, research findings suggest that the devaluation resulting from a humiliating event (such as being publicly demeaned by a boss, divorce resulting from spousal infidelity or rape) can develop depressive symptoms like those of grief. Bereavement-related depression tends to occur in individuals with a history of, and other vulnerabilities to, depressive disorders. Antidepressant treatments are often necessary in order to facilitate recovery for the client (DSM-5, 2013). In essence, grief and sadness should be expected following a major loss, and for some, a major depressive disorder (MDD) can further develop. Any depression that hangs on for a

lengthy period of time requires reevaluation, while any severe symptoms occurring at any point in the process of grieving (e.g. suicidal ideation, psychosis, psychomotor retardation) require prompt treatment for major depression (Morrison, 2007).

Corey and Corey (2014) noted that depression occurs during what Elizabeth Kubler-Ross articulated in 1969 as the fourth stage of death, as a dying person comes to terms with the losses already experienced and with those that are yet to be experienced during the evolutionary process of knowing of one's eminent death. These authors stressed the importance of enabling the dying individual to fully express their anger and sadness, as well as, to make his or her own final plans. "Dying people are about to lose everyone they love, and only the freedom to grieve over these losses will enable them to find some peace and accept the reality of their death" (Corey & Corey, 2014, p. 357). Kubler-Ross (1969) summarized five stages of death in a general way (denial, anger, bargaining, depression, and acceptance) that significantly enhanced the general understanding of what may be experienced when a person is dying. These stages are best used as a frame of reference in helping the individual during the process. People are unique, however, and they cope with their own impending death in different ways, times, and contexts. The various elements, degrees and nuances of Kubler-Ross' loss-related stages may be considered in a number of ways to be applicable to the various elements, degrees and nuances of depression.

Bipolar and related disorders were separated from the depressive disorders in the most recent edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders. (DSM-5; 2013) due to significant concerns regarding possible trend of over-diagnosis and treatment for bipolar disorder with children, along with related concerns over the appropriate classification and treatment of children who present with chronic and persistent irritability as opposed to those who present with classic (episodic) bipolar disorder. The removal

of Bipolar and related disorders from the Depressive disorders and the concurrent addition of the new diagnosis of disruptive mood dysregulation disorder in the DSM-5 resulted from those concerns.

Another new diagnosis in the DSM-5, as the diagnostic criteria for chronic major depression and those of dysthymia were combined, is persistent depressive disorder (dysthymia) which is an even more chronic form of depression. Dysthymia is now diagnosed when the mood disturbance continues for at least two years in adults (one year in children), with symptoms less severe than those of major depressive disorder (e.g. no suicidal ideation, no psychosis). Premenstrual dysphoric disorder was also confirmed as a specific treatment-responsive depressive disorder that was also added to the depressive disorders in the DSM-5. This depressive disorder is known to begin at some point following ovulation and to remit within a few days following menses, while having a distinct impact on functioning. The DSM-5 depressive disorder categories of substance/medication-induced depressive disorder and depressive disorder due to another medical condition reflect the large number of substances of abuse, prescribed medications, and medical conditions that can be associated with depression-like phenomena.

Depressive disorder is one of the most common disorders in the U.S. and it is thought to be caused by a combination of genetic, biological, environmental, and psychological factors. (National Institute of Mental Health, 2018) Depressive disorders create a sense of powerlessness to shake-off extreme negative feelings and may create noticeable problems in relationships and social activities, as well as, in school and work. (Mayo Clinic, 2018) Hospitalization is frequently necessary as a result of associated interpersonal and occupational dysfunction. There is a particularly high comorbidity among the depressive disorders, substance use disorders,

bipolar disorder (BD), and borderline personality disorder (BPD) which further complicates the effectiveness of diagnosis and treatment. (Falvo, 2014)   Studies suggest that instability in the areas of anger, irritability, and inertia (the tendency to do nothing or remain unchanged) may be traits shared by those disorders. In order to differentiate that comorbidity, clinicians should assess how problematic each dynamic-disorder pair is during the individual's everyday life in order to facilitate primary and secondary diagnosis decisions. (Mneimne, Fleeson, Arnold, and Furr, 2018) Studies have shown that individuals with depressive disorders experience more emotion-related impulsivity and relative difficulty suppressing pre-potent responses to both negative and positive affective states, such as suicidal ideation and behaviors. (Dekker and Johnson, 2018) Although these mood disturbances most typically occur when individuals are in their twenties, they may occur at any point across the lifespan.

Treatment of the Adult Depressive Disorders

The realm of treatment theories and methodologies associated with depression presents a complex field of both knowledge and uncertainty also. Lopez-Gomez, Chaves, Hervas, and Vazquez (2017) defined treatment acceptability as the extent to which the client found an intervention to be fair, appropriate, and congruent with client expectations. In comparing the acceptability of the Integrative Positive Psychology Intervention for Depression (IPPI-D) program with a cognitive behavioral therapy (CBT) for clinical depression, they found both to be highly acceptable and both resulted high attendance rates. The IPPI-D program demonstrated much higher rates of client satisfaction, while the severity of clients' symptoms had no effect on the acceptability of either program. Their study results showed that a therapist's attitude in the IPPI-D program, focused on nurturing positive emotions and psychological strengths (with limited focus on negative cognitions and dysfunctional behaviors) demonstrated comparable

satisfaction with the CBT therapist's focus on corrective interventions for negative thoughts and issues. Furthermore, the IPPI-D group expressed much more satisfaction with individual progress than did the CBT group. The results of their study indicated that IPPI-D may work better for clients that experience greater comorbidity and negative thoughts and highlighted the need for further research that may extend the plausibility of increased use of this technique.

Zetsche, Burkner, and Renneberg's (2019) experience sampling methodology (ESM) study found that clinically depressed individuals had significant negatively-biased expectations with regard to their future mood state. Compared to healthy controls, those individuals expected much more sadness and unhappiness than what they experienced in reality during the testing phase, indicating significant negative cognitive distortion. Their results showed the therapeutic importance of modifying the negatively distorted expectations and memories of depressed individuals' affective experiences. Using the Implicit Relational Assessment Procedure (IRAP) and an explicit IRAP analog measure (based on Relational Frame Theory; RFT) to assess attitudes about success and failure following perceived failure on an insoluble task along with the potential for defusion (perspective taking) intervention to moderate responding, Ferroni-Bast, Fitzpatrick, Stewart, and Goyos (2019) found patterns of responding that explicit (non-time pressured) measures were not sensitive to with regard to the elements (or lack thereof) involved in self-forgiveness. Considering the importance of that pattern of behavior to clinical psychotherapy and the notion that there are numerous reasons that explicit measures are poor gauges of self-forgiveness, the findings indicated that IRAP may facilitate more accurate measurement of this pattern. The effect of defusion on self-forgiveness at both explcit and implicit levels was insignificant. Their study provided an illustration of the effective use of RFT analysis of psychological processes can facilitate investigation and more effective

psychotherapy.

Studies using electroencephalography (EEG) have found some evidence that frontal theta asymmetry in the brain may be one biomarker of the depressive disorders. (Dharmadhikari, Tandle, Jaiswal, Sawant, Vahia, and Jog, 2018) Other studies using resting-state functional magnetic resonance imaging (rs-fMRI) have shown that abnormal thalamus and the primary somatosensory cortex (SI) functional connectivity is a neurobiological feature and a potential biomarker of the depressive disorders. (Kang, Zhang, Sun, Liu, Yang, Li, Liu, Wang, and Zhang, 2018)

The use of noninvasive brain stimulation (NIBS) methods to treat depressive disorders began the 1980s. Gellersen and Kedzior (2018) reported that deep transcranial magnetic stimulation (DTMS) was used as a noninvasive alternative therapy for treatment-resistant MDD. It has demonstrated significant acute (short-term) antidepressant outcomes which improved cognitive functions for those with unipolar MDD. Approximately 30% of MDD patients have a treatment-resistant form of depression and do not benefit from antidepressant medications. High-frequency repetitive transcranial magnetic stimulation (rTMS) over the left dorsolateral prefrontal cortex (DLPFC) of the brain has been delivered using a figure-of-eight (F8-) coil. This procedure was approved by the US Food and Drug Administration (FDA) in December of 2008 and has produced clinically significant response rates (29%) and remission rates (19%) for those experiencing MDD.

New coils are currently being developed with the aim of targeting brain regions beyond the DLPFC. The H1-coil (Brainsway Ltd. Israel) stimulates the entire brain while focusing on the left DLPFC. Conventional rTMS is believed to normalize the frontal hypoactivity associated with depression and, in turn, regulate activity in other mood-regulating regions of the brain such

as the anterior cingulate cortex and the hypothalamic-pituatary-adrenal axis. With the latter

lying in deeper brain regions, H1-coils have the potential to provide more effective treatment

than F8-coils.

H1-coils stimulate a larger, less focused brain surface and are thought to increase the

electrical field in deeper subcortical brain regions. The therapeutic application of the H1-coil,

deep transcranial magnetic stimulation (DTMS), was approved by the FDA in 2013 and a

number of studies have shown it to be effective with MDD. As an added benefit, DTMS also

acutely reduces anxiety and improves some cognitive deficits in unipolar MDD. Studies have

consistently shown that the FDA-approved protocols, which include 20 days of high-frequency

and high intensity stimulation, can produce clinically significant antidepressant outcomes.

DTMS was reported to be a safe, as well as, tolerable treatment option for MDD. Maintenance

treatment was reported to prolong the antidepressant outcomes of DTMS for up to 12 months.

Those outcomes were not dependent on concurrent treatment with antidepressants, age, gender,

or severity of the illness.

CHAPTER III

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, a review of the literature revealed that a great deal of scholarly work emphasizes the increasing importance of a greater understanding of the adult depressive disorders (Alves et al., 2017; American Psychiatric Association, 2013; Zetsche et al., 2019). Depression is the most common symptom presented in both inpatient and outpatient settings, as well as, the most common symptom presented following a traumatic event or the onset of chronic illness and disability (CID) in an individual's life (Corey et al., 2014; Falvo, 2014). It is essential that mental health counselors and other healthcare providers understand the complexities involved in identification, diagnosis, and treatment options related to the various adult depressive disorders (Benazzi, 2006; Dekker et al., 2018). The depressive disorders include a number of differentiating characteristics related to issues of duration, timing, and presumed etiology (Dharmadhikari et al., 2018; Gellersen et al., 2018). Certain psychosocial reactions (personal experiences) typically follow the onset of chronic illness and disability (CID) and regardless of sequencing, can include Kubler-Ross' (1969) stages of death (denial, anger, bargaining, depression, and acceptance), along with anxiety and reintegration or adjustment (Corey et al., 2014; Parker et al., 2012). Depression is considered loss-triggered and is associated with feelings of helplessness, hopelessness, despair, self-deprecation, poor self-esteem, and isolation (Falvo, 2014).

A number of studies, such as electroencephalography (EEG) and studies using resting-state functional magnetic resonance imaging (rs-fMRI) have shown that there are specific neurobiological features and potential biomarkers associated with the depressive disorders (Gellersen et al., 2018; Kang et al., 2018). Medication-assisted treatments have proven to be

less-than-successful in treating depression. Noninvasive alternative therapy has the potential to

provide significant antidepressant outcomes and improved cognitive functioning for

approximately 30% who experience treatment-resistant depression Lopez-Gomez et al., 2017;

Zetsche et al., 2019).

The American Psychiatric Associations' Diagnostic and statistical manual of mental

disorders (2013) diagnostic criteria and characteristics specific to the numerous adult depressive

disorders may be considered broad and complex, having many subtle differences in

symptomology, a significant amount of overlap, and consistent co-morbidity with various other

mental health disorders. Therefore, the depressive condition tends to be difficult for practitioners

to thoroughly understand and to appropriately and adequately treat. This type of clinical milieu

can lead to misdiagnosis and ineffective treatment and interventions, leaving the client's core

problems poorly-addressed and the client vulnerable to an increased risk of relapse. The

inconclusive knowledge base and the emergent nature of current research relative to the

depressive disorders requires that clinicians possess a thorough understanding of the adult

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field of rehabilitation counseling and in all human services.

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Gellersen, H., & Kedzior, K. (2018). An update of a meta-analysis on the clinical outcomes of deep transcranial magnetic stimulation (DTMS) in major depressive disorder MDD). *Zeltschrift fur Psychologie 226*(1), pp. 30-44. Doi: 10.1027/2151-2604/a000320

Kang, L., Zhang, A., Sun, N., Liu, P., Yang, C., Li, G., Liu, Z., Wang, Y., & Zhang, K. (2018). Functional connectivity between the thalamus and the primary somatosensory cortex in major depressive disorder: a resting-state fMRI study. *BMC Psychiatry 18*, p. 339.

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Morrison, J. (2007) Diagnosis made easier: Principles and techniques for mental health technicians. Ppgs. 316. New York, NY: Guilford Press.

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Seligman, L. & Reichenberg, L. (2013). Theories of counseling and psychotherapy: Systems,

strategies, and skills (4th ed.). Upper Saddle River, NJ: Pearson.

Sohn, E. (2016). Can poverty lead to mental illness? Retrieved from

https://www.npr.org/sections/goatsandsoda/2016/10/30/499777541/can-poverty-lead-to-mental-illness

Weir, K. (2019). Worrying trends in U.S. suicide rates. Retrieved from

https://twitter.com/share?url=https%3a%2f%2fwww.apa.org%2fmonitor%2fmonitor%2f2019%2f03%2ftrends-suicide&via=APA&text=Worrying+trends+in+U.S.+suicide+rates

Zetsche, U., Burkner, P., & Renneberg, B. (2019). Future expectations in clinical depression:

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Alves, L., Fleck, M. Boni, A. & daRocha, N. (2017). The major depressive disorder hierarchy:

    Rasch analysis of 6 items of the Hamilton depression scale covering the continuum of

    depressive syndrome. *PLOS ONE*, January 23, 2017, Ppgs. 1-13.

    Doi:10.1371/journal.pone.0170000

    The article aimed to improve major depressive disorder patient outcomes and provided

    insight into the relationship between the melancholic features of depression (MFD) and

    the severity of the major depressive disorder, with findings that showed less severe

    depressed mood, but increased psychomotor retardation and more severe MFD in

    psychiatric hospitalizations.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental*

    disorders, (5th ed.) Arlington, VA: American Psychiatric Association.

    The DSM-5 provided an organized classification system that aided in the knowledge of

    current clinical diagnosis and treatment practices, along with research implications with

    regard to the various depressive disorders, which were organized by diagnostic criteria

    and supplemented by dimensional measures across diagnostic boundaries. Also included

    were risk factors, associated features, and various expressions of the disorder. Diagnostic

    criteria identified symptoms, behaviors, cognitive functions, personality traits, physical

    signs, syndrome combinations, and durations which are differentiated from normal life

    variations and transient responses to stress through clinician training and experience.

    Each disorder name was followed by an International Classification of Diseases and

    Related Health Problems (ICD-10-CM) code which further enhanced disorder

    descriptions and diagnosis relative to international framework of information.

Benazzi, F. (2006). The continuum/spectrum concept of mood disorders: Is mixed depression the

   basic link? European Archives of Psychiatry and Clinical Neuroscience, 256, Ppgs. 512-

   515. Doi:10.1007/s00406-006-0672-4

   The article viewed mixed states, or the opposite polarity symptoms in a single mood

   episode, as reason to doubt the appropriateness of the bipolar/unipolar splitting of mood

   disorders and support for a spectrum view. The study provided support for the spectrum

   view of mood disorders through the assessment of the distribution of intradepressive

   hypomanic symptoms between bipolar-II (BP-II) and major depressive disorder (MDD)

   depressions, while also testing a dose-response relationship between number of

   intradepressive hypomanic symptoms and bipolar family history. Findings suggested BP-

   II patients had significantly more intradepressive hypomanic symptoms than did MDD

   patients, and that the distribution of those symptoms between BP-II and MDD patients

   was more normal-like than bi-modal, while a dose-response relationship was also found

   between number of intradepressive hypomanic symptoms and bipolar family history. It

   was noted that a continuum/spectrum is not the sum of identical or similar disorders, but

   the sum of dosorders/subtypes sharing common features and also having some

   distinguishing features. It was determined that a full investigation of the biology of mixed

   depression is needed.

Corey, G., & Corey, M. (2014). *I never knew I had a choice: Explorations in personal growth*

   (10th ed). Ppgs. 452. Belmont, CA: Cengage.

   A comprehensive guide to self-exploration, reflection, and decision making that facilitate

   change processes.

Dekker, M. R., & Johnson, S. L. (2018) Major depressive disorder and emotion-related

impulsivity: Are both related to cognitive inhibition? *Cognitive Therapy and Research 42*, p. 398-407.

> The study replicated and extended previous research, showing that individuals with lifetime depression were more impulsive in emotional and non-emotional states than non-depressed individuals. The study linked Major Depressive Disorder (MDD) to emotion-related impulsivity and cognitive inhibition. The cross-cultural empirical study aimed to develop an integrated model of inhibition deficits, impulsivity, and depression. Therapeutic interventions that target reflexive reactions toward emotions were implicated to diminish negative outcomes (aggression, suicidality, alcohol and substance abuse) which commonly co-occur with depression.

Dharmadhikari, A. S., Tandle, A. L., Jaiswal, S. V., Sawant, V. A., Vahia, V. N., & Jog, N. (2018). Frontal theta asymmetry as a biomarker of depression. *East Asian Arch Psychiatry 28*, p. 17-22.

> The comparative study of hemispheric differences in frontal theta power in depressed patients and controls as they listened to music demonstrated a relationship between frontal theta asymmetry and depression. Results showed that frontal theta power increased in controls and reversed in depressed patients, implicating frontal theta power as a potential biomarker for depression.

Falvo, D. (2014). *Medical and psychosocial aspects of chronic illness and disability* (5th ed.). 645 Pgs. Burlington, MA: Jones & Bartlett.

> The book provided an in-depth review of the impacts, barriers, and supports associated with chronic illness and disability, including depressive disorders.

Ferroni-Bast, D., Fitzpatrick, J., Stewart, I., & Goyos, C. (2019). Using the Implicit Relational

Assessment Procedure (IRAP) as a measure of reaction to perceived failure and the effects of a defusion intervention in this context. The psychological Record, 69, Ppgs. 551-563. Doi:10.1007/s40732-019-00349-2

The article advanced the use of the IRAP as a means of investigating important elements of self-forgiveness such as acknowledgement of and attitudes toward failure. Additionally, it demonstrated the utility of RFT and particularly the IRAP in the search for understanding beyond that gained from more conventional approaches.

Gellersen, H., & Kedzior, K. (2018). An update of a meta-analysis on the clinical outcomes of deep transcranial magnetic stimulation (DTMS) in major depressive disorder MDD). Zeltschrift fur Psychologie 226(1), pp. 30-44. doi: 10.1027/2151-2604/a000320

The meta-analysis of literature provided information relative to deep transcranial magnetic stimulation (DTMS), a noninvasive therapy for treating those with treatment-resistant major depressive disorder (MDD). Acute and longer-term outcomes of DTMS and their possible predictors (patient characteristics and stimulation parameters) with individuals with unipolar MDD were also investigated. Clinical outcomes (depression severity, response and remission rates) were evaluated using random-effects meta-analysis. The findings provided evidence that DTMS consistently improved various symptom domains (i.e. antideprresant, cognitive) with treatment-resistant unipolar MDD.

Kang, L., Zhang, A., Sun, N., Liu, P., Yang, C., Li, G., Liu, Z., Wang, Y., & Zhang, K. (2018). Functional connectivity between the thalamus and the primary somatosensory cortex in major depressive disorder: a resting-state fMRI study. *BMC Psychiatry 18*, p. 339.

The study incorporated resting-state functional magnetic resonance imaging (rs-fMRI) in the investigation of potential abnormalities and clinical symptoms relative to cognitive

associations between the primary somatosensory cortex (SI) and thalamic function in individuals with major depressive disorder (MDD). Correlation analyses were performed between areas with abnormal connectivity and clinical characteristic of patients with first episode MDD and demographically matched healthy controls. The findings demonstrated that SI-thalamic connectivity is abnormal in MDD and associated with clinical symptoms. The results imply the SI-thalamic functional connectivity functions as a neurobiological feature and a potential biomarker for major depressive disorder.

Lopez-Gomez, I., Chaves, C., Hervas, G., & Vazquez, C. (2017). Comparing the acceptability of a positive psychology intervention versus a cognitive behavioral therapy for clinical depression. Clinical Psychology and Psychotherapy, 24, p. 1029-1039. Doi: 10.1002/cpp.2129

The article provided evidence from a comparative study of program acceptability using the Integrative Positive Psychology Intervention for Depression (IPPI-D) program and a traditional cognitive behavioral therapy (CBT) for clinical depression and found both programs to be highly acceptable and to demonstrate high attendance rates, while showing no difference in acceptability relative to symptom severity. The IPPI-D program, including a therapist's focus on the nurturing of positive emotions and psychological strengths, demonstrated much higher client satisfaction rates along with client satisfaction with progress rates. The results indicated that IPPI-D may work better than CBT for clients that experience greater comorbidity and negative thoughts, highlighting the need for further research to extend the plausibility of increased use of the IPPI-D technique.

Mayo Clinic. (2018). Depression (major depressive disorder). Retrieved from

https://www.mayoclinic.org/diseases-conditions/depressions/symptoms-causes/syc-20356007

The website provided an overview of major depressive disorder (MDD) and included symptoms common to young children and teens, along with adults and the elderly. The potential causes of MDD were discussed, including biological differences, brain chemistry, hormones, and inherited traits. Risk factors were discussed, such as personality traits, trauma, stress, gender, genetics, medications, and substance abuse. Complications related to further emotional, behavioral, and increased health problems were discussed and included potential prevention strategies. Digital links to relevant academic research articles were provided.

Mneimne, M., Fleeson, W., Arnold, E. M., & Furr, R. M. (2018). Differentiating the everyday emotions dynamics of borderline personality disorder from major depressive disorder and bipolar disorder. *Personality Disorders: Theory, Research, and Treatment 9*(2), p. 192-196.

The experience sampling study was designed to differentiate the emotion dynamics of borderline personality disorder (BPD) from those of major depressive disorder (MDD) and bipolar disorder (BD). Participants (38 with BPD, 15 with MDD, 14 with BD, and 62 healthy controls) reported interpersonal challenges and emotions five times daily for two weeks. Interpersonal challenges included rejection, betrayal, abandonment, offense, disappointment, and self-image. Emotions included anger, excitement, guilt, happiness, irritability, and shame. Multilevel analyses revealed that heightened interpersonal reactivity of guilt and shame and heightened inertia of shame were more specific to borderline personality disorder, findings not accounted for by the presence of current

major depressive disorder or bipolar disorder. Heightened instability of anger and irritability and heightened inertia of irritability were found to be transdiagnostic. Implications for clinical assessment, research, and theory were provided.

Morrison, J. (2007) *Diagnosis made easier: Principles and techniques for mental health technicians*. Ppgs. 316. New York, NY: Guilford Press.

The book provided an authoritative guide to systematic diagnosis of various mental health concerns, including the depressive disorders. Many practical diagnostic tools were provided.

Murthy, V. U.S. Department of Health and Human Services (HHS), Office of the Surgeon General. (2016). Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health. Washington, DC: HHS, November 2016. Retrieved from https://addiction.surgeongeneral.gov/sites/default/files/chapter-2-neurobiology.pd

The comprehensive report outlined growing trends in substance abuse, depression, and suicide in the U.S. along with the urgent need for decisive action to reverse those harmful trends. Neurobiological elements involved in depression and suicide were also addressed.

National Alliance on Mental Illness. (2019). Depression. Retrieved from https://www.nami.org/Learn-More/Mental-Health-Conditions/Depression

The website provided statistics regarding the occurrence of depression in the U.S. It provides a thorough description of symptoms and most common effective treatments.

National Center for Health Statistics. (2020). Depression in the United States household population, 2009-2012. Retrieved from https://www.cdc.gov/nchs/fastats/depression.htm

The website provided a brief summary of data relative to depression and general mental health conditions in the U.S. population, including a number of graphs.

National Institute of Mental Health. (2018). Depression. Retrieved from

https://www.nimh.nih.gov/health/topics/depression/index.shtml

The website provided an overview of statistics associated with the depressive disorders,

including the known differences in characteristics and particular circumstances in which

depression may develop. It included information about signs and symptoms, risk and

protective factors, diagnostic criteria, treatments, and relevant research studies along with

digital links to relevant academic journal articles available online.

Parker, R. M., & Patterson, J. B. (2012). *Rehabilitation counseling basics and beyond* (5th ed.).

413 Pgs. Austin, TX: Pro-ed.

The book provided a practical guide to relevant professional issues, research, and trends

specific to the field of professional rehabilitation counseling.

Rottmnn, L. H. (1986). EC86-416 Depression: The common cold of mental health. U.S.

Department of Agriculture Cooperative Extension Service: University of Nebraska,

Institute of Agriculture and Natural Resources. Retrieved from

http://digitalcommons.unl.edu/extensionhist/4591.

The Informational and educational article provided a comprehensive outline of

definitions and descriptors of a variety of suspected causes for depression, exploring the

perspectives of heredity and environment along with the influences of culture, poverty

and the concepts of associative mating and lifetime depression.

Seligman, L., & Reichenberg, L. (2013). *Theories of counseling and psychotherapy: Systems,*

strategies, and skills (4th ed.). Upper Saddle River, NJ: Pearson.

The book provided a comprehensive overview of current counseling theories, including

philosophical assumptions, key concepts, techniques, and practical applications of each

approach.

Sohn, E. (2016). Can poverty lead to mental illness? Retrieved from

https://www.npr.org/sections/goatsandsoda/2016/10/30/499777541/can-poverty-lead-to-

mental-illness

The article described the prevalence of depression and mental illness in various countries

around the world and provided propositional empirical evidence suggesting that poverty

is a leading cause of depression.

Weir, K. (2019). Worrying trends in U.S. suicide rates. Retrieved from

https://twitter.com/share?url=https%3a%2f%2fwww.apa.org%2fmonitor%2fmonitor%2f

2019%2f03%2ftrends-suicide&via=APA&text=Worrying+trends+in+U.S.+suicide+rates

The article explored the demographics and data related to global suicide rates and

provided recommendations for the improvement of care.

World Health Organization (2020). Depression. Retrieved from

https://www.who.int/news-room/fact-sheets/detail/depression

The website provided a comprehensive overview of depressive conditions and relevant

statistics along with risk and protective factors and common treatment methods, including

references.

Zetsche, U., Burkner, P., & Renneberg, B. (2019). Future expectations in clinical depression:

Biased or realistic? Journal of Abnormal Psychology, 128(7), Ppgs. 678-688. Doi:

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The article demonstrated the role that negative future expectations play in the

development, maintenance, and recurrence of depressive disorders. Using experience

sampling methodology (ESM) to contrast participant expectations (N=123) with actual

experiences over a four day period, when participants recalled those past moods. Compared to healthy controls which showed realistic expectations about their futures, the depressed individuals demonstrated both negatively biased expectations and negatively biased recalls, indicating negative expectancies and memories as key mechanisms in understanding the maintenance of depression.

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