Dismantling Cognitive Behavioral Analysis System of Psychotherapy:

A Pilot Study to Identify the Active Ingredients

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Department of Community Care and Counseling, Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

School of Behavioral Sciences

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Abstract

Chronic depression affects approximately 6% of the world's population, and according to the American Psychiatric Association's Diagnostic and Statistical Manual – Fifth Edition, chronic depression is a disorder known today as persistent depressive disorder. It presents with a chronic clinical course of greater than 2 years and exhibits at least two of the following symptoms: appetite increase or decrease, insomnia or hypersomnia, low energy or fatigue, low self-esteem, poor concentration or difficulty making decisions, and feelings of hopelessness. The negative effects of chronic depression and the need for an effective treatment for patients with a persistent depressive disorder are important concerns for the mental health community and the general community at large. This study will investigate a recent therapy model, the Cognitive Behavioral Analysis System of Psychotherapy, which empirical research has repeatedly validated as an effective treatment for persistent depressive disorder. Cognitive Behavioral Analysis System of Psychotherapy involves two distinct treatment ingredients: (a) a problem-solving strategy labeled Situational Analysis, and (b) a therapist role ingredient known as Interpersonal Discrimination Exercise, which helps patients perceptually differentiate the psychotherapist from toxic, maltreating significant others who have harmed the patient and contributed to the onset of the disorder. Research has yet to dismantle the two active ingredients to determine if one or both contribute to the previously reported significant treatment effects. This pilot investigation used an intensive case study design to address the dismantling question as it compares the two components when administered separately and when administered together.

Keywords: CBASP, depression, chronic depression, therapy

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Dedication

This research is dedicated to Dr. McCullough, also known as "Big Jim." I reached out to his office in 2017 after learning his techniques could help the patients in my office. I never would have imagined that I would have an opportunity to be taught by Big Jim himself. I looked to him as a mentor in the field but also found an example of a great husband, father, friend, and colleague. I have been a test of his patience and heard, "slow down cowboy" more than a few times. I hope he believes it was worth it because there's not enough Blantons in the world for repayment. Here's to many more years of using CBASP to draw people out of darkness and bring hope.

This work is also dedicated to the six amazing participants. You got up. You got dressed. You left your house and committed to the work. That was enough. That was brave. This is only the beginning of living life to its fullest.

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deliveries of bottles of spirits, you all have helped me keep going. Much like Aaron holding up

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Table of Contents

List of Tables

Table   **Page**

List of Figures

DISMANTLING COGNITIVE BEHAVIORAL ANALYSIS SYSTEM OF PSYCHOTHERAPY: A PILOT STUDY TO IDENTIFY THE ACTIVE INGREDIENTS

CHAPTER ONE: INTRODUCTION

Major depressive disorder (MDD) is one of the most common mental disorders, with a lifetime prevalence of 15% (Wittchen et al., 2011), and approximately 30% of individuals who suffer from depression have a chronic course of the disease (De Vos et al., 2017). Until recently, chronic depression has not been evaluated separately from general depression (Köhler et al., 2019). The first time a subcategory for depression was created was in 1980 in the American Psychiatric Association's (APA) *Diagnostic and Statistical Manual, Third Edition* (DSM-III). Before the DSM-III, Weissman and Klerman (1979) reported that patients who were chronically depressed experienced insufficient recognition and inadequate treatment: they were often referred to as *crocks* (Lipsitt, 1970). Over the last couple of decades, chronic depression has gained attention as a diagnostic subgroup of depression (Eaton et al., 2008; Keller et al., 1995; Torpey & Klein, 2008). As the psychological community began to recognize that depression is a broad description and is insufficient to define the general category of depression (Klein et al., 1999; Penberthy, 2019), subcategories were created. Chronic depression is now recognized in the *Diagnostic and Statistical Manual, Fifth Edition* (DSM-5) by the APA (2013) as persistent depressive disorder (PDD).

In response to the absence of an adequate treatment for the emerging condition of PDD, McCullough et al. (2015) began constructing the Cognitive Behavioral Analysis System of Psychotherapy (CBASP), which is the only psychotherapy model developed specifically to treat patients with PDD (McCullough et al., 2015; Wilbertz et al., 2010). This model has become an internationally recognized and empirically validated therapy model for PDD treatment (Keller et al., 2000; Klein et al., 2004). Despite its validated efficacy, how the model achieves set goals are

not adequately understood. Learning more about why CBASP is an effective treatment model will help patients and therapists treating PDD. Patients with this chronic condition are often considered challenging to treat and could be overwhelming to therapists. A better understanding of why CBASP is effective may offer PDD patients and therapists a more efficient therapy model for treatment options. The ability to offer successful treatment options for these individuals may provide patients with the hope of well-being and support therapists as they treat this challenging population.

Background

Understanding the background of PDD was essential to the focus of this proposed research study. Mental health providers face concerns with the negative effects of chronic depression and seek to provide the most effective treatments for patients with PDD. The following sub-sections present information on PDD, including incidents, healthcare, onset, psychopathology of the patient, functioning, and summary of patients with PDD.

Persistent Depressive Disorder

Twenty percent of people who struggle with unspecified depression will be diagnosed with chronic depression (Angst et al., 2009); therefore, this is a diagnostic area that needs more attention (Penberthy, 2019). For example, it is not uncommon for a major depressive disorder, PDD (formally known as dysthymia disorder), and major depressive episodes to be classified as unspecified depression. Therefore, chronic depression may be more of a problem than is currently realized. However, due to incomplete information in the unspecified depression data area, assessing the actual cost of one form of unspecified depression (PDD) is difficult.

Assessing the cost of one form of unspecified depression, PDD, on the individuals affected as long as there is no focus on delineating the subcategories also holds true for assessing

the effect on society at large. This assessing of the costs also holds true for assessing the effect on society at large. Data shows that PDD has a steady detrimental impact on more than just those who struggle with this long-lasting disorder (McCullough, 2019; Penberthy, 2019).

      Incidents of Persistent Depressive Disorder. Depression comes in varying forms. For example, acute/episodic major depression is considered a short-term form of depression; this type of depression affects approximately 20% of the population (Hasin et al., 2005). While some forms of depression have a short-term course, approximately 20–30% of individuals report a chronic course of depression or a long-term course of depression with experienced symptoms for more than 2 years (Angst et al., 2009; Schramm et al., 2020). Waraich et al. (2004) found a lifetime prevalence of over 3% for dysthymic disorder, now known as PDD. In 2017, the World Health Organization (WHO) estimated that, in 2015, 322 million people worldwide met the criteria for some form of depression, representing an 18% increase from the 2005 estimate (Penberthy, 2019).

      Depression has an impact on those who suffer from the disorder, and this suffering has far-reaching consequences in the individual's life. These consequences may affect individuals financially, leading to significant psychosocial impairment (Cuijpers et al., 2013; Lasserre et al., 2016). The WHO described unspecified depression as the leading worldwide cause of poor health and disability (Penberthy, 2019), and unspecified depression is projected to be the leading cause of disability worldwide by 2030 (Yang et al., 2015). As of 2015, approximately 10% of the U.S. population suffers from some form of depression at any given time (Yang et al., 2015). This disorder affects the individual patient, and there are associated costs of depression reaching beyond the individual.

Cost of Depression. Depressive disorders are the most burdensome, costly, and common mental health issues (Aznar-Lou et al., 2018). The cost of depression is exorbitant and exerts its effects on economic and health domains in the United States (Hasin et al., 2005). One aspect of the economic impact that depression exerts on society is seen in the workforce. Stewart et al. (2003) found that depression affects productivity in the United States and costs employers billions of dollars each year. A lack of productivity is not the only concern that depression poses to employers; employee disability, which translates into missed workdays, also has a negative impact (Biesheuvel-Leliefeld et al., 2016; Penberthy, 2019). Employers frequently do not recognize when depression affects employees; this lack of recognition also potentiates the impact of depression in the workplace (Stewart et al., 2003). Employees struggling with unrecognized depression may experience more somatic concerns (Kessler et al., 2004), which can be more costly to all involved (Stewart et al., 2003). Depression that goes unrecognized as somatic concerns contribute to escalating healthcare costs (Trivedi et al., 2019).

Healthcare and Depression. Trivedi et al. (2019) reported that major depression affects one in five adults in the United States. Depression is becoming one of the most concerning public health issues in the country. For example, the comorbidity of other mental health concerns is higher when depression is present (Hasin et al., 2005), and the diagnosis of depression has been associated with other issues such as anxiety, panic disorders, addictive disorders, as well as other mental health concerns (Hasin et al., 2005; Yang et al., 2015). In addition, individuals with these issues are more likely to utilize healthcare resources, which is costly to the individual and the community (Mausbach & Irwin, 2017). Trivedi et al. (2019) reported that depression affects

10-14% of those who seek medical care, and they estimated that nearly half of those who suffer from depression go undetected when meeting with the doctor.

Lack of detection and the number of individuals suffering continues to put a strain on healthcare. Depression, when combined with other comorbid medical concerns, incurs an increased financial burden in ambulatory care, emergency room visits, and length of hospital stays (Konig et al., 2020; Mausbach & Irwin, 2017). Kleine-Budde et al. (2013) reviewed the cost that depression places on society and found that a large portion of the cost was due to the need for inpatient care. When depression is left untreated, it may lead to additional healthcare concerns that are costly both from a medical standpoint and economically. These outcomes leave the person affected by this disorder without a resolution or a viable option for effective treatment. Achieving better outcomes for depression will require medical professionals to become better diagnosticians and offer better treatment options (Trivedi et al., 2019).

Persistent Depressive Disorder – An Independent Diagnostic Category

With depression being a burdensome concern, researchers and clinicians have evaluated how depression is classified. This evaluation of depression has produced more precise diagnostic information. As a result, the APA DSM-5 (APA, 2013) presents a new category for diagnosing chronic depression. Chronic depression had previously been a specifier of MDD. In 2013, PDD became an independent diagnosis in the DSM-5 (APA, 2013). For some time, there has been a distinct need for a new chronic depression category and a need to develop a treatment model for PDD (Schramm et al., 2020). Those suffering from PDD have a more difficult struggle than those who experience MDD (Rubio et al., 2011). There is evidence that acute/episodic MDD and PDD are qualitatively different disorders (Rhebergen & Graham, 2014), and as a result, the

treatments must be different (Furukawa et al., 2016). Professionals' ability to pair individuals with the appropriate treatment is essential for treatment to be effective (Furukawa et al., 2016).

Those struggling with PDD typically have a challenging course, and the recovery rate is low. It has been reported that a significant portion of those who suffer from PDD do not experience long-term recovery (Klein et al., 2008). Klein et al. (2008) reported that individuals in their study who reported PDD met the criteria for a mood disorder 70% of the time during a 10-year follow-up. In CBASP, McCullough (2000, 2019, 2021) stated that patients with early-onset PDD do not experience a cure; instead, they learn to manage their lives differently and be more productive.

Although recognized as an independent diagnosis in the DSM-5, some professionals in the psychological community do not favor chronic depression being an independent category (Rhebergen & Graham, 2014). These professionals assume that new diagnostic categories will create a distraction rather than help delineate the differences in the diagnostic categories and fail to capture the actual landscape of these patients' concerns (Rhebergen & Graham, 2014). This belief indicates that more specific diagnoses will lead to confusion rather than being helpful to patients. Klein and Finsaas (2017) suggested that a more specified category for the different forms of depression is necessary and believe this to be an advancement in treating patients with depression. Other researchers have shown that chronic depression may present with MDD and agree that this warrants an independent classification (Klein et al., 1995; Rubio et al., 2011). Researchers have reported that between 20-50% of those in a clinical setting were patients with a chronic course of depression (Klein & Santiago, 2003; Schramm et al., 2020), suggesting the chronic course of depression needs to be better understood as it affects a significant number of individuals who seek treatment for depression. Taking the step to differentiate the chronic course

of this disorder is necessary to help develop a better understanding of the etiology. There is a need to evaluate the different courses of depression and provide treatment specifically for those who develop a chronic course (Sackeim, 2001). Many who suffer from PDD are not consistently paired with a treatment that is appropriate and can provide relief for their symptoms (Sackeim, 2001). The chronic nature of this disorder must not be overlooked as it contributes to limited treatment outcomes and many of the negative impacts that depression has on society (Klein & Santiago, 2003; Rubio et al., 2011).

Early-onset PDD (age of onset is earlier than 21 years old) has been characterized by adverse familial experiences over a long duration, such as severe neglect or trauma (McCullough, 2000, 2019, 2021). These individuals often report feeling hopeless and helpless. There is evidence that early trauma and neglect in children may lead to stunting normal maturation and development (Drotar & Sturn, 1991; McCullough, 2000; Money, 1992; Money et al., 1985; Penberthy, 2019). Their adverse circumstances force these children to focus more on surviving the *hell of the family* rather than maintaining a normal cognitive-emotional maturation growth process (McCullough, 2021). As a result, these children often resort to interpersonal withdrawal and detachment styles (McCullough, 2019, 2021). Withdrawal and detachment often result in environmental events becoming perceptually disconnected from the patient's behavior (McCullough, 2000, 2019, 2021), meaning the interpersonal environment in which they live has little to no informing effect on them.

Core Persistent Depressive Disorder Early-Onset Problems. The patient with PDD commonly faces two core problems: (a) an interpersonal fear-avoidant state that stems from a history of early childhood developmental trauma and (b) a perceptual disconnection from their interpersonal environment (McCullough et al., 2015). In addition, perceptual distortions may

occur, such as feeling that time has stopped and nothing in their life will ever change. The CBASP helps early-onset patients with PDD address these two core issues.

Psychopathology of the Patient with Persistent Depressive Disorder

   Early Maltreatment and the Lasting Consequences. Maltreatment in childhood has a detrimental effect on the recipient and has lasting consequences on the brain. For example, the normal maturation of the brain is stunted when exposed to abuse and neglect (Frodl et al., 2017). In addition, McCullough (2000, 2006) described patients with PDD who have experienced a developmental history of significant interpersonal trauma, which can be described as physical or sexual abuse or emotional abuse that takes the form of continual psychological insults or some form of rejection (Penberthy, 2019).

   This trauma has far-reaching consequences for these individuals. Not only are they genetically affected by this maltreatment (Teicher & Samson, 2013; Uher, 2011), but through conditioning, these individuals learn they are not safe and cannot trust others. This uncertainty leads to interpersonal avoidance and fear, two characteristics at the core of the patient's psychopathology with PDD (McCullough et al., 2015). Maltreatment in childhood is a common characteristic of those with early-onset PDD (Brown et al., 2008; McCullough, 2019); this early interpersonal damage often leaves these individuals with lifelong destructive ramifications (McCullough et al., 2015), and research indicates adverse childhood experiences can lead to a variety of mental and physical health concerns (Danese et al., 2009). Early childhood maltreatment results in patients retreating from the interpersonal world around them and is connected to the derailment or retardation of normal cognitive-emotional maturation and growth (McCullough, 2006). In addition, researchers have found a connection between early childhood

maltreatment and vulnerability to pathology in adulthood (Klein et al., 1999; Teicher & Samson, 2013).

Onset Age of Persistent Depressive Disorder

Persistent depressive disorder has two sub-specifiers that indicate when the symptoms began. The sub-specifiers are described as early-onset and late-onset. PDD with a sub-specifier of early-onset indicates that criteria for the disorder were met before the age of 21 with a duration of symptoms of more than 12 years uninterrupted (APA, 2013). The late-onset sub-specifier indicates that criteria for PDD were met after the individual was 21 years of age and symptoms were present for more than 2 years consecutively (APA, 2013).

Early-Onset Persistent Depressive Disorder. Individuals who experience early-onset or reporting symptoms before age 21 make up almost half of PDD patients (Klein et al., 1999). Also, individuals in this subcategory of PDD experience higher familial instances of mood disorders and more significant childhood adversity, such as abuse, rejection, and neglect (Klein & Santiago, 2003). McCullough (2000) hypothesized that most patients who experience early-onset PDD had experienced severe trauma and adverse environments in their upbringing. The early-onset patient enters adulthood without ever having experienced interpersonal maturity both structurally and functionally (McCullough, 2006). As a result, these patients are more likely to seek treatment and have a more complex treatment history, leading to an expectancy of more challenging outcomes (Sansone & Sansone, 2009). PDD is not the only concern for these patients; they also report a much higher rate of comorbid Axis I and Axis II disorders and exhibit less psychological resilience (Klein & Santiago, 2003). With all of these indicators, patients with an early-onset PDD are thought to be more challenging to treat (Sansone & Sansone, 2009). Researchers believe that the psychological insults that these patients have received from

significant others in their lives have negatively shaped them, and therefore their response is one of avoidance (McCullough, 2000, 2006, 2019; Penberthy, 2019). These patients have a high rate of being single (Erkens et al., 2017), which may be correlated to their interpersonal avoidance. CBASP, being an interpersonal mode of treatment, addresses interpersonal insults and attempts to give the patient a new interpersonal experience through therapy (McCullough, 2006).

Late-Onset Persistent Depressive Disorder. Individuals suffering from late-onset PDD experience trauma and loss; however, it appears they experience this to a lesser degree than early-onset PDD (McCullough, 2006). Klein and Finsaas (2017) explained that late-onset patients might experience grief and loss in their adult life, leading to a chronic course of depression or PDD. Riso et al. (2002) suggested that chronic environmental stressors (e.g., medical illness, interpersonal issues, longstanding unemployment, family conflict, or discord) coupled with heightened reactivity to stressors may lead to a negative sense of self-worth and decrease coping strategies. This experience of deteriorating resources may be associated with late-onset PDD, even with the absence of childhood trauma. Patients experiencing late-onset PDD are more capable of identifying the stressful events that precipitate their depression (McCullough et al., 1994), while late-onset PDD impacts individuals and society. The focus of this study concentrated on those with early-onset PDD.

Preoperational Functioning. The cognitive-emotional stunting is revealed in early-onset PDD patients as being arrested in a *preoperational functioning* state (McCullough et al., 2015). The phrase, preoperational, is borrowed from Piaget's (1926) work and describes an early childhood (i.e., toddler-like) manner of functioning. The similarities that patients with PDD have with Piaget's preoperational stage are seen in the following characteristics: transductive reasoning, which refers to the ability of an individual to make connections between unrelated

instances where neither deductive nor inductive reasoning is utilized (Sutherland, 1992); an inability to think logically (Ciccarelli & Whith, 2012; Piaget, 1981); and egocentrism which refers to an inability to distinguish between their perspective and that of others (Cicchetti et al., 1995; Kesselring & Müller, 2011).

Transductive reasoning accurately describes how the patient with PDD thinks. This type of reasoning can be elucidated by an example of a young child calling one man "Daddy;" therefore, all men are called "Daddy" (Sutherland, 1992). This concept helps clarify that the preoperational patient does not have a clear ability to separate cause and effect – this man is my father; therefore, he alone is called "Daddy." Patients with PDD show transductive reasoning in that they cannot discriminate between a bad moment and a bad life. For example, an employee may have a negative interaction with their supervisor and determine that they are no longer good at their job because of one negative interaction. This inability to internalize feedback from their environment makes learning from consequences difficult for these patients (McCullough et al., 2015).

Patients with PDD also struggle with thinking through their cognitive-emotional experiences logically (Cicchetti & Toth, 1998; McCullough, 2006). For example, this patient may fail to make reasonable conclusions of consequences; instead, they jump from a premise to a conclusion without pause for logic (e.g., "If my professor rejects my paper because he does not share my views, no one will ever like me."). This gap in logic illustrates the perceptual disconnection these patients experience, and their inability to correctly interpret the consequences of their behavior illustrates an interpersonal detachment from these consequences (McCullough, 2006).

Egocentrism and the inability to generate empathy plague individuals with PDD who function similarly to Piaget's description of a preoperational child (McCullough et al., 2015; Penberthy, 2019; Wilbertz et al., 2010). A self-absorption results in these patients talking only about their experiences and failing to see the interpersonal effects of situations (Klein et al., 1988). Failing to see the interpersonal effects of a situation on another person and how they may be affected produces a lack of empathy for others. This patient's emotional sensitivity should not be confused with empathy. This emotional sensitivity is still an example of their egocentrism. There is a sense of hypervigilance surrounding how they are being treated. This emotional sensitivity is focused on looking for rejection as a means of self-preservation, not on a greater interpersonal understanding (Klein et al., 1988; McCullough, 2006).

Summary of the Patient with Persistent Depressive Disorder. Those stuck in Piaget's preoperational stage of development cannot see the logical consequences of their behavior (Ciccarelli & Whith, 2012), which affects patients with PDD. They often use transductive reasoning (Sutherland, 1992) and generalize negative experiences to all of life. This inability to discriminate affects the individual with early-onset PDD in that preoperational functioning results in the patient thinking in a prelogical and pre-causal manner (McCullough, 2006). This type of thinking results in the patient functioning in their environment using little or no hypothesis testing. Patients believe that life cannot be changed, which gives way to an egocentric lifestyle of hopelessness (McCullough, 2006). The egocentrism contributes to the depressive symptoms appearing intractable.

Understanding the depth of depression and the preoperational functioning of the individual with depression is essential in charting an appropriate treatment course (McCullough et al., 2016a). McCullough (2000), as noted above, proposed two core problems for those

suffering from chronic depression: (a) pervasive fear-avoidance that stems from childhood maltreatment and (b) a perceptual disconnection from their interpersonal environment. These two core issues inhibit individuals with PDD from changing their problematic behavior (McCullough, 2000, 2006, 2019; McCullough et al., 2015; Penberthy, 2019). CBASP was developed to address these two core problems. The skills that CBASP teaches patients help enable them to overcome these core fears.

Problem Statement

The literature indicates that psychological interventions have effectively treated depression in patients (Cuijpers et al., 2008). However, despite this large body of research, few studies have focused on chronic forms of depression (Cuijpers et al., 2010). Approximately 20% of those who are depressed experience a chronic course of depression, and of the patients treated for some form of mental health issues, 47% have a chronic course of depression (Arnow & Constantino, 2003; Torpey & Klein, 2008). This issue affects a significant number of people worldwide. It is believed that approximately 3% of the adult population in Western countries suffer from a form of chronic depression (Kessler et al., 1994), which is typically more challenging to treat and may result in treatment failure (Cuijpers et al., 2010). Patients who suffer from this chronic disorder often experience lifelong consequences and are responsible for a considerable portion of the colossal disease burden associated with depression (Greenberg & Birnbaum, 2005; Keller et al., 2000). The problem that this study will address is that it is unknown whether the techniques of CBASP (Situational Analysis [SA] and Interpersonal Discrimination Exercise [IDE]) are more, less, or equally effective when administered together or separately from one another. A better understanding of therapeutic interventions is necessary for treating this population.

Cognitive Behavioral Analysis System of Psychotherapy is an effective treatment for PDD (Arnow et al., 2013; Furukawa et al., 2016; Hom et al., 2017; Negt et al., 2016; Schramm et al., 2020). The question of which mechanisms underlie the efficacy of this model remains (Hom et al., 2017; Penberthy, 2019). Determining whether teaching these patients to problem solve (SA) or helping them differentiate between the therapist and their significant others (IDE) is the most effective technique to decrease depression and will contribute substantial information for the chronic depression field. However, as noted, CBASP has not been examined to understand the model's most influential aspects (Hom et al., 2017; Penberthy, 2019). Understanding why and how CBASP is an effective treatment model for PDD was the goal of the study.

Purpose of the Study

The purpose of this study was to evaluate which CBASP techniques, if any, were the most effective in treating chronic depression (PDD). Understanding the effects and change that CBASP techniques have on chronic depression may be helpful in the continual development of treatment. The need for this study was supported by a gap in the literature concerning the little research available on exploring the hypothesized techniques of action and a lack of systemic dismantling research (Penberthy, 2019). The IDE and SA are the two main change exercises that CBASP uses to achieve treatment goals. The effectiveness of these two techniques was evaluated individually and in combination. Dismantling IDE and SA was the primary task of the study.

Significance of the Study

The CBASP model is based on a theoretical understanding of PDD and how learning acquisition can be helpful in overcoming chronic depression (McCullough et al., 2011). The empirical methodology of CBASP has been primarily theory-driven. It is essential to operationalize an empirically proven method for PDD to understand why the method is effective

(McCullough et al., 2011). Also, it is essential to understand if both learning tools (IDE and SA) are necessary or if only one produces the change needed for the patient.

Learning more about why CBASP is an effective treatment for PDD can help those suffering from this chronic condition. Having a proven intervention to disseminate to therapists could help many more patients who fear not being helped. Depression and PDD are costly issues that require significant emotional capital from clinicians (WHO, 2017). Having proven interventions to help treat this issue can help patients and therapists who are challenged when working with this population (McCullough, 2019).

Research Questions

RQ 1. Does learning SA alone versus learning IDE alone produce similar or different treatment outcomes?

RQ 2. Do the two mono-treatments (i.e., SA Cell and IDE Cell) produce similar or differentiated treatment processes and outcomes compared to the Combination Cell where both the SA and the IDE Exercises are administered?

RQ 3. What general dismantling implications may now be drawn from the study data when Research Question One and Research Question Two are considered?

Definitions

Cognitive Behavioral Analysis System of Psychotherapy. CBASP is an operationalized learning acquisition model of therapy where the therapist plays an integral role in helping the patient learn how to utilize new skills and meet the goals of treatment (McCullough, 2021).

Comorbid. Comorbid is a medical term used to identify one medical condition that exists simultaneously, and sometimes independently, with another medical condition (Chang et al., 2020).

Interpersonal Discrimination Exercise. The Interpersonal Discrimination Exercise (IDE) is one of the foundational exercises in CBASP and is matched with the first goal of the model. The first goal is felt safety for the patient (McCullough et al., 2015). The goal of this exercise is for the patient to learn how to successfully discriminate between the person of the clinician and the maltreating significant others who have hurt them (Penberthy, 2019).

Major Depressive Disorder. A major depressive episode is diagnosed when at least 2 weeks of persistent depressed mood, anhedonia, or hopelessness occurs (reported by self or observed by others), plus additional symptoms from criterion A, for a total of five of the nine *DSM-5* major depression criteria and the clinical significance criterion (APA, 2013).

Persistent Depressive Disorder. Persistent Depressive Disorder is a newly named category in the DSM-5 (APA, 2013) that integrates dysthymic disorder and major depressive disorder (Penberthy, 2019). This disorder presents with a chronic clinical course of symptoms for greater than 2 years (adolescents or children may have irritable mood for 1 year) and exhibit at least two of the following symptoms: appetite increase or decrease, insomnia or hypersomnia, low energy or fatigue, low self-esteem, poor concentration or difficulty making decisions, and feelings of hopelessness (APA, 2013). Also, there must not be a break in symptoms for more than 2 months. Mania or hypomania are excluded from the diagnostic criteria of PDD.

Situational Analysis. The Situational Analysis (SA) exercise is the cornerstone problem-solving learning task of CBASP. This exercise teaches the patient goal-directed behavior through a series of steps taught to them by the therapist (Schramm et al., 2020).

Summary

Chronic depression, PDD in the DSM-5 (APA, 2013), affects approximately 6% of the world's population (WHO, 2017). The clinical presentation of this disorder follows the clinical

course of exhibiting at least two of the following symptoms for greater than 2 years: appetite

increase or decrease, insomnia or hypersomnia, low energy or fatigue, low self-esteem, poor

concentration, or difficulty making decisions, and feelings of hopelessness. The adverse effects

of PDD and the need for effective treatment create a concern for the mental health community

and the general population. This study has examined CBASP, a recent therapy model created

specifically for patients with PDD (McCullough et al., 2015). This model is an empirically

validated treatment (McCullough et al., 2011; Penberthy, 2019; Schramm et al., 2020) that

involves two distinct treatment ingredients; first is a problem-solving strategy technique, SA, and

secondly, a therapist role technique known as IDE. The SA exercise helps the patient learn

problem-solving skills, while the IDE helps patients perceptually differentiate the

psychotherapist from toxic maltreating significant others who have harmed the patient

(McCullough, 2000, 2019; McCullough et al., 2015; Penberthy, 2019). Research has yet to

dismantle the two active techniques to determine if one or both contribute to the previously

reported significant treatment effects (McCullough et al., 2011; Penberthy, 2019). This study has

addressed the research questions as the two techniques were compared when administered

separately and when administered together.

CHAPTER TWO: LITERATURE REVIEW

Cognitive Behavioral Analysis System of Psychotherapy (CBASP) is an interpersonal, learning-acquisition model of psychotherapy that has specifically been created to remediate Persistent Depressive Disorder (PDD). Understanding PDD and its effects on society is essential to understanding why it is crucial to have effective treatment strategies. Effective treatment strategies can significantly change the lives of individuals who suffer from chronic depression or PDD. Fu et al. (2021) reported that people with severe mental health concerns are at a greater risk for suicide, and with rates of suicide on the rise (WHO, 2021), a treatment supporting a need to learn how to treat this population better as a lifesaving endeavor. CBASP is an effective treatment for PDD (Furukawa et al., 2016; Hom et al., 2017; Schramm et al., 2017; Wiersma et al., 2008), and it is essential to psychotherapy to understand why this model works to help alleviate PDD symptoms. While CBASP has been shown effective in treating PDD, the effective techniques of the model are still unknown (Penberthy, 2019).

Overview of Cognitive Behavioral Analysis System of Psychotherapy

Cognitive Behavioral Analysis System of Psychotherapy Model

Cognitive Behavioral Analysis System of Psychotherapy is a skills acquisition model of psychotherapy by which the patient learns a different method of navigating their environment. Some of the influences of this model are from various models of therapy (McCullough, 2006). Among those influential models is Bandura's (1977) social learning theory and Kiesler's (1988) interpersonal theory, to name a few. Bandura's (1977) construct of reciprocal determinism informed Disciplined Personal Involvement (DPI), a central tenant of CBASP, which will later be explained in greater detail. Bandura taught that individuals existed in an interpersonal context. He espoused that one cannot isolate behavior as a product in a non-interactional manner

(Bandura, 1977); rather, persons and environment are interdependent causes of behavior. Simply put, Bandura proposed that behavior is an interdependent outcome of the person and the environment. He believed that behavior is not simply an outcome of the person by the situation. Behavior is not an isolated causal event; rather, it is an interactional outcome product (Bandura, 1977). The influence of the interactional outcome product is seen in the relationship between the CBASP therapist and their patient. McCullough (2000) emphasized that successful CBASP therapists must utilize the relationship with the patient in order to effect change. This is what CBASP describes as Disciplined Personal Involvement (DPI). The is a process over time with the goal of teaching the patient how to interact interpersonally (McCullough, 2006). The difference between Bandura's reciprocal determinism and McCullough's CBASP is that reciprocal determinism is seen as an interaction at a point in time (Bandura, 1977), while McCullough sees interactions as continual (McCullough, 2006).

While Bandura has a strong influence on the interpersonal aspects of CBASP, Kiesler's (1988) construct of metacommunication has origins in theory as well. Kiesler comes closer in the interactional area by talking about impacts on each other, which influence one to react differently to a person based on ongoing interactions. This model considers interactions to be a never-ending influence (Kiesler, 1988). This happens on an ongoing basis due to the different reactions that provide a new or different experience for the patient. This ongoing response helps the patient experience change in their expectations. The difference in CBASP from Bandura and Kiesler is that the therapist takes the interaction directly to the patient with a response. It is not a theory or a hypothesis; it is a real-time interaction in CBASP. Bandura believes that interactions are at one point in time, and Kiesler believes that they are ongoing but not goal-directed. CBASP views interactions as ongoing and believes the interactions need to be goal-directed. It is not an

inference of what the therapist experiences as a result of the patient's behavior; it is direct communication, where the goal is to teach the patient how to interact with the therapist in real-time. These philosophies are deeply embedded in CBASP therapy. The skills taught are informed by these influences (McCullough, 2000).

The skills taught in CBASP (i.e., situational analysis and the interpersonal discrimination exercise) deal with the core issues of PDD, (a) fear avoidance, and (b) perceptual disconnection from the interpersonal environment (McCullough, 2000, 2006, 2019). More specifically, PDD patients learn how to positively affect their own lives rather than believing they are destined to live out ineffective life strategies. This learned internal locus of control orientation helps the patient develop a sense of well-being that has been lacking due to the trauma from their early developmental years (McCullough, 2019). The two goals of CBASP reflect the core problems patients with PDD face. The two primary goals of treatment are the following: (a) achieving felt dyadic safety, meaning the patient learns to successfully discriminate between the therapist and their toxic significant others; and (b) perceived functionality, denoting the patient learns to reorganize the consequences of their behaviors; these goals are met during treatment (McCullough, 2000, 2019, 2021; McCullough et al., 2015; Penberthy, 2019).

The CBASP therapist plays an integral role in helping the patient learn how to utilize these new skills and achieve the goals of treatment (McCullough, 2021). Compared to other therapy models, the CBASP therapist's role is one of its unique features (McCullough et al., 2015). One of the primary roles of a CBASP therapist is teaching the patient skills for learning how to achieve more successful interpersonal relationships, beginning with learning to have a successful relationship with the therapist (McCullough, 2021), as successful interpersonal behavior appears to reduce PDD symptoms (McCullough, 2006; Penberthy, 2019).

Etiology of the Maladaptive Patient's History

The therapist must understand the nature of their patient's interpersonal deficits; the CBASP model requires a thorough patient history to gain this understanding. McCullough (2006) explained that this understanding is accomplished by obtaining a timeline of depressive symptoms and a Significant Other History (SOH). The SOH outlines the patient's experiences with significant players in their life. McCullough (2000, 2019, 2021) explained that this history would help inform the therapist of the patient's negative relational expectancies to treatment and lead to the formulation of the Transference Hypothesis (TH). The term *transference* is used in CBASP to denote the core learned avoidance expectancy that a patient brings to treatment (McCullough et al., 2015).

A Novel Therapeutic Relationship. Understanding the patient's background helps the therapist prepare for potential interpersonal avoidance expectancies that might erupt in the session and disrupt the therapeutic relationship. Cognizant of the patient's avoidance background, the therapist must play an active role with the patient to accomplish the first goal of treatment, which, as stated, is to achieve felt dyadic safety (McCullough et al., 2015; Penberthy, 2019). The core interpersonal avoidance expectancy identified with the TH reflects the patient's interpersonal fear issue, meaning patients believe the therapist will behave as everyone else in their life has behaved – which has typically been abusive. This belief takes the form of a specific interpersonal fear in the therapeutic relationship (McCullough et al., 2015). This interpersonal fear results in avoidance, rendering the patient unable to connect with others.

Fear-avoidance may also cause the patient to disconnect from the social environment, which inhibits them from being informed by any interpersonal feedback – one of the critical issues for the CBASP therapist (McCullough, 2021). During treatment, the therapist will work

with patients to teach them how to recognize their interpersonal impacts on the therapist

(McCullough, 2006). In order to correct the maladaptive behavior, CBASP focuses heavily on

the therapeutic relationship (McCullough et al., 2015); additionally, the therapist works with

patients through exercises designed to help the patients become more aware of the relationships

they have with others (McCullough, 2000; McCullough et al., 2015). These exercises may not be

learned effectively without the patient feeling *safe* in the therapeutic dyadic relationship.

Interpersonal safety is achieved as the patient successfully discriminates the therapist

from the significant others who have previously hurt them. In order to facilitate interpersonal

safety, the therapist actively directs the patient to focus on the therapeutic relationship to learn to

discriminate the clinician from toxic significant others. The clinical role is called Disciplined

Personal Involvement (DPI) and determines how the dyadic relationship is conducted

(McCullough, 2006). The ultimate goal of DPI is to establish an interpersonal relationship that

can model safe and adaptive living patterns (McCullough, 2000, 2019, 2021).

Goals of Cognitive Behavioral Analysis System of Psychotherapy Matched with Therapeutic
Techniques

The CBASP model matches its therapeutic goals with its techniques by design. The first

goal of the model, felt dyadic safety, is matched with the IDE. The second goal of CBASP,

helping the patient achieve *perceived functionality*, is matched with the SA technique

(McCullough, 2000, 2006, 2019; McCullough et al., 2015). The SA is a problem-solving

technique that helps the patient receive feedback regarding their effects on the interpersonal

environment. These goals are designed to help patients establish dyadic safety and recognize

their effects on others (McCullough, 2000, 2019, 2021; Penberthy, 2019). Earlier malevolent

developmental conditions and the lack of felt safety accompanying these harsh conditions have

led to emotional withdrawal and rendered these patients unable to perceive the consequences of

their behavior (Schramm et al., 2020). Once the patient achieves the first goal of CBASP, felt

dyadic safety, the therapist then teaches the patient to identify the consequences of their behavior

(McCullough, 2000, 2019; Penberthy, 2019).

An Effective Treatment for Persistent Depressive Disorder

Cognitive Behavioral Analysis System of Psychotherapy addresses the problems of PDD.

The model is based on interpersonal theory, learning, cognitive, and behavioral analysis

(Penberthy, 2019). The interpersonal theory of psychological functioning is the core of the

CBASP model. Kiesler (1982, 1988, 1996) examined how individuals influenced one another

interpersonally; this work operationalized and explained how interactions are essentially

reciprocal interpersonal encounters. Kiesler indicated that interpersonal encounters occurred in

two domains – *power* described as status and influence and *affiliation*, which centers on an

attachment or lack thereof (Locke et al., 2016; McCullough, 2006). A vertical axis of power

defines these domains – dominance, assertiveness, decisiveness, or agency, and a horizontal axis

of friendliness, sincerity, warmth, or closeness (Wiggins, 2003). The interpersonal circumplex

(IPC) is typically divided into eight octants (Kiesler, 1982), with each octant reflecting a

progressive blend of the two axial dimensions (Locke et al., 2016). The IPC allows therapists to

plot an interpersonal profile that visualizes how the patient influences the therapist, which is

called the Impact Message Inventory (IMI: McCullough et al., 2015). This tool was designed to

measure interpersonal reactions, called impact messages, to the full scope of interpersonal

behaviors categorized along the interpersonal circle (Kiesler, 1983). Interpersonal flexibility,

required from the therapist, is illustrated by their flexible movement around the circle, adapting

to the interpersonal experiences with the patient (see Figure 1).

Figure 1

Interpersonal Circumplex
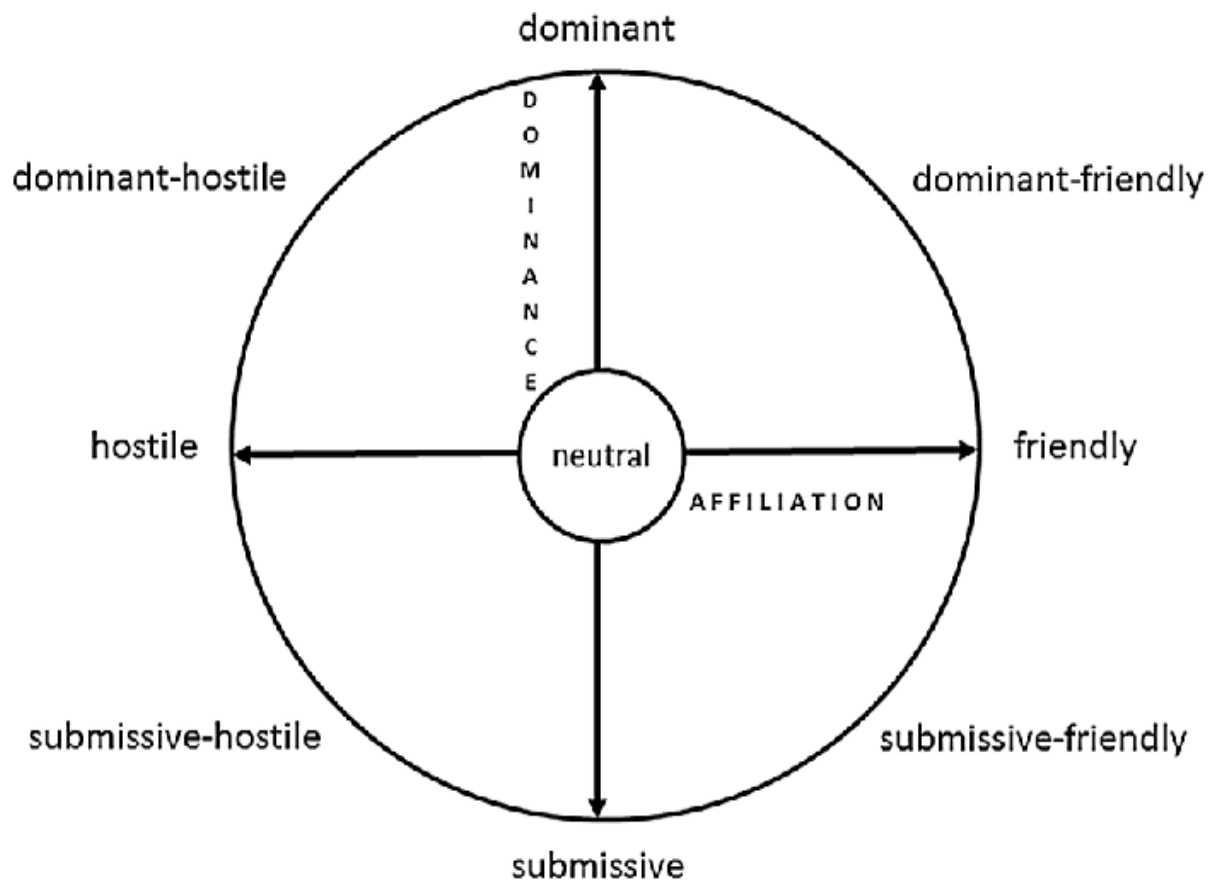
Note. This interpersonal circumplex shows that dominant behavior pulls for an interpersonal response of submissive behavior; hostile pulls for hostile; hostile-dominant pulls for hostile-submissive; friendly-dominant pulls for friendly-submissive; friendly pulls for friendly.

As the patient begins treatment, their interpersonal rigidity makes modifying their behavior challenging (McCullough et al., 2015). These individuals represent an interpersonally closed system that is a barrier to one of the major aims of CBASP – interpersonal flexibility. This flexibility represents an ability to generate empathy with the therapist and others in their lives. The strategies of CBASP are designed intentionally to teach the patient interpersonal flexible interpersonal behavior (McCullough et al., 2015). The strategies of SA, the IDE, and teaching each patient to exercise assertiveness in their interpersonal interactions all facilitate

interpersonal flexibility (McCullough, 2006). These ingredients come together to produce a

model of therapy that addresses the patient's pervasive fear and the perceptual disconnection

from their environment: the two core problems of PDD (McCullough, 2000, 2006, 2019;

McCullough et al., 2015).

The Goals of Cognitive Behavioral Analysis System of Psychotherapy

There are two core problems that individuals with PDD face – (a) pervasive interpersonal

fear and (b) perceptual disconnection from interpersonal and environmental feedback

(McCullough, 2000, 2006, 2019; McCullough et al., 2015). CBASP focuses on these two core

problems through the two distinct goals developed to address the core concerns. These goals

inform the techniques of CBASP and guide the therapist through the entirety of treatment. The

model is an operationalized interpersonal model of psychotherapy to help patients with PDD

develop skills that can decrease their distressing symptoms.

The First Goal of Cognitive Behavioral Analysis System of Psychotherapy

The first goal is to help extinguish the fear-avoidance pattern of the patient. Fear-

avoidance will be replaced with felt safety, which means the patient can experience a

relationship (with the therapist and then others) that results in an experience of interpersonal

safety (McCullough et al., 2015). McCullough et al. (2015) adhered to an assumption from

Bouton (2007), a Pavlovian researcher, that whenever you have interpersonal avoidance, it is

motivated by interpersonal fear.

The therapist addresses interpersonal fear from the beginning of therapy, creating a

dyadic safety zone to help the patient learn to successfully discriminate the clinician from

significant others who have harmed the individual. This safety discrimination enables patients to

have a new interpersonal experience with the therapist (McCullough, 2019; McCullough et al.,

2015). Felt safety is achieved through repeated trials of having patients compare and contrast the

therapist's behavior with malevolent caregivers (McCullough, 2006). For example, a patient who

has no experience being spoken to in a kind fashion may not expect the therapist to speak kindly.

The therapist will ask the patient to discriminate how the clinician has spoken and help them

compare it to their expectations with significant others. The therapist actively provides

discriminative feedback regarding how it *was* with the toxic others and how it is *now* with the

practitioner.

        Therapist Role in the First Goal. Cognitive Behavioral Analysis System of

Psychotherapy therapists are interactive with the patient from the beginning of therapy.

Traditional therapies are typically exclusively focused on the patient and the concerns they bring

to treatment. The interpersonal dyadic nature of CBASP is demonstrated in the relationship

between therapist and patient. The interpersonal focus helps patients learn to discriminate

between the relationship with the therapist now (in the present) and how relationships have been

in the past. Once the patient can successfully discriminate and a feeling of safety is achieved, the

stage is set for achieving the second major goal of CBASP.

The Second Goal of Cognitive Behavioral Analysis System of Psychotherapy

        The second goal of CBASP is achieved when a patient becomes perceptually connected

to their environment, recognizes the behavioral consequences they have on others, and is

increasingly informed by the behavioral feedback of others (McCullough, 2000, 2006, 2019;

McCullough et al., 2015). When a patient becomes aware of and can articulate the consequences

their behaviors have on others, they achieve the second goal of CBASP – this achievement is

called perceived functionality. Patients begin therapy unable to perceive the effect they have on

their environment, and the individual believes that nothing will ever change in the future, which

leads to an experience of helplessness and hopelessness. As the patient progresses through the therapeutic process, they are increasingly able to recognize their behavioral consequences and see alternatives for their maladaptive behaviors (McCullough, 2006). When patients meet this goal, they often express feelings of empowerment (e.g., "I feel like I have more control over my life."). When patients achieve the goal of perceived functionality, they often engage in more interpersonal relationships and avoid others less.

   The Therapist Role in the Second Goal. CBASP is primarily known for the SA exercise that teaches patients to acknowledge the consequences of their behavior. The successful administration of the SA requires a unique role for the clinician (McCullough, 2006). This role requires the therapist to use the personal relationship they achieve with the patient in a disciplined and contingent manner to modify behavior (McCullough, 2000). In the patient-CBASP therapist relationship, the natural behavior of the patient elicits a contingent personal reaction from the therapist (McCullough et al., 2015). This contingent response from the therapist moves that patient in a goal-oriented direction. Kiesler (1982, 1996) and Bandura et al. (1960) described how action-counteraction interpersonal response patterns shape behavior predictably and how the patient's behavior and the therapist's reactions are separable both perceptually and empirically. The therapist's reactions are hypothesized in CBASP to intentionally modify the patient's behavior (McCullough, 2006).

Techniques of Cognitive Behavioral Analysis System of Psychotherapy

   CBASP is an operationalized model of psychotherapy, with influences from Bandura's (1977) reciprocal determinism theory and Kiesler's (1988) meta communication theory, which allows the practitioner to track the acquisition learning of their patients. The two core problems that patients with PDD face (pervasive fear avoidance and perpetual interpersonal disconnection)

are addressed in the goals of CBASP (felt safety and perceived functionality), and therefore the techniques seek to remedy these core problems. The desired learning outcome for the patient is first to experience felt safety with the therapist by successfully differentiating the therapist from maltreating significant others from their past, which is accomplished through the IDE. The second desired learning outcome for the patient is to recognize the interpersonal consequences of one's behavior as evidenced by one's recognition of their interpersonal stimulus value – both are achieved through SA. The other techniques, such as Disciplined Personal Involvement, SOH, and the TH, all support the IDE and SA. DPI, to be described below, is more of a philosophy than a technique and requires the practitioner to engage the patient differently than is typically taught in psychotherapy. DPI is a cornerstone technique of the model of CBASP (McCullough, 2006), and practitioners new to CBASP must have a firm grasp on how to administer DPI. The SOH and the TH support the work accomplished while administering the IDE and the SA.

Disciplined Personal Involvement

One of the distinct features of CBASP is its unique approach to the therapist role; traditionally, clinicians have been taught to conceal their personal reactions to patients in the process of therapy (Freud, 1963; Rogers, 1951). They are also taught not to become personally involved with their patients. In contrast, CBASP teaches clinicians to become personally involved with their patients in a highly disciplined way that is individually tailored to the patient, helping to use countertransference reactions to aid in modifying the person's problematic behaviors. This relationship is called DPI and is a foundational strategy of CBASP. The therapist's reactions denote an objective type of countertransference (Winnicott, 1949); specifically, DPI involves the clinician giving the patient interpersonal impact reactions to the verbal and nonverbal behaviors of the individual (Kiesler, 1988, 1996). DPI does not include

subjective transference reactions, referring to irrational, defensive reactions that reflect the therapist's needs (Spotnitz, 1969). The disclosures of the therapist are only tools for therapeutic gain; it is not a mechanism by which the therapist defuses frustration with a difficult patient. The therapist does not simply administer DPI as a technique but must embody the essence of a disciplined personal relationship with the individual throughout the treatment process.

Self-disclosure in therapy, enacted in DPI, has been evaluated by researchers. For example, Hill and Knox (2002) defined self-disclosure as therapist statements that reveal something personal about the therapist and describe two different types of self-disclosures: first described as disclosures that do not involve the patient and the second type that implicates the patient as well as the dyadic relationship labeled immediate self-disclosure (Hill & O'Brien, 1999). Immediate self-disclosures entail disclosures of facts, feelings, insight, and strategy. This body of research indicates that utilizing a disciplined personal involvement with patients often proves to be helpful.

Little attention has been given to the therapeutic relationship and how it affects therapy outcomes based on specific diagnoses and types of therapy utilized (Norcross, 2001). Self-disclosure does seem to positively impact the quality of the relationship (Bridges, 2001; Hill & Knox, 2002; Knox et al., 1997; Safran & Muran, 2000; Teyber, 1992; Wachtel, 1993). In the various types of therapy, a psychodynamic orientation is the primary orientation of this self-disclosure research (Bridges, 2001; Greenberg, 1995; Maroda, 1999a, 1999b; Safran & Muran, 2000; Tansey & Burke, 1991). More attention is necessary to understand the effect of disorder-specific and therapy-specific natures of the interpersonal therapy relationship (Norcross, 2001).

Researchers have drawn general conclusions on the effects of self-disclosure but are missing information on the specific effects. Knox et al. (1997) reported that patients frequently

perceive a clinician's self-disclosure as beneficial to their therapeutic process. They reported that patients report self-disclosures to have a modeling effect on their behavior in some cases, while others state that the therapist disclosure had a normalizing effect for them (Robitschek & McCarthy, 1991; Yalom, 1975). Manning (2005) concluded that self-disclosure helps patients confirm the sense of themselves, teaches empathy, demonstrates the effect the patient's behavior has on others, and encourages patients to learn collaborative behavior. Bridges (2001) concluded that the self-disclosure of the clinician encourages the deepening of the therapeutic relationship and enriches the patient's emotional experience and relationship with the clinician. Barrett and Berman (2001) noted that clinician self-disclosure lowers distress levels and enhances-treatment enjoyment. Thus, self-disclosure appears to be generally more helpful than believed initially (Hill & Knox, 2002).

There are distinguishing characteristics of CBASP's DPI when compared to therapeutic self-disclosure. DPI in CBASP links any personal involvement to the two goals of the model, perceptually connects the patient with their environment, and helps heal the relational trauma that stems from the maltreating significant others replacing it with dyadic felt safety (McCullough, 2006). The scope of DPI administration is limited to patients with PDD (McCullough, 2006). At times, the CBASP therapist may need to intentionally direct the patient's attention to the therapist in order to modify the refractory nature of the perceptual patterns. Hill and Knox (2002) advocated strongly for the focus to remain on the patient throughout therapy: this is where self-disclosure research departs from the CBASP's model.

The therapeutic notion of DPI represents a type of therapist enactment role that is first based on the learning principles of the behaviorist Skinner (1953, 1968). Therapists choreograph contingent personal reactions in the session to model new interpersonal associations (Bandura,

1976, 1977; Bandura & Walters, 1964; Meichenbaum, 1971). Bandura pointed out that in many

languages, the word "teach" is a synonym for the word "show" (Reichard, 1938). CBASP

therapists are trained to be themselves in the dyadic relationship with the patient, as this helps

achieve a specific teaching goal.

There are four primary in-session instances where DPI is enacted (McCullough, 2000,

2003a, 2003b, 2006): (a) The first enactment is the consequation of the patient's in-session

behavior; for example, the clinician uses their response to the patient as a behavioral

consequence; (b) the second enactment is to teach the patient to use adaptive behavior, this is

achieved after patients learn how their negative behavior creates obstacles for obtaining

interpersonal goals; (c) the third enactment is teaching the patient empathy, which must be

modeled for the patient with PDD. Modeling empathy is conducted so that patients develop this

critical skill for interpersonal success, and (d) the fourth instance when DPI is enacted is teaching

the patient to differentiate the clinician from significant others who have mistreated and

traumatized the patient. Finally, DPI requires the acknowledgment on the part of the clinician to

use this technique prudently and with the above goals in mind.

Disciplined Personal Involvement is used as an interpersonal guide throughout the entire

therapeutic process (McCullough, 2006), where the therapist draws from the information

gathered from the Significant Other History (SOH) and the developed Transference Hypothesis

(TH) to help guide their interpersonal interactions (Penberthy, 2019). These DPI interactions

help patients learn their personal values over time through disciplined personal involvement with

their therapists. As the therapist offers real-time feedback during the session, the patient must

address the real-time impacts on the therapist. For a therapist to penetrate the closed

interpersonal system of a patient with PDD at the beginning of therapy, DPI facilitates patient

learning of their interpersonal impacts – particularly with the clinician first and then generalized with other relationships. DPI is the overarching principle that guides the therapist's behavior throughout the process of treatment.

Significant Other History and Developing the Transference Hypothesis

Patients with PDD present with severely damaged behavioral, developmental, and cognitive-emotional symptoms (McCullough, 2019). These interpersonal features often lead to patients hypothesizing that their history of early mistreatment and abuse will reoccur during therapy in the dyadic relationship. The SOH was constructed by McCullough (2019) as "an interpersonal-emotional history-taking assessment procedure" (p. 128) and consisted of a list of the "major players" in the patient's life (McCullough, 2006). The procedure helps the therapist pinpoint the patient's interpersonal expectancies (McCullough, 2019). This list of individuals describes the individuals whose influence has significantly impacted the patient's life. The therapist explains that major significant others have influenced how patients expect others to react to them (McCullough, 2006). After a brief review of each significant other, the therapist then asks the patient what "stamp" or "legacy of influence" the significant other has left on the patient's life. The therapist may ask, "How did this person influence the course of your life?" or "How did this person influence you to be the kind of person you are today?" The therapist's goal is to help the patient formulate connecting judgments about the effect significant others have had on their interpersonal expectations. The SOH is a "mismatching exercise" (Cowan, 1976; Gordon, 1988), meaning that the preoperational patient has to think about their earlier life in a cause-effect manner. Mismatching is a Piagetian procedure requiring patients to function on a higher cognitive-emotional level than they are generally accustomed to. As an example, the patient may express to the therapist, "growing up with my mother resulted in my feeling that I

would never be good enough to do things on my own," or "I learned that I cannot trust women" or that "I learned that if I make a mistake, I will be ridiculed." These are called *causal theory conclusions* (Guidano & Liotti, 1983; McCullough, 2000). As the SOH is conducted, these conclusions are made explicit, revealing the patient's interpersonal expectancies and probes for core interpersonal fears. Finally, the SOH provides the therapist with helpful information about the painful expectancies the patient might bring to the treatment dyad.

The SOH enables therapists to respond to the patient differently compared to earlier reactions of significant others. Earlier significant other reactions usually lead to interpersonal fear and avoidance (McCullough et al., 2015). The fear comes from the patient expecting the same behavior from the therapist that arose from these earlier experiences. This response is viewed as a transfer of learning phenomenon (McCullough et al., 2015). CBASP uses the term *transference* to mean "the generalized learned expectances patients bring to the dyadic relationship" (McCullough et al., 2015, p. 32). Understanding where the patient's transfer of learning expectancies comes from is critical to one being able to choreograph new interpersonal learning.

Transference Hypothesis. The TH is derived from the SOH. It is developed to help create a safety zone for the patient that differs from earlier learned expectancies (McCullough et al., 2015); it is also used as an exercise to help patients discriminate the differences between earlier toxic experiences and the clinician's behavior (Guidano & Liotti, 1983). The exercise of the SOH leads to the development of the TH, which is corroborated by Guidano (1991), who wrote that human beings could not separate themselves from their view of life. Other researchers believe this is particularly undeniable when evaluating individuals who have been traumatized by significant others in their lives, resulting in their interpersonal impediments (Conway, 1987;

Kiesler, 1996; Mischel, 1973; Wachtel, 1993). As the patient becomes attached to the therapist, they will have the same expectancies of the therapist that they experienced from their significant others. This expectancy is shown as some patients expect the therapist to reject them, some patients fear that the therapist expects perfection, and others will interact with the therapist with detachment and withdrawal (McCullough, 2006). The purpose of the SOH is to make the therapist aware of the interpersonal patterns of the patient so the transference predictions can be used for teaching a different interpersonal behavior (McCullough, 2006).

Four Domains of Transference Hypothesis. While it is known that there are multiple sources of patient trauma, CBASP asserts four domains of interpersonal trauma. These four domains constitute the categories from which the TH may be drawn. The first domain is *relational intimacy*. This domain implies that a bond forms between the patient and the therapist. The risk for the patient is that if "I get close, I will get hurt." An example of what the patient expects is, "If I get emotionally close to Dr. Brown, he will hurt me." The second domain of the TH is described as the *patient's personal disclosure* involving behavioral expressions, more specifically, personal information or *emotional needs*. An example of the personal disclosure domain might be, "If I disclose personal information to Dr. White, she may use it to harm or humiliate me." The third domain involves the patient's fear of *making mistakes* during treatment. This fear is frequently experienced in treatment; for example, the patient may forget their appointment or fail to do their homework. An example of making mistakes is, "If I make a mistake while working with Dr. Black, he will speak harshly to me and/or reject me." Lastly, the fourth domain denotes a patient's fear of expressing *negative emotions toward the practitioner*.

An expectancy example of expressing negative emotions might be, "If I express any negative emotion toward Dr. Green, she will berate or reject me."

The CBASP therapist will review the salient theme from the SOH procedure that will likely predict the heightened fear and avoidance of the patient. This theme is translated into one of the domains listed above and becomes the TH of treatment. The most common theme for the TH is the first domain, "If I get relationally close to Dr. Brown, he will hurt me" (Penberthy, 2019).

Only one TH is constructed; this is designed to be a "best fit" expectancy for the fear-avoidance theme the patient brings to the therapeutic relationship (McCullough et al., 2015). The construct of this hypothesis stated in functional language will appear as, "*If* I (the patient) confront this domain in therapy, *then this* (based on the interpersonal trauma in my history) is how I expect the clinician to respond" (McCullough et al., 2015, p. 87). The TH is hypothesized to be the more salient core fear of the CBASP patient. The core fear illuminates what CBASP labels a *hot spot* (McCullough, 2000, 2006, 2019; McCullough et al., 2015). It is labeled a *hot spot* because it implicates the transference fear. Practitioners administer the IDE when they encounter a hot spot domain (McCullough et al., 2015).

Choreographing Consequences. Evidence of healthy interpersonal living is described as an individual's ability to generate empathy and experience feelings of empowerment which are derived from an ability to meet the stress and demands of life's daily interpersonal situations (McCullough et al., 2015): this personal empowerment is the outcome goal of CBASP therapy (McCullough et al., 2015). For an individual to experience this type of interpersonal empowerment, it requires that they think abstractly (Piaget, 1926), allowing the individual to consider alternative possibilities of a situation perceptually. Once abstract thinking is possible in

therapy, the individual must consider what behavior is necessary to move toward an interpersonal goal. The individual must consider the consequences of their behavior to accomplish this goal (McCullough et al., 2015). For example, when patients learn how they affect others, they are more likely to live an empowered life.

Patients with PDD frequently cannot attain this type of empowerment. Due to their early developmental maltreatment, they behave with fear-avoidance and perceptually disengage from their social environment (McCullough, 2000). Such behavior is the opposite of living a fruitful and empowered life. These patients do not have a clear understanding of how their behavior creates consequences for them. Skinner (1953) is often associated with the term *behavioral consequences*. He believed that our environment significantly shapes us and often determines how we develop, which in the case of these patients, social-emotional developmental stunting is seen. This development arrest must be overcome with specific teaching that combats the interpersonal fear-avoidance of the patient. CBASP is designed to help these individuals overcome this perceptual disconnection that results from interpersonal fear-avoidance.

Felt helplessness typically dominates the patient's life, and empowerment is not believed to be attainable. These individuals report powerlessness to change anything in their lives. Developing a belief that this patient can successfully meet the challenges of daily living seems out of reach for these patients. There is little to no insight into their effect on their environment, much less the ability to generate a sense of empathy for others (McCullough et al., 2015). This inability leaves these patients vulnerable to living isolated lives, meaning there is no informing feedback from their environment. This lack of feedback leaves the patient in a state of felt hopelessness. Their self-destructive patterns remain pervasive in their lives, leaving them stuck in a devastating pattern of sameness.

The key to interpersonal empowerment is recognizing the effect one's behavior has on their environment. The outcome goals for CBASP are empowering the patient to see the interpersonal effects they have on others and live life with goal-directed behaviors (McCullough et al., 2015). The CBASP therapist focuses on the consequation of the patient's behavior, helping them understand the interpersonal effect on their therapist and others. Understanding these effects is a motivating factor for the patient with PDD. The patient develops the ability to "read" situations as they learn to evaluate the consequences they see in their interpersonal interactions. Learning the consequences of their behavior is developed in the techniques of IDE and the SA technique of CBASP.

Interpersonal Discrimination Exercise

When a CBASP patient experiences a "hot spot" domain, the fear of danger identified in the TH, the interpersonal discrimination exercise (IDE), is used. The goal of IDE is to teach the individual to discriminate between the behavioral reactions of the therapist and those of the maltreating significant other (McCullough et al., 2015). Hopefully, these discriminations will result in "felt safety," the first major goal of CBASP, which is achieved when patients learn to differentiate the therapist from their maltreating significant others successfully.

Mowrer (1939) developed a two-factor learning theory that currently remains influential in the CBASP interpersonal discrimination process. This theory, described causally, states that there are typically cues or warning signals in the environment that inform the individual that an unpleasant or undesirable event is about to occur. His experiments involved rats in shuttle boxes avoiding shocks associated with buzzers (Bouton, 2007). The first factor of Mowrer's two-factor theory involved Pavlovian fear conditioning of the mice (Bouton, 2007). The parallel of Mowrer's first factor to the patient with PDD is the fact that their harsh environment has a fear-

avoidant effect on the individual (McCullough, 2019; McCullough et al., 2015; Penberthy, 2019). The response to this fear conditioning is avoidance (Penberthy, 2019).

The second factor in Mowrer's two-factor theory is the reinforcement of fear reduction (Bouton, 2007). The mice are given a reprieve from the shock, and learning is used to pair the absence of the shock with the absence of the buzzer. The more quickly the buzzer is paired with the shock, the more quickly the mice learn (Bouton, 2007). In turn, the rapid pairing of the buzzer is turned off and the shock removed, the more quickly mice reduce their fear. When there is a lag-time between the shock being removed and the buzzer being turned off, the mice experience a greater sense of fear than those who experience the buzzer and the shock being paired closely (Mowrer & Lamoreaux, 1942). The parallel to the patient with PDD is that the fear reduction from the traumatic environment is not paired rapidly. In fact, it may take many years, if ever it occurs, before a patient with PDD understands how to discriminate the environment from their expectancies derived from their past painful experiences.

The interpersonal discrimination exercise (IDE) was developed to help the patient with PDD learn to discriminate the therapist from their significant others (SO). The belief is that when the patient learns to discriminate the therapist from the SO, the patient is achieving Mowrer's second factor of learning – fear reduction. The reduction of fear takes place when the patient experiences new expectancies from the therapist's behavior and is able to discriminate the therapist from their significant other. Once they learn to discriminate the therapist, this is analogous to Mowrer's learning factors in that the patient is able to see the danger is no longer present. Mowrer paired the lack of shock with the buzzer, CBASP pairs the therapist with the lack of traumatic response. When this is brought to the patient's attention, the patient is more likely to experience fear reduction. Over time, this is generalized, and the patient is able to

discriminate their traumatic significant others and begin to have different expectancies from their environment. The different expectancies give the patient the felt-safety to interact more freely with their environment (McCullough et al., 2015; Penberthy, 2019).

Four Steps of Interpersonal Discrimination Exercise. The IDE entails a 4-step exercise (Penberthy, 2019). The practitioner first asks the patient to recall how a significant other would have reacted to the patient in the hot spot arena (e.g., "I asked for help with putting together an outfit for the dance."). Next, the clinician asks for a description of how they behaved toward the patient (e.g., "My mother told me I was so plain I would not be asked to the dance, so why bother."). The patient displays painful evidence that the memory provoked is painful (i.e., a painful grimace, fearful look, or a statement such as, "I will never ask her for help of any kind again. It would be too painful."). The third step is the positive healing step, as the therapist asks the individual to delineate the differences when the two interactions are compared. The fourth step queries the patient to hypothesize how the dyadic relationship would look if the therapist turns out to be different from the toxic significant other (McCullough et al., 2015).

Interpersonal Discrimination Exercise healing moments "involve a *negative reinforcement condition* wherein the aversive stimulus situation is alleviated by a redirection of attention to the facilitative personal responses of the therapist" (McCullough, 2006, p. 133). As a result, the positive interpersonal shifts that patients experience improve the fear-avoidant internal state and the beginning to learn the connection between old behavior and the new experience with the therapist.

Situational Analysis

Cognitive Behavioral Analysis System of Psychotherapy's central change technique is believed to be the SA exercise. SA teaches patients to develop a perceptual understanding of the

consequences of their behavior (McCullough, 2000), and SA also teaches patients that their

behavior produces identifiable interpersonal consequences (McCullough et al., 2015). It provides

therapists with a procedure that helps assess how patients respond in specific situational

encounters with others. The exercise is an "interpersonal problem-solving tool that helps the

patient actively re-experience an interpersonal encounter and safely learn social-emotional

interpersonal problem-solving skills" (Penberthy, 2019, p. 57). Patients become increasingly

proficient at recognizing their behavioral consequences with repeated administrations of the SA

exercise. The goal of the technique is labeled perceived functionality, described as the ability to

identify the consequences one produces in interpersonal engagement (McCullough et al., 2015).

Perceived functionality connects the patient perceptually with their environment

(McCullough et al., 2015). McCullough (2006) described this connection as "the ability to

recognize and identify the interpersonal consequences of one's behavior" (p. 81). In contrast,

McCullough (2000) indicated that one maintaining variable of PDD is the perceptual

disengagement that patients experience due to their inability to recognize the interpersonal

consequences of their behavior. The person-environment connection is demonstrated through

SA, administered in approximately 70% of therapy sessions (McCullough, 2019). SA is, in

essence, a problem-solving algorithm that has many interrelated objectives for the patient's

learning; some of these involve revealing and revising maladaptive thoughts and behaviors of the

patient and facilitating the awareness of the consequences of these thoughts and behaviors.

Situational Analysis: Elicitation Phase. The SA exercise includes two phases: the

Elicitation Phase and the *Remediation Phase*. The elicitation phase begins the process. Step One

of the elicitation phase asks the patient to describe one situational event (the Situational

Description) that involves an interpersonal event where the event's beginning and ending point

are identified (McCullough, 2006). Patients' global thinking, another limiting influence on

effective problem-solving, is remediated by SA by gaining mastery of focusing on a specific

point of time. In Step Two, the patient is asked to describe how they interpreted the event; this

step asks them to report their thoughts and interpretations during the event. Step Three asks the

patient to describe their behavior by describing what they did. Some patients struggle to

differentiate this step from the first step. Step Three strictly focuses on *their* behavior (what they

did). Step Four asks the patient to identify the event's consequences and the actual outcome

(AO). After the patient pinpoints the AO, they move to Step Five and are asked to describe what

they had hoped the consequences of the situation might have been. This step is labeled the

desired outcome (DO). The AO and the DO are then compared to determine if the outcomes are

similar (i.e. if the AO = DO). The comparison is critical as it challenges the patient's

preoperational thought patterns and illustrates the patient's active role in affecting the distressing

outcome of not achieving what they wanted (Penberthy, 2019). The DO is used as the situational

goal and the motivational component of the exercise (McCullough, 2019).

   Situational Analysis: Remediation Phase. The remediation phase follows the elicitation

phase of SA. The therapist teaches the patient to "fix" the situation by looking at the

contributions of one's thoughts and behaviors. The patient is assisted in seeing how their

interpretations and behaviors contributed or did not contribute to achieving their DO. Beginning

this process (the remediation phase), the clinician asks the patient *why* they did or did not

achieve their DO. The *why* question is simply a bridge between the elicitation phase and the

remediation phase of SA (McCullough et al., 2015). The answer to this question will change in

the degree of accuracy throughout treatment; thus, the patient will become more adept at

pinpointing the interpersonal consequence of the situation and accurately articulating why the DO was not attained.

After asking the why question, the practitioner reviews the patient's interpretations (taken from Step Two of the elicitation phase); each interpretation is evaluated to determine whether it is grounded in the "slice of time" to which the patient is referring. For example, the patient may be discussing a specific situation that occurred between him and his wife, but his interpretation may encompass their entire relationship (e.g., "she never treats me well."). This interpretation is not grounded in the "slice of time" because *never* is a global term that is outside the moment being discussed. Interpretations that are grounded involve reflections that are observable in the interaction (e.g., "Her tone of voice makes me think she is angry with me."). The patient learns that their interpretations are outside the "slice of time" and do not contribute to their attaining the DO. Global thinking, where helplessness and hopelessness are perpetuated, is challenged in this portion of the SA. The practitioner and the patient continue to evaluate the interpretations considering if there is mind reading occurring. A mind read, or reading the other person's mind, is harmful to the interpersonal connection in the situation. The patient is encouraged not to read anyone's mind. If it is not observable or verifiable, the interpretation is disregarded and replaced with an appropriate interpretation. Throughout treatment, the patient learns that reasonable interpretations are grounded in the situation and accurately describe what is going on; secondly, reasonable interpretations contribute to an attainable DO (McCullough et al., 2015).

Desired outcomes are not typically achieved in the early stage of CBASP treatment. Continuing to focus on a slice of time, patients learn that they cannot problem-solve by practicing global thinking (e.g., "No one likes me" or "Nothing will ever go my way"). Rather, they will be taught to focus on what occurred in the situational slice of time and remediate the

cognitive and behavioral inaccuracies that resulted in a poor AO. Teaching the patient to adapt to

the consequences of their behavior is typically a new experience. They learn that if they want to

achieve their DO, they must *modify their behavior*. Through repeated administrations of SA,

patients progressively realize that their behavior has recognizable consequences; in time, the SA

process results in a perceived connection being made between the person and others (i.e.,

perceived functionality is acquired).

Summary of Situational Analysis. Situational analysis teaches patients a method for

problem-solving, while learning this technique leads to solving daily dilemmas with less stress.

CBASP encourages patients to self-administer SA even after treatment has concluded

(McCullough, 2000, 2019). Effective living requires the patient to have continued awareness of

their connection to the interpersonal world in which they live.

The Cognitive Behavioral Analysis System of Psychotherapy Model Efficacy

Cognitive Behavioral Analysis System of Psychotherapy has been proven as an effective

model of therapy for PDD, and it has achieved empirically validated status as a therapy model in

the United States and abroad. Several studies have been conducted supporting the efficacy of

CBASP. Researchers have reported that CBASP is more effective for PDD than other specific

treatment modalities that have been compared to CBASP. Michalak et al. (2015) and Klein et al.

(2011) found that CBASP was an effective model of treatment. These researchers reported that

when CBASP was compared to treatment as usual (TAU) and mindfulness-based cognitive

therapy (MBCT), it was shown to be more effective (Michalak et al., 2015). Negt et al. (2016)

evaluated the effectiveness of CBASP in treating PDD and concluded that CBASP was more

effective in treating PDD when compared to other models. Researchers also found similar trends

when comparing CBASP with antidepressant medication alone (Negt et al., 2016). After

reviewing the PDD treatment literature, Jobst et al. (2016) concluded that CBASP was effective

first-line psychotherapy for PDD.

The CBASP model assumes that early-onset PDD is associated with early childhood

trauma (McCullough, 2019). In a large clinical trial, Nemeroff et al. (2003) showed that

individuals who had suffered from childhood trauma and were also diagnosed with chronic

depression produced a more significant treatment response than patients who were chronically

depressed and who received only the drug alone. This study supported the assumption that

CBASP is effective when early trauma is part of the PDD patient's history.

Santiago et al. (2005) evaluated the effectiveness of the therapeutic alliance (CBASP goal

of felt emotional safety) and the patient learning to conduct a successful SA. The outcome

efficacy was based on the patient performance rating scale and was measured against the

outcomes of depression scales. It was found that positive patient-therapist alliances were

associated with decreased depressive symptoms. Also reported was that a patient's ability to

administer successful SAs was correlated with lower depressive symptoms. However, Santiago

et al. (2005) found no effects for the therapeutic alliance when related to successful SA outcomes

and concluded the social problem-solving skills of SA and therapeutic alliance decrease PDD

symptoms by virtue of separate change mechanisms.

Along with psychotherapy, combined medication regimes appear necessary for PDD.

One study by Keller et al. (2000) demonstrated that combination treatment was the most

effective. The study (n = 681) involved 12 sites across the United States. This trial evaluated the

effectiveness of nefazodone alone, CBASP therapy alone, and the combination of both. Over 500

patients completed the study. The response rate for nefazodone alone was 55%, and in the

psychotherapy alone group, the response rate was 52% (Keller et al., 2000). The response rate

for those who completed treatment in the combined cell was 85% (Keller et al., 2000). The most conservative analyses for response rate in the combination cell revealed a 77% response rate (Keller et al., 2000). Researchers concluded that both monotherapies yielded similar outcomes. The combination cell was significantly more effective in decreasing PDD than either mono-treatment cell.

The Keller et al. (2000) crossover study also evaluated the non-responders in the monotherapy cells (61 CBASP participants and 79 nefazodone participants). Patients in both cohorts showed clinical benefit when changing from psychotherapy to drug and vice versa. Finally, Klein et al. (2004) evaluated the maintenance effects of continuing-to-receive CBASP when compared to continuing-to-receive drugs and reported that continuing to receive CBASP during the maintenance period was significantly more effective than taking the drug alone.

Schramm et al. (2015) investigated the efficacy of CBASP as compared to Escitalopram (brand name Lexapro). In the early weeks of the study, beginning to week eight, Escitalopram appeared to perform more rapidly than CBASP. However, after week eight, the participants in the CBASP group rapidly improved their depression, catching up with the medication group (Schramm et al., 2015). The authors hypothesized that this slow response could be due to the initial phase of CBASP being stressful for many patients. Brakemeier et al. (2015) reported that 65% of the participants experienced a worsening of symptoms in the initial phase of their investigation. The authors reported that the initial learning phase of CBASP was stressful for the participants. This phenomenon contributed to the extended duration of the study that Schramm et al. (2015) conducted. The study was 28 weeks in duration. The authors concluded that CBASP and Escitalopram had an equal effect on the participants in the study.

It is widely accepted that treating chronic depression is difficult (Wiersma et al., 2014). However, CBASP is proving to be an effective option for treatment for patients. In addition, many patients prefer therapy over medication, and it was also found that patients who received their desired treatment had more favorable outcomes for treatment (Schramm et al., 2015). These factors, combined with CBASP being proven effective, make a strong case for CBASP being a positive option for those suffering from chronic depression.

While there has been evidence of positive outcomes with PDD when CBASP is administered, long-term outcomes for PDD remission have not been as positive (Schramm et al., 2019). CBASP has been found to have a positive maintenance effect on individuals with PDD (Bausch et al., 2020; Klein et al., 2004; Schramm et al., 2011). Compared with supportive psychotherapy, CBASP is an effective treatment for long-term outcomes (Schramm et al., 2019). When long-term outcomes have been evaluated, CBASP produced the most favorable outcomes within the first year after treatment (Schramm et al., 2019). Continuing to study the effectiveness of CBASP should improve the overall treatment picture for individuals who experience PDD (Wiersma et al., 2008).

Cognitive Behavioral Analysis System of Psychotherapy has traditionally been delivered as individual therapy. Group therapy interventions were not reported until recently. For example, several studies have found CBASP effective in group settings (Potijk et al., 2020; Probst et al., 2020; Sabab et al., 2018; Sayegh et al., 2012; Sayegh & Penberthy, 2016). Locke et al. (2016) reported that a group setting should be a successful venue for individuals who are chronically depressed to practice the skills of CBASP. Inpatient facilities have also found CBASP group therapy to be helpful to those with chronic depression (Sabab et al., 2018). In summary, CBASP

psychotherapy has been empirically validated in the research literature. There is also growing

evidence for the efficacy of CBASP administration when it is delivered in a group setting.

Hom et al. (2017) investigated whether treatment benefits were attained through the

utilization of SA. Researchers reported that the participants improved with CBASP and learned

the skill of SA. However, it remains inconclusive why CBASP decreases PDD symptoms (Hom

et al., 2017). The empirically proven theory of CBASP has been theory-driven to this point

(McCullough et al., 2011).

Summary

CBASP is a learning acquisition model of psychotherapy that was specifically designed

to help treat chronic depression or Persistent Depressive Disorder. There are two core problems

addressed by the CBASP model, (a) fear avoidance and (b) a perceptual disconnection from the

patient's interpersonal environment (Penberthy, 2019). These core problems are paired with the

goals of CBASP (McCullough et al., 2015). The first goal is to replace the patient's fear

avoidance with an interpersonal felt safety to be experienced in the relationship with their

therapist (Hom et al., 2017). The second goal of CBASP is to replace perceptual disconnection

from the patient's interpersonal environment with perceived functionality (McCullough et al.,

2015). The two goals of CBASP are matched with the techniques, which include IDE, which is

to help the patient learn to differentiate the therapist from their malevolent significant others, and

the SA, which is designed to help teach problem-solving skills (McCullough, 2019).

Research has shown that utilizing CBASP with patients with PDD helps remediate their

depression (Hom et al., 2017; Klein et al., 2004); however, learning why it works is yet to be

investigated. This understanding is necessary for psychotherapy to be more effective for patients

(Kazdin, 2007; Kazdin & Nock, 2003). The question *of why* CBASP is effective remains and

needs to be investigated. This study will be a pilot study to investigate *why* CBASP is effective.

CHAPTER THREE: METHODS

Overview

The Cognitive Behavioral Analysis System of Psychotherapy is a learning acquisition

model of therapy for individuals with PDD. This model has been empirically validated in the

literature as an effective treatment for PDD (Furukawa et al., 2018; Keller et al., 2000; Schramm

et al., 2011). The two distinctive treatment ingredients of CBASP are the Interpersonal

Discrimination Exercise (IDE) and Situational Analysis (SA). It is unknown whether the

techniques of SA versus IDE are equivalent in effectiveness. While it is known that CBASP is an

effective model for treating PDD, the active ingredients (specific mechanisms) of change have

not been determined (Hom et al., 2017; McCullough et al., 2011; Penberthy, 2019). No prior

research has been undertaken with the IDE and SA to determine if one or both contribute to the

previously reported significant effects of the treatment (Penberthy, 2019). This case study

investigation sought to answer the dismantling question.

Design

The present study was a single-case design (N=1) investigation. Sidman (1960) proposed

two types of single-case designs: direct replication and systematic replication. This study

represents a systematic replication design. Direct replication studies require that all the variables

remain the same except for the subject variable (Sidman, 1960). This stringent requirement

makes systematic replication, where the therapist and treatment variables are altered, a better

design option for the purposes of this study (Heppner et al., 2008; Kazdin, 2007; Sidman, 1960).

When there is confidence in the overall effectiveness of the methodology (Furukawa et al., 2018;

Keller et al., 2000; Schramm et al., 2011), systematic replication design is the best option

(McCullough, 1984b; Sidman, 1960). Systematic replications allow for multiple participants,

varied treatments, and multiple therapists (Sidman, 1960). This study included three independent variables (IVs): (a) multiple patients diagnosed with PDD, (b) the implementation of three CBASP treatment cells, and (c) two trained and certified CBASP therapists.

The study was submitted to the Institutional Review Board for review and approval. Six participants were selected through a screening process, and all provided written informed consent to participate. The six eligible participants were randomly assigned to monotherapy groups in a 1:1:1 ratio to be taught SA, IDE, or a combination of SA and IDE. These skills were taught over a minimum of 10 sessions and a maximum of 20 sessions. Participants who completed 10 sessions were considered completers of the study. The Structured Interview Guide for the Hamilton Depression Rating Scale (SIGH-D), Childhood Trauma Questionnaire (CTQ), Kaufman Brief Intelligence Test (K-BIT), Mini-Mental State Exam (MMSE), and self-report Beck Depression Inventory-II (BDI-II) were administered at the screening interview. Two psychotherapists administered the treatment, both of whom had over 2 decades of experience in therapy and, in addition, had been certified in CBASP by Dr. James P. McCullough, Jr., developer of the CBASP model. Every psychotherapy session conducted during the study was videotaped, and approximately every third session was rated by Dr. McCullough and Dr. Penberthy, a certified CBASP supervisor, for adherence to the CBASP treatment administration protocol.

The degree of acquisition learning in the SA, IDE, and combination cells was determined. Treatment response was evaluated at three points during the therapy process (baseline, mid-point, and end-point), and a differential decision of efficacy was made across all three cells (SA vs. IDE vs. Combination). The dismantling question concerning the most effective active ingredient was hoped to be identified in the study's systematic replication design.

Research Questions

RQ 1. Does learning SA alone versus learning IDE alone produce similar or different treatment outcomes?

RQ 2. Do the two mono-treatments (i.e., SA Cell and IDE Cell) produce similar or differentiated treatment processes and outcomes compared to the Combination Cell where both the SA and the IDE Exercises are administered?

RQ 3. What general dismantling implications may now be drawn from the study data when Research Question One and Research Question Two are considered?

Hypotheses

H0: There will be no outcome treatment effect differences when the three cells are compared.

Participants and Setting

A group of six individuals between the ages of 18-55 years of age was selected who met the DSM-5 (APA, 2013) criteria for early-onset PDD. Due to CBASP being a learning acquisition model of therapy, the age range was selected to help reduce any age-related concerns related to the ability to learn (Zahodne et al., 2019). The study patients were referred for therapy or were personally seeking therapy from local community resources and local universities' mental health programs. Appropriate referrals were screened for this study. Early-onset depression is described as experiencing symptoms before the age of 21 and for more than 2 years (Penberthy, 2019). During the initial screening, it was determined that all persons participated voluntarily in the study and that all participants met the early-onset diagnostic criteria for PDD. Participants who did not meet the inclusion criteria were referred to a therapist for appropriate

treatment. The study was conducted in offices that provided each participant with a comfortable and confidential environment.

Inclusion and Exclusion Criteria

Inclusion Criteria. To be eligible for the study, patients had to be between the ages of 18 and 55 years and obtain a score of $\geq$ 18 on the 17-item SIGH-D and a score of $\geq$ 19 on the BDI-II. As noted, patients met the criteria for early-onset PDD (APA, 2013) and had a minimum of a high school education. In addition, they had to be English-speaking and be able to read and write at an 8th-grade level. Patients that participated in the study had an IQ score of $\geq$ 85. If an eating disorder was present, it must have been in remission for 6 months or longer. Individuals taking SSRI, SNRI, and anti-anxiety meds were eligible, but they had to be willing to be evaluated by the study psychiatrist. The only inclusions from the list of Cluster B and C Personality Disorders (DSM-5) were histrionic personality disorder and dependent personality disorder.

Exclusion Criteria. Participants were excluded from the study if they had any of the following: co-occurring psychosis or psychotic disorders (lifetime), including schizophrenia, schizotypal, or schizoaffective disorders; bipolar disorder exhibiting a high level of suicidality judged by the clinical rater, borderline personality disorder; presented with an active eating disorder (not in remission for at least 6 months), reported an obsessive–compulsive disorder, dementia, attention deficit disorder or attention deficit hyperactive disorder as a primary diagnosis; reported any Cluster A personality disorders, Cluster B personality disorders (with the exception of histrionic personality disorder), Cluster C personality disorders (with the exception of dependent personality disorder); had a primary diagnosis of panic, generalized anxiety, social phobia; current post-traumatic stress disorder if it was the primary diagnosis; a seizure disorder, history of a stroke, traumatic brain injury (TBI), active substance-use disorder or dependence

disorder (excluding nicotine and occasional marijuana use) within 6 months before the study began; any potential disruptions to the commitment of the study (i.e., divorce pending, extended travel planned during the time of the study, planning for pregnancy during study, upcoming wedding) and the primary diagnosis of learning disorder or processing disorder (the clinical significance was evaluated and the effect on their ability to learn at present was considered).

Instrumentation

The Beck Depression Inventory

The Beck Depression Inventory (BDI-II: Beck et al., 1996) is a 21-item self-report questionnaire with a four-point scale for each item ranging from 0 to 3, except for two items that offer seven options for the participant to select that measures depressive symptoms and severity. This measure has demonstrated sufficient internal consistency, test-retest reliability, construct validity, and factorial validity (Dozois et al., 1998). The BDI-II scale is 0-13: Minimal; 14-19: Mild; 20-28: Moderate; 29-63: Severe (Beck et al., 1996). This measure was used to screen for and evaluate the level of depression during the initial screening interview. The BDI-II was purchased and used in Session 3 and every subsequent session to evaluate and track the level of depression.

Structured Interview Guide for the Hamilton Depression Rating Scale (SIGH-D)

The Hamilton Depression Rating Scale (Hamilton, 1960) has multiple versions of the questionnaire that vary in the number of questions (Williams, 2001). The 17-item SIGH-D was selected for this study and used with permission (see Appendix C). The questionnaire has been widely used in clinical trials to assess the effectiveness of antidepressant medication and depression (Sharp, 2015). A meta-analysis showed that the SIGH-D has sufficient internal consistency with a Cronbach's alpha being 0.79, inter-rater reliability with an intra-class

correlation coefficient (ICC) of 0.94, and test-retest reliability ICC of 0.93 (Trajkovic et al., 2011). The SIGH-D was chosen for this study because it is the most commonly used clinician-rated scale in research and clinical settings that rates the severity of depression (Furukawa et al., 2019). It functioned in the study as the primary outcome measure and was administered at the beginning, mid-point, and study endpoint.

Participant Learning Acquisition Rating

The learning acquisition of the SA, IDE, and the combination of the two were rated weekly by the therapist. These steps had been operationalized by McCullough (2000), so the quality of the participant's performance over sessions could be reliably rated by the therapist. The requirements for successful completion of each technique step ("hit") are as follows concerning the SA, which is evaluated as a 5-step exercise including both elicitation and remediation phases. If the participant is able to proceed through the steps with very *minimal* assistance, they can formulate a desired outcome (DO) that is "realistic" (i.e., articulate a DO that the patient can produce) or formulate a DO that is "attainable" (i.e., the patient knows from previous experience that the other/environment will deliver the DO); the participant can self-correct mistakes in Step 2 (interpretation step: no mind reads or non-grounded reads) and Step 3 (behavior: avoidance) during remediation phase; and the participant can insert an action interpretation (AI) that implicates saying or doing the DO in a behavioral act to achieve the DO. The above SA self-administered behaviors are rated "hits."

The Interpersonal Discrimination Exercise is a 4-step exercise used to determine if the participant can proceed through the steps with very *minimal* assistance. In Step 1, the participant is able to describe the behavior of the significant other(s); in Step 2, the participant can describe the behavior of the therapist; in Step 3, the participant can correctly discriminate/compare and

contrast the therapist's behavior from the significant other(s) behavior; Step 4, the participant can hypothesize the "*positive possibilities*" if the therapist is judged to be different from the significant other(s).

The therapist rated these steps after each session to delineate whether the participant was acquiring the skill of SA, IDE, or the combination of SA and IDE. The rating was completed and categorized as a "yes" or "no" step-hit. There were five possible step-hits in SA and four in the IDE exercise.

Therapist Adherence

Approximately every third session was rated for adherence to the cell administration protocol guidelines. The session video was viewed by two trained raters who rated independently and rated 5-minute randomly selected segments at the beginning, middle, and end of the sessions. The videotaped sessions were rated based on the following scale: 1 = unsatisfactory adherence; 2 = fair adherence; 3 = satisfactory adherence; and N/R = segment is not ratable (i.e., there was no SA or IDE being administered).

Mini-Mental State Exam

The Mini-Mental State Exam (MMSE) is a widely used tool to assess cognitive function (McDowell et al., 1997). The questionnaire includes assessments of orientation, attention, memory, language, and visual-spatial skills. Folstein et al. (1975) demonstrated that the MMSE was capable of high test-retest reliability with test-retest correlation coefficients averaging 0.90. Therefore, this tool was purchased and used to screen for dementia in the study. The permissible cut-off score was 24 out of 30 possible, indicating an 8th-grade education (McDowell et al., 1997).

Kauffman Brief Intelligence Test

The Kauffman Brief Intelligence Test (KBIT) is a 60-item questionnaire consisting of three subtests. Two subtests assessed vocabulary and naming, which also provided an estimated Verbal IQ. The third subtest was designed to provide a Nonverbal IQ estimate by assessing visuospatial reasoning through nonverbal analogies (Naugle et al., 1993). Kaufman and Kaufman (2004) reported test-retest reliability coefficients ranging from .88 to .93 across different age groups. Canivez (1996) found the KBIT to be a valid brief estimate of general intellectual abilities (Canivez, 1996; Kaufman & Kaufman, 2004). This tool was purchased and utilized as a brief intellectual assessment during the screening interview of this study.

Childhood Trauma Questionnaire

The Childhood Trauma Questionnaire (CTQ) is a self-report measure developed to provide a one-time, brief, reliable, and valid assessment of a broad range of traumatic experiences in childhood (Fink et al., 1995). Fink et al. (1995) reported that the CTQ has interrater reliability correlation scores ranging between 0.73 and 1.00, indicating very good reliability (Fink et al., 1995). The questionnaire assesses experiences of abuse and neglect in childhood, including physical, emotional, and sexual abuse and physical and emotional neglect, as well as related aspects of the child-rearing environment (Bernstein et al., 1994). The CTQ is intended for adolescents and adults. Responses are measured on a 5-point Likert-type scale according to the frequency with which experiences occurred, with 1 = "never true" and 5 = "very often true." The CTQ was purchased and given to the participant at the first therapy session and was returned to the therapist at the next meeting. The results were not discussed with the participants. Instead, the therapists used the test data to better understand the participant's trauma history.

Shapiro Personal Questionnaire

The Shapiro Personal Questionnaire (PQ) is a self-report data-gathering process developed to be adaptable to varying patient situations (Shapiro, 1961). The questionnaire is made up of five different steps and is adaptable to the goals of CBASP. For example, Elliott et al. (2016) reported that the PQ showed good internal consistency varying from the .70s to .80s and showed good correlations with standardized outcome measures ranging between .30 and .60. The PQ was used to rate the extent to which a patient (a) was able to recognize interpersonal consequences of their behavior and (b) was perceptually capable of discriminating the therapist from malevolent significant others (McCullough, 2006).

Impact Message Inventory

The Impact Message Inventory (IMI) is a 56-item interpersonal personality functioning measure. The IMI was purchased and administered in this study to graph the interpersonal impact messages experienced by the therapist (Kiesler & Schmidt, 2006). The results were plotted on an IMI circumplex circle that provided the therapist with an index of the patient's stimulus value. This pre-post measure was administered and completed by the therapist and was used for two purposes: (a) as noted, to indicate the individual's interpersonal stimulus value for the clinician, and (b) to indicate post-treatment changes in interpersonal functioning using alterations that occur in the patient's pre-treatment peak scores. IMI data was not shared with the participant.

Global Assessment of Functioning Scale

The DSM-IV-TR (APA, 2000) Global Assessment of Functioning (GAF) Scale is used to measure a patient's overall level of functioning at a specific point in time, thereby providing a tool for measuring study outcomes (Söderberg et al., 2005). The GAF was administered pre-post

to assess changes in functioning levels. The interrater reliability on the scale was assessed by

using intraclass correlation coefficients (ICCs), which showed satisfactory reliability of ICC =

0.81 (Söderberg et al., 2005). The GAF Scale scoring procedure was revised by Dr. McCullough

to "standardize" the rating of Axis V functioning in a large national clinical trial (Keller et al.,

2000). The scale scoring procedure McCullough constructed determined the degree symptom

levels affected social functioning (McCullough, 1996). Unfortunately, at this time of the current

study, no reliability or validity data is available on the McCullough revision.

Procedures

This study partitioned the CBASP model into three parts: that is, into three individual

cells in order to compare their outcome efficacy scores. Each cell represented a major treatment

strategy. Cell One: SA strategy; Cell Two: IDE strategy; and Cell Three: Combination strategy

where both SA and IDE were administered. Two early-onset PDD patients were assigned

randomly to each of the three cells. Two male psychotherapists of comparable age and clinical

experience who had been trained and certified to administer CBASP conducted the sessions and

saw each patient for a minimum of 10 sessions and a maximum of 20 sessions.

The systematic replication design is illustrated below and shows how Therapists One and

Two treated their three randomly assigned patients across the three cells:

- **Therapist One**: Cell 1 (SA: Patient #1); Cell 2 (IDE: Patient #2); Cell 3
  (Combination: SA + IDE: Patient #3)

- **Therapist Two**: Cell 1 (SA: Patient #4); Cell 2 (IDE: Patient #5); Cell 3 (Combo SA
  + IDE: Patient# 6)

Screening Procedures

Phase One. The screening procedure was a four-phase process. Each phase consisted of different measures that helped the clinician make the inclusion/exclusion decision. Stage One assessed depression and asked for general demographic information. The clinical rater administered the SIGH-D requiring a score of ≥ 18, and the BDI-II requiring a score of ≥ 19. The Mini-Mental State Exam was then administered, requiring a score ≥ 24. A score below 24 indicates the individual may not have the mental capacity to participate under the guidelines that were set. The clinical rater then followed McCullough's Depression Time-Line Graphing Procedure (McCullough et al., 2016b) to determine inclusion that required depression onset to be early; that is, ≤ 21 years. Bipolar disorder diagnosis was also assessed for possible exclusion. This included both Bipolar I (APA, 2013) and Bipolar II (APA, 2013). The patient had to report a minimum of high school graduation or equivalent to be included. The screener also assessed the patient's reading and writing abilities. Lastly, a list of psychotropic medications was assessed if the participant was taking meds.

Phase Two. Phase Two included evaluating the psychological and physiological diagnostic categories. Subjects found with eating disorders that were not in remission for the past 6 months were excluded. Stroke (aneurysm of the brain), TBI, ADD, ADHD, and PTSD were assessed for the past year, as was the presence of petit or grand mal seizures, present substance use disorder, nicotine usage, and occasional marijuana usage (marijuana used $\leq$ three times per week; also, marijuana never used when coming to the therapy session) was assessed, as well as the primary diagnosis of anxiety disorders, more specifically: panic disorder, generalized anxiety disorder, and social anxiety disorder were evaluated for inclusion/exclusion criteria (exclusion if primary diagnosis). The Kaufman Brief Intelligence Test (K-BIT) was administered to assess for

an IQ score of ≥ 85. This step signaled the clinical rater's second inclusion/exclusion decision point.

Phase Three. Phase Three assessed for the presence of DSM-5 personality disorders. The evaluation included Cluster A: paranoid personality disorder, schizoid personality disorder, schizotypal personality disorder – any of which led to exclusion; Cluster B: antisocial personality disorder, borderline personality disorder, and narcissistic personality disorder - any of which led to exclusion; Cluster C: avoidant personality disorder and obsessive-compulsive personality disorder; all diagnoses, if present, led to an exclusion decision.

Phase Four. Phase Four of the screening interview assessed for the presence of psychosis or psychotic disorders. Before the end of Phase Four, the clinical rater asked for any possible/unavoidable interruptions that might interfere with the administration of the study (e.g., immediate marital plans, location changes, or upcoming extended trips). If no exclusion decisions had been made previously, the clinical rater concluded the interview and told the patient that they would be contacted within the next 48 hours regarding their potential inclusion.

<center>**Format of Therapy Sessions**</center>

Each CBASP therapist adhered to the following administration treatment guidelines. All therapy sessions were video-recorded. In addition, two trained raters independently viewed approximately every third session. Appendix A shows a table of the planned therapy sessions. The cell treatment guidelines were as follows:

1.   Session 1: "Getting to know each other;" descriptive overview of procedures; SOH List assigned.

2.   Session 2: SOH administered and TH constructed.

3.   <u>SA Cell</u> (Sessions 3-20). The focus of the cell is SA problem-solving. One SA is to be administered in each session. Generalization discussions were conducted concerning what had been learned and what could be applied to other similar situations. No discussion of dyadic interpersonal relationships was permissible. A participant might initiate the subject of interpersonal relationships, but the therapist was not allowed to respond to these comments with further discussion. Also, no discussion of discrimination between the therapist and any significant other(s) was allowed.

4.   <u>IDE Cell</u> (Sessions 3-20). In-session relational focus on the therapeutic dyad or comparisons between the dyad and significant other relationships focused on the therapeutic task of the IDE Cell. IDE discrimination tasks between the therapist and others were administered as frequently as was appropriate. General discussions of the distinctions between the therapeutic relationship and relationships with maltreating significant others as well as others in the participant's life were allowed. What was not allowed in the IDE Cell was any problem-solving intervention that might mimic the work of the SA Cell task.

5.   <u>Combination Cell</u> (Sessions 3-20). Traditional CBASP therapist administration characterized the combination cell. SA was administered in approximately 70% of the 20 sessions (i.e., ~ 13-14 sessions). The IDE was administered in approximately 30% of the 20 sessions (i.e., ~ 5-6 sessions). Both SA and the IDE were permitted to be administered in the same session.

Data Security

Sessions were conducted in a confidential office environment. The video recordings of the sessions were stored on a password-protected, HIPPA-compliant server. Written materials that contained the participant's name were kept in a locked cabinet behind a locked door and destroyed after 3 years. After the study was completed, the videos were deleted. Any written information kept will not contain the names of the participants; only participant codes will be utilized.

Data Analysis

In this single-case systematic replicated design, the data were evaluated by visual inspection and clinical judgment. The two patients' data in each of the three individual treatment cells were combined with means calculated to illustrate treatment response. The data were examined to determine the comparative treatment response of each of the three cells.

It should be noted that the Shapiro PQ was not found usable for the present study. Participants reported being unable to respond to the PQ without bias. With both therapists, the patients reported being unable to even consider that their respective therapist would react to them in any negative manner or in any way that was not exemplary. Such responding negated the validity of the PQ; hence, the dissertation executive committee felt it best not to include the PQ in the data summary.

Beck Depression Inventory-II (BDI-II) was collected at the initial screening interview and then weekly at the beginning of each session. Both therapists rated the weekly learning acquisition of the SA and IDE. The SIGH-D was collected at the initial screening, week 10, and the final week of the study. Both therapists observed their patients' progress by monitoring the

following instruments: the BDI-II, SIGH-D, and the ratings from the acquisition learning data derived from the IDEs and the SAs administered during the sessions.

The IMI allows one to interpret the interpersonal impact scores in several ways: *Peak Scores* are Octants obtaining the highest impact ratings; *Peak Scores* at Baseline that are plotted on the Hostile Side of the circle and that suggests "keeping one's distance from others in interpersonal interactions," and suggest *Nadir Goals* which are plots on the opposite Octants on the Friendly side of the circle; at Baseline and at the Endpoint of treatment, the *Amount of Space* on the circle contained (enclosed) on the Hostile Side (left side) of the circle; at Baseline and at the Endpoint of treatment, the *Amount of Space* on the circle contained (enclosed) on the Friendly Side [right side] of the circle. When considering the *Scoring Conventions* for the PDD patient suggests that at Baseline, the Hostile Octants "trump" (i.e., carry more weight at the beginning of treatment) than the scores of the Friendly Octants (regardless of the amount of the Friendly Octant score). At Baseline with PDD participants, most participants will peak on *Hostile-Submission* (withdrawn, detached), *Submission* (passive, compliant), and *Hostile* ("Keep your distance from me") Octants.

The *Optimal IMI Profile* at Endpoint of Treatment is one with minimal space enclosed on the Hostile Side and maximal space enclosed on the Friendly Side. This profile will include a high peak on the *Friendly Octant* (" I like you"), moderate scores on both the *Friendly-Dominant* ("Let me tell you what I've been doing") and *Friendly-Submissive* ("I'm a good listener and participant") *Octants.* Further, the Endpoint will result in moderate scores on both the *Dominant* and *Submissive Octants* (suggesting interpersonal engagement flexibility between being dominant and being submissive).

Independent Variables

The three independent variables in this study were (a) three cells receiving the SA, IDE, or their combination; (b) the two therapists who administered the three cell conditions; and (c) the two patients in each of the three cell groupings.

Dependent Variables

The dependent variables of this study were (a) the score of three administrations of the 17-item SIGH-D, (b) the weekly BDI-II administrations, (c) participant acquisition learning of the IDE and the SA, (d) the pre-post GAF scores, and (e) the pre-post IMI ratings.

Summary

The CBASP model has been empirically validated in the literature as an effective treatment for PDD (Furukawa et al., 2018; Keller et al., 2000; Schramm et al., 2011). The current project sought to dismantle the two major treatment variables in the CBASP model. The research design used was a systematic single-case replication that included multiple variations of three independent variables: The Therapist variable (two therapists), The Treatment variable (Situational Analysis, Interpersonal Discrimination Exercise, and a combination treatment cell that included both treatments), and The Patient variable (six participants were treated). Both therapists were certified in CBASP therapy by the creator of the methodology. The treatment model was constructed to treat a DSM-V chronic depression patient category labeled PDD.

The treatment cells all included two participants. The individuals selected were between the ages of 18 and 55, all of whom were diagnosed with early-onset PDD. Participants were recruited through local mental health professionals and organizations as well as some local universities. Six of the 12 patients screened met the inclusion criteria and were randomly placed

into treatment cells. One patient terminated treatment prematurely and had to be replaced. All patients received the full dose of psychotherapy, which was 20 sessions.

The instruments used were selected to provide depressive symptom intensity information, demographic information deemed important for the study, and diagnostic exclusion procedures to ensure that the participants met inclusion guidelines. The following instruments were used: SIGH-D (which was the primary outcome measure), BDI-II, participant learning acquisition ratings, therapist adherence ratings, MMSE, KBIT, CTQ, Shapiro PQ, IMI, and the GAF scale. Data were collected throughout the study. The SIGH-D was collected at the beginning, midpoint, and post-study; GAF was assessed pre and post-study; the IMI was assessed at week three and post-study; BDI-II, PQ, and participant adherence ratings were collected weekly; therapist adherence ratings were given at approximately every third session; the KBIT, CTQ, MMSE, and GAF were collected at intake. It is felt that the current research project successfully adhered to and met its research goals.

CHAPTER FOUR: FINDINGS

Overview

The findings of this study help answer the dismantling question of CBASP. The method

has been proven effective in treating chronic depression (Furukawa et al., 2018; Keller et al.,

2000; Schramm et al., 2011, 2015); however, it has never been dismantled to identify the specific

mechanisms of change (McCullough et al., 2011; Penberthy, 2019). The present study was

comprised of three groups of participants randomly assigned to three treatment cells; SA, IDE,

and the third cell, a combination of SA and IDE treatment. The six participants, three females

(50%) and three males (50%) were randomly assigned to each cell. The study design required the

participants to attend a minimum of 10 sessions (criterion for "completer status") and a

maximum of 20 sessions. All participants completed the study, having attended 20 sessions.

The dependent variables were the Structured Interview Guide for the Hamilton

Depression Rating Scale (SIGH-D: the primary outcome measure), the BDI-II administered

every session, the therapist rating of the participants' acquisition learning of the SA and IDE

methodologies administered every session, the revised GAF scale administered pre and post-

study, and the pre-post IMI ratings. The Shapiro PQ was also utilized as an outcome variable;

however, the participants responded with such a positive halo effect (Lachman & Bass, 1985)

toward both therapists that the data were determined to be invalid and could not be used.

Participants

Twelve candidates were screened. Of these candidates, five did not meet the criteria for

inclusion, and one included a participant (who was replaced) who dropped out after eight

sessions due to an unexpected out-of-town move. Her data were excluded. Six participants who

met the inclusion criteria were randomly assigned to a therapy cell. No participant had a prior

treatment history that included CBASP psychotherapy.

The reported age of onset for the six participants ranged between the ages of 12-15 years

old; however, it should be noted that one participant reported their depression onset at age six.

Lastly, all participants met the criteria for early-onset PDD. Participant demographic data are

shown in Table 1 (see Table 1 below).

Table 1

Participant Demographics

Treatment Cell	Gender	Age	Marital Status	Dx	Age of onset (EO = early onset)	Prior Tx
SA Only	Male	27	Married	PDD	12yrs - EO	M/P
SA Only	Female	45	Married	PDD	13yrs - EO	M/P
IDE Only	Male	20	Single	PDD	12yrs - EO	M
IDE Only	Female	38	Married	PDD	6yrs - EO	M
Combo	Female	29	Single	PDD	14yrs - EO	P
Combo	Male	42	Married	PDD	15yrs - EO	M/P

Note. Table 1 baseline characteristics of study participants: Dx = Diagnosis, PDD = Persistent Depressive Disorder, Prior Tx = Prior Treatment: Medication = M, Psychotherapy = P, Combination Treatment = M/P

Participants reported varying childhood trauma experiences based on the Childhood Trauma

Questionnaire (CTQ). The CTQ data are below in Table 2.

Table 2

Childhood Trauma Questionnaire Data

	Emotional Abuse	Physical Abuse	Sexual Abuse	Emotional Neglect	Physical Neglect
SA Cell:	None	None	None	None	None
SA Cell:	Severe	Severe	Moderate	Moderate	None
IDE Cell:	Moderate	Moderate	None	Severe	Moderate
IDE Cell:	Low	None	None	Low	None
Combo:	Low	None	None	Low	None
Combo:	Low	None	None	None	None

Note. Trauma Severity Level data obtained from the Childhood Trauma Questionnaire (CTQ) at Baseline.

Results

The treatment data are shown below. It is important to note that in Figures 2 through 6, shown below, the data of the two study participants included in each of the three treatment cells, SA Cell, IDE Cell, and the Combination Cell, are combined, averaged, and presented as one data point.

Outcome Measures

Structured Interview Guide for the Hamilton Depression Rating Scale

The SIGH-D, as noted above, functioned as the primary outcome treatment measure. Participants were SIGH-D rated at intake, week 10 (midpoint), and week 20 (endpoint). The same rater administered all SIGH-D interviews. SIGH-D data are shown in Figure 2.

Figure 2

Treatment Cell SIGH-D Data of 2 Ss per cell Combined and Means Calculated across Baseline,
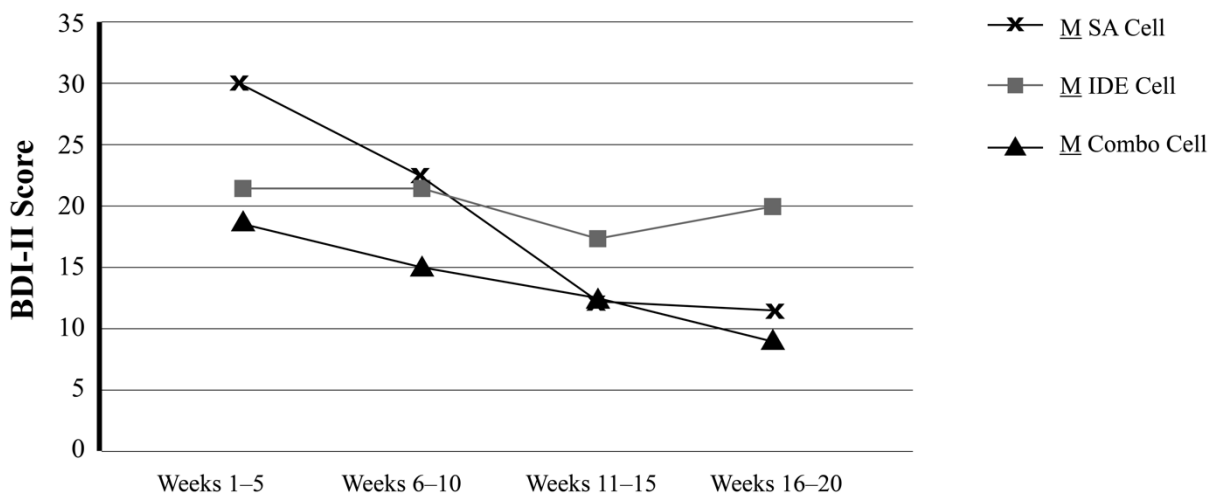
Mid-Point, and End Point
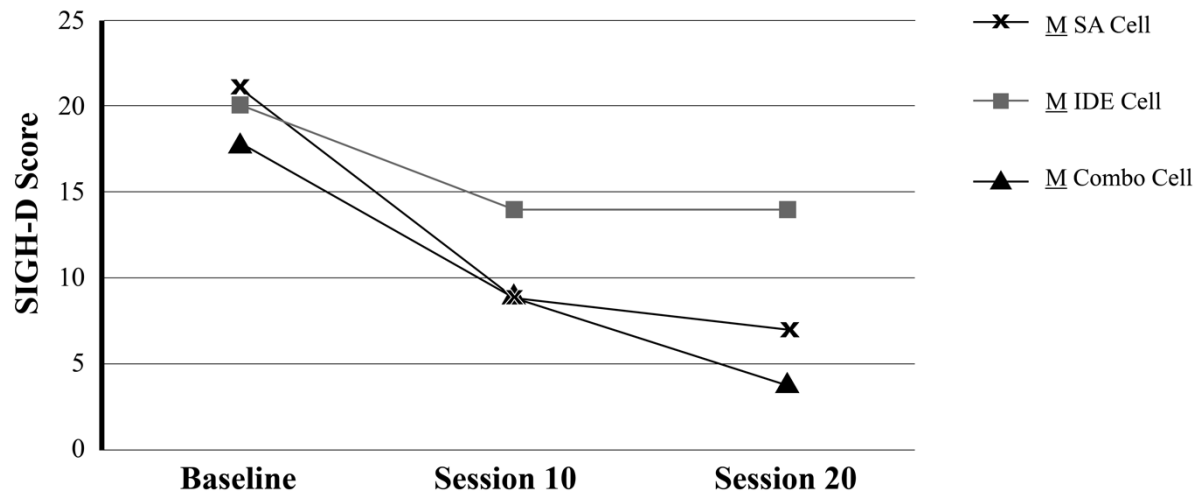
Beck Depression Inventory II

      The BDI-II data are shown below in Figure 3.

Figure 3

*Treatment Cell BDI-II Data Combined with Two Ss per Cell Averaged*

Note. Treatment Cell BDI-II data combined with 2 Ss per cell and means calculated across every block of five sessions (Sessions 1-5, 6-10, 11-15, 16-20).

Therapist Ratings of Participant Acquisition Learning of the SA and IDE Exercises

The two study therapists rated every participant on their acquisition learning performance on the 5-step SA exercise and the 4-step IDE exercise. The ratings were conducted at the end of every treatment session. Rating acquisition learning was based on whether participants could independently self-administer each of the five SA steps and each of the four IDE steps with no prompting from the therapist. Figures 4 and 5 illustrate the M BDI-II scores calculated for every 5-session block and the M acquisition performance progress of the participants in the SA Treatment Cell and the IDE Treatment Cell calculated for every 5-session block.
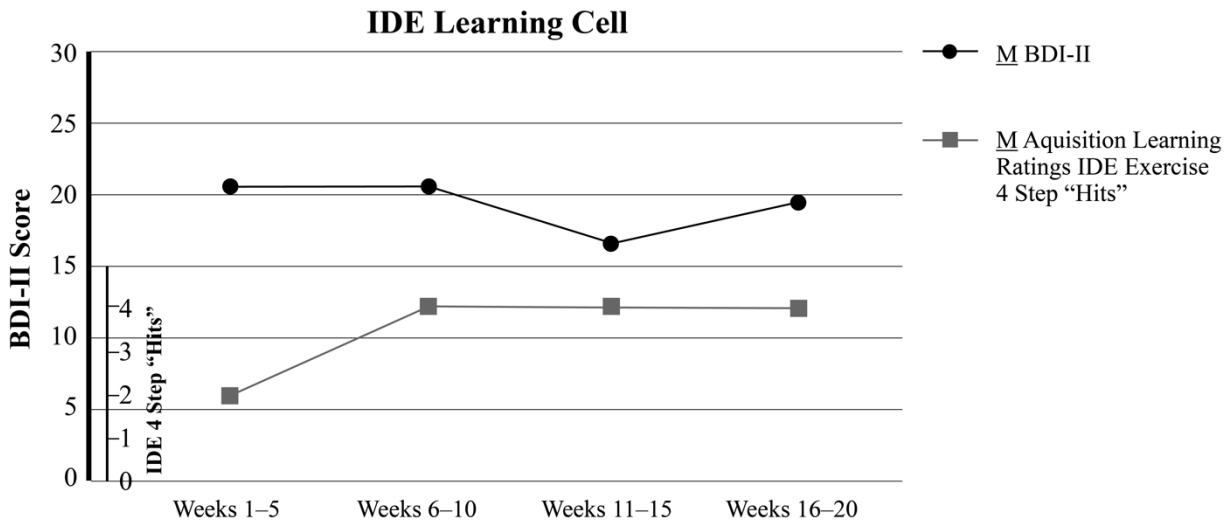
Figure 4

M Acquisition Learning in the SA Cell of the 5-Step SA Exercise
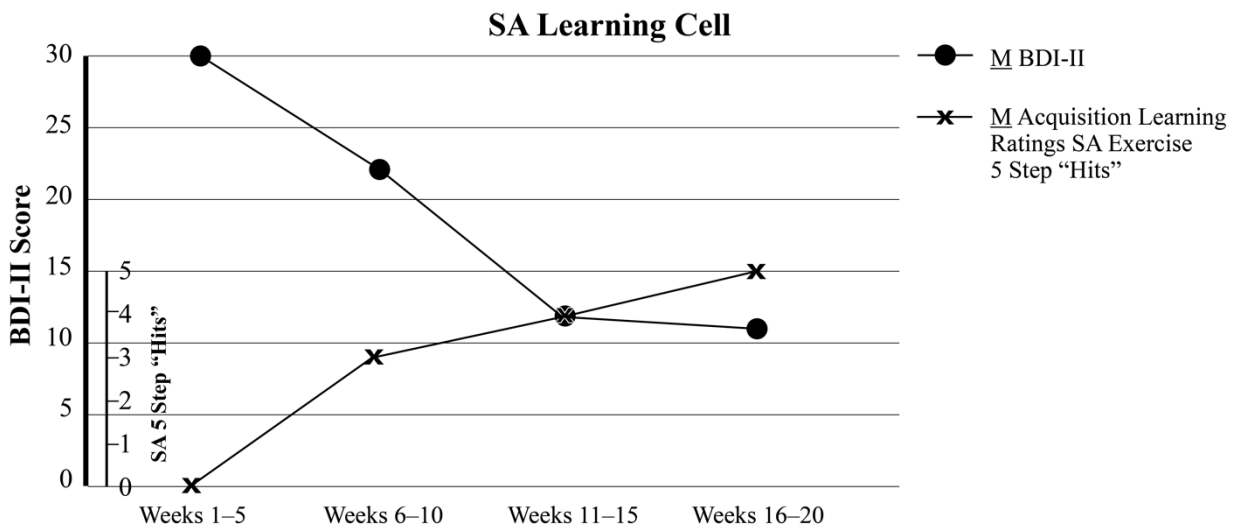
Note. M acquisition learning in the SA Cell with 2 Ss per cell of the 5-step SA Exercise over blocks of 5 sessions when combined with the BDI-II scores averaged over four blocks of 5 sessions.

Figure 5

M Acquisition Learning in the IDE Cell of 4-Step IDE Exercise

IDE Learning Cell

Note. M acquisition learning in the IDE Cell with 2 Ss per cell of 4-step IDE Exercise over blocks of 5 sessions when combined with the BDI-II scores averaged over four blocks of 5 sessions.

Revised Global Assessment of Functioning Scale

The GAF scale was used as a pre-post-treatment outcome measure. The purpose of the scale was to measure the degree to which the participant's depression symptoms interfered with their daily functioning in the work, school, or social interaction domains (i.e., symptoms causing the participant to miss work, interrupting school performance, or leading to withdrawal from social contacts). The study screening coordinator administered the GAF ratings during the screening and end-point interviews (see Figure 6).

Figure 6

*Pre- Post Global Assessment of Functioning Scale Scores*
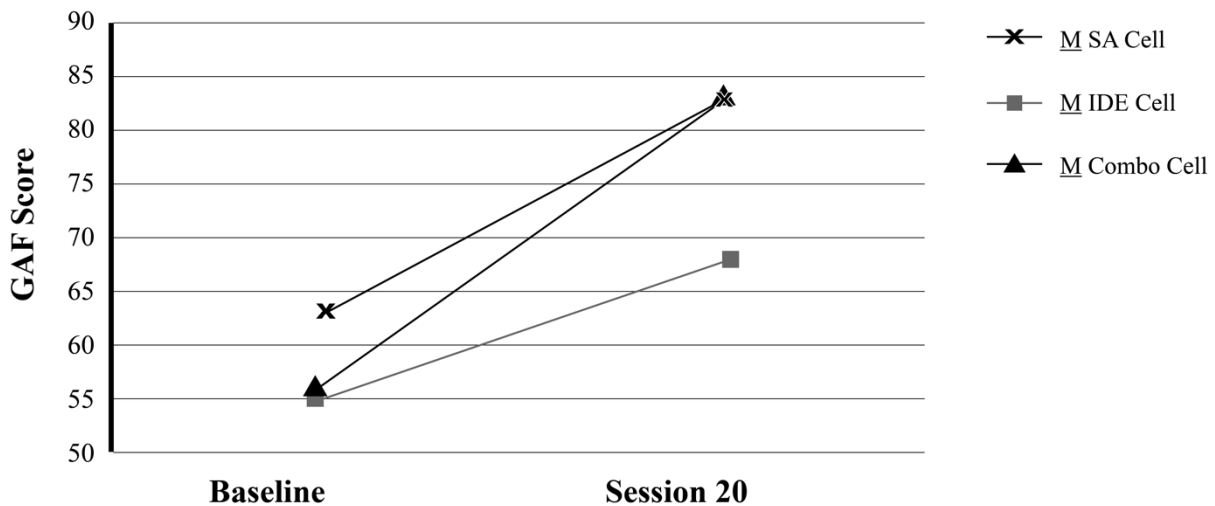
Note. Pre- post Global Assessment of Functioning Scale Scores shown for the SA Cell, IDE Cell and Combination Cell with data from 2 Ss per cell averaged.

Impact Messaging Inventory

The IMI assessed for interpersonal functioning change in peak score values when the IMI data were collected at the end of Session 3 and Session 20. The two study therapists completed the IMI on each of their three cell participants at the end of the third and twentieth sessions. Again, the impact scores for the two participants in each treatment cell condition were averaged and plotted on the three IMI circles as one data point. The IMI data are presented below in Figure 7 (SA Cell), Figure 8 (IDE Cell), and Figure 9 (Combination Cell).

Figure 7

SA Cell
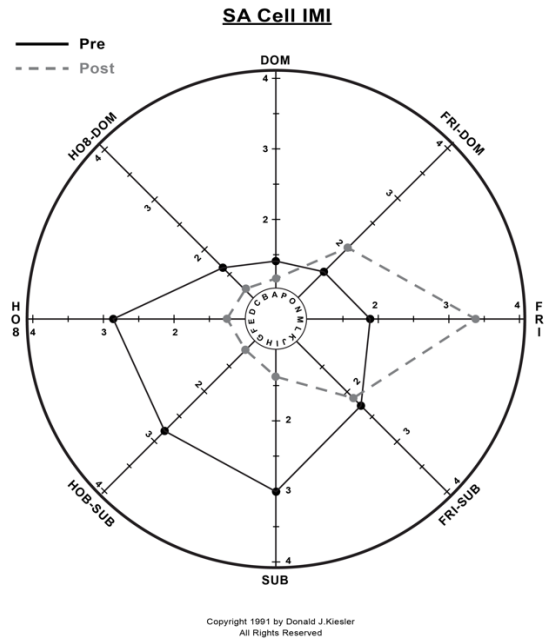
Note. IMI ratings for the two SA Cell Ss that are averaged and plotted on the IMI Circle at Session 3 (Pre) and Session 20 (Post).

Figure 8

IDE Cell

Note. IMI ratings for the two IDE Cell S<u>s</u> that are averaged and plotted on the IMI Circle at Session 3 (Pre) and Session 20 (Post).
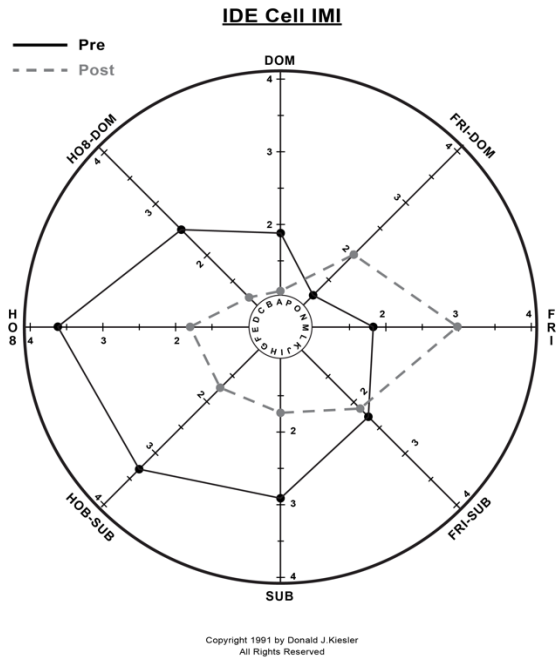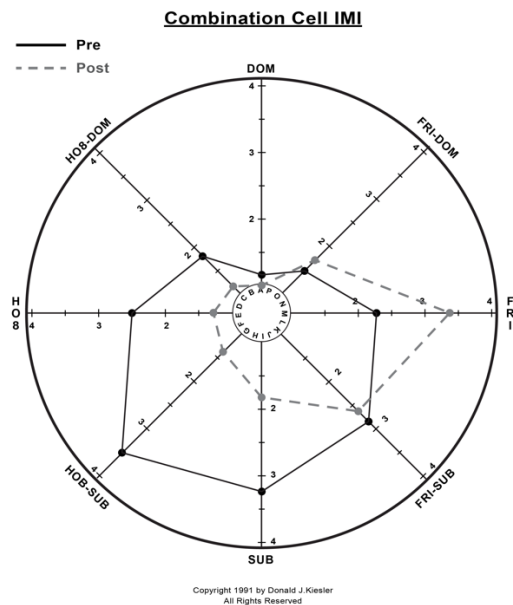
Figure 9

Combined Cell

Note. IMI ratings for the two Combination Cell Ss that are averaged and plotted on the IMI Circle at Session 3 (Pre) and Session 20 (Post).

Adherence Ratings of Therapists

All therapy sessions were videotaped. The two study therapists were rated for adherence to the study administration protocol every third therapy session by two qualified CBASP supervisors, Dr. James McCullough, Jr. and Dr. J. Kim Penberthy. The adherence ratings were conducted to monitor and ensure protocol adherence throughout all treatment sessions. The supervisors rated every third session for each therapist (designated Therapist #1 and Therapist #2). A 3-point rating scale was used and was scored as follows: 1 = Unsatisfactory Adherence; 2 = Fair Adherence; 3 = Satisfactory Adherence. The adherence rating data for each therapist were averaged and presented as one value for all 20 sessions and are shown below in Table 3.

Table 3

Adherence Rating for Therapists

Therapists	Ratings
Therapist #1 SA Cell	$M = 2.8$
Therapist #2 SA Cell	$M = 2.7$
Therapist #1 IDE Cell	$M = 2.8$
Therapist #2 IDE Cell	$M = 3.0$
Therapist #1 Combo Cell	$M = 3.0$
Therapist #2 Combo Cell	$M = 3.0$

Note. Adherence Rating Scores per session for the two study therapists averaged for 20 sessions of psychotherapy and presented as one value in the SA Cell, IDE Cell, and the Combination Cell. The Adherence Rating Scale was randomly rated three times per session every three sessions with ratings of 1=Unsatisfactory Adherence; 2=Fair Adherence; 3=Satisfactory Adherence; N/R= Segment not Ratable.

Summary

Research Question One: Does learning SA alone versus learning IDE alone produce similar or different treatment outcomes? The present study successfully investigated Research Question One by comparing all the treatment processes and outcome-dependent variables to one another in the two mono-treatment cells: the SA Cell and the IDE Cell. It was found that when compared, the SA Cell showed a reduction in depressive intensity greater than the IDE Cell.

Research Question Two: Do the two mono-treatments (i.e., SA Cell and IDE Cell) produce similar or differentiated treatment processes and outcomes compared to the Combination Cell where both the SA and the IDE Exercises are administered? The present study successfully investigated Research Question Two by comparing the treatment process and outcome-dependent variables in the SA Cell and the IDE Cell to all the dependent variables in

the Combination Cell. It was found that the IDE Cell did not produce similar outcomes to the SA

and Combination Cells. This will be discussed in further detail below.

       Research Question Three: What general dismantling implications may now be drawn

from the study data when Research Question One and Research Question Two are considered?

The present study successfully and adequately addressed what the general dismantling

implications are drawing from all process and outcome-dependent variable data collected herein

and will be further discussed below.

CHAPTER FIVE: CONCLUSIONS

Overview

This study aimed to evaluate which CBASP techniques were effective in treating chronic depression (PDD). The need for this study was supported by a lack of systemic dismantling research (Penberthy, 2019), and this study represents the only dismantling investigation in the literature for the CBASP. The essential goals of the investigation were met. Using a systematic replication design, a case study investigation was used for the research method, and all participants received a full dose of therapy (20 sessions). There were observable treatment outcome differences among the three treatment groups. The sample size was small, but the results suggest some outcomes that warrant further investigation.

Summary of Findings

CBASP is an interpersonal learning acquisition model of therapy that addresses what is hypothesized to be the two core issues of chronic depression or PDD. These core issues, (a) fear avoidance and (b) a perceptual disconnection from the patient's interpersonal environment, are addressed by the two primary goals of the model. The goals are defined as (a) achieving felt dyadic safety, meaning the patient learns to successfully discriminate between the therapist and their toxic significant others; and (b) perceived functionality, denoting the patient learns to identify the consequences of their behavior (McCullough, 2000, 2019, 2021; McCullough et al., 2015; Penberthy, 2019). These goals are met during treatment by administering two treatment exercises: Situation Analysis (SA) and the Interpersonal Discrimination Exercise (IDE).

Research Question One

The first research question asked whether learning Situational Analysis (SA) alone versus learning the Interpersonal Discrimination Exercise (IDE) alone produced similar or different

treatment outcomes. Findings were that learning SA alone produced a more significant reduction in depression intensity than learning IDE alone.

Research Question Two

The second research question asked if the two mono-treatments (i.e., SA Cell and IDE Cell) produce similar or differentiated treatment processes and outcomes compared to the Combination Cell where both the SA and the IDE Exercises are administered. The Combination Cell (learning the skill of SA and the IDE) did not produce an observable difference when compared to the SA Cell alone. However, when the SA and Combination Cells, which both produced similar process and outcome data, were both compared to the IDE Cell across most of the study's dependent measures, the data comparisons consistently revealed clear process and outcome differences.

Research Question Three

The third research question asked what general dismantling implications may now be drawn from the study data when Research Question One and Research Question Two are considered. More dismantling work needs to be done with larger sample sizes. Nevertheless, findings may still be used to hypothesize from the data produced in this small N study that learning a general problem-solving algorithm (i.e., SA) appears to decrease depression to a greater degree than just providing an interpersonal relationship to the participant.

Discussion

Outcome Measures

SIGH-D Outcomes. The primary outcome measure was the SIGH-D (shown in Figure 2), which was administered at Baseline, Midpoint (post-Session 10), and Endpoint (post-Session 20). The SA Cell and the IDE Cell scored in the *Severe Range* of depression at Baseline, while

the Combination Cell was rated in the high *Moderate Range.* The observable shifts in depression

intensity occurred at the midpoint in all three cells. The SA and Combination Cells were rated in

the *Mild Depression Range*, while the IDE Cell was rated in the *Moderate Depression Range*.

Further shifts downward were reported at the conclusion of the study (post-Session 20) in the SA

and Combination Cells, both of which were rated in the *Normal Depression Range*. There was

no change in depression severity when the IDE Cell was rated at Endpoint (post-Session 20) and

compared to the level obtained at Midpoint (post-Session 10). The IDE Cell remained in the

Moderate Depression Range by the end of the study.

SIGH-D Outcome Conclusions. Changes in depression severity were observable in the

outcomes from the SIGH-D in all three therapy cells at Midpoint (post-Session 10). However,

more significant decreases were evident in the two cells where SA (the problem-solving

algorithm) was administered (i.e., in the SA and Combination Cells). The outcome differences of

the SIGH-D ratings were notable in the two SA cells, where both the SA and Combination Cells

moved into the *Normal Range* of depression intensity at Endpoint. In both cells, the problem-

solving algorithm was administered.

In the IDE Cell, depression severity remained unchanged when the Midpoint and

Endpoint ratings were compared. In this therapy cell, the central focus remained throughout on

the quality of the dyadic (therapeutic) relationship. These data suggest that a quality

interpersonal relationship contributes to a degree to the alleviation of depression severity, but it

had limited effectiveness at Endpoint.

Beck Depression Inventory-II Outcomes. The BDI-II was administered at the

beginning of each session. Figure 3 reveals the averages across four 5-session blocks (Sessions

1-5; 6-10; 11-15; and 16-20). The SA Cell self-rated depression intensity in the first block in *the*

Severe Range. The IDE Cell self-rated depression in the low *Moderate Range*, while the

Combination Cell self-rating in the high *Mild Range*.

At the second block of self-ratings, observable shifts downward were evident in the SA

and Combination Cells. These ratings moved into the *Moderate Range* and *Mild Range*,

respectively. There was no change evident in the IDE Cell self-ratings. The ratings remained in

the *Moderate Range*.

In the third block, the SA and Combination Cells decreased to a similar low *Mild Range*.

There was also a decrease in the IDE Cell depression intensity in this block. The depression

intensity for the IDE Cell dropped into the *Mild Range* of the BDI-II.

As reported with the final SIGH-D outcome ratings above, dramatic differences became

observable at Endpoint. Both the SA and Combination Cells rated their depression intensity as

Minimal. However, at Endpoint, a slight increase was observed in the IDE group self-rating to

the low *Moderate Range* of the BDI-II.

BDI-II Outcome Conclusions. As observed previously in the SIGH-D outcomes, by the

Midpoint of the study (i.e., Sessions 11-15), differences became apparent among the three

treatment groups. The two groups which were administered the problem-solving algorithm (SA

& Combination Cells) produced more significant decreases in depression intensity compared to

the IDE Cell, which reported very little change in depression intensity across the four

measurement blocks. What is notable about these data was that both an independent rater (SIGH-

D) and a self-rating of depression intensity (BDI-II) produced highly similar data trajectories and

trends across the study measurement points.

Situational Analysis (SA) Acquisition Learning Outcomes. The extent of acquisition

learning for the 5-step SA Methodology was rated by each of the two therapists in the SA Cell at

the end of Session 3 through Session 20. In Figure 4, two dependent variables are illustrated. The

first variable is the BDI-II self-ratings averaged between the two SA Cell participants. The

second dependent measure is an acquisition learning curve produced by the two SA Cell

participants, which were averaged over four blocks of sessions (i.e., Sessions 1-5; 6-10; 11-15;

and 16-20).

The importance of these acquisition learning data is that the two patients in the SA Cell

were rated as having learned, to a maximum extent, the SA Methodology (i.e., 5 'step-hits' out

of a 5-step procedure). Thus, findings indicate the SA Cell's outcome data participants learned

the core methodology of the SA Cell maximally.

Interpersonal Discrimination Exercise (IDE) Acquisition Learning Outcomes. The

extent of acquisition learning for the 4-step IDE Methodology was rated by each of the two

therapists in the IDE Cell through Session 3 through Session 20. In Figure 5, two dependent

variables are illustrated. The first variable is the BDI-II self-ratings averaged between the two

IDE Cell participants. The second dependent measure is the acquisition learning curve produced

by the two IDE Cell participants, which were averaged over four blocks of sessions (i.e.,

Sessions 1-5; 6-10; 11-15; and 16-20).

The importance of these acquisition learning data is that the two patients in the IDE Cell

learned the IDE Methodology to a maximum extent (i.e., 4 'step-hits' out of a 4-step procedure).

Thus, the findings indicate that the IDE Cell's outcome data was produced, and the IDE

participants learned the core methodology of the IDE Cell maximally.

Global Assessment of Functioning Scale (GAF) Outcomes. The 'Revised' Global

Assessment of Functioning Scale (GAF) was rated by the independent Study Coordinator, who

conducted the interview at Baseline and again at the Study Endpoint (post-Session 20). The GAF

assessed the degree the participants' depressive symptoms affected their family, social, school, and occupational functioning. It was reported that at Baseline, the SA Cell participants were rated as *Mildly* impaired by their depressive symptoms and generally functioning fairly well. The Combination and IDE Cell participants were rated as *Moderately* impaired and reported some difficulty in the family, social, school, and occupational areas.

At Endpoint and as with the SIGH-D outcomes (see Figure 2) and the BDI-II outcomes (see Figure 3), the picture had observably changed (by post-Session 20). Consistent with our earlier conclusions, the IDE participants were rated with some improvement but were still *Mildly* affected by their depressive symptoms yet functioning fairly well. The two treatment cells, that administered the problem-solving algorithm (i.e., SA), were both rated as functioning good in all areas and having no more than everyday problems and concerns.

Global Assessment of Functioning Scale (GAF) Outcome Conclusions. As seen in the previously discussed dependent variables, learning the problem-solving algorithm (SA) appears to also affect functioning in the family, social, school, and occupational areas to a greater extent than simply providing and achieving a quality interpersonal relationship (IDE). These GAF data mirror our earlier conclusions in regard to the fact that learning to problem-solve one's issues not only has a notable effect on depression intensity but also improves global functioning across a wide range of functional domains.

The conclusion drawn based on the above data is that problem-solving training (i.e., the SA methodology), when maximally learned, has a definite and observable impact on depression intensity and global family, social, school, and occupational functioning. However, findings also indicate that the quality of the interpersonal relationship (i.e., IDE methodology) is definitely

crucial in decreasing depression but clearly affects depression intensity and general functioning to a lesser degree, even when the IDE methodology is maximally learned.

Impact Message Inventory (IMI) Outcomes. Kiesler's Impact Message Inventory (IMI), as shown in Figures 7, 8, and 9, was used to measure the interpersonal impact of treatment in each cell. The IMI was completed on each participant at the end of Session 3 and post-Session 20.

IMI Interpretative Method. As a reminder, the IMI allows one to interpret the interpersonal impact scores in several ways. (1) One is through observing the *Peak Scores* among the PDD participants. These are Octants obtaining the highest impact ratings scored by the therapists. Typically, *Peak Scores* at Baseline are plotted on the Hostile Side of the circle suggesting the patient's desire to "keep distance from others in interpersonal interactions." The *Peak Scores* automatically suggest the *Nadir Goals* of treatment. The *Nadir Goals* are plotted on the opposite side of the circle, on the Friendly Side of the circle. (2) Another IMI interpretation occurs at Baseline and at the Endpoint of treatment. It involves the *Amount of Space* on the circle that is predominantly enclosed on the Hostile Side (left side) of the circle.

Conversely, at Baseline and at the Endpoint of treatment, the *Amount of Space* enclosed on the Friendly Side (right side) carries less weight than the *Amount of Space* on the Hostile Side of the circle. The *Scoring Conventions* for the PDD patient suggest that at Baseline, the Hostile Octants are more revealing of PDD functioning than the Friendly Octants. With PDD participants at Baseline, most participants will peak on the *Hostile-Submission* (withdrawn, detached), *Submission* (passive, compliant), and *Hostile* ("Keep your distance from me") Octants. As noted, two participants were included in each treatment cell (SA Cell, IMI Cell, and Combination Cell). Their IMI scores were combined and averaged for each of the eight octant

data points on both the pre- and post-treatment measurement points. The outcomes are reviewed below.

SA Cell IMI Outcomes. At Baseline, the SA Cell participants (seen in Figure 7) peaked on the Submissive Octant ("I'll do anything you say, just take care of me"), Hostile Octant ("Stay away from me"), and the Hostile-Submissive Octant ("Avoidance and detachment are my strong patterns of behavior"). As noted above, the profile of the SA Cell is a common profile for PDD patients (McCullough, 2006). In the SA Cell, the Hostile Side of the circle encloses the most space in Session 3. The author has found this style of impact is what causes the SA Cell participants the most interpersonal difficulties.

As noted, the *Nadir Goals* of treatment are also implicated by the Baseline impacts. The *Nadir Goals* are achieving increases on the *Dominant Octant*, the *Friendly Octant*, and the *Friendly-Dominant Octant*. At Endpoint, changes suggest that the *Nadir Goals* have been reached notably in the *Friendly Octant* and mildly in the *Friendly-Dominant Octant,* with very little impact change observable in the *Dominant Octant,* suggesting that more assertive training needs to be implemented. A second notable Endpoint change is observed in the reduction of the space enclosed on the Hostile Side. This gain suggests that the participants are much less socially avoidant. It also suggests that they are more interpersonally engaging compared to the beginning of treatment.

IDE Cell IMI Outcomes. At Baseline, the IDE Cell participants (seen in Figure 8) peak excessively on the *Hostile Octant* ("Stay away from me"), *Hostile-Submissive Octant* ("I avoid and am interpersonally detached"), *Submissive Octant* ("I'll do anything you say, just take care of me"), and on the *Hostile-Dominant Octant* ("I don't think you know what you are doing"). This profile is also commonly seen among PDD patients, but in this study, the Octant scores are

rated unusually high in this IDE Cell. This is a "sit in the corner," interpersonally disengaged individual who presents interpersonal problems to clinicians from the outset.

As in the above case, the hostile interpersonal stance of the patient is so salient that the space on the Friendly Side of the circle, as well as their Octant scores on the *Friendly* and *Friendly-Submissive Octants*, are given less weight at the beginning of treatment. The space enclosed on the Hostile Side is the major problem and becomes the focus of therapy. The *Nadir Goals* of treatment are implicated by the Baseline scores. The *Nadir Goals* for treatment involve increasing functioning in the *Friendly Octant*, the *Dominant Octant*, the *Friendly-Dominant Octant*, and the *Friendly-Submissive Octant*.

The Endpoint changes for the IDE Cell are notable. Reductions on the *Hostile Octant* have led to an observable shift in the *Friendly Octant*; a shift in *Hostile-Submission* has led to an increase in *Nadir Friendly-Dominance*; observable changes occurred in the *Submission Octant* and an increase in *Dominance*; and finally, almost an extinction of the sarcastic *Hostile-Dominant Octant* is reflected in an increase in *Friendly-Submission*. These interpersonal shifts are outstanding and suggest that these very difficult-to-treat individuals are becoming more humane in their general functioning. However, there is still work to be done to decrease further the space on the Hostile Side. Findings indicate both participants are producing more *Friendly Octant* interactions and space on the Friendly Side of the circle at the end of treatment than they did in the beginning.

Combination Cell IMI Outcomes. At Baseline, the Combination Cell participants (seen in Figure 9) produced a classic PDD profile, much like the other treatment cells. Peak scores are obtained on the *Hostile-Submissive Octant* ("I avoid and am interpersonally detached"),

Submissive Octant ("I'll do anything you say, just take care of me"), and the *Hostile Octant* ("stay away from me").

The space enclosed on the Hostile Side at the outset of treatment is observably greater than the space enclosed on the Friendly Side. The *Friendly-Submissive Octant* and *Friendly Octant* scores, as said above, carry less interpretative weight at the outset of therapy. It is the patients' hostility ("stay away from me") that presents them with the most interpersonal difficulties.

The *Nadir Goals* of treatment are implicated by the Baseline scores. Decreasing the extreme *Submission Octant* and increasing *Dominance* is the primary goal; teaching more approach behaviors that will decrease the *Hostile-Submission Octant* impacts and increase *Friendly-Dominance* where the participants feel more freedom to exhibit their strengths. Learning these behaviors will also be consistent with a higher impact score on *Friendly-Dominance*. Finally, decreasing the interpersonal *Hostile* impacts and increasing greater *Friendly* impacts is an important *Nadir Goal* of treatment.

At Endpoint, Nadir gains are modest with the exception of the *Friendly Octant,* which is very observable. Even less change is observable in the *Dominant Octant* and the *Friendly-Dominant Octant.* However, contrary to the first statement, the decreases in the impact score in the *Submission Octant* and the *Hostile Octant* score are quite obvious. Another observation at Endpoint, the Hostile Side space has decreased radically, while the opposite is true for the space enclosed on the Friendly side. Significant positive interpersonal gains have occurred. What remains is the need for more assertiveness work that would lead to a higher *Dominance Octant* score.

Implications

The Cells in this study experienced varying degrees of change. The findings of this study have implications for clinicians and researchers involved with treating PDD. There are empirical and theoretical implications that can be drawn from the outcomes of this study.

Empirical Implications

The differences in the outcomes of this investigation were based on two aspects of change: (1) the reduction of depression intensity; and (2) the interpersonal impacts of the Cells on the therapists. Findings indicate that the mechanisms of change in mood are implicated in both features of CBASP therapy, with one treatment more effective than the other. Situational Analysis (SA), the problem-solving mechanism of the treatment, produced a greater decrease in depression than the Interpersonal Discrimination Exercise (IDE). However, it was also observed that the IDE provides therapeutic value in reducing depression intensity.

The main outcome measure, the SIGH-D, and the secondary depression measure, the BDI-II, produced decidedly similar data trajectories across the study. As was found with the other dependent variables, the GAF score tracked similarly as well. These findings are significant dismantling conclusions.

The participants who learned SA methodology (SA Cell and Combination Cell) produced the greatest amount of change in depression intensity. However, data involving the IDE Cell suggests that a quality interpersonal relationship contributes, to a degree, alleviation of depressive intensity. These outcomes findings are strengthened due to the participants of each mono-treatment cell (i.e., SA Cell and IDE Cell) learning the respective skills (SA and IDE) to the maximum extent.

The conclusion drawn based on the GAF score is that problem-solving training learned via the SA methodology, when maximal learning is acquired, has a definite and observable impact on depression intensity and global family, social, school, and occupational functioning. However, the quality of the interpersonal relationship, as learned through the IDE methodology, also plays a crucial role in decreasing depression, although to a lesser extent.

All three treatment groups experienced shifts in their interpersonal impacts. At the conclusion of treatment, the SA Cell participants produced a friendlier, less socially avoidant interpersonal impact. While there is still a need for assertiveness training, these individuals were experienced as more interpersonally engaging compared to the beginning of treatment. The IDE Cell experienced a significant amount of change in the interpersonal arena. They were able to reduce their interpersonal hostility ("stay away from me") and move to a friendlier approach. The interpersonal shift experienced by the IDE Cell suggests that these participants became more sociable in their general functioning. However, they were still more avoidant than those who learned the SA methodology. Lastly, those who received both mono-cell treatments (SA and IDE) experienced a significant increase in interpersonal friendliness and much less hostility ("stay away from me"). Finally, all the treatment groups still required more dominance training at the conclusion of the 20 sessions. It is clear more research is necessary to continue to understand the implications of these findings.

Practical Implications

Treating PDD can be a daunting task for therapists. As noted above, these patients can begin treatment with a difficult interpersonal style of hostility and hard-to-reach submissive tendencies. Providing the tools for therapists (i.e., SA and IDE) that lead patients to friendlier and more pleasant interactions has been shown to decrease depression and reduce interpersonal

hostility. This knowledge may help therapists experience less despair when treating this hard-to-treat population.

The Interpersonal Discrimination Exercise (IDE), while lagging behind the SA in relieving depressive intensity, did produce a more pleasant interpersonal patient. It may be valuable for further research to discover whether providing extended IDE work might be helpful to those learning the CBASP model; providing the extended IDE work has shown to be interpersonally effective for the individuals of this study.

Delimitations and Limitations

Delimitations of a study are the conscious exclusionary and inclusionary decisions made by the researcher during the development of the investigation. Psychotherapy studies are challenging to conduct; therefore, the delimitations were in place to focus on the research at hand. One delimitation was the primary diagnosis of each participant, being Early-Onset PDD. This allowed the researchers to evaluate one type of PDD, early onset, which begins before age 21. The age of participants was limited to individuals 18-55 years old. The investigation design was a small N, systematic replication, and therefore was limited to only six participants and included only two therapists. The therapists conducted only 20 sessions with each participant. The sessions were conducted in person; no virtual sessions were allowed. As a result, only participants within driving distance of the chosen offices were selected for the study. The study ran for 9 months, and between the two therapists, 128 clock hours were spent with the participants. Therefore, the time spent on the investigation was limited. Both therapists spent a total of 40 clock hours through the duration of the study in supervision on a weekly basis with Dr. McCullough to ensure that each session was conducted appropriately according to the method. There were 164 clock hours clinically invested in this study. One of the major

limitations of this study is its small sample size. However, a significant contribution this study can make is that the data presented will generate more CBASP dismantling investigations with larger samples of participants.

Future Research Recommendations

This present study began the process of answering the dismantling question of the CBASP model. Which of the treatment components is the primary mechanism of change? Being a study with a small N of six participants, a larger investigation including more participants is highly recommended (McCullough et al., 2011). It is also recommended that future investigations continue to limit the diagnosis of the participants to Early-Onset PDD. Limiting the participants to Early-Onset PDD allows for consistency in evaluating the efficacy of the treatment outcomes. This present study evaluated the effects of the mono-treatments and the combined treatments of CBASP with Early-Onset PDD only. A larger study may help lend itself to a greater understanding of the dismantling questions suggested by McCullough (2006; McCullough et al., 2015). It is recommended that a later study investigate the patient with late-onset PDD to expand our understanding of the PDD patient. However, it is strongly recommended that the early-onset group be investigated first.

Summary

This study is the first dismantling study of CBASP that has been conducted to date. A small N systematic replication was utilized to determine if there was an identifiable mechanism of change in the CBASP model. Six participants between the ages of 18-55, who met the criteria for early-onset Persistent Depressive Disorder (PDD), were randomly assigned to three treatment cells (i.e., SA Cell, IDE Cell, Combination Cell). The participants received 20 weeks of therapy. When compared to the IDE Cell, it was revealed that the SA Cell produced a more significant

reduction in depression symptoms than the IDE Cell. When the SA Cell and IDE Cell were

compared to the Combination Cell, it was revealed that the SA Cell and Combination Cell

obtained similar outcomes. The dismantling implications that may be drawn are that teaching

coping skills to early-onset PDD patients may prove to be more effective than focusing solely on

the interpersonal relationship alone. As noted above, a larger sample dismantling study needs to

be conducted in the future to determine if the data generated in this study are replicable.

REFERENCES

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). American Psychiatric Publishing.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing. https://doi.org/10.1176/appi.books.9780890425596

Angst, J., Gamma, A., Rössler, W., Ajdacic, V., & Klein, D. (2009). Long-term depression versus episodic major depression: Results from the prospective Zurich study of a community sample. *Journal of Affective Disorders,* 115, 112-121. https://doi.org/10.1016/j.jad.2008.09.023

Arnow, B., & Constantino, M. (2003). Effectiveness of psychotherapy and combination treatment for chronic depression. *Journal of Clinical Psychology*, 59, 893–905. https://doi.org/10.1002/jclp.10181

Arnow, B., Steidtmann, D., Blasey, C., Manber, R., Constantino, M., Klein, D., Markowitz, J., Rothbaum, B., Thase, M., Fisher, A., & Kocsis, J. (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. https://doi.org/10.1037/a0031530

Aznar-Lou, I., Iglesias-González, M., Gil-Girbau, M., Serrano-Blanco, A., Fernández, A., Peñarrubia-Mariá, M., Sabés-Figuera, R., Murrugarra-Centurión, A., March-Pujol, M., Bolívar-Prados, M., & Rubio-Valera, M. (2018). Impact of initial mediation non-adherence to SSRIs on medical visits and sick leaves. *Journal of Affective Disorders, 226,* 282-286. https://doi.org/10.1016/j.jad.2017.09.057

Bandura, A. (1976). Effective change through participant modeling. In J.D. Krumboltz & C.E.

   Thoresen (Eds.), *Counseling methods* (pp. 248-265). Holt, Reinhart & Winston.

Bandura, A. (1977). *Social learning theory.* Prentice-Hall, Inc.

Bandura, A., Lipsher, D., & Miller, P. (1960). Psychotherapists' approach-avoidance reactions to

   patient's expressions of hostility. *Journal of Consulting Psychology,* 24, 1-18.

   https://doi.org/10.1037/h0043403

Bandura, A., & Walters, R. (1964). *Social learning and personality development.* Holt, Reinhart

   & Winston.

Barrett, M., & Berman, J. (2001). Is psychotherapy more effective when therapist disclose

   information about themselves? *Journal of Consulting and Clinical Psychology, 69,* 597-

   603. https://doi.org/10.1037/0022-006X.69.4.597

Bausch, P., Fangmeier, T., Meister, R., Elsaeber, M., Kriston, L., Klein, J., Zobel, I., Hautzinger,

   M., Härter, M., & Schramm, E. (2020). The impact of childhood maltreatment on long-

   term outcomes in disorder-specific vs. nonspecific psychotherapy for chronic depression.

   Journal of Affective Disorders, 272, 152-157. https://doi.org/10.1016/j.jad.2020.03.164

Beck, A., Steer, R., & Brown, G. (1996). *BDI-II: Beck depression inventory.* Pearson.

   https://doi.org/10.1037/t00742-000

Bernstein, D., Fink, L., Handelsman, L., & Foote, J. (1994). *Childhood Trauma Questionnaire

   (CTQ).* APA Psychological Tests. https://doi.org/10.1037/t02080-000

Biesheuvel-Leliefeld, K., Kok, G., Bockting, C., de Graaf, R., ten Have, M., van der Horst, H.,

   van Schaik, A., van Marwijk, H., & Smit, F. (2016). Non-fatal disease burden for

   subtypes of depressive disorder: Population- based epidemiological study. *BMC

   Psychiatry*, 16(1), 139. https://doi.org/10.1186/s12888-016-0843-4

Bouton, M. (2007). *Learning and behavior: A contemporary synthesis.* Sinauer Associates Inc.

Brakemeier, E. L, Radtke, M., Engel, V., Zimmermann, J., Tuschen-Caffier, B., Schramm, E.,
Hautzinger, M., Berger, M., & Normann, C. (2015). Overcoming treatment-resistance in
chronic de- pression: outcome and feasibility of the Cognitive Behavioral Analysis
System of Psychotherapy as an inpatient treatment program. *Psychotherapy and
Psychosomatics, 84*, 51–56. https://doi.org/10.1159/000369586

Bridges, N. (2001). Therapist's self-disclosure: Expanding the comfort zone. *Psychotherapy:
Theory, Research, Practice, Training,* 38, 21-30. https://doi.org/10.1037/0033-
3204.38.1.21

Brown, G., Craig, T., & Harris, T. (2008). Parental maltreatment and proximal risk factors using
childhood experiences of care & abuse (CECA) instrument: A life-course study of adult
chronic depression. *Journal of Affective Disorders,* 110, 222-233.
https://doi.org/10.1016/j.jad.2008.01.016

Canivez, G. (1996). Validity and diagnostic efficiency of the Kaufman brief intelligence test in
reevaluating students with learning disability. *Journal of Psychoeducational Assessment,*
14, 4-19. https://doi.org/10.1177/073428299601400101

Chang, C. S., Hung, C. F., & Jen, T. H. (2020). Using social network analysis to understand a
health-related journal. *International Journal of Organizational Innovation, 12*(4), 390-
402.

Ciccarelli, S., & Whith, J. (2012). *Psychology.* Pearson Education.

Cicchetti, D., Ackerman, B., & Izard, C. (1995). Emotions and emotion regulation in
developmental psychopathology. *Development and Psychopathology,* 7, 1-10.
https://doi.org/10.1017/S0954579400006301

Cicchetti, D., & Toth, S. (1998). The development of depression in children and adolescents. *American Psychologist,* 53, 221-241. https://doi.org/10.1037/0003-066X.53.2.221

Conway, J. (1987). *Clinical interpersonal perspective for personality and psychotherapy: Some research examples.* Paper presented to the Department of Psychology, University of British Columbia, Vancouver, British Columbia, Canada.

Cowan, P. (1976). *Piaget with feeling: Cognitive, social, and emotional dimensions.* Holt, Rinehart & Winston.

Cuijpers, P., Berking, M., Andersson, G., Quigley, L., Kleiboer, A., & Dobson, K. S. (2013). A meta-analysis of cognitive-behavioural therapy for adult depression, alone and in comparison with other treatments. *The Canadian Journal of Psychiatry, 58*(7), 376-385. https://doi.org/10.1177/070674371305800702

Cuijpers, P., van Straten, A., Andersson, G., & van Oppen, P. (2008). Psychotherapy for depression in adults: A meta-analysis of comparative outcome studies. *Journal of Consulting and Clinical Psychology*, 76, 909–922. https://doi.org/10.1037/a0013075

Cuijpers, P., van Straten, A., Schuurmans, J., van Oppen, P., Hollon, S., & Andersson, G. (2010). Psychotherapy for chronic major depression and dysthymia: A meta-analysis. *Clinical Psychology Review,* 30, 51-62. https://doi.org/10.1016/j.cpr.2009.09.003

Danese, A., Moffitt, T., Harrington, H., Milne, B., Polanczyk, G., Pariante, C., Poulton, R., & Caspi, A. (2009). Adverse childhood experiences and adult risk factors for age-related disease: Depression, inflammation, and clustering of metabolic risk markers. *Archive of Pediatric and Adolescent Medicine,* 163(12), 1135-1143. https://doi.org/10.1001/archpediatrics.2009.214

De Vos, S., Wardenaar, K. J., Bos, E. H., Wit, E. C., Bouwmans, M. E., & De Jonge, P. (2017).

An investigation of emotion dynamics in major depressive disorder patients and healthy

persons using sparse longitudinal networks. *PLoS One, 12*(6), e0178586.

https://doi.org/10.1371/journal.pone.0178586

Dozois, D. J. A., Dobson, K. S., & Ahnberg, J. L. (1998). A psychometric evaluation of the Beck

Depression Inventory–II. *Psychological Assessment, 10*(2), 83–89.

https://doi.org/10.1037/1040-3590.10.2.83

Drotar, D., & Sturn, L. (1991). Psychosocial influences in the etiology, diagnosis, and prognosis

of nonorganic failure to thrive. In H.E. Fitzgerald, B.M. Lester, & M.W. Yogman (Eds.),

Theory and research in behavioral pediatrics (pp.19-59). Plenum Press.

https://doi.org/10.1007/978-1-4615-3680-2_2

Eaton, W., Shao, H., Nestadt, G., Lee, B., Bienvenu, J., & Zandi, P. (2008). Population-Based

Study of First Onset and Chronicity in Major Depressive Disorder. *Archives of General

Psychiatry,* 65(5), 513-520. https://doi.org/10.1001/archpsyc.65.5.513

Elliott, R., Wagner, J., Sales, C., Rodgers, B., Alves, P., & Café, M. (2016). Psychometrics of the

personal questionnaire: a client-generated outcome measure. Psychological Assessment.

28 (3), 263- 278. https://doi.org/10.1037/pas0000174

Erkens, N., Schramm, E., Kriston, L., Hautzinger, M., Härter, M., Schweiger, U., & Klein, J.

(2017). Association of comorbid personality disorders with clinical characteristics and

outcome in a randomized controlled trial comparing two psychotherapies for early-onset

persistent depressive disorder. *Journal of Affective Disorders, 229*, 262-268.

https://doi.org/10.1016/j.jad.2017.12.091

Fink, L., Bernstein, D., Handelsman, L., Foote, J., & Lovejoy, M. (1995). Initial reliability and validity of the childhood trauma interview: A new multidimensional measure of childhood interpersonal trauma. *American Journal of Psychiatry, 152,* 1329-1335. https://doi.org/10.1176/ajp.152.9.1329

Folstein, M., Folstein, S., & McHugh, P. (1975). "Mini-Mental State": A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research, 12*, 189-198. https://doi.org/10.1016/0022-3956(75)90026-6

Freud, S. (1963). *Character and culture*. Collier Books.

Frodl, T., Janowitz, D., Schmaal, L., Tozzi, L., Dobrowolny, H., Stein, D., Veltman, D., Wittfeld, K., van Erp, T., Jahanshad, N., Block, A., Hegenscheid, K., Völzke, H., Lagopoulos, J., Hatton, S., Hickie, I., Frey, E., Carballedo, A., Brooks, S., … & Grabe, H. (2017). Childhood adversity impacts on brain subcortical structures relevant to depression. *Journal of Psychiatric Research, 86,* 58-65. https://doi.org/10.1016/j.jpsychires.2016.11.010

Fu, X., Qian, Y., Jin, X., Wu, H., Du, L., Chen, H., & Shi, Y. (2021). Suicide rates among people with serious mental illness: A systematic review and meta-analysis. *Psychological Medicine,* 1-11. https://doi.org/10.1017/S0033291721001549

Furukawa, T., Efthimiou, O., Weitz, E., Cipriani, A., Keller, M., Kocsis, J., Klein, D., Michalak, J., Salanti, G., Cuijpers, P., & Schramm, E. (2018). Cognitive-behavioral analysis system of psychotherapy, drug, or their combination for persistent depressive disorder: Personalizing the treatment choice using individual participant data network Metaregression**.** *Journal of Psychotherapy and Psychosomatics*, *87*(3), 140-153. https://doi.org/10.1159/000489227

Furukawa, T., Reijnders, M., Kishimoto, S., Sakata, M., DeRubeis, R., Dimidjian, S., Dozois, D.,

    Hegerl, U., Hollon, S., Jarrett, R., Lespérance, F., Segal, Z., Mohr, D., Simons, A.,

    Quilty, L., Reynolds, C., Gentili, C., Leucht, S., Engel, R., & Cuijpers, P. (2019).

    Translating the BDI and BDI-II into the HAMD and vice versa with equipercentile

    linking. *Epidemiology and Psychiatric Sciences, 29*(24), 1-13.

    https://doi.org/10.1017/S2045796019000088

Furukawa, T., Schramm, E., Weitz, E., Salanti, G., Efthimiou, O., Michalak, J., Watanabe, N.,

    Cipriani, A., Keller, M., Kocsis, J., Klein, D., & Cuijpers, P. (2016). Cognitive-

    Behavioral Analysis System of Psychotherapy (CBASP), a drug, or their combination:

    differential therapeutics for persistent depressive disorder: a study protocol of an

    individual participant data network meta-analysis. *BMJ Open, 6*(5), 1-6.

    https://doi.org/10.1136/bmjopen-2016-011769

Gordon, D. (1988). Formal operations and interpersonal and affective disturbances in

    adolescents. In E.D. Nannis & P.A. Coward (Eds.), *Developmental psychopathology and*

    its treatment (pp. 51-73). Jossey-Bass. https://doi.org/10.1002/cd.23219883905

Greenberg, J. (1995). Self-disclosure: Is it psychoanalytic? *Contemporary Psychoanalysis, 31,*

    193-205. https://doi.org/10.1080/00107530.1995.10746904

Greenberg, P., & Birnbaum, H. (2005). The economic burden of depression in the US: Societal

    and patient perspectives. *Expert Opinions in Pharmacotherapy*, *6,* 369–376.

    https://doi.org/10.1080/00107530.1995.10746904

Guidano, V. (1991). *The self in process: Toward a post-rationalist cognitive therapy.* The

    Guilford Press.

Guidano, V., & Liotti, G. (1983). *Cognitive processes and emotional processes.* Guilford Press.

Hamilton, M. (1960). A rating scale for depression. *Journal of Neurology, Neurosurgery, and Psychiatry, 23*, 56–62. https://doi.org/10.1136/jnnp.23.1.56

Hasin, D., Goodwin, R., Stinson, F., & Grant, B. (2005). Epidemiology of major depressive disorder: Results from the national epidemiological survey on alcoholism and related conditions. *Archives of General Psychiatry, 62*(10), 1097-1106. https://doi.org/10.1001/archpsyc.62.10.1097

Heppner, P., Wampold, B., & Kivlighan, D. (2008). *Research Design in Counseling* (3rd ed.). Thomson Higher Education.

Hill, C., & Knox, S. (2002). Self-disclosure. In J.C. Norcross (Ed.), *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients.* (pp. 255-265). Oxford University Press.

Hill, C., & O'Brien, K. (1999). *Helping skills: Facilitating exploration, insight, and action.* American Psychological Association.

Hom, M., Stanley, I., Vazquez, A., Belz, M., & Joiner, T. (2017). Gains in cognitive behavioral analysis system of psychotherapy: Examining treatment progress and processes of change in a psychiatric outpatient sample. *International Journal of Cognitive Therapy, 10*(3), 255-268. https://doi.org/10.1521/ijct.2017.10.3.255

Jobst, A., Brakemeier, E., Buchheim, A., Casper, F., Cuijpers, P., Ebmeier, K., Falkai, P., van der Gaag, R., Gaebel, W., Herpertz, S., Kurimay, T., Sabaß, L., Schnell, K., Schramm, E., Torrent, C., Wasserman, D., Wiersma, J., & Padberg, F. (2016). European Psychiatric Association guidance on psychotherapy in chronic depression across Europe. *European Psychiatry, 33*, 18-36. https://doi.org/10.1016/j.eurpsy.2015.12.003

Kaufman, A., & Kaufman, N. (2004). *Kaufman brief intelligence test, Second edition.* Pearson, Inc.

Kazdin, A. (2007). Mediators and mechanisms of change in psychotherapy research. *Annual Review of Clinical Psychology, 3,* 1-27. https://doi.org/10.1146/annurev.clinpsy.3.022806.091432

Kazdin, A., & Nock, M. (2003). Delineating mechanisms of change in child and adolescent therapy: Methodological issues and research recommendations. *Journal of Child Psychology and Psychiatry, 44,* 1116-1129. https://doi.org/10.1111/1469-7610.00195

Keller, M., Klein, D., Hirschfeld, R., Kocsis, J., McCullough, J., Miller, I., First, M., Holzer, C., Keitner, G., & Marin, D. (1995). Results of the DSM-IV mood disorders field trial. *The American Journal of Psychiatry, 152*(6), 843–849. https://doi.org/10.1176/ajp.152.6.843

Keller, M., McCullough, J., Klein, D., Arnow, B., Dunner, D., Gelenberg, A., Markowitz, J., Nemeroff, C., Russell, J., Thase, M., Trivedi, M., & Zajecka, J. (2000). A comparison of nefazodone, the cognitive behavioral analysis system of psychotherapy, and their combination for the treatment of chronic depression. *New England Journal of Medicine, 342*(20), 1462-1470. https://doi.org/10.1056/NEJM200005183422001

Kesselring, T., & Müller, U. (2011). The concept of egocentrism in the context of Piaget's theory. *New Ideas in Psychology, 29*(3), 327-345. https://doi.org/10.1016/j.newideapsych.2010.03.008

Kessler, R., de Jonge, P., Shahly, V., van Loo, H., Wang, P., & Wilcox, M. (2004). *Epidemiology of depression.* In Gotlib, I. & Hammen, C. (Eds.), *Handbook of depression* (p. 7-24). Guilford Press.

Kessler, R., McGonagle, K., Zhao, S., Nelson, C., Hughes, M., Eshleman, S., Wittchen, H., &
Kendler, K. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric
disorders in the United States. Results from the National Comorbidity Survey. *Archives
of General Psychiatry*, *51*, 8–19. https://doi.org/10.1001/archpsyc.1994.03950010008002

Kiesler, D. (1982). The 1982 interpersonal circle: A taxonomy for complementarity for human
transaction. *Psychological Review, 90*, 185-214. https://doi.org/10.1037/0033-
295X.90.3.185

Kiesler, D. (1983). The 1982 interpersonal circle: A taxonomy for complementarity in human
transactions. *Psychological Review*, *90*, 185–214.

Kiesler, D. (1988). *Therapeutic metacommunication: Therapist impact disclosure as feedback in
psychotherapy*. Consulting Psychologist Press.

Kiesler, D. (1996). *Contemporary interpersonal theory and research: Personality,
psychopathology, and psychotherapy*. John Wiley.

Kiesler, D., & Schmidt, J. (2006). *The impact message inventory – circumplex (IMI-C)*. Mind
Garden. https://doi.org/10.1037/t06475-000

Klein, D., & Finsaas, M. (2017). The Stony Brook temperament study: Early antecedents and
pathways to emotional disorders. *Child Development Perspectives, 11*(4), 257-263.
https://doi.org/10.1111/cdep.12242

Klein, D., Leon, A., Li, C., D'Zurilla, T., Black, S., Vivian, D., Dowling, F., Arnow, B., Manber,
R., Markowitz, J., & Kocsis, J. (2011). Social problem solving and depressive symptoms
over time: A randomized clinical trial of cognitive-behavioral analysis system of
psychotherapy, brief supportive psychotherapy, and pharmacotherapy. *Journal of
Consulting and Clinical Psychology, 79*(3), 342-352. https://doi.org/10.1037/a0023208

Klein, D., Santiago, N., Vivian, D., Blalock, J., Kocsis, J., Markowitz, J., McCullough, J., Rush, A., Trivedi, M., Arnow, B., Dunner, D., Manber, R., Rothbaum, B., Thase, M., Keitner, G., Miller, I., & Keller, M. (2004). Cognitive-behavioral analysis system of psychotherapy as a maintenance treatment for chronic depression. *Journal of Consulting and Clinical Psychology, 72*(2), 681-688. https://doi.org/10.1037/0022-006X.72.4.681

Klein, D., Schatzberg, A., McCullough, J., Keller, M., Dowling, F., Goodman, D., Howland, R., Markowitz, J., Smith, C., Miceli, R., & Harrison, W. (1999). Early-versus late-onset dysthymic disorder: Comparison in out-patient with superimposed major depressive episodes. *Journal of Affective Disorders, 52*, 187-196. https://doi.org/10.1016/S0165-0327(98)00079-2

Klein, D., Shankman, S., & Rose, S. (2008). Dysthymic disorder and double depression: Prediction of 10-year course trajectories and outcomes. *Journal of Psychiatric Research, 42*(5), 408-415. https://doi.org/10.1016/j.jpsychires.2007.01.009

Klein, D., Taylor, E., Dickstein, S., & Harding, K. (1988). Primary early-onset dysthymia: Comparison with primary nonbipolar non-chronic major depression on demographic, clinical, familial, personality, and socioenvironmental characteristics and short-term outcomes. *Journal of Abnormal Psychology*, *97*(4), 387-398. https://doi.org/10.1037/0021-843X.97.4.387

Klein, M., Klein, D., Hirschfeld, R., Kocsis, J., McCullough, J., Miller, I., First, M., Holzer, C., Keitner, G., Marin, D., & Shea, T. (1995). Results of the DSM-IV mood disorders field trial. *American Journal of Psychiatry, 152*, 843-849. https://doi.org/10.1176/ajp.152.6.843

Klein, M., & Santiago, N. (2003). Dysthymia and chronic depression: Introduction,

      classification, risk factors, and course. *Journal of Clinical Psychology, 59*, 807-816.

      https://doi.org/10.1002/jclp.10174

Kleine-Budde, K., Muller, R., Kawohl, W., Bramesfeld, A., Moock, J., & Rossler, W. (2013).

      The cost of depression: A cost analysis from a large database. *Journal of Affective*

      Disorders, 147(1), 137-143. https://doi.org/10.1016/j.jad.2012.10.024

Knox, S., Hess, S., Petersen, D., & Hill, C. (1997). A qualitative analysis of client perceptions of

      the effects of helpful therapist self-disclosure in long-term therapy. *Journal of Counseling*

      Psychotherapy, 44, 274-283. https://doi.org/10.1037/0022-0167.44.3.274

Köhler, S., Chrysanthou, S., Guhn, A., & Sterzer, P. (2019). Differences between chronic and

      nonchronic depression: Systematic review and implications for treatment. *Depression &*

      Anxiety, *36*, 18-30. https://doi.org/10.1002/da.22835

Konig, H., Konig, H. H., & Konnopka, A. (2020). The excess costs of depression: a systematic

      review and meta- analysis. *Epidemiology and Psychiatric Sciences*, *29*(30), 1–16.

      https://doi.org/10.1017/S2045796019000180

Lachman, S., & Bass, A. (1985). A Direct Study of Halo Effect. The Journal of

      Psychology, 119:6, 535-540.

      https://doi.org/10.1080/00223980.1985.9915460

Lasserre, A., Marti-Soler, H., Strippoli, M., Vaucher, J., Glaus, J., Vandeleur, C., Castelao, E.,

      Marques-Vidal, P., Waeber, G., Vollenweider, P., & Preisig, M. (2016). Clinical and

      course characteristics of depression and all-cause mortality: A prospective population-

      based study. *Journal of Affective Disorders, 189*, 17-24.

      https://doi.org/10.1016/j.jad.2015.09.010

Linehan, M., Korslund, K., Harned, M., Gallop, R., Lungu, A., Neacsiu, A., McDavid, J., Comtois, K. A., Murray-Gregory, A. (2015). Dialectical Behavior Therapy for high suicide risk in individuals with borderline personality disorder: A randomized clinical trial and component analysis. *JAMA Psychiatry,72*(5), 475–482. https://doi.org/10.1001/jamapsychiatry.2014.3039

Lipsitt, D. (1970). Medical and psychological characteristics of "crocks." *Psychiatric Medicine, 1*, 15-25. https://doi.org/10.2190/38CT-C0Q8-9L6R-XN6Q

Locke, K., Sayegh, L., Penberthy, J. K., Weber, C., Haentjens, K., & Turecki, G. (2016). Interpersonal circumplex profiles of persistent depression: Goals, self-efficacy, problems, and effects of group therapy. *Journal of Clinical Psychology, 73*(6), 595-611. https://doi.org/10.1002/jclp.22343

Manning, E. (2005). Wrestling with vulnerability: Countertransference disclosure and the training therapist. *Psychotherapy Bulletin, 40*, 5-11. https://doi.org/10.1037/e565722006-003

Maroda, K. (1999a). *Seduction, surrender, and transformation: Emotional engagement in the analytic process.* Analytic Press.

Maroda, K. (1999b). Creating an intersubject context for self-disclosure. *Smith College Studies in Social Work, 69*, 475-489. https://doi.org/10.1080/00377319909517566

Mausbach, B., & Irwin, S. (2017). Depression and healthcare service utilization in patients with cancer. *Psycho-Oncology, 26*(8), 1133-1139. https://doi.org/10.1002/pon.4133

McCullough, J. (1984a). Cognitive-behavioral analysis system of psychotherapy: An interactional treatment approach for dysthymic disorder. *Psychiatry, 47,* 234-250. https://doi.org/10.1080/00332747.1984.11024245

McCullough, J. (1984b). Single-case investigative research and its relevance for the non-operant clinician. *Psychotherapy, 21*(3), 382-388. https://doi.org/10.1037/h0086101

McCullough, J. (1996). *The procedure for standardizing the rating of Axis V functioning in the DSM-IV-TR*. Virginia Commonwealth University, Richmond, VA. Unpublished Manuscript.

McCullough, J. (2000). *Treatment for chronic depression: Cognitive behavioral analysis system of psychotherapy (CBASP).* Guilford Press.

McCullough, J. (2003a). Treatment for chronic depression using Cognitive Behavioral Analysis Systems of Psychotherapy (CBASP). *Journal of Clinical Psychology, 59*, 833-846. https://doi.org/10.1002/jclp.10176

McCullough, J. (2003b). Treatment for chronic depression using Cognitive Behavioral Analysis Systems of Psychotherapy (CBASP). *Journal of Psychotherapy Integration, 13*, 241-263. https://doi.org/10.1037/1053-0479.13.3-4.241

McCullough, J. (2006). *Treating Chronic depression with disciplined personal involvement: CBASP.* Springer.

McCullough, J. (2019). *Swimming upstream: A story about becoming human.* Dorrance Publishing.

McCullough, J. (2021). Characteristics of the optimal cognitive behavioral analysis system of psychotherapy (CBASP) therapist role. *Frontiers in Psychiatry, 11*, 1-12. https://doi.org/10.3389/fpsyt.2020.609954

McCullough, J., Clark, S., Klein, D., & First, M. (2016a). A procedure to graph the quality of psychosocial functioning affected by symptom severity. *American Journal of*

Psychotherapy, 70(2), 222-231.

https://doi.org/10.1176/appi.psychotherapy.2016.70.2.222

McCullough, J., Clark, S., Klein, D., & First, M. (2016b). Introducing a clinical course-graphing

scale for DSM-5 mood disorders. *American Journal of Psychotherapy, 70*(4), 383-392.

https://doi.org/10.1176/appi.psychotherapy.2016.70.4.383

McCullough, J., Lord, B., Martin, A., Conley, K., Schramm, E., & Klein, D. (2011). The

significant other history: An interpersonal-emotional history procedure used with early-

onset chronically depressed patient. *American Journal of Psychotherapy, 65*(3), 225-248.

https://doi.org/10.1176/appi.psychotherapy.2011.65.3.225

McCullough, J., Roberts, W., McCune, K., Kaye, A., Hampton, C., Caldwell, S., Norris, S., &

Kornstein, S. G. (1994). Social adjustment, coping style, and clinical course among

DSM-III-R community unipolar depressives. *Depression*, *2*, 36-42.

https://doi.org/10.1002/depr.3050020105

McCullough, J., Schramm, E., & Penberthy, J. (2015). *CBASP as a distinctive treatment for

persistent depressive disorder*. Routledge. https://doi.org/10.4324/9781315743196

McDowell, I., Krisjansson, B., Hill, G., & Hebert, R. (1997). Community screening for

Dementia: The Mini Mental State Exam (MMSE) and modified Mini Mental State Exam

(3MS) compared. *Journal of Clinical Epidemiology, 50*(4), 377-383.

https://doi.org/10.1016/S0895-4356(97)00060-7

Meichenbaum, D. (1971). Examination of model characteristics in reducing avoidance behavior.

Journal of Personality and Social Psychology, 17, 298-307.

https://doi.org/10.1037/h0030593

Michalak, J., Schultze, M., Heidenreich, T., & Schramm, E. (2015). A randomized controlled

trial on the efficacy of mindfulness-based cognitive therapy and a group version of

cognitive behavioral analysis system of psychotherapy for chronically depressed patients.

Journal of Consulting and Clinical Psychology, 83(5), 951-963.

https://doi.org/10.1037/ccp0000042

Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality.

Psychological Review, 80, 252-283. https://doi.org/10.1037/h0035002

Money, J. (1992). *The Kaspar Hauser concepts in psychoanalysis*. Harvard University Press.

Money, J., Annecillo, C., & Hutchinson, J. (1985). Forensic and family psychiatry in abuse

dwarfism: Munchausen's syndrome by proxy, atonement, and addiction to abuse. *Journal

of Sex and Marital Therapy, 11*, 30-40. https://doi.org/10.1080/00926238508405956

Mowrer, O. H. (1939). A stimulus-response analysis of anxiety and its role as a reinforcing

agent. *Psychological Review*, *46*(6), 553. https://psycnet.apa.org/doi/10.1037/h0054288

Mowrer, O. H., & Lamoreaux, R. (1942). Avoidance conditioning and signal duration – a study

of secondary motivation and reward. *Psychological Monographs, 54,* 247.

https://doi.org/10.1037/h0093499

Naugle, R., Chelune, G., & Tucker, G. (1993). Validity of the Kaufman Brief Intelligence

Test. *Psychological Assessment, 5*(2), 182–186. https://doi.org/10.1037/1040-

3590.5.2.182

Negt, P., Brakemeier, E., Winter, L., Bleich, S., & Kahl, K. (2016). The treatment of chronic

depression with cognitive behavioral analysis system of psychotherapy: A systematic

review and meta-analysis of randomized-controlled clinical trials. *Brain and Behavior,

6*(8), 1-25. https://doi.org/10.1002/brb3.486

Nemeroff, C., Heim, C., Thase, M., Klein, D., Rush, A., Schatzberg, A., Ninan, P., McCullough,

    J., Weiss, P., Dunner, D., Rothbaum, B., Kornstein, S., Keitner, G., & Keller, M. (2003).

    Differential responses to psychotherapy versus pharmacotherapy in the treatment of

    patients with chronic forms of major depression and childhood trauma. *Proceedings of*

    the National Academy of Sciences, 100, 14293-14296.

    https://doi.org/10.1073/pnas.2336126100

Norcross, J. (2001). Purposes, processes, and products of the task force on empirically supported

    therapy relationships. *Psychotherapy: Theory, Research, Practice, Training, 38*, 345-356.

    https://doi.org/10.1037/0033-3204.38.4.345

Penberthy, J. K. (2019). *Persistent Depressive Disorders.* Hogrefe.

Piaget, J. (1926). *The language and thought of the child.* Harcourt.

Piaget, J. (1981). Intelligence and affectivity: Their relationship during child development.

    Annual Reviews. (Original work published 1954).

Potijk, M., het Rot, M., Parlevliet, F., Schoevers, R., & Eldering, M. (2020). Group cognitive

    behavioral analysis system of psychotherapy (CBASP) for persistently depressed

    outpatients: A retrospective chart review. *British Journal of Clinical Psychology, 59*,

    552-564. https://doi.org/10.1111/bjc.12266

Probst, T., Schramm, E., Heidenreich, T., Klein, J., & Michalak, J. (2020). Patients'

    interpersonal problems as moderators of depression outcomes in a randomized controlled

    trial comparing mindfulness-based cognitive therapy and a group version of cognitive-

    behavioral analysis system of psychotherapy in chronic depression. *Journal of Clinical*

    Psychology, 76(7), 1241-1254. https://doi.org/10.1002/jclp.22931

Reichard, G. (1938). Social life. In F. Boas (Ed.), *General anthropology* (pp. 409-486). Health

>   Publisher.

Rhebergen, D., & Graham, R. (2014). The re-labeling of dysthymic disorder to persistent

>   depressive disorder in DSM-5: Old wine in new bottles? *Current Opinions in Psychiatry,*

>   *27*, 27-31. https://doi.org/10.1097/YCO.0000000000000022

Riso, L. P., Miyatake, R. K., & Thase, M. E. (2002). The search for determinants of chronic

>   depression: a review of six factors. *Journal of Affective Disorders, 70(*2), 103-115.

>   https://doi.org/10.1016/S0165-0327(01)00376-7

Robitschek, C., & McCarthy, P. (1991). Prevalence of counselor self-reference in the therapeutic

>   dyad. *Journal of Counseling and Development, 69*, 218-221.

>   https://doi.org/10.1002/j.1556-6676.1991.tb01490.x

Rogers, C. (1951). *Client-centered therapy: Its current practice implications, and theory*.

>   Houghton Mifflin.

Rubio, J., Markowitz, J., & Alegria, A. (2011). Epidemiology of chronic and nonchronic major

>   depressive disorder: Results from the national epidemiologic survey on alcohol and

>   related conditions. *Depression and Anxiety, 28*, 622-631.

>   https://doi.org/10.1002/da.20864

Sabab, L., Padberg, F., Normann, C., Engel, V., Konrad, C., Helmle, K., Jobst, A., Worlitz, A.,

>   & Brakemeier, E. (2018). Cognitive behavioral analysis system of psychotherapy as

>   group psychotherapy for chronically depressed inpatients: A naturalistic multicenter

>   feasibility trial. *European Archives of Psychiatry and Clinical Neuroscience*, *268*, 783–

>   796. https://doi.org/10.1007/s00406-017-0843-5

Sackeim, H. A. (2001). The definition and meaning of treatment-resistant depression. *Journal of Clinical Psychiatry*, *62*(Suppl. 16), 10–17.

Safran, J., & Muran, J. (2000). *Negotiating the therapeutic alliance: A relational treatment guide.* Guilford Press.

Sansone, R., & Sansone, L. (2009). Early- versus late-onset dysthymia: A meaningful clinical distinction? *Psychiatry, 6*(11), 14-17.

Santiago, N., Klein, D., Vivian, D., Arnow, B., Blalock, J., Kocsis, J., Markowitz, J., Manber, R., Riso, L., Rothbaum, B., Rush, J., Thase, M., McCullough, J., & Keller, M. (2005). The therapeutic alliance and CBASP-*specific* skill acquisition in the treatment of chronic depression. *Cognitive Therapy and Research, 29*(6), 803-817. https://doi.org/10.1007/s10608-005-9638-5

Sayegh, L., Locke, K., Pistilli, D., Penberthy, J., Chachamovich, E., McCullough, J., & Turecki, G. (2012). Cognitive behavioral analysis system of psychotherapy for treatment resistant depression: Adaptation to a group modality. *Behaviour Change, 29*(2), 97-108. https://doi.org/10.1017/bec.2012.2

Sayegh, L., & Penberthy, J. K. (2016). *Group treatment manual for persistent depression: Cognitive behavioral analysis system of psychotherapy (CBASP) Therapist's Guide.* Routledge. https://doi.org/10.4324/9781315683317

Schramm, E., Klein, D., Elsaesser, M., Furukawa, T., & Domschke, K. (2020). Review of dysthymia and persistent depressive disorder: History, correlates, and clinical implications. *Lancet Psychiatry,* 801-812. https://doi.org/10.1016/S2215-0366(20)30099-7

Schramm, E., Kriston, L., Elsaesser, M., Fangmeier, T., Meister, R., Bausch, P., Zobel, I., Bailer, J., Wambach, K., Backenstrass, M., Klein, J., Schoepf, D., Shnell, K., Gumz, A., Löwe, B., Walter, H., Wolf, M., Domschke, K., Berger, M., … & Härter, M. (2019). Two-year follow-up after treatment with the cognitive behavioral analysis system of psychotherapy versus supportive psychotherapy for early-onset chronic depression. *Psychotherapy and Psychosomatics, 88,* 154-164. https://doi.org/10.1159/000500189

Schramm, E., Kriston, L., Zobel, I., Bailer, J., Wambach, K., Backenstrass, M., Klein, J., Schoepf, D., Schnell, D., Gumz, A., Bausch, P., Fangmeier, T., Meister, R., Berger, M., Hautzinger, M., & Härter, M. (2017). Effective disorder-specific vs nonspecific psychotherapy for chronic depression: A randomized clinical trial. *JAMA Psychiatry, 74*(3), 233-242. https://doi.org/10.1001/jamapsychiatry.2016.3880

Schramm, E., Zobel, I., Dykierek, P., Kech, S., Brakemeier, E., Külz, A., & Berger, M. (2011). Cognitive behavioral analysis system of psychotherapy versus interpersonal psychotherapy for early-onset chronic depression: A randomized pilot study. *Journal of Affective Disorder, 129*, 109-116. https://doi.org/10.1016/j.jad.2010.08.003

Schramm, E., Zobel, I., Schoepf, D., Fangmeier, T., Schnell, K., Walter, H., Drost, S., Schmidt, P., Brakemeier, E., Mathias Berger, M., & Normann, C. (2015). Cognitive Behavioral Analysis System of Psychotherapy versus Escitalopram in Chronic Major Depression. *Psychotherapy and Psychosomatics, 84,* 227-240. https://doi.org/10.1159/000381957

Shapiro, M. (1961). A method of measuring psychological changes specific to the individual psychiatric patient. *British Journal of Medicine, 43*(2), 151-155. https://doi.org/10.1111/j.2044-8341.1961.tb00940.x

Sharp, R. (2015). The Hamilton rating scale for depression. *Occupational Medicine*, *65*(4), 340. https://doi.org/10.1093/occmed/kqv043

Sidman, M. (1960). *Tactics of scientific research: Evaluating experimental data in psychology.* Basic Books.

Skinner, B. F. (1953). *Science and human behavior.* Macmillan.

Skinner, B. F. (1968). *The technology of teaching.* Appleton-Century-Crofts.

Söderberg, P., Tangström, S., & Armelius, B. A. (2005). Reliability of Global Assessment of Functioning ratings made by clinical psychiatric staff. *Psychiatric Services, 56*(4), 434-438. https://doi.org/10.1176/appi.ps.56.4.434

Spotnitz, H. (1969). *Modern psychoanalysis of the schizophrenic patient*. Grune & Stratton.

Stewart, W. F., Ricci, J. A., Chee, E., Hahn, S. R., & Morganstein, D. (2003). Cost of lost productive work time among US workers with depression. *JAMA*, *289*(23), 3135–3144. https://doi.org/10.1001/jama.289.23.3135

Sutherland, S. (1992). *Irrationality: The enemy within.* Constable and Company.

Tansey, M., & Burke, W. (1991). *Understanding countertransference: From projective identification to empathy.* Analytic Press.

Teicher, M., & Samson, J. (2013). Childhood maltreatment and psychopathology: A case for ecophenotypic variants as clinically and neurobiologically distinct subtypes. *American Journal of Psychiatry, 170*(10), 1114-1133. https://doi.org/10.1176/appi.ajp.2013.12070957

Teyber, E. (1992). *Interpersonal process in psychotherapy: A guide for clinical training* (2nd ed.). Brooks-Cole Publishing.

Torpey, D., & Klein, D. (2008). Chronic depression: Update on classification and treatment. *Current Psychiatry Reports, 10*, 458–464. https://doi.org/10.1007/s11920-008-0074-6

Trajkovic, G., Starčević, V., Latas, M., Leštarević, M., Ille, T., Bukumirić, Z., & Marinković, J. (2011). Reliability of the Hamilton Rating Scale for Depression: A meta-analysis over a period of 49 years. *Psychiatry Research,189*, 1-9. https://doi.org/10.1016/j.psychres.2010.12.007

Trivedi, M., Jha, M., Kahalnik, F., Pipes, R., Levinson, S., Lawson, T., Rush, A. J., Trombello, J., Grannemann, B., Tovian, C., Kinney, R., Clark, E. W., & Greer, T. (2019). VitalSign6: A primary care first (PCP-First) model for universal screening and measurement-based care for depression. *Pharmaceuticals, 12*(2), 1-18. https://doi.org/10.3390/ph12020071

Uher, R. (2011). Genes, environment, and the individual differences in responding to treatment for depression. *Harvard Review of Psychiatry, 19*(3), 109-124. https://doi.org/10.3109/10673229.2011.586551

Wachtel, P. (1993). *Therapeutic communication: Principles and effective practice.* Guilford Press.

Waraich, P., Goldner, E., Somers, J., & Hsu, L. (2004). Prevalence and incident studies of mood disorders: A systematic review of the literature. *Canadian Journal of Psychiatry, 49,* 124-138. https://doi.org/10.1177/070674370404900208

Weissman, M., & Klerman, G. (1979). The chronic depressive in the community: Unrecognized and poorly recognized. *Comprehensive Psychiatry, 18*, 523-532. https://doi.org/10.1016/S0010-440X(97)90002-X

Wiersma, J., van Schaik, D., van Oppen, P., McCullough, J., Schoevers, R., Dekker, J., Blom,

      M., Maas, K., Smit, J., Penninx, B., & Beekman, A. (2008). Treatment of chronically

      depressed patients: A multisite randomized controlled trial testing the effectiveness of

      'Cognitive Behavioral Analysis Systems of Psychotherapy' (CBASP) for chronic

      depressions versus usual secondary care. *Biological Medical Central Psychiatry, 8,* 69-

      75. https://doi.org/10.1186/1471-244X-8-18

Wiersma, J., Van Schaik, D., Hoogendorn, A., Dekker, J., Hendrikus. L.. Van, H., Schoevers, R.,

      Blom, M., Maas, K., Smit, J., McCullough, J., Beekman, A., Van Oppen, P. (2014). The

      effectiveness of the Cognitive Behavioral Analysis System of Psychotherapy for chronic

      depression: A randomized controlled trial. *Psychotherapy and Psychosomatics, 83*, 263-

      269. https://doi.org/10.1159/000360795

Wiggins, J. (2003). *Paradigms of personality assessment*. Guilford Press.

      https://doi.org/10.1207/S15327752JPA8001_08

Wilbertz, G., Brakemeier, E., Zobel, I., Härter, M., & Schramm, E. (2010). Exploring

      preoperational features in chronic depression. *Journal of Affective Disorders, 124*, 262-

      269. https://doi.org/10.1016/j.jad.2009.11.021

Williams, J. (2001). Standardizing the Hamilton Depression Rating Scale: Past, present, and

      future. *European Archive of Psychiatry and Clinical Neuroscience, 251*(2), 6-12.

      https://doi.org/10.1007/BF03035120

Winnicott, D. (1949). Hate in the countertransference. *International Journal of Psycho-Analysis,*

      30, 69-75.

Wittchen, H., Jacobi, F., Rehm, J., Gustavsson, A., Svensson, M., Jonsson, B., Olesen, J.,

      Allgulander, C., Alonson, J., Faravelli, C., Fratiglioni, L., Jennum, P., Lieb, R.,

Maercker, A., van Os, J., Preisig, M., Salvador-Carulla, L., Simon, R., & Steinhausen, H.

(2011). The size and burden of mental disorders and other disorders of the brain in

Europe 2010. *European Neuropsychopharmacology, 21*(9), 655-679.

https://doi.org/10.1016/j.euroneuro.2011.07.018

World Health Organization. (2017). *Depression and other common mental disorders:* Global

Health Estimates.

World Health Organization. (2021). *Suicide data*. Global Health Estimates.

Yalom, I. (1975). *Theory and practice of group psychotherapy* (2nd ed.). Basic Books.

Yang, L., Zhao, Y., Wang, Y., Liu, L., Zhang, X., Li, B., & Cui, R. (2015). The effects of

psychological stress on depression. *Current Neuropharmacology, 13*(4), 494-504.

https://doi.org/10.2174/1570159X1304150831150507

Zahodne, L., Kraal, A. Z., Sharifian, N., Zaheed, A., & Sol, K. (2019). Inflammatory

mechanisms underlying the effects of everyday discrimination on age-related memory

decline. *Brain, Behavior, and Immunity, 75,* 149-154.

APPENDIX A

Therapy Procedures

Situational Analysis (SA) Cell	Interpersonal Discrimination Exercise (IDE) Cell	Combination Cell
Week 1 - Get to know participant - Overview of procedures - Assign SOH list	**Week 1** - Get to know participant - Overview of procedures - Assign SOH list	**Week 1** - Get to know participant - Overview of procedures - Assign SOH list
Week 2 - Administer SOH - Construct TH	**Week 2** - Administer SOH - Construct TH	**Week 2** - Administer SOH - Construct TH
Week 3-20 - Administer SAs - Focus on problem-solving - No discussion or discrimination of interpersonal dyadic relationship	**Week 3-20** - Administer IDE when appropriate - Focus on relational therapeutic dyad (therapist and participant) - Focus on differentiation in a therapeutic relationship and significant others	**Week 3-20** - Administer SA and IDE when appropriate - Approximately 70% of the sessions SA will be administered - Approximately 30% of the sessions IDE will be administered

APPENDIX B

Consent

Title of the Project: Dismantling CBASP: A Pilot Study to Identify the Active Ingredients
Principal Investigator: Lee Long, MA, LPC-S, Liberty University
Co-investigator(s): Mark Foster, MA, LPC, Kara Burr, MA, LPC

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be:

- 18 and 55 years of age

- meet criteria for chronic depression (also known as Persistent Depressive Disorder) of which symptoms began before the age of 21

- have at least a high school education

- must speak English

- have an ability to read and write at an 8th grade level

- have ability to consent to the study

- in the past 6 months, no experiences of disordered eating. For example, binge eating, vomiting after eating, restricting calories in an unhealthy manner.

- Psychotropic medications are allowed for depression and anxiety with a primary diagnosis of early onset chronic depression

- SSRI and SNRI and anti-anxiety meds are eligible and may be evaluated by a predesignated psychiatrist

- anyone diagnosed with Histrionic Personality Disorder remains eligible

- anyone diagnosed with Dependent Personality Disorder remains eligible

Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

You are invited to participate in a psychotherapy research study that seeks to identify the most effective components in a psychotherapy model used to treat chronic depression or as the disorder is known today in the field, Persistent Depressive Disorder (PDD).

CBASP is the only psychotherapy model available in the world designed specifically to treat this type of patient. We need to know the component(s) of CBASP that is/are the most effective in the treatment of this disorder. Your participation will help us begin to identify these components. The purpose of the present investigation is to divide the CBASP model into its two major components (Component 1 & Component 2) and administer each component alone and together in combination (Component 1 + Component 2) to determine which of the three delivery modes is the most effective treatment strategy. At the present time, we don't know which of these three strategies is most effective.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

First Step: You will be guided through the Screening Procedure by the Project Coordinator. This will include several screening stages involving psychological tests and question-and-answer tasks. First, the administration of a depression severity psychological questionnaire and several brief paper-and-pencil tests will be administered concerning your depression history and about how you solve problems. You and the Coordinator will then discuss other psychological matters involving your mood and some general questions about high school and reading/writing. You will then be asked to list any psychiatric medicines you are taking. Finally, you will be asked about any other psychiatric issues that are relevant to being included in our study. This will take approximately 3 hours. This Screening Procedure will NOT be recorded.

Second Step: You will schedule the appointments to receive the portion of CBASP therapy you are randomly assigned to.

Third Step: You will attend your scheduled sessions and receive the portion of CBASP therapy you were randomly assigned. The appointments WILL be video recorded. The sessions will be approximately 50 minutes long and will meet weekly.

How could you or others benefit from this study?

Direct Benefits: The direct benefits participants may expect to receive from taking part in this study are that the therapy you receive *may* help decrease your current depression.

Benefits to society: At present, there are 15 million people in the United States who are chronically depressed. These individuals need a treatment designed to address their particular concerns. Gaining a better understanding of this treatment model will help improve the treatment for Persistent Depressive Disorder, also known as chronic depression.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Understanding mandatory reporting: The therapists involved in this study are "mandatory reporters" of abuse. This means that confidentiality is limited. Below are the limits to confidentiality:

1. If it is reported that someone under the age of 18 has experienced abuse or neglect, this must be reported to the appropriate authorities.

2. If it is reported that someone over the age of 65 experiences abuse or neglect, this must be reported to the appropriate authorities.

3. If an intent to harm yourself or others is reported, the therapist may be required to report this to an outside agency (i.e., hospital or authorities).

The therapists are legally obligated to report these scenarios above to the appropriate authorities.

How will personal information be protected?

The records of this study will be kept private.

Research records will be stored securely, and only the researchers will have access to the records.

Your therapy sessions will be video recorded for the expressed purpose of ensuring that your treatment is being delivered correctly and accurately. Every third session will be recorded and rated by the study observer(s), who will rate the therapist's performance for adherence to the treatment guidelines constructed specifically for each of the three treatment cells.

At the end of a therapy session, the video will be anonymously coded; then, the Study Coordinator will make the video available on a HIPPA Protected Server. One of the raters will then view the video and rate it for adherence to protocol. Once the video is rated, it will be stored on the HIPPA-Compliant Server and will be password protected.

At the end of the study, all recordings will be deleted. No record of any recording will be kept.

Data collected from you (excluding the videotapes) may be shared for use in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed before the data is shared.

Is study participation voluntary?

Participation in this study is voluntary and depends entirely on your meeting Study Screening selection criteria. Your decision on whether or not to participate will not affect your current or future relations with Liberty University.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researchers at the email address/phone number.

Kara Burr, MA, LPC – Study Coordinator or Lee Long, MA, LPC-S – Principle Investigator at < ██████████████████ > or by phone: ████████████

Who do you contact if you have questions or concerns about the study?

The researchers conducting this study are Mr. Lee Long whose Dissertation Project this study represents, Mr. Mark Foster, MA., LPC, and Ms. Kara Burr, MA, LPC, who will serve as the Study Coordinator. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact Ms. Kara Burr, MA., LPC, at ████████████ and/or < ██████████████████ >. You may also contact the researcher's (Lee Long, MA., LPC-S) Liberty University Faculty Sponsor, Dr. Tracy Baker, at < ██████████████████ >

Who do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researchers, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515, or email at < irb@liberty.edu>.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to participate in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researchers will keep a copy with the study records. If you have any questions about the study after you sign this document, you may contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

The researcher has my permission to video-record me as part of my participation in this study.

_____
Printed Subject Name

_____
Signature & Date

_____
Study Coordinator

APPENDIX C

SIGH-D Permission

Mapi Research Trust

SPECIAL TERMS

These User License Agreement Special Terms ("Special Terms") are issued between Mapi Research Trust ("MRT") and James McCullough ("User").

These Special Terms are in addition to any and all previous Special Terms under the User License Agreement General Terms.

These Special Terms include the terms and conditions of the User License Agreement General Terms, which are hereby incorporated by this reference as though the same were set forth in its entirety and shall be effective as of the Special Terms Effective Date set forth herein.

All capitalized terms which are not defined herein shall have the same meanings as set forth in the User License Agreement General Terms.

These Special Terms, including all attachments and the User License Agreement General Terms contain the entire understanding of the Parties with respect to the subject matter herein and supersedes all previous agreements and undertakings with respect thereto. If the terms and conditions of these Special Terms or any attachment conflict with the terms and conditions of the User License Agreement General Terms, the terms and conditions of the User License Agreement General Terms will control, unless these Special Terms specifically acknowledge the conflict and expressly states that the conflicting term or provision found in these Special Terms control for these Special Terms only. These Special Terms may be modified only by written agreement signed by the Parties.

1. **User information**

User name	James McCullough
Category of User	Individual Practice or Academic
User address	▓▓▓▓▓▓▓▓▓▓▓▓▓▓ VA United States of America
User VAT number	
User email	▓▓▓▓▓▓▓
User phone	▓▓▓▓
Billing Address	▓▓▓▓▓▓▓▓▓▓▓▓▓▓ VA United States of America

2. **General information**

Effective Date	Date of acceptance of these Special Terms by the User
Expiration Date ("Term")	Upon completion of the Stated Purpose
Name of User's contact in charge of the request	James McCullough

3. **Identification of the COA**

Name of the COA	SIGH-D - Structured Interview Guide for the Hamilton Depression Rating Scale
Author	Williams Janet BW
Copyright Holder	Williams JBW
Copyright notice	Past Week version : © Janet B.W. Williams, 1988. All Rights Reserved24H version : © SIGH-D 2013, v1.3 – 24 HR Version. Janet B.W. Williams, PhDSince Last Visit version : © SIGH-D 2013, v1.2 – SLE Version. Janet B.W. Williams, PhD
Bibliographic reference	Williams JB. A structured interview guide for the Hamilton Depression Rating Scale. Arch Gen Psychiatry. 1988 Aug;45(8):742-7 (PubMed Abstract)
Modules/versions needed	SIGH-D_SinceLastEvaluation(SLE)

4. **Context of use of the COA**

The User undertakes to use the COA solely in the context of the Stated Purpose as defined hereafter. **4.1 Stated Purpose**

Clinical research

Title	Dismantling CBASP into Component Parts: Pilot study to identify active ingredients
Study/protocol reference	None
Sponsor	Liberty University
Disease or condition	Persistent Depression Disorder (Chronic Depression)
Type of research	Phase I study
COA used as primary end point	No
Number of enrolled patients/subjects	6
Number of estimated failed patients/subjects	0
Number of submissions of the COA for each enrolled patient/subject	

Planned Term*	Start: 10/2021; End: 02/2022
Mode of Administration*	Paper
If electronic administration, please indicate mode of data collection	
Use of IT Company (e-vendor)	No

4.2 Country and languages

MRT grants the License to use the COA on the following countries and in the languages indicated in the table below:

The User understands that the countries indicated above are provided for information purposes. The User may use the

COA in other countries than the ones indicated above. 5. **Specific requirements for the COA**

Version/Module	Language	For use in the following country
SIGH-D_SinceLastEvaluation(SLE)	English	the USA

The Copyright Holder of the COA has selected ICON LS as the recommended vendor to perform linguistic validation/translation work on the COA. In case the new translation is not produced by ICON LS, the User shall comply with the methodology and requirements set-out in section 4.2.2 of this WO

In case the User wants to use an e-Version of the COA, the User shall send the Screenshots of the original version of the COA to MRT or ICON LS for review and approval. The Screenshots review may incur additional fees.

By accepting these Special Terms, the User acknowledges and confirms that it has read and approved the User Agreement General Terms.