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Treating Adult Women With Depression Through Videoconferencing

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

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Abstract

The occurrence of depression in the United States is steadily increasing. In every age group, women have a higher rate of depression than men, and U.S. women between the ages of 40 and 59 have a depression rate of 12%. Adult women living in rural areas experience physical and/or psychological impairment and lack access to mental health treatment. The purpose of this quantitative nonexperimental study was to examine participants' preferences for treatment delivery method based on patient perceptions of the clinical experience, patient satisfaction, and therapeutic bond. The working alliance theory provided the theoretical foundation. Data collection included survey responses from a self-selected sample of 264 adult females ages 40 to 65. Results from independent sample *t* tests indicated that participants favored CBT treatment delivered via videoconferencing more than in-person treatment. Implications for social change include improving the lives of adult women suffering from depression by providing treatment via videoconferencing when in-person services are not available. Psychologists may apply findings in clinical practice, thereby benefiting individuals, families, and communities.

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Dedication

I dedicate this dissertation to my mother, Eleonora Bravo, and my grandmother, Sofya Bravo. I thank them for believing in my ability to realize my dreams. Without their moral support, patience, and love, the completion of this study would not have been possible.

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Chapter 1: Introduction to the Study

For many years, researchers have explored one of the most common and widely known mental illnesses that affects both young and old people, known as major depressive disorder (MDD) or depression. Depression affects more than 349 million people worldwide (Marcus, Yasamy, Van Ommeren, Chisholm, & Saxena, 2013). Depression is a costly and debilitating mental illness linked to heart disease (Ballard, Patel, Ward, & Lamis, 2015; Zivin et al., 2015), obesity (Lokkerbol et al., 2014; Simonds, 2001), reduced physical activity (Mansikkamäki et al., 2015), perinatal risks (Andrews, 2010; Morris, McGrath, Goldman, & Rottenberg, 2014), suicidal ideation (Ballard et al., 2015), and mortality (Andrews, 2010; Zivin et al., 2015). As with many illnesses, mental health professionals and medical practitioners have tried to determine the root cause of depression. Although psychologists and physicians do not agree on a universal reason why human beings experience depression, they do agree that depressive symptomatology is multifaceted and often affects those who experience psychological or physical trauma as well as those who have not experienced any psychological or physical distress.

Many individuals come to understand and accept why they developed depression if they experienced a traumatic event, were victims of abuse, or are suffering from a chronic illness (Alderson, Foy, Glidewell, & House, 2014). However, it is challenging for adults to understand and accept why they are depressed if they have not experienced any trauma (Vieira, Brow, & Raue, 2014). Silverstein (2014) explained that healthy adults, particularly women, are susceptible to developing depressive symptoms. Andrews (2010) and Mamdani, Berlim, Beaulieu, and Turecki (2014) noted that many mental health

professionals and researchers are working to determine what causes depression in healthy adults, and how to help depressed individuals overcome depression to create healthier lives.

Depression and depressive symptoms may occur in children, adolescents, and adults, but are especially common in adult women who reside in rural areas (Simpson & Reid, 2014; Singh & Siahpush, 2014), have physical disabilities (Popplewell, Rechel, & Abel, 2014), and experience significant monetary hardships (Andrews, 2010; Morris et al., 2014). Zlotnick, Tzilos, Miller, Seifer and Stout (2016) indicated that pregnant women, women who are new to motherhood, and women who are single mothers may experience significant symptoms of depression. Women who have been sexually or physically abused, and those who experienced a traumatic event, frequently show signs of depression as well (Stafford et al., 2014). Researchers have also reported that many women who suffer from depression and reside in rural areas often go undiagnosed and untreated for years (Hirsch,2006; Pradeep, Isaac, Shanbag, Selvan, & Srinivasan, 2014).

Technological advancements provide mental health professionals with an alternative solution to treat individuals with depression. Technology such as telephone, email, and videoconferencing allows psychologists to interact with patients at a distance and to provide effective treatment without patients having to attend a health care provider's office (Newman, Szkodny, Llera, & Przeworski, 2011; Perle, Burt, & Higgins, 2014; Price & Gross, 2014; Richards & Simpson, 2014). Kramer, Kinn, and Mishkind (2014) explained that many advantages exist to using technology in mental health, but every therapist and patient should be aware of possible concerns as well. For instance, rapport might be difficult to establish, technical problems may occur, and the patient or

the therapist might not be able to properly operate technological devices (Perle et al., 2014; Richards & Simpson, 2014). Legal, ethical, and monetary concerns also exist when providing psychotherapy via technology. Kramer et al. (2014) explained that state laws and guidelines pertaining to telehealth are not universal, which may cause significant legal issues for providers who are not aware of their state's policies regarding telehealth. The other concern with telehealth is that many insurance providers are not willing to pay for treatment received via technology; therefore, patients are responsible for paying for their treatment and have to look for alternative financial assistance (Kramer et al., 2014; Newman et al., 2011).

The need for this study was rooted in the fact that depression affects many individuals worldwide, resulting in a multitude of tragic consequences. The prevalence of depression has led to the need for alternative methods of delivery; consequently, it was necessary to examine the influence of method of delivery (i.e., videoconferencing and in-person) on patient perceptions of their clinical experience, patient satisfaction, and therapeutic relationships. Examining patients' perceptions of their clinical experience led to understanding how patients feel about the credibility and benefits of different types of therapy and to better understanding the types of therapy patients prefer (Smith, Norton, & McLean, 2013). Patients' perceptions of their clinical experiences are important because how patients perceive the credibility and benefit of their treatment can influence the choice of therapy type, premature termination of therapy, and patient outcomes (Smith et al., 2013). Nelson and Duncan (2015) explained that a patient may perceive that bond with therapist related to CBT treatment delivered via videoconferencing can be quickly established. The patient may likely be more forthcoming during treatment and positively

influenced by the mental health provider, which may lead to a positive outcome. On the other hand, if the patient perceives that bond with therapist related to CBT treatment delivered via face-to-face is difficult to establish, the patient may not be positively influenced by the mental health provider, which may cause poor therapy outcome and possibly lead to premature termination of treatment. Stubbings (2012) indicated that when patients are satisfied with their treatment they feel involved and completely engaged in therapy, are willing to learn how to overcome difficulties, and take an active role between sessions. This often occurs when a positive therapeutic relationship with the patient, from the patient's perspective, is established (Hatcher & Gillaspy, 2006; Stubbings, 2012). Mental health providers express positive regard, warmth, and genuineness in establishing a therapeutic relationship with a patient (Stubbings, 2012). However, the extent to which the content of therapy is effective is dependent on the patient's compliance and willingness to honestly reveal relevant private information.

In this study, I explored the use of videoconferencing as a means to treat depression in women who may not have the means to see a mental health care professional in person. The present study was intended to promote awareness about receiving psychological treatment remotely and may significantly improve the lives of these patients. The following sections present the background of the problem, purpose of the study, theoretical foundation, research questions, nature of the study, operational definitions, assumptions, limitations, delimitations, and social implications.

Background

Damoiseaux, Proost, Jiawan, and Melgert (2014) explained that women are twice as likely to be affected by depression as men, particularly because women tend to

internalize problems, which may indicate why roughly 20% of women experience depressive symptoms or depression in their lifetimes (American Psychological Association, 2015). Individuals who have depressive symptoms or depression may show signs of flat affect, low self-esteem, and social withdrawal (American Psychiatric Association, 2013). Individuals who experience depressive symptoms may have trouble sleeping, experience memory problems and concentration difficulties, as well as feel worthless, hopeless, and show features of passive behavior (American Psychiatric Association, 2013; Junghaenel, Schneider, Stone, Christodoulou, & Borderick, 2014; Simonds, 2001). Many women experience depression before giving birth and after giving birth, particularly women who are single mothers (Subramaniam, Prasad, Abdin, Vaingankar,& Chong, 2016; Zlotnick et al.,2016). Depression is also common among individuals who have been sexually or physically abused or have experienced psychological or physiological trauma, such as a car accident that left the individual physically impaired or a chronic illness such as cancer (Alderson et al., 2014; Stafford et al., 2014). Researchers further suggested that not all women experience worry when parenting children or stress about relationships, career, or finances (Lancaster et al., 2013).

However, studies have indicated that women's hormonal and reproductive functions may be one of the reasons why depression occurs more in women than in men (Ali, 2015; Brewer & Olive, 2014). Unlike men, women may experience depressive symptoms or depression during the premenstrual phase, after giving birth, and during the menopausal stage (Carr, Szymanski, Taha, West, & Kaslow, 2014; Lancaster et al., 2011). Albert (2015) conducted primate and rodent studies and found that results consistently linked

female hormones such as estrogen to depression. Theorists also suggested that men and women's thought processes and psychological traits significantly vary (Ussher, 2010; Wustenberg, Greiff, Molnar, & Funke, 2014). Researchers believe the variations in cognitive styles have an effect on the development of depression in females (Forlani et al., 2014; Rocha & Schuch, 2014). Forlani et al. (2014) and Wustenberg et al. (2014) explained that females' and males' cognitive perceptions and interpretations of daily information significantly differ. Albert (2015) also pointed out that women show increased sensitivity to interpersonal relationships, whereas men show increased sensitivity to external goal-oriented factors such as career. This might be one of the reasons why certain women experience stressful events on a more personal level as opposed to men (Rocha & Schuch, 2014; Ussher, 2010). Donahue (2015) explained that the APA Task Force investigated gender differences in coping strategies and found that women tend to use emotion-focused strategies, such as seeking social support, or experience emotional outbursts. In contrast, men reported employing problem-focused techniques as a means of coping. Donahue (2015) pointed out that problem-focused coping is associated with lower distress and positive disposition, whereas emotion-focused coping is linked to high levels of psychological distress and negative outlook.

Banikazemi et al. (2015) explained that a strong association exists between depression and biochemistry of nutrition, specifically intake of food. Strien et al. (2016) explained that emotional eating is strongly linked with the increase of depressive symptoms in women. Research indicates that societal stressors are closely associated with the development of depression in women (Carr, Szymanski, Taha, West, & Kaslow, 2014; Zhang, Chen, & Zou, 2014). Psychosocial and interpersonal explanations indicate

that women who experience pressure from society to uphold traditional roles and responsibilities often develop depressive symptoms or depression (Maglione et al.,2014; O'Loughlin et al.,2014; Stoppard, 2013). In the workforce, many women receive a significantly lower paycheck than men with the same exact position and title (Pollock & Cunningham, 2015), which can lead to financial hardships and psychological distress (Prairie et al., 2015). In many cultures, women are often viewed as emotional and less reliable than men to handle crises or highly sensitive matters, which often causes lack of motivation and depressive mood in women (Blackmore & Chaudron, 2014). Women often experience pressure and role expectations of being a dutiful wife, mother, daughter, or sister, which leads to high levels of stress and depression (Aroian, Uddin, & Ullah, 2015; O'Loughlin et al., 2014).

Women who live in rural areas or have physical disabilities, which may include the inability to move freely and travel to provider offices, often lack access to a mental health care provider such as a psychologist or psychiatrist. Women who reside in metropolitan areas or larger cities have significantly more options regarding mental health services than those who reside in rural or small cities where availability to mental health care providers may be limited (Singh & Siahpush, 2014; Weaver, Himle, Taylor, Matusko, & Abelson, 2015). Weaver et al. (2015) suggested that women in rural areas or small cities are more likely to develop depressive symptoms than those who live in larger cities. The literature indicated that little is known regarding the pattern and causes of disability, morbidity, and mortality among adult depressed women who reside in rural areas (Gramm, Stone, & Pittman, 2014; Henderson, Crotty, Fuller, & Martinez, 2014; Singh & Siahpush, 2014). Researchers, however, stated that risk of depression is higher

for adult women who live in rural areas than adult women who live in larger cities (Cadigan & Skinner, 2015; Henderson et al., 2014). Ali (2015), Boggs (2015), and Spielmans and Kirsch (2015) found that many physicians tend to prescribe antidepressants without the implementation of adequate psychotherapy treatment.

Ali (2015) and Owens (2014) indicated that antidepressants have alarming side effects. For example, popular antidepressants include escitalopram (Lexapro), paroxetine (Paxil), fluoxetine (Prozac), citalopram (Celexa), fluvoxamine (Luvox), and sertraline (Zoloft); these medications may cause insomnia, diarrhea, emotional flattening, cognitive slowing, and apathy (Owens, 2014; Stahl, 2013). Many of these antidepressant drugs may cause women to experience decreased sexual desire, decreased appetite, nausea, constipation, and dry mouth (Owens, 2014; Stahl, 2013; Wemakor, Casson, & Dolk, 2014). Antidepressant medications are known to cause agitation, tremors, headache, and dizziness (Owens, 2014). Some individuals may experience sweating, bruising, and bleeding (Owens, 2014; Stahl, 2013). Older individuals in particular may develop low sodium concentration in their blood, which may cause hyponatremia. Studies indicate that life-threatening side effects of antidepressant drugs include severe seizures, elevated irritability, hostility, and suicidal ideation (Owens, 2014). Ali (2015) pointed out that for the last several decades, doctors have predominantly prescribed antidepressants to women compared to men. Researchers indicated that women, especially those aged 40 to 64 years and Hispanic, are more likely to take antidepressant drugs than see a psychotherapist (Mercier et al., 2015; Sheu et al., 2015; Withers, Moran, Nicassio, Weisman, & Karpouzas, 2015).

Research shows that women who immigrated to the United States from

undeveloped countries or from cultures that perceive psychotherapy acceptable only for those who are severely mentally impaired are likely to never seek treatment with a mental health provider (Dwairy, 2015; Leseth, 2015; Withers et al., 2015). This is one reason why many women prefer to take antidepressants without the help of psychotherapy. Mulligan (2015) explained that some patients may become addicted to antidepressants. Because of severe side effects, dependence, and the possibly of making the depressive symptoms worse, mental health providers strongly advise patients to seek therapy in addition to taking antidepressant medication (Hollon, Thase, & Markowitz, 2002; Mulligan, 2015). Jung (2014) indicated that some individuals do not seek psychotherapy under the assumption that it is time-consuming and financially burdening, whereas medication is often believed to work quickly and is not as costly as psychotherapy. Another concern is that antidepressants are frequently prescribed by a nurse practitioner or a family doctor as opposed to a psychiatrist (Levine, 2011; Pratt, Brody, & Gu, 2011). Research indicates that medical professionals who do not have sufficient knowledge and expertise in psychiatry are likely to overdiagnose or underdiagnose their patients (Ali, 2015; Drennan, Grant, & Harris, 2014), which may lead to negative side effects and health detritions.

An alternative to visiting a mental health care provider in person is telehealth. The barriers to a population seeing a mental health professional in person may include physical disability (Langkamp, McManus, & Blakemore, 2015) and mental health related issues such as social phobias and severe post-traumatic stress disorder (PTSD), especially in veterans who were in combat (Yuen et al., 2015). Distance between individuals' residences and mental health professionals' offices also poses a barrier to seeing a mental

health provider in person (Thomas, MacDowell, & Glasser, 2012). Mental health services delivered via technology allow patients to obtain adequate therapy and significant results (Newman et al., 2011; Perle et al., 2014). In 2014, medical and mental health providers used technology to treat a variety of mental illnesses. For example, Price and Gros (2014) explained that long-distance psychotherapy via the Internet allowed researchers to record noticeable results in veterans with PTSD and depression. Other researchers also found that the U.S. military is especially supportive of technological advances such as psychotherapy via videoconferencing to help active personnel and veterans overcome PTSD and depression (Egede et al., 2015; Jacobs & Saunders, 2014; Morland et al., 2015).

Researchers revealed that using videoconferencing technology to treat depression, PTSD, and other psychological disorders provides an effective form of treatment delivery (Morland et al., 2015; Shore, Goranson, Ward, & Lu, 2014). Shore et al. (2014) explained that the Department of Veteran Affairs seemed initially reluctant to offer veterans a home-based telemental health (HBTMH) intervention. Shore et al. (2014) further explained that reluctance to offer veterans treatment via technology such as a webcam through encrypted software ultimately proved to be nonproblematic, as veterans reported high levels of satisfaction and perceived safety with HBTMH. Hertlein and Ancheta (2014) were also concerned that technology may be more confusing and frustrating for those who are not technologically savvy. However, most researchers agreed that with the proper instructions and guidance, individuals with limited technology knowledge could easily operate a videoconferencing system (Amichai-Hamburger, Klomek, Friedman, Zuckerman, & Shani-Sherman, 2014; Luxton, Pruitt, & Osenbach, 2014).

Khatri, Marziali, Tchernikov, and Shepherd (2014) explained that psychotherapy delivered via online videoconferencing yields positive results for individuals who suffer from depression, and could one day replace face-to-face psychotherapy. Alderson et al. (2014) and Gellis, Kenaley, and Have (2014) conducted a study that included 102 chronically ill, older, homebound depressed individuals. Gellis et al. did a comparison study by implementing a Telehealth Education and Activation of Mood (I-TEAM) intervention and in-home nursing plus psychoeducation (UC+P). Gellis et al. discovered that during a period of 6 months, depressive symptoms were reduced by 50% because of I-TEAM implementation as opposed to UC+P intervention. In a study of 121 individuals suffering from cardiovascular illness and depression, O'Neil et al. (2014) evaluated the 6-month efficacy of a MoodCare telehealth intervention that incorporated depression management in hopes of reducing cardiovascular disease of adult individuals with low moods. O'Neil et al. were surprised to discover that not only did depressive symptoms significantly decrease, but also telehealth intervention seemed to exceed the result of those individuals who received psychotherapy in person.

In another study, Choi, Marti, et al. (2014) explained that telehealth can provide effective treatment for homebound individuals. Choi, Marti, et al. conducted a study of 158 physically disabled low-income adults suffering from depression. Choi, Marti, et al. divided participants into two groups: One group received telehealth problem-solving therapy (tele-PST) via a Skype video call during a period of 6 months in the last 16 months, and the second group received in-person treatment during a 6-month period in the last 16 months. Choi, Marti, et al. found that it took 16 weeks longer to achieve the same results as one would receive via face-to-face treatment. Tele-PST required 36

weeks of therapy as opposed to 20 weeks of face-to-face therapy. Despite the longer treatment period, Choi, Marti, et al. insisted that for individuals who are unable to seek therapy in person, tele-PST is effective and yields adequate results in treating mental health disorders including depression.

In another study, Morland et al. (2015) found no statistical difference between video-teleconferencing (VTC) and in-person (NP) therapy in treatment of 123 women suffering from PTSD. Morland et al. also found no delays in therapy outcome between VTC and NP. Morland et al.further indicated that throughout a variety of mental health disorders, telehealth services have provided a significant benefit in symptom reduction to patients. Lindner, Lacefield, Dunn, and Dunn (2013) pointed out that the use of cognitive behavioral psychotherapy delivered via videoconferencing was effective in minimizing panic disorder with agoraphobia for a housebound adult woman. Polinski et al. (2015) conducted a study of 3,303 patients, 70% who were women, and their satisfaction with and preference for telehealth. Polinski et al. revealed that 94% of participants reported high satisfaction with telehealth services. Female participants reported being satisfied with the user-friendly approach to telehealth, the convenience, and the quality of care (Polinski et al., 2015). Amichai-Hamburger et al. (2014) and Luxton et al. (2014) also argued that psychotherapy delivered via technology is a reasonable alternative to face-to-face psychotherapy.

Research indicates that telehealth plays a key role in cost savings (Acierno, Muzzy, & Hernandez-Tejada, 2015; Khatri et al, 2014; Polinski et al., 2015). Telehealth offers individuals the ability to no longer worry about logistical issues because they do not have to pay for transportation, gas, and parking to have a psychotherapy session

(Acierno et al., 2015; Scott, Klech, Lewis, & Simons, 2015). Remote psychotherapy also eliminates perceived stigma associated with receiving mental health care, especially if the provider's office is located in a mental health facility. Insurance providers such as Medicaid recognize the benefit of telehealth and offer financial coverage to individuals who desire to receive psychotherapy via videoconferencing (Okoroh, Kroelinger, Smith, Goodman, & Barfield, 2016) Despite the many beneficial resources regarding depression in women and subsequent treatment, a noticeable gap in the literature exists, particularly when focusing on the use of videoconferencing as a means of treatment and management for adult depressed women. I addressed this problem by examining patients' perceptions of their clinical experiences. Results may be used to enhance the treatment of depression in women who have low income or live in rural areas, and may be used as a possible starting point to broaden the treatment plan for all patients.

Problem Statement

The Centers for Disease Control and Prevention (CDC, 2012) predicted that 1 in 10 adults in the United States have a depressive disorder, and 6.6% of the U.S. adult population experienced depression in the last 12 months. Depression is linked to a 1.5 % increased risk of deaths in individuals who have diabetes (van Dooren et al., 2013). Andrews (2010) and Birnbaum et al. (2010) explained that those who suffer from depression have a significant influence on the U.S. workforce. Researchers found that more than 12% of U.S. workers have been diagnosed with depression (Birnbaum et al., 2010), which costs employers approximately $23 billion dollars in lost productivity each year (Witters, Agrawal, & Liu, 2013).

The occurrence of depression in the United States is steadily increasing.

Researchers from the World Health Organization (WHO) estimated that by the year 2020, depression will be second only to cardiovascular disease as a cause for disability (Choi, Hegel, et al., 2014; Michaud, Murray, & Bloom, 2001). From 2007 to 2010, the National Health and Nutrition Examination Survey indicated that in every age group, women have a higher rate of depression than men (CDC, 2010). In the United States, males between the ages of 40 and 59 have a depression rate of 7%, whereas females in the same age group have a depression rate of 12% (CDC, 2012).

Mewton and Andrews (2015) noted that depression is a major risk factor for suicide, with 59–87% of suicide attempts likely resulting from depression. Mewton and Andrews also emphasized that depression is associated with a 20-fold increase in the risk of suicide attempts. According to attributable risk estimates, eliminating depression would reduce serious suicide attempts by 50–80% (Mewton & Andrews, 2015). The CDC (2012) reported that in 2010, 38,364 suicides in the United States. Murphy, Xu, and Kochanek (2013) explained that in 2010, the suicide rate increased by 12.1 deaths per 100,000 people, making it the 10th leading cause of death in the United States. Mewton and Andrews (2015) and Correa, Sperry, and Darkes (2015) added that psychotherapy and pharmacological interventions are beneficial in treating depression.

Gellis (2015) explained that the U.S. population is quickly aging; by the year 2030, more than 15% of adults will be 45 years or older, and more than 20% will be 65 years or older. As the population ages, physical and mental health will likely decline (Gellis, 2015). The WHO (2012) estimated that roughly 350 million people are affected by depression. Researchers also predict that because of the increase of financial disparity and increase of poverty, twice as many people will be affected by depression in years to

come (Gellis, 2015; Gilroy et al., 2014; WHO, 2012). Studies indicate that individuals with depression living in rural areas and who are physically impaired experience monetary hardship often lack mental health treatment delivery options (Gramm et al., 2014; Henderson et al., 2014; Morris et al., 2014).

Individuals in small communities and rural areas do not have easy access to psychotherapy or medication treatment compared to individuals in urban areas or larger cities. In rural areas, there are 2.9 mental health practitioners per 100,000 people, whereas in larger cities there are 12.9 mental health practitioners for every 100,000 people (Thomas et al., 2012). The specific problem is that people with depression in rural locations often lack access to mental health providers (Henderson et al., 2014; Hirsch, 2006). However, with advancements in technology, treatment delivery via videoconferencing has become one of the alternative options for patients in these areas. Research indicates that providing CBT via technology can be effective and a reasonable alternative to face-to-face psychological services (Stubbings, 2012). Stubbings (2012) explained that therapists can use CBT via videoconferencing to provide structured individual therapy, psychoeducation, and group therapy in a patient's home or in a clinical setting. Stubbings pointed out that in a variety of empirical studies, no researchers indicated a statistically significant difference between CBT face-to-face treatment and CBT via videoconferencing. Videoconferencing can be successfully applied to address the needs of adults, including individuals with disabilities and adolescent populations (Alfano & Beidel, 2014; Backhaus et al., 2012; Stubbings, 2012).

Researchers such as Andrews (2010), Fann et al. (2015), and Milgrom et al. (2015), pointed out that cognitive therapy has successfully reduced symptoms of

depression in patients. Parikh (2015) and Stiles-Shileds, Corden, Kwasny, Schueller, and Mohr (2015) found that CBT therapy is technologically compatible and widely used by mental health professionals. Fann et al. conducted a study that included 100 adults suffering from depression who were divided into two groups and received CBT treatment via telephone and in-person for 16 weeks. Results indicated that CBT treatment yielded symptom reduction, and no statistical difference was found between telephone and in-person therapy (Fann et al., 2015). Koenig et al. (2015) and Pearce et al. (2015) indicated that many researchers have studied CBT treatment and its effectiveness in reducing depressive symptoms. Jarrett and Vittengl (2015) and Hetrick et al. (2015) revealed that CBT effectiveness often depends on the core techniques of CBT. Although there are many clinical principles that include the practice of CBT, the two well-known principles of CBT are guided empiricism and collaboration. In CBT, collaboration pertains to a mental health provider working with the patient on therapy goals as well as on what is most pertinent to the patient (Myles & Shafran, 2015). CBT enables a mental health provider to work with the patient in a scientific manner as it relates to the patient's reasoning and behavior, which includes the process of analysis, establishing hypotheses, and testing the hypotheses through new behavior. This process is what mental health professionals refer to as guided empiricism (Jarrett & Vittengl, 2015; Myles & Shafran, 2015). Jarrett and Vittengl explained that through the process of collaboration and guided empiricism many mental health providers help their patients obtain an understanding of how they can better manage their issues. However, upon reviewing the literature, I noticed a gap pertaining to adult depressed women's preference for CBT treatment delivered via videoconferencing. A gap also exists relating to the differences in patients'

perceptions of CBT psychotherapy, satisfaction, and perceived bond with therapist related to CBT treatment delivered via videoconferencing or in person for adult depressed women. Patients' perceptions of the their clinical experiences are important because how patients perceive the credibility and benefit of their CBT therapy can influence the choice of therapy type, premature termination of therapy, and patient outcomes (Smith et al., 2013).

Purpose of the Study

The purpose of this quantitative study was to investigate the influence of method of delivery (i.e., videoconferencing and in-person) on patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships. Patients' perceptions of their clinical experience shed light on how patients feel about the credibility and benefits of their therapy and lead to better understanding the kinds of therapy patients prefer (Smith et al., 2013). I undertook the study to investigate whether differences existed between the dependent variables (patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships) and the independent variable (method of delivery of treatment [videoconferencing versus in person]). I assessed whether statistically significant differences existed in the patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationship scores of participants receiving in-person and videoconference therapy formatted to align with CBT. The CBT methods may entail activities such as homework, writing in a journal, role-playing, and problem resolution as well as a behavioral activation method, which includes a list of activities for a patient to engage in that can increase pleasurable activities.

Research Questions and Hypotheses

RQ1: To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate patient perceptions of the clinical experience (i.e. credibility, expectations, information), as measured by the Treatment Credibility Questionnaire (TCQ)?

$H_0$1: There is no difference in patient perceptions of the clinical experience between CBT via videoconferencing and CBT delivered in person.

H_A1: CBT via videoconferencing produces better patient perceptions of the clinical experience compared to CBT delivered in person.

RQ2: To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate patient satisfaction, as measured by the Therapy and Therapists Scale (STTS-R)?

$H_0$2: There is no difference in patient satisfaction between CBT via videoconferencing and CBT delivered in person.

H_A2: CBT via videoconferencing produces higher patient satisfaction compared to CBT delivered in person.

RQ3: To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate therapeutic relationships, as measured by the Therapeutic Bond Scales (TBS)?

$H_0$3: There is no difference in therapeutic relationship between CBT via videoconferencing and CBT delivered in person.

H_A3: CBT via videoconferencing produces better therapeutic relationship compared to CBT delivered in person.

Theoretical Foundation of the Study

Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) is a widely accepted treatment for major depressive disorder (MDD; J. S. Beck 1979; Myles & Shafran, 2015; Nathan & Gorman, 2015). Cognitive behavioral therapy entails that a relationship exists between thoughts, emotions, and behavior, and changing one of these processes can yield changes in others (A. T. Beck, 1976; Lemmens et al., 2015). The early pioneers who influenced the development of CBT were Eysenck, Lindsely, and Wolpe, among others (Nezu & Nezum, 2015). Researchers further indicated that in 1945 Herzberg, in 1949 Salter (Sezu & Nezum, 2015), and in 1955 Ellis (Ellis & Rovira, 2015) employed elements of CBT. The two most prominent researchers attributed to the development of cognitive theory are Beck and Ellis (O'Kelly & Collard, 2015; Nezu & Nezum, 2015). Ellis's rational emotive behavioral therapy (REBT) is a cognitive behavioral process based on the premise that people's behaviors are the result of what they think and believe (Ellis & Rovira, 2015). In 1960, Beck suggested that self-defeating behavior is caused by irrational beliefs (A. T. Beck, 1976; Choudhury, 2013; Davidson & Tran, 2014).

A. T. Beck (1976) explained that depression is caused by the three negative cognitive principles, which implies that subjective perceptions of events are attributed to the activation of negative beliefs of the self, internal environment, and the future. Myles and Shafran (2015) pointed out that this process causes overgeneralization and arbitrary inference with fundamental dysfunctional perceptions that have become assimilated into enduring schemas. The CBT treatment approach has been implemented by mental health professionals for more than 6 decades for a variety of psychological disorders including

major depressive disorder (Gallagher, Thompson-Hollands, Bourgeois, & Bentley, 2015; Hofmann, Dozois, Rief, & Smits, 2014). Research indicates that CBT treatment has not only yielded depressive symptom reduction but also has been successfully integrated with telehealth, including videoconferencing (Alnemary, Wallace, Symon, & Barry, 2015 Durland et al., 2014).Therefore, this theoretical approach was appropriate for this study.

Working Alliance Theory

The theoretical foundation for this study was also based on working alliance theory. Working alliance theory hinges on Bordin's (1994) study of the therapeutic alliance, which suggests that to provide adequate care to patients and reach successful therapeutic outcomes, mental health providers must establish a positive working relationship with the patient (Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2009; Bordin, 1994). Bordin developed working alliance theory on three components: (a) the connection between the patient and mental health professional, (b) the agreement on the mental health provider's suggestions, and (c) the mutual understanding and agreement on therapeutic outcomes and patient goals. Working alliance theory implies that regardless of the clinical expertise and theoretical orientation, the ability to develop mutual understanding and build a positive working relationship may result in positive treatment outcomes (Bordin, 1994). Huang, Hill, and Gelso (2013) explained that a working alliance involves mental health professionals being patient, empathetic, understanding, and objective. Huang et al. further explained that the mental health provider must establish a positive therapeutic bond from the first session; otherwise, it is probable that the patient may not return to the next scheduled session. Many mental health practitioners believe that a therapeutic alliance is one of the fundamental

mechanisms of change (Wampold, 2001). Shirk, Karver, and Brown (2011) pointed out that an alliance significantly varies between child, adolescent, family, group therapy, and individual adult psychotherapy. Studies revealed that a patient's developmental level, age, and gender may affect the alliance between the patient and a mental health professional (Shirk & Karver, 2011). Working alliance theory relates to the current study because, as a fundamental mechanism of change, women who suffer from depression and do not have the ability to see a mental health professional must be able to access psychotherapeutic teleconferencing as a viable means to treat their illness.

Nature of the Study

I employed a quantitative nonexperimental online survey design to investigate adult depressed women's preference for receiving psychotherapy via videoconferencing or face to face. The objective of this study was to determine the relationship between patients' levels of satisfaction, patients' clinical experience, and therapeutic relationship when treatment was delivered through videoconferencing and face-to-face therapy. This was accomplished through a measure of difference in mean scores of the Treatment Credibility Questionnaire (TCQ; Addis et al., 2004), Therapy and Therapists Scale (STTS-R; Oei & Green, 2008), and Therapeutic Bond Scales (TBS; Saunders, 2001) for videoconferencing and face-to-face therapy. The independent variable for this study was the treatment delivery, and the dependent variables were patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationship. Data were gathered from 264 adult female volunteer participants from popular social websites via Survey Monkey. Participants completed the TCQ, STTS-R, and TBS.

Operational Definitions of Terms

Cognitive behavioral therapy (CBT): A combination of two paradigms, cognitive and behavioral, for understanding psychological disorders. J. S. Beck (1979) explained that cognition has a central effect on emotional and psychosocial functioning. Cognitive theory suggests that psychological disorders derive not from experiences but from the meanings and beliefs that the individual gives those experiences. The practice of cognitive therapy entails directive, active, structured, and time-limited therapy (J. S. Beck 1979). The purpose of CBT is to alter negative thought process and maladaptive thoughts to more positive and acceptable thoughts as well as behaviors. CBT focuses on changing a patient's thought process for the purpose of altering unhealthy behavior (Hofmann et al., 2014). Through the CBT treatment, the mental health provider guides the patient to recognize unhealthy behavior.

Face-to-face therapy (in-person therapy): CBT treatment delivered in person.

Health care professional (mental health provider): A health care professional trained to work in the field of mental health.

Internet (online): A worldwide electronically linked system that uses protocol suite to connect a vast amount of electronic devices such as computers, telephones, and mobile devices (Kiesler, 2014). The Internet allows people to communicate instantly with one another in real time. People across the world can see each other, interact with one another, and share data as well as reach out to others in a matter of seconds.

Online message board: An Internet-based system in which communications or messages are displayed asynchronously in a discussion thread, providing access to convey different kinds of topics, and visible only to those who have access to the Internet

(Bender, Radhakrishnan, Diorio, Englesakis, & Jadad, 2011).

Psychotherapy: Therapy that is psychological in nature, provided by a mental health care provider such as a psychologist.

Social networking site: An Internet Webpage that enables people to create profiles, choose a list of individuals and services whom they wish to communicate with, as well as view other people's profiles and connections (Bender et al., 2011).

Telehealth: Technology that grants access to information across distance as well as health-related diagnoses, assessment, intervention, education, and consultation (Tuerk & Shore, 2015).

Telepsychology: "The provision of psychological services via technology-assisted means" (Rees & Haythornthwaite, 2004, p. 212).

Videoconferencing: The connection of two sites through the Internet. Both sites use video cameras attached to a computer or a television screen, which allows people to see, hear, and talk to one another in real time.

Patient satisfaction: The level of contentment adult women have with the psychotherapy provided, as assessed by the STTS-R (Oei & Green, 2008) once treatment is completed.

Therapeutic relationship: A mental health provider's abilities to develop a positive therapeutic relationship with the patient, from the patient's perspective (Hatcher & Gillaspy, 2006).

In this study, the TCQ (Addis et al., 2004) was used to assess the outcomes of the clinical experience as evidenced by participants' perceptions of credibility, expectations, and information related to their therapy experience. Patients' perceptions of their clinical

experiences have been shown to influence the type of therapy they choose, the effectiveness of therapy, and whether patients decide to continue therapy (Smith et al., 2013). STTS-R was implemented to measure patients' treatment satisfaction in relation to the delivery of psychotherapy via videoconferencing and face to face (Oei & Green, 2008). The STTS-R was used to assess patients' satisfaction with treatment (Oei & Green, 2008). Last, TBS was used to measure patients' therapeutic relationship (Saunders, 2001). The TBS is a well-known measure composed of three parts that include working alliance, mutual affirmation, and empathic resonance (Saunders, 2001). The scales are used to assess patients' therapeutic relationship and help mental health examiners identify patients' motivation for continuing therapy.

Assumptions

Multiple assumptions existed regarding the psychological instruments used in this study. The first was that participants met criteria for major depressive disorder (MDD) and received CBT treatment face to face or via videoconferencing. Second, the TCQ provided a measure of patients' perceptions of the outcome or benefit of their therapy experience focusing on credibility, expectations, and information gained during the sessions. Third, the STTS-R provided an accurate assessment of patients' satisfaction and was completed by all participants. Fourth, the TBS provided an accurate measure of patients' therapeutic relationship and correctly identified patients' motivation for continuing therapy. I also assumed that the information gathered from these instruments provided valid patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationship and as was helpful in the recommendations for psychotherapy delivery. In addition, I assumed that the therapeutic alliance was applicable to the

delivery of psychotherapy via videoconferencing. I assumed that participants had their CBT psychotherapy delivered via videoconferencing for a period of 6 months of private, weekly therapy in the last 16 months. Finally, I assumed that if participants could not afford videoconferencing because of financial hardship, they would choose face-to-face therapy, for which most insurance companies provide financial coverage.

Limitations

The main limitation in this study was the sample population. Depressed adult women might have been reluctant to disclose their opinions regarding their treatment and which therapy delivery option they preferred. Adult depressed women with psychological or physical impairments or monetary hardship face many barriers to accessible psychotherapy interventions. Individuals who fall under this category may experience a variety of complications; therefore, the ability to generalize findings to other populations may be limited. The other limitation was that most insurance coverage plans do not reimburse mental health professionals for videoconferencing; therefore, participants likely had to pay for their videoconferencing using their personal funds. With consideration to patients who experience financial hardship and lack mental health resources in their area, private insurance providers have to be willing to pay for videoconferencing, and some mental health providers need to provide videoconferencing at a significantly reduced fee (Schoenberg, 2015; Skiba, 2015). For patients who were not able to obtain financial coverage for videoconferencing, it was probable that they chose the traditional form of psychotherapy, which is face to face.

Another limitation was the emphasis on the CBT therapy model. A variety of CBT methods have been proven to be effective in the treatment of depression (Joiner,

Brown, & Kistner, 2014; Kobak, Mundt, & Kennard, 2015; Stubbings, 2012). For instance, mental health providers may use the behavioral activation method, which includes a list of activities for a patient to engage in and can block the avoidance of pleasurable activities (Cuijpers, Andersson, Donker, & Straten, 2011; Kobak et al., 2015; Stubbings, 2012). Stubbings (2012) explained that problem resolution is a method that can help patients develop alternative solutions to problems in their day-to-day activities and inspire them to make better decisions for themselves. One or more physiological disorders such as multiple sclerosis (Romero & Feinstein, 2015), heart disease, HIV/AIDS, stroke, cancer, and diabetes (Brüne, 2015; Jung, 2015) are known to coexist with depressive symptomatology, which makes it sometimes challenging for mental health professionals to choose the appropriate therapy model, such as CBT, for adult women because of the complex nature of mental health disorders (DuGoff, Schuler, & Stuart, 2013; Joel et al., 2014). Despite these limitations, this study included the use of CBT treatment delivery via videoconferencing. Research indicates that CBT treatment is not only the most successful therapy in reducing depressive symptoms (Hofmann et al., 2014) but also most compatible with technology-based delivery methods such a videoconferencing (Alnemary et al., 2015; Kobak et al., 2015; Théberge-Lapointe, Marchand, Langlois, Gosselin, & Watts, 2015). Psychotherapy via videoconferencing posed a third limitation. Even though videoconferencing offers flexibility and access to a mental health provider from long distance, this therapy is only accessible to a small minority of individuals. Therefore, the ability to generalize the findings of this study to other technological systems that may be more accessible (i.e., online-based, email, or by telephone) is limited. Last, the quantitative nonexperimental online survey design

presented limitations. This research was limited in the ability to generalize results outside of the sample.

Delimitations

The delimitation that defined the boundaries of the study was the population demographic. The results may not be generalizable to other socioeconomic groups. Women under the age of 40 or older than 65 and who had not received CBT via face-to-face or via videoconferencing in 6 months in the last 16 months were excluded from this study. According to the U.S. Census Bureau (2015), data collected from 2008 to 2010 showed an increase of depressed women in California ages 40 to 65. Because women ages 40 to 65 experience increased symptoms of depression, the study addressed only that age group.

Significance of the Study

The present study provided information to practitioners and patients regarding treatment options for depression. This study expanded scientific understanding of patients' preference in receiving cognitive behavioral treatment via videoconferencing. I assessed adult women's experiences and their level of satisfaction with treatment delivered through videoconferencing. The results of this study may motivate mental health practitioners to provide psychotherapy via videoconferencing, which is beneficial to individuals who are physically and geographically limited and unable to meet a psychologist in person (Cartreine, Ahern, & Locke, 2010; Thorp, Fidler, Moreno, Floto, & Agha, 2012).

Social Implications

The social change implications of this study include the possibility of improving

the lives of adult women suffering from depression by providing access to psychotherapy that was not otherwise accessible. This study may motivate other researchers to conduct further studies pertaining to the development of videoconferencing with different populations. The results may motivate mental health professionals to offer alternative solutions to individuals who lack mobility. Psychologists who obtain insight from this study will see how beneficial videoconferencing can be for individuals who are physically or geographically limited in receiving face-to-face psychotherapy. By providing mental health professionals insight regarding adult depressed women's preference for treatment delivery, the results may encourage insurance providers to offer financial coverage for videoconferencing.

Summary

In the coming years, depression will become a worldwide outbreak (Marcus et al., 2013; Michaud et al., 2001). The negative influence of depression is vast and multifaceted. Adult women who have symptoms of depression or who have been diagnosed with a major depressive disorder are at a high risk of developing other severe mental disorders as well as physiological disorders, which may affect their well-being and the well-being of those around them (Andrews, 2010). Providing access to effective psychotherapy is vital, especially to adult women who are homebound, reside in rural areas, and suffer from monetary hardship, as these women are unable to visit a mental health provider in person. Many adult depressed women in the United States face considerable challenges in accessing mental health services. However, with technological advancements, access to a mental health care provider can be as easy as calling a friend.

Delivering psychotherapy via technology such as videoconferencing can

potentially be an alternative option for underserved populations. In spite of the popularity and advancements in technology, limited research exists on depressed women's preferences for videoconference treatment versus face-to-face treatment. To address this gap in the literature, I assessed adult women's overall treatment satisfaction with psychotherapy delivered via videoconferencing technology. Chapter 2 provides a review of the literature pertinent to this study. I address how depression affects people, particularly women, as well as the different treatments used to reduce depressive symptomatology, including use of technological advancements in mental health. I synthesize recent empirical studies on delivering psychotherapy via videoconferencing for treating depression. Chapter 3 presents the study design and method, Chapter 4 contains the results, and Chapter 5 addresses the implications of the study for further research and social change.

Chapter 2: Literature Review

Depression is one of the fastest growing illnesses in the world (Belbase, Khan, & Jalan, 2013) that could easily lead to suicidal ideation and suicide if not adequately treated (Hochberg et al., 2013; Murphy et al., 2013). Depression is also becoming a major problem among older people, and researchers have conducted studies to determine ways for adults with depression to be effectively treated. In studies on adults, researchers concentrated on the available treatment options that can be effectively applied (Green, Key, & McCabe, 2015; Parker & Kennedy, 2015). Cuijpers et al. (2011) investigated depression treatment therapies such as nondirective supportive therapy, solution-focused brief therapy, and interpersonal psychotherapy.

Many psychologists recognized CBT (Green et al., 2015; Jayasekara, Procter, Deuter, & Hampel, 2014), person-centered therapy, and behavioral activation therapy as effective means in treating depressive symptoms and depression (Cuijpers et al., 2011). A variety of therapy models such as CBT are known to be effective in treating depression (Cameron, 2015; Green et al., 2015). Marcus et al. (2013) explained that depression has a 49% higher rate for women than for men. Depression is a primary disease burden for women in low and middle income groups (Andrews, 2010; Marcus et al., 2013). Pradeep, et al., (2014) pointed out that depression is a debilitating disease that largely affects women in rural communities. These women often have to travel long distances to seek psychotherapy treatment. Langkamp et al. (2015) stated that adult depressed women with physical disabilities are also at a significant disadvantage and experience difficulty in meeting a psychologist in person. Many mental health practitioners believe that videoconferencing is not only a convenient alternative to face-to-face psychotherapy, but

also an effective treatment delivery for the adult depressed population (Chakrabarti, 2015; Egede et al., 2015; Myers & Turvey, 2012). Stubbings (2012) explained that individuals who lack face-to-face access to a psychologist would choose an alternative option such as videoconferencing. Empirical literature also indicates high levels of satisfaction and strong therapeutic alliance from participants who received CBT therapy via technology including videoconferencing (Stubbings, 2012). The purpose of studying adult depressed women's preferences for CBT videoconference treatment versus CBT face-to-face treatment was to increase mental health professionals' awareness of the potential demand and benefit the therapy can provide to adult depressed women.

Researchers indicated that the most successful and compatible treatment model that compliments psychotherapy delivery via videoconferencing is CBT (A. T. Beck, 1976; J. S. Beck, 1979; Khatri et al., 2014; Kivi et al., 2012), which I used in this study. Rees and Maclaine (2015) conducted a meta-analyses and identified 50% of uncontrolled and 50% of controlled studies between 2004 and 2014. Rees and Maclaine discovered that all of these studies involved CBT as a treatment model and videoconferencing as the treatment delivery. Rees and Maclaine explained that in most of the studies involving CBT in combination with videoconferencing, the researchers focused on PTSD (n = 10), followed by obsessive compulsive disorder (n = 5), mixed anxiety and depression (n = 2), panic disorder (n = 2), and social phobia (n = 1). Rees and Maclaine pointed out that no studies focused exclusively on major depressive disorder.

In this study, I focused on the CBT model that psychologists employ during sessions via videoconferencing or in person. Even though psychological treatments are available, individuals with physical disabilities and those who live in rural parts of the

United States are at a disadvantage (Henderson et al., 2014; Scogin, Moss, Harris, & Presnell, 2014). These individuals often face significant traveling difficulties to see a mental health professional in person (Adler, Pritchett, Kauth, & Nadorff, 2014; Cardigan & Skinner, 2015). In rural areas, many individuals have to travel more than 60 miles one way to see a psychologist, and often have to wait more than 40 minutes in the waiting area (Thomas et al., 2012). Other individuals such as the physically impaired face difficulty with mobility, and if they are capable of moving, they often do not have the means of transportation (Eide et al., 2015). Eide et al. (2015) explained that physically disabled populations often have difficulty accessing a doctor's office, given that some older buildings do not provide easy access for disabled individuals. Because of these complications, many disabled individuals go without being properly diagnosed or treated (Choi, Marti, et al., 2014; Pradeep et al., 2014). Given that the Internet enables individuals from different parts of the world to see one another and communicate in real time without leaving home, the same technology allows mental health practitioners to use a new form of communication with patients through online videoconferencing technology. Online videoconferencing may alleviate distance-related barriers and provide a solution for those who lack access to a mental health care provider.

Most of the literature reviewed in this chapter included a variety of treatment options for adults suffering from depression. However, little empirical evidence exists regarding the use of videoconferencing in the treatment of depression among adults, specifically women. The purpose of this literature review was to critically evaluate the empirical studies regarding the treatment of depression among adult women. I also evaluated the use of videoconferencing and Internet technologies in treating depression

among adult women. The literature review involved an analysis of the gap that exists in the available empirical studies regarding depression and the use of technology in treating depressive symptoms.

Literature Search Strategy

I obtained the literature for this review through comprehensive online library search methods to locate researchers who addressed the delivery of psychotherapy via videoconferencing technology. Among the journal databases searched, those that generated the most applicable results were Medline, PsycINFO, ProQuest, and Sage Journals. I also used the Google Scholar search engine. Search terms included *depression, CBT treatment for women receiving therapy via technology, CBT treatment for depressed women receiving face-to-face psychotherapy, psychotherapy via videoconferencing, telemedicine, treating depression via e-health, online psychotherapy, online CBT treatment, online psychiatry, telepsychiatry, videotherapy,* and *distance psychotherapy*. I accessed other databases in the search process as well. Prior to examining the returns, I selected the peer-reviewed option, ensuring that all of the literature generated fit this criterion. I also reviewed current literature containing empirical research in relevant areas, which appeared in a wide range of publications such as *Mental Health Care, Current Psychiatry Reports, Psychological Services, British Journal of Guidance & Counselling,* and *Frontiers in Neuroendocrinology*.

Once I identified key authors, I reviewed the corpus of their work for other relevant research. I also reviewed other works cited by those authors. In addition, I reviewed the identified journals for other relevant work. I found little information pertaining to adult depressed women's preferences for psychotherapy via

videoconference. Considering that depression has a significant effect not only on the individual but also on society, particularly adult women who lack access to a mental health care provider because of distance barriers, I selected this topic as the focus of this study.

Working Alliance Theory

The theoretical foundation for this study was working alliance theory, based on Bordin's (1994) therapeutic alliance and J. S. Beck's (1979) cognitive behavioral therapy. Therapeutic alliance suggests that to provide adequate care to patients and reach successful therapeutic outcomes, the mental health provider must establish a positive working relationship with the patient (Barber et al., 2009; Bordin, 1994). Researchers sometimes refer to a *working alliance* as therapeutic alliance, which generally refers to the relationship between a patient and a mental health provider (Tyron, 2014). Tryon (2014) interpreted working alliance as a "collaborative relationship between mental health provider and patient where the two establish a bond and agree on the goals of therapy and tasks to be undertaken to achieve them" (p. 3). The use of working alliance in the treatment of depression and other disorders has gained significant attention from previous researchers, with many empirical studies addressing the advantages associated with working alliances (Stiles-Shields, Kwasny, Cai, & Mohr, 2014). Researchers can effectively analyze working alliance from various theoretical perspectives, which include the following theoretical dimensions: cognitive and behavioral therapy, humanistic and existential theory, and psychoanalytic theory (Tschuschke et al., 2014).

The working alliance phenomenon stems from the psychoanalytic theory of psychotherapy developed by Freud (Lingiardi & Colli, 2015). Psychoanalytic theory is

the ideological belief that the patient relates with the mental health provider in a distorted manner, which eventually provides an insight into understanding the conscious state and conflicts the patient faces (Stolorow, Brandchaft, & Atwood, 2014). Heidegger, Kafka, Nietzche, and Kierkegaard were the initial creators of existential principles (Fuchs, Breyer, & Mundt, 2014). However, European mental health practitioners such as Rank, Jaspers, and Binswanger were the first to use these principles in psychotherapy practice (Fuchs et al., 2014; Pilgrim, 2014).

According to humanistic theory, people are in control of their lives, are responsible for their actions, and have the ability to change how they view life as well as alter their behavior (Bandura, Bannister, Beck, Bierer, & Blake, 2014). Maslow and Rogers are prominent clinicians who applied humanistic principles in psychotherapy (Dryden & Spurling, 2014) and who believed that individuals can better help themselves when presented with a facilitating relationship. The existential and humanistic approach entails that individuals can promote an effective working relationship by demonstrating various attributes such as congruence, empathy, and genuineness (Bandura et al., 2014; Dryden & Spurling, 2014). On the other hand, the cognitive and behavioral aspects emphasize the importance of the patient conforming to the various methods and goals of treatment as important constructs for building a working alliance.

Multiple factors have an influence on the effectiveness of the working alliance between the patient and the mental health provider (Tschuschke et al., 2014). Some of the factors that affect the quality of a working alliance include the mental health provider's level of training and experience, an increased perception of social support, and the ability to create effective social relationships. Researchers stated that mental health professionals

with extensive experience and those trained in manualized interventions have been found to positively influence the quality of the alliance (Lingiardi & Colli, 2015). Høglend, Monsen, and Havik (2001) stated "empathy, non-possessive warmth, and genuineness are quite likely necessary, often even sufficient, in establishing an optimal therapeutic contact in psychotherapy" (p. 10). This analysis directly points to the importance of increased training, experience, and the mental health provider's personal attributes toward effective creation of working alliances. Ducat and Kumar (2015) explained that working alliances via videoconferencing exist and have been found to provide favorable therapy outcomes. Ducat and Kumar stated that to successfully establish working alliances via videoconferencing, mental health providers should use similar techniques as they would with in-person sessions. These techniques are generated through collaboration in therapy and include agreement on therapy objectives, which may entail working with patients on what is most pertinent to them as well as establishing therapy goals for each session. The mental health provider should also inform the patient that assignments may be given, which are part of the treatment objective as well as reciprocal positive regard (Ducat & Kumar, 2015).

Cognitive Behavioral Therapy

Development of Cognitive Behavioral Therapy

The development of cognitive theory has been attributed to Beck (A. T. Beck, 1976; J. S. Beck, 1979; Nezu & Nezu, 2015) and Ellis (Ellis & Rovira, 2015; Veasy, 2015) and has been recognized by mental health practitioners worldwide in its effectiveness in reducing depressive symptoms (Jarrett & Vittengl, 2015). Ellis was the founder of rational emotive behavioral therapy (REBT; Ellis & Rovira, 2015; O'Kelly &

Collard, 2015). The REBT is a cognitive behavioral approach based on the belief that individuals have assumptions and beliefs about circumstances they experience, and the circumstances themselves do not define how they feel and behave (Ellis & Rovira, 2015; Veasy, 2015). One of the REBT fundamental techniques is the ABC model that explains the association between thoughts, emotions, and behaviors (Ellis & Rovira, 2015; O'Kelly & Collard, 2015).

The letter A in ABC refers to the activating event, which includes the occurrence and implications of the event (O'Kelly & Collard, 2015). The letter B refers to the beliefs or interpretations regarding the activing event. The letter C refers to consequences that include feelings and behaviors related to the event. Mental health professionals who use the ABC model help their patients monitor their reactions in hopes of obtaining a positive change (O'Kelly & Collard, 2015; Veasy, 2015). J. S. Beck (1979) explained that depression can be explained by the three negative cognitive elements, which suggests that the subjective perceptions of events are the result of negative beliefs of the self, internal world, and future. Nezu and Nezu (2015) stated that this process leads to arbitrary inference and overgeneralization with underlying false beliefs that have become combined into enduring schemas. J. S. Beck explained that cognitive therapy is a short-term, active, directive, and time-limited structured approach that includes a number of cognitive and behavioral systems for a wide variety of psychological disorders. Mental health professionals use cognitive techniques to test patients' false beliefs and maladaptive assumptions by using specific learning experiences that teach the patient to be aware of negative automatic thoughts to distinguish the link between thoughts, cause, and behavior (Myles & Shafran, 2015; Nezu & Nezu, 2015). When using Beck's

techniques, mental health providers teach a patient to examine the logic of their false automatic thoughts, to replace biased perceptions with reality-oriented beliefs, and to recognize and change the false beliefs that predispose to distorted experiences (A.T. Beck, 1976; Nezu & Nezu, 2015).

Cognitive therapy often involves a mental health professional directing the discussion to concentrate on the patient's issues, which leads to a series of questions that help to identify the patient's inner contradictions and flaws in reasoning (Myles & Shafran, 2015; Nathan & Gorman, 2015). Myles and Shafran (2015) explained that with regard to major depressive disorder, the consensus among cognitive theory practitioners is that depressed people negatively misinterpret their experiences. A mental health provider helps the patient recognize automatic negative beliefs and substitute them with healthy positive thoughts (J. S. Beck, 1979; Hetrick et al., 2015; Scott et al., 2015). This therapy process is most helpful for patients who do not have difficulty expressing their problems, but many individuals experience challenges verbalizing their concerns. Therefore, a behavioral component was later included, which evolved into cognitive behavioral therapy.

Definition of Cognitive Behavioral Therapy and Techniques

In the 1960s, two prominent psychologists, Beck and Ellis, pioneered a concept referred to as cognitive behavioral therapy (CBT; Hofmann et al. 2014). The purpose of CBT is to alter negative thought process and maladaptive thoughts to more positive and acceptable thoughts as well as behavior. Sommers-Flanagan and Sommers-Flanagan (2015) explained that maladaptive behavior is believed to intervene with a patient's life, evoking troublesome and counterproductive behavior. Gallagher et al. (2015) and Scott,

Klech, Lewis, and Simons (2015) found that the treatment of such thoughts and behavior is concentrated on altering the maladaptive behavior into more positive behavior. Hofmann et al. (2014) indicated that CBT focuses on changing patient's thought process for the purpose of altering unhealthy behavior. Through the CBT treatment, the mental health provider guides the patient to recognize unhealthy behavior. The success of the CBT treatment heavily relied on the mental health provider's ability to properly guide the patient for the change in the patient's behavior to occur (Hofmann et al., 2014; Kobak et al., 2015). The mental health practitioner "nudges" the patient into a more positive direction.

Mental health providers who employ CBT treatment focus on changing patient's thought process to influence the behavior that needs to be altered (Kobak et al., 2015; Rathod, Kingdon, Pinninti, Turkington, & Phiri, 2015). The premise of CBT is to identify thoughts and behavior that cause patient concern and to alter the thinking process with the purpose of readjusting the behaviors into an acceptable pattern (Mehta & Sagar, 2015; Sudak et al., 2015). One of the important elements of CBT is to determine patient's negative automatic thoughts and to recognize repeating thoughts and their effect. Wenzel (2013) stated that CBT enables patients to take active role in their treatment and be less dependent on their mental health provider. Hofmann et al. (2014) explained that a variety of CBT techniques may be applied to help patients to examine their thoughts and alter their behavior.

Some of these techniques entail assignment, cognitive rehearsal, journaling, modeling, conditioning, and validity testing (Bae, Kim, & Park, 2008; Scott et al., 2015; Sommers-Flanagan & Sommers-Flanagan, 2015). Assignment entails the process of

providing the patient instructions to complete a specific task between therapy sessions. The purpose of the assignment is for the patient to concentrate on practicing the behavior that needs to be altered (Cronin, Lawrence, Taylor, Norton, & Kazantzis, 2015). Hetrick et al. (2015) explained that cognitive rehearsal is used by a mental health provider during a session to guide the patient though an imaginary scenario. The mental health provider then instructs the patient on how to cope with the situation as if it occurred in reality. To help the patient recognize their thoughts, feelings, and actions during particular situations, mental health providers request their patients to do journaling (Daniels, 2015; Doehring, 2015). This process allows patients to become more cognizant of their behaviors and the potential concern of those behaviors.

Rawson and Galanter (2015) pointed out that the modeling technique allows the patient to view the behavior that is preferred and practice that particular behavior. Conditioning technique enacts negative consequences to banish undesired behavior (Myles & Shafran, 2015). Validity testing explores patient's rationale and legitimacy of automatic thoughts and schemas (Nathan & Gorman, 2015). This process entails a mental health provider asking a patient to provide proof that a schema is accurate. If the patient cannot produce evidence that the schema is true, the error in the schema is revealed to the patient. CBT's effectiveness is range from lowering levels of binge eating (Lammers, Vroling, Ouwens, Engels, & Strien, 2015); yielding significant relief to individuals who experienced psychological and physical trauma (Strasser, 2015) as well as minimizing PTSD symptoms (Diehle, 2015); and helping children and adults with obsessive-compulsive disorder (Olatunji, Davis, Powers, & Smits, 2015) among many others psychological and physical disorders.

Several empirical studies indicate that over 60 years, CBT has been effective in decreasing depressive symptoms (Daniels, 2015; Hetrick et al., 2015; Koenig et al., 2015; Pearce et al., 2015). CBT has been also numerously and successfully employed in telehealth (Nelson & Duncan, 2015; Scott et al., 2015). CBT has been applied in studies that entailed internet, phone, and videoconferencing (Chavira, Bustos, Garcia, & Camacho, 2015; Khanna & Kendall, 2015; Nelson & Duncan, 2015). Myers and Truvey (2012) explained that CBT has been notoriously recognized by a variety of mental health providers as a suitable method that can be successfully used via technology, especially videoconferencing. Thus, this is the reason I selected CBT for this research, which served as the treatment method for adult depressed women who received psychotherapy through videoconferencing and in-person.

Effectiveness of Cognitive Behavioral Therapy via Technology

CBT has been compared in a number of studies via technology and has proved to be equally effective in face-to-face treatment (Chakrabarti, 2015; Nelson & Duncan, 2015). CBT yielded positive outcomes favoring technology-based delivery, such as telephone, internet, and videoconferencing for a variety of psychiatric disorders (Chakrabarti, 2015; Khanna & Kendall, 2015). For instance, Kaldo et al. (2015) conducted a study that examined Internet behavioral therapy effectiveness for patients suffering from insomnia when compared to a control treatment. The study consisted of 148 adults suffering from insomnia (Kaldo et al., 2015). Participants were divided into two groups, the first group received internet-delivered cognitive behavioral therapy for insomnia (ICBT-i) and the other received active internet-based control treatment. Treatment duration was 8 weeks with 6- and 12-month follow-ups (Kaldo et al., 2015).

Results revealed that 51% (Cohen's d = .85) of the participants insomnia symptoms were reduced compared to the 24% of participants who received active control treatment (Kaldo et al., 2015).

Yuen et al. (2013) conducted a study that entailed the effectiveness of CBT delivered via videoconferencing for 24 adults with social anxiety disorder (SAD). The videoconferencing treatment was administered for 12 weekly sessions. Yuen et al. revealed that 91 % of participants reported decreased fear and over 94% of participants were satisfied with therapy delivery, over 70 % of participants commented on the convenience of videoconferencing treatment. Théberge-Lapointe et al. (2015) conducted a study entailing efficacy of CBT delivery through videoconference to five adults with generalized anxiety disorder. The results revealed that all five participants' symptoms improved and showing no symptom reduction after 12-month follow-up.

Alfano and Beidel (2014) conducted an 8-week CBT videoconferencing comparing to CBT traditional in-person format to depressed minors. The study results indicated that both video and face-to-face CBT showed reduced depression scores after the treatment. Alfano and Beidel pointed out that more than 80% of participants no longer met criteria for a depression diagnosis. Alfano and Beidel further explained that CBT via videoconferencing demonstrated greater symptom reduction in participants than traditional, in-person, CBT delivery. Malhotra, Chakrabarti, and Shah (2013) conducted five randomized controlled trials that compared in-person and via videoconferencing delivery. The study consisted of 1054 participants from general psychiatric services with a variety of psychiatric disorders, including depression (Malhotra et al., 2013). Study revealed considerable reduction in depressive symptoms in both forms of psychotherapy

delivery. No statistical significance between in-person and videoconferencing was detected (Malhotra et al., 2013). Myers and Turvey (2012) explained that six out of eight empirical studies revealed that CBT delivered through videoconferencing has been successful in reducing depressive symptoms and showed no change in those symptoms post-treatment.

Chakrabarti (2015) pointed out that CBT treatment is most compatible to videoconferencing because it is structured, short-term, and allows the patients to take an active role in the treatment process. Research also indicates that because CBT is less dependent on the therapeutic relationship, it is less likely to be affected by the potential technical limitations of videoconferencing (Chakrabarti, 2015; Nelson & Duncan, 2015). Chakrabarti (2015) stated that in recent years over 64 studies that entailed the use of CBT delivered via videoconferencing has been conducted. It concluded that CBT via videoconferencing was not only a feasible option for treatment but also successful in minimizing symptoms, linked to have high satisfaction among participants, and seemed to be as effective as face-to-face treatment (Chakrabarti, 2015; Chavira et al., 2015). The present dissertation study focuses on adult depressed women receiving CBT treatment via videoconferencing and in-person delivery.

Depression and Symptoms

Approximately 15 million people in the United States, or one in 10 adults, experience depression each year, and two-thirds of that population do not get help (Nami, 2009). Research indicates that depression may occur at any time and often can last anywhere from weeks, to months, to years (Brewer & Olive, 2014; Kessler, 2003). People’s moods often vary from elevated to severely depressed. Those individuals who

experience elevated moods also often experience difficulty concentrating, racing thoughts, insomnia, and fatigue (American Psychiatric Association, 2013). Individuals who experience minor depression may have low energy, an increase or decrease in appetite, as well as feelings of hopelessness, lack of worth, and suicidal ideation (Carek, Laibstain, & Carek, 2011). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TM; American Psychiatric Association, 2013) described that depressive disorders entail dysthymia, or continual depressive disorder, as well as disruptive mood dysregulation disorder, premenstrual dysphoric disorder, depressive episodes, and substance- and medication-induced depressive disorder. The main difference among these disorders is the duration and presumed set of etiology.

The features of described depressive disorders include irritable moods, and feelings of sadness, worthlessness, and emptiness, which are linked to negatively influencing one's cognitive and somatic functioning (American Psychiatric Association, 2013) Researchers suggested that depressed people lose interest or pleasure in activities that used to be enjoyable (Belbase et al., 2014). In addition, when experiencing depressed feelings, some may have thoughts of death or attempt suicide. Brewer and Olive (2014) explained that changes in mood influence a person's wellbeing and ability to successfully function in a society. Empirically-supported treatments, such as pharmacological and psychotherapy interventions, or the combination of both, have been known to be effective in treating depression (Duncan et al., 2013).

Depression is generally defined as a mood disorder characterized by a consistent feeling of loss of interest as well as sadness. Depression can sometimes be referred to as clinical depression or major depressive disorder (MDD). In most cases, depression affects

how individuals behave, feel, and think. In some cases, depression can culminate in various physical, emotional, and psychological problems (American Psychiatric Association, 2013; Gao et al., 2013). Marcus, Yasamy, Van Ommeren, Chisholm, and Saxena (2013) stated that "depression often comes with symptoms of anxiety, and may become chronic or recurrent, and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities" (p. 1).

Individuals with a depressive episode exhibit a number of symptoms, which include, but are not limited to, the following: loss of enjoyment and interest, negative mood, and high levels of fatigue (Angst et al., 2011). The severity of the depressive episode in most cases determines the category of the episode. For instance, a depressive episode can be categorized as mild, moderate, or severe. Individuals who doctors consider to be suffering from severe episodes are unlikely to effectively undertake social work and domestic activities (Angst et al., 2011). On the other hand, individuals characterized with mild and moderate depressive episodes are likely to effectively undertake social work and engage in domestic activities (Mitchell et al., 1999). Bipolar affective disorder is characterized by both the depressive episodes and the manic episodes that are separated by normal moods. In essence, manic episodes are characterized by increased levels of energy and moods, which subsequently result in over-activity among other behavioral constructs, such as reduced need for sleep (American Psychiatric Association, 2013).

Causes of Depression

Researchers have not identified any distinct causes of depression. However, the literature does include various causes of mental disorders that subsequently result in

depression. Some of the factors that cause mental disorders among individuals include biological differences, hormones, inherited traits, and life events. Life events, such as traumatic life experiences, can cause depression. People's traumatic life experiences, such as financial problems, or the loss of a family member, friend, or a childhood trauma, are known to cause high levels of stress, which often lead to depressive symptoms and depression (Ingram, 2009). Mental disorders, such as schizophrenia, can be passed down from family members and are known to cause depression (Young & Young, 2007). In relation to biological differences, some individuals may experience physical brain changes, which subsequently trigger depressive symptoms (Khalsa, McCarthy, Sharpless, Barrett, & Barber, 2011).

Risk Factors Associated With Depression

Research indicates that, "depression has been recognized as a clinical syndrome for over 2,000 years" (Beck & Alford, 2009, p. 3). Beck and Alford (2009) explained that clinicians, doctors, and researchers could not find universally accepted answers to questions pertaining to the causes, characteristics, outcomes, and effective treatment of depression. Social scientists and medical professionals have also not agreed to identify if depression is a type of reaction or disease. Similarly, researchers have not identified whether depression is caused primarily by psychological ailments or if depression is caused by biological factors (Beck & Alford, 2009).

Beck and Alford (2009) explained that many investigators tried to answer these questions, but the nature of etiology of depression brought divided viewpoints among scientists. Some researchers insist that depression is mainly "a psychogenic disorder; others maintain just as firmly that it is caused by organic factors. A third group supports

the concept of two different types of depression: a psychogenic type and an organic type" (Beck & Alford, 2009, p. 4). Since the 1800s, when the French psychiatrist Louis Delasiauve used the term depression to describe a psychiatric symptom (Andrews, 2010), mental health professionals, medical practitioners, and researchers have undertaken various empirical studies to determine the various factors that increase the risk of depression (Bellón et al., 2014).

Cruwys et al. (2014) detected that many adults who develop depression often struggle with self-identify and social identification difficulties. Researchers further explained that depressive symptoms seem to significantly decrease when individuals become involved in the community or seek spiritual guidance (Cruwys et al., 2014). Other researchers indicated that symptoms of depression may be seen in people who have poor diet or lack intake of food as a result of emotional distress (Carey et al., 2014). Carey et al. (2014) explained that out of 3,361 participants who were underweight, overweight, obese, and normal weight, individuals who suffered from depression the most were underweight.

Alderson et al. (2014) and Stafford et al. (2014) explained that factors that increase symptoms of depression include chronic illness, such as cancer, heart diseases, and diabetes, as well as stressful and traumatic life events. Individuals with low self-esteem and those who have overly pessimistic views of life are more likely to experience depressive symptoms and depression than individuals who feel content with their life and have a neutral or a positive outlook (Cruwys, South, Greenaway, & Haslam, 2014). In addition, people with poor health or medical conditions, such as high blood pressure, as well as a history of high anxiety and substance and alcohol abuse are more likely to

experience depressive symptoms and depression (Lancaster et al., 2010).

Complications Associated With Depression

Various emotional and physical complications are associated with depression. Some of the major depressive symptoms include social isolation and extreme weight loss or weight gain (American Psychiatric Association, 2013; Fabricatore et al. (2011). Many adults might experience severe migraines, dizziness, muscle aches, and joint pain (Rist, Schurks, Burning, & Kurth, 2013). People also experience digestive problems and chest and back pain. Individuals who suffer from depression often have relationship difficulties, career problems, and family conflicts. Long-term complications associated with depression entail loss of wages that result in financial difficulties, social withdrawal as well as known to be linked to substance abuse (Blackmore & Chaudron,, 2014; Cadigan,& Skinner,2015; Dagher & Green, 2015). Depressed adults may experience repetitive thoughts of harm and extreme urges to attempt and commit suicide (Avenevoli, Swendsen, Burstein, & Merikangas, 2015; Katon et al., 2013).

Theories Applied to Treating Depression

Mental health professionals base effective treatment of depression on understanding that not one but a variety of theories help to explain the cause of depression. Some of the theories of depression propagated in the past include the behavioral theory of depression (Thase, Kingdon, & Turkington, 2014), the evolutionary theory of depression (Shalev et al., 2014), and the response styles theory of depression (Cooper-Vince, Emmert-Aronson, Pincus, & Comer, 2014; Cuijpers, de Wit, & Taylor, 2014). Researchers based theories of depression on various ideological constructs, which emphasizes the diversified explanations of the causes of depression among individuals

(Cooper-Vince et al., 2014; Cuijpers et al., 2014; Thase et al., 2014). The response styles theory was a cognitive theory founded on the ideological explanation of depression from the perspective of an individual's responses to the various symptoms of depression (Boland, Tansey, & Brooks, 2015; Sarason, Pierce, & Sarason, 2014). Mental health professionals have used CBT, which derived from cognitive psychology (Beck 1976; Boland et al., 2015), in treating depressive symptoms (Green et al., 2015). Cognitive theory suggests that a relationship exists between thoughts, emotions, and behavior, and changing one of these processes can yield change in others (Beck 1979; Choudhury, 2013). The CBT theory is a combination of cognitive and behavioral therapy. Cognitive therapy concentrates on the person's beliefs and ensuring thoughts, with emphasis placed on behaviors and the reality of the person's environment (Diehle, 2015). Researchers have found CBT most compatible therapy with telehealth (Beck 1979; Khatri et al., 2014; Kivi et al., 2012). Many psychologists focused on the severity of depression symptoms based on how individuals respond to those symptoms.

A central tenet of the response styles theory is that repetitive and racing thoughts escalate depression among individuals (Black & Pössel, 2014). Abela, Hankin, Sheshko, Fishman, and Stolow (2012) explained that reparative thoughts or "rumination involves focusing passively and repetitively on one's depressive symptoms, as well as on their causes, meanings, and consequences without actively taking steps either to alleviate such symptoms, or to correct the problems that triggered them" (p. 1). Response styles theory suggests that people who frequently react to depressive indications through repetitive contemplation are likely to experience prolonged periods of depression (Abela et al., 2012; Hagen, 2011). Abela et al. (2012) continued to state various ways in which

rumination escalates depression among individuals. First, rumination may intensify the various negative effects associated with depressed moods (Abela et al., 2012). This eventually leads individuals to engage in negative inferences and attribution, which subsequently escalates depression in individuals. Second, Barbic, Durisko, and Andrews (2014) pointed out that rumination can effectively restrict behaviors that could be employed to reduce the negative inferences and attitudes associated with depression. Last, rumination escalates depression in the sense that it negatively affects and hinders the development of effective problem solving skills among individuals (Abela et al., 2012). Mental health practitioners can form the treatment of depression largely on the tenets highlighted in the response styles theory through integrating various treatment options aimed at reducing rumination among individuals suffering from depression.

Another theory used in the treatment of depression is behavioral theory, found by Watson and Skinner (Carvalho & Hopko, 2011; Rachman, 2014). Behavioral theory is based on the ideology that certain avoidant behaviors and environmental changes inhibit people from various environmental reinforcements and rewards, which eventually lead to the development of depression (Carvalho & Hopko, 2011; Rachman, 2014). Carvalho and Hopko (2011) critically analyzed behavioral theory and depression from the perspectives of avoidance and depressive symptoms. In their study, Carvalho and Hopko found that self-reported environmental rewards, such as a daily diary, positively influenced an individual's mood. Those patients who wrote in a dairy on a daily basis saw this experience as a reward, which helped to manage depressive symptoms both in females and males (Carvalho & Hopko, 2011). Carvalho and Hopko found that females who wrote daily diary entries were slightly more emotionally invested than their counterparts.

Depression treatments can hinge on behavioral constructs postulated in behavioral theory, such as integrating behaviors that promote environmental reinforcement and reward.

Treatment

Medications to Treat Depression

Mental health professionals have developed a variety of treatment options, which can be effective in treating depression. The most popular medication prescribed in the United States to treat depression is antidepressants (Andrews, 2010; Kirsch, 2014). Research reveals that antidepressant medication, with the incorporation of psychotherapy, significantly decreases symptoms of depression (Xue et al., 2013). Some antidepressant medication includes monoamine oxidase inhibitors (MAOI), selective serotonin reuptake inhibitors (SSRI), atypical antidepressants, and tricyclic antidepressants, as well as norepinephrine reuptake inhibitors (Shulman, Herrmann, & Walker, 2013).

Examples of popular SSRIs prescribed to treat depression include citalopram (Celexa), sertraline (Zoloft), paroxetine (Paxil), luoxetine (Prozac), and escitalopram (Lexapro). Unlike other medication, mental health professionals consider SSRIs effective antidepressants in the sense that patients' experiences fewer side effects (Shulman et al., 2013). Some of the serotonin and norepinephrine reuptake inhibitors (SNRIs) that treat depression are venlafaxine (Effexor XR), duloxetine (Cymbalta), and desvenlafaxine (Pan, Kuo, Chan, & McCrone, 2014). Additionally, an individual may be treated with norepinephrine and dopamine reuptake inhibitors (NDRIs). One example of the NDRI is bupropion (Wellbutrin), which is considered an effective medication characterized with minimal sexual side effects (Xue et al., 2013).

Doctors rarely prescribe tricyclic antidepressants to treat depression, and employ

the medication only in cases where other inhibitors have failed. The decrease in prescribing this medication is because tricyclic antidepressants are characterized with severe side effects (Von Wolff et al., 2013). Health care professionals consider MAOIs as strong inhibitors that require a strict diet in the sense that most MAOIs have different interactions with foods (Shulman et al., 2013; Xue et al., 2013). MAOIs interact with various medications, which implies that these medications cannot be used interactively with other medications, such as SSRI. Examples of MAOIs include tranylcypromine (Parnate), selegiline (Emsam) and phenelzine (Nardil; Shulman et al., 2013).

Psychotherapy Treatment for Depression

The most popular and effective treatment option to treat depression is psychotherapy (Hind et al., 2014; Nathan & Gorman, 2015; Verdoux, Cortaredona, Dumesnil, Sebbah, & Verger, 2014). Psychotherapy often involves the process of talking to a mental health care professional regarding depressive symptoms (Craighead & Dunlop, 2014; Verdoux et al., 2014). Psychotherapy enables the patient to adjust to the current difficulty or crisis he or she is facing, and helps the patient develop positive interactions with other individuals through exploring experiences and relationships (Craighead & Dunlop, 2014). Psychotherapy also helps explore and identify developing issues that contribute to increased depression.

Psychotherapists generally adapt multifaceted strategies aimed at reducing the effect of depressive symptoms and depression for patients (Jiang et al., 2014). Many patients are able to gain control of emotions and feelings, as well as become more aware when to reach out for help through the process of psychotherapy (Dekker et al., 2014; Huibers et al., 2014). Psychotherapy helps the individual to regain a sense of control and

satisfaction through accepting the self. The psychotherapy process can be short-term or long-term, but regardless of the duration, most mental health providers' objectives during therapy are to provide clarity on the problem that the patient is experiencing and help to alleviate the symptoms.

Depression in Women

Depression is ranked as the third leading illness among the adult population and is the number one cause of disease among women, particularly those women who reside in low- and middle-income countries (World Health Organization, 2008). Previous studies indicated that regardless of race or ethnic background, women experience two to three times the rate of depression as men do (Gomez, Summers, Wolf, & Summers, 2014; Nami, 2009). Research also revealed that approximately one in eight women may suffer from MDD (WHO, 2008). Compared to socioeconomically privileged groups, underprivileged adults, particularly adult women, are more likely to develop symptoms of depression (Batterham, Christensen, & Calear, 2013). Research suggests that high levels of depressed mood are stronger for married women than for unmarried women (Mohammadi, Ebrahimi, & Hasanzadeh, 2014). Kessler (2003) explained that women who find themselves in traditional female roles are more inclined to experience negative moods and depression.

Brewer and Olive (2014) found that interpersonal dependency and the need to satisfy others is known to elevate symptoms of depression in women. Some theorists believed that women are more affected by depressed moods than men, because women frequently experience low levels of satisfaction and higher levels of stress (Travis, 2014). According to Papageorgiou and Siegle (2003), rumination theory suggests that females

tend to dwell and focus on everyday issues more than males, and as a result, fleeting symptoms of dysphoric episodes of depression can develop. Researchers have also documented that lack of family support, marital issues, cultural and social pressures, as well as poor health increase the likelihood of depression (Sbarra, Emery, Beam, & Ocker, 2014; Schoenfeld & Cameron, 2015).

Studies have shown that depression affects people's willingness to partake in risky behavior (Lighthall, Mather, & Gorlick, 2009). However, risky or thrill-seeking behavior may significantly vary between females and males. For instance, The National Alliance on Mental Illness (NAMI, 2014) pointed out that many women tend to respond to depression by excluding oneself from social groups and negating any social support provided, whereas men respond to depression with increased competitiveness and thrill-seeking behavior (Lighthall et al., 2009). Some researchers suggested that it is not uncommon for women to experience depressive symptoms because of watching too much television, working long hours on a computer, and driving a vehicle (Teychenne, Ball, & Salmon, 2010; Teychenne, Torres, McNaughton, Salmon, & Ball, 2014). Similarly, women who suffer from body image issues and a poor quality diet (Ruusunen et al., 2014), especially those who are socioeconomically disadvantaged, have an increased probability of depressive mood and depression (Chocano-Bedoya et al., 2013; Pearson & Biddle, 2011)

Depression in women is a common problem and has attracted an increasing interest among various researchers (Kohen, 2010; Sanchez-Villegas et al., 2012). As postulated by Kohen (2010), women are more likely to be depressed because they undergo various lifecycles that are susceptible to the illness. For instance, women display

high levels of depression in certain life phases, such as postpubertal, premenopausal, premenstrual, and perinatal (Kohen, 2010). The same sentiments were expressed by researchers of the NAMI (2014), who explained that women express high levels of depression with the following constructs: anxiety, oversleeping, increase in appetite and body weight, and somatization, which are considered the physical expression of mental distress. The NAMI (2008) stated:

> one out of every eight women will suffer from clinical depression in her lifetime. Women also experience higher rates of seasonal affective disorder (SAD) and dysthymia (chronic depression) than men. While the rate of bipolar disorder (manic depression) is similar in men and women, women have higher rates of the depressed phase of manic depression [sic] and women are three times more likely to experience rapid-cycling bipolar disorder. (p. 1)

Research shows that gender variations in depression rates among women and men can be well-analyzed from biological, psychological, social, and genetic factors (NAMI, 2014).

Lack of Accessibility

Although numerous clinical advances exist in the mental health and medical fields to treat depression, these advances do not improve treatment accessibility to individuals with physical disabilities, economic constraints, and those who live in rural areas, which continues to be a serious concern (Thomas et al., 2012). Popplewell et al. (2014) explained that a life opportunities survey revealed that people with chronic impairments reported experiencing significant difficulties with making an appointment with a mental health care provider. Participants reported that obtaining suitable transpiration was often challenging and time consuming (Popplewell et al., 2014). The survey also indicated that

physically disabled individuals frequently experienced difficulty getting into a health care provider's building (Popplewell et al., 2014).

Gilroy et al. (2014) and Kempen and Zijlstra (2014) found that individuals who live in low-income communities reported feeling uncomfortable seeing a health care provider in person. Many low-income adults experience poor quality of care, which is often associated with being economically disadvantaged (Allen, Wright, Harding, & Broffman, 2014). Researchers also revealed that out of 140 women who live in rural areas, 76.8 % reported they were either depressed or were experiencing symptoms of depression (Groh, 2013). In addition, women in rural areas diagnosed with depression do not have the means to travel the distance to see a mental health professional, which in some cases is 60 miles away from their homes (Thomas et al., 2012). Another study showed that out of 260 adult depressed women in rural areas, 20% did not have transportation to see a doctor (Pradeepet al., 2014). These represent a few barriers women with disabilities, distance, and monetary difficulties have to face when seeking a mental health care provider.

Integrating Technology and Clinical Practice

Advances in the information and communication technology industry have promoted the adoption of technology in the clinical practice of treating depression. Researchers have employed various technologies to treat depression in a number of ways (Perle et al., 2014; Simpson & Reid, 2014). Some of the technologies employed to treat depression include home-based telehealth, the use of computer-based behavioral and cognitive therapies, the use of text and aided therapy, and the use of internet-based psychological treatments for depression (Kivi et al., 2014; Wodarski & Frimpong, 2015).

Many researchers explained that the psychotherapy delivery via the Internet is gaining momentum in the treatment of depression (Khatri, Marziali, Tchernikov, & Shepherd, 2014; Scogin et al., 2014). One application of the Internet-based cognitive behavioral therapy is the provision of therapeutic services through the use of internet-based systems, such as email. Additionally, researchers widely recognize CBT as one of the most effective approaches in helping people overcome depression (Butler, Chapman, Forman, & Beck, 2006; Jayasekara, Procter, Deuter, & Hampel, 2014). Yoshimura et al. (2014) explained that CBT not only minimizes symptoms of depression, but also alters processing in medial prefrontal and ventral anterior cingulated cortex activity, which is linked to self-referential functioning. Researchers also revealed that both cognitive therapy and CBT have been effective when delivered via technology (Dobson & Khatri, 2000). Butler et al. (2006) revealed that women who are between the ages of 37 and 40 (N = 1,868) and who completed at least one psychotherapy session may see an 8% improvement in their condition; by completing 12 sessions, the researchers detected a 62% improvement (r = 0.-91; Beck & Alford, 2009). Researchers also recognized cognitive therapy for depression as the most amenable to psychotherapy videoconferencing (Duncan et al., 2013). Myles and Shafran (2015) indicated that face-to-face CBT psychotherapy is highly effective in treating depression, but access to face-to-face psychotherapy is often limited. Individuals who reside in rural areas, those who have no means of transportation, and those who have a severe physical impairment may not have access to psychotherapy because of their limited transportation options (Durland et al., 2014; Scogin et al., 2014). Some researchers suggested that providing psychotherapy via the Internet, such as videoconferencing and email, is effective in

decreasing a patient's symptoms because of its non-invasive approach (Anthony, 2014; Koenig & Butters, 2014).

Many mental health professionals also believe that the use of Internet-based technologies improves the accessibility of therapeutic intervention, which subsequently enhances the efficiency and effectiveness of treating depression (Duncan et al., 2013; Durland et al., 2014). Newman et al. (2011) investigated the use of technology-assisted help in the treatment of depression. Newman et al. indicated that the use of technology-assisted help, which provided minimal contact, provided effective treatment of depression among individuals. Specifically, Newman et al. found that "predominantly self-help computer-based cognitive and behavioral interventions are efficacious in the treatment of subthreshold mood disorders" (p. 100). Strachan, Gros, Ruggiero, Lejuez, and Acierno (2012) investigated the use of home-based telehealth technologies to treat depression among patients. In their study, Strachan et al. discovered that the use of home-based telehealth technologies significantly improved the treatment of depression among individuals. Particularly, Strachan et al. revealed that, "participants in both conditions experienced reductions in depression, anxiety, and posttraumatic stress disorder (PTSD) symptoms between pre- and post-traumatic, suggesting that HBT application of an integrated PTSD treatment may be feasible and effective" (p. 560). This analysis directly indicated that the use of technology-based systems significantly improves the treatment of depression among individuals. However, the level of effectiveness associated with the use of technology-based treatments of depression is not sufficient enough to solely rely on this method. Empirical researchers indicated that a dire need exists to effectively integrate the use of a hybrid treatment and intervention strategy that combines two or

more treatment options (Scogin et al., 2014). Mental health professionals can effectively undertake the treatment of depression by combining the use of traditional and technology-based treatment interventions.

Telepsychology

Telepsychology is the process of undertaking psychotherapy initiatives by a mental health professional located at a remote place from the patient's location. Telepsychology has gained tremendous use in conducting therapeutic treatments among patients (Christensen et al., 2014). Psychologists can use various technological mediums in undertaking telepsychology such as Internet-based mediums (email and videoconferencing) and the use of the telephone. Kaplan (1997) interpreted tele-psychotherapy as psychotherapy administered by a mental health professional "at a location different from the patient's through bidirectional communication technology supporting real-time interactivity in the audio, audiovisual, or text modalities" (p. 1). Research indicates that some studies have been effective in symptom reduction when telepsychology is used by mental health providers. For instance, Egede et al. (2015) conducted a study that consisted of 780 adult depressed patients over the course of four years. Participants were divided into two groups, which entailed 120 individuals who received home-based telehealth treatment and 121 individuals received in-person treatment for a period of 12 months. Egede et al. (2015) study revealed no significant statistical difference between participants who received home-based telehealth and those who received in-person treatment. However, the increased use and acceptance of telepsychology is accompanied by various security concerns. Researchers attributed this to the fact that most mental health providers emphasize the advantages associated with

telepsychology at the expense of the various risks associated with the use of telepsychology, especially the use of Internet-based telepsychology platforms (Schwartz & Lonborg, 2011). Many researchers suggested that mental health professionals increasingly depend upon patient interaction via the Internet "despite the growing presence of threats to online security" (Schwartz & Lonborg, 2011, p. 419).

In order to effectively promote the use of telepsychology, an urgent need exists to accept and implement psychotherapy initiatives based on various security frameworks, such as the use of HIPAA and HITECH Act security laws. Mental health providers have to take not only universal safety precautions when offering their services via technology, but also have to take security measures to ensure that no exposure of confidential information occurs, that patients are aware of their rights, and that data records are stored appropriately. Psychologists who provide their services remotely need to abide by the Ethical Principles of Psychologist and Code of Conduct regardless of the treatment delivery (American Psychological Association, 2010). Luxton, Pruitt, and Osenbach (2014) explained that when mental health providers offer their services via technology, they must place physical and electronic safeguards to assure confidentiality. Gellis et al. (2014) and Khatri (2014) explained that to increase security and safety, mental health providers who provide telehealth need to always assure that patients' information in both verbal and in written form is protected. Mental health providers should also advise patients, for their own security, to have videoconferencing sessions in a private environment where they are not overheard by others (Luxton et al., 2014). Practitioners conducting psychotherapy remotely need to have a safety plan in place and be cognizant of the applicability of the American Telemedicine Association, Health Information

Technology for Economic and Clinical Health Act, and the Health Insurance Portability and Accountability Act. A safety plan is vital for practitioners who provide remote psychotherapy. During remote psychotherapy, patients may become distressed or experience a medical emergency.

Mental health providers should be prepared for such incidents and should have a scripted procedure in place so that patients may contact local authorities for immediate assistance (California Board of Psychology, 2012; Luxton et al., 2014). In case of an emergency, the mental health provider may also have a professional contact, another mental health provider, located in close proximity to the patient's location. Providers also have to abide by state laws, local privacy regulations, and security requirements (Luxton et al., 2014; Luxton, Pruitt, O'Brien, & Kramer, 2015). According to Kramer, Kinn, and Mishkind (2014), implementing the use of telepsychology based on various security standards will largely promote consumer data privacy and integrity. Schwartz and Lonborg (2011) also expressed the same sentiments and stated that effective implementation of telepsychology should aim at integrating security parameters related but not limited to "hardware and software management, confidentiality, informed consent, competence, consultation, and continuing education" (p. 419). Luxton et al. (2014) explained that mental health professionals need to also be aware of state licensing regulations. Every state's laws have different regulations pertaining to telehealth services, security, and the type of mental health provider's license credentials to offer telehealth services (California Board of Psychology, 2015; Kramer et al., 2014). Mental health providers who decide to offer telehealth services must confirm with the state licensing board that he or she is allowed to provide remote psychotherapy. Since state laws are not

universal and the term *telehealth* may be defined differently, mental health providers need to investigate their rights and obligations prior to initiating any psychotherapeutic treatment via technology, such as phone, internet, or video (Kramer et al., 2014; Luxton et al., 2014). A mental health practitioner should also ensure that the technology he or she uses during a session is approved by the licensing board. For instance, California Psychology Board (2012) prohibits psychologists to use Skype video program for psychotherapeutic sessions because of lack of security and confidentiality. In California, prior to offering telehealth services, a licensed psychologist needs to "inform the patient the use of telehealth and obtain verbal or written consent from the patient for the use of telehealth as an acceptable mode of delivering health care services and public health" (California Psychology Board, 2015, p. 51).

Telephone Therapy

As previously stated, telephone therapy, the process of offering therapeutic services via mobile phones, is one form of telepsychology that mental health professionals can use to treat depression and other forms of disorders that require the use of therapy. The use of telephone therapy in the treatment of depression has gained significance in the past few decades—a factor attributed to the various advantages associated with the use of telephone therapy in the treatment of various clinical disorders (Mulligan et al., 2014). Stiles-Shields et al. (2014) stated that the use of telephone therapy has emerged as an alternative to face-to-face therapy for treating various depression disorders among patients. Similar to Internet therapy, telephone-based psychotherapy may reduce barriers to accessing psychotherapy for individuals who are limited by mobility or geographically restricted. Jones, Ownsworth, and Shum (2015) indicated that

psychotherapy delivered via telephone has enhanced emotional adjustment and reduced depressive symptoms. Although mental health providers cannot provide visual aids when delivering psychotherapy via telephone, mental health providers instead can use their voice and nonverbal ques, such as sighing, laughing, or just agreeing, which may increase therapeutic alliance (Jones et al., 2015).

Watson et al. (2013) stated that "a minority of symptomatic patients opt for telephone psychological therapy; however, where they do, there are significant improvements indicating that telephone-delivered therapy is feasible in patients with high needs" (p. 1485). In another study, Mohr et al. (2012) investigated the use of face-to-face interactions and the telephone in undertaking CBT for depression. In their study, Mohr et al. found that patients with depression who participated in CBT on the phone versus those participants who had face-to-face therapy showed the same progress in depression at post treatment as participants who had treatment on the phone. Researchers Mulligan et al. (2014) found telephone-based psychosis interventions are comparable in terms of "quality of relationships developed between therapists and patients during face-to-face cognitive behavioral therapy (CBT) therapy" (p. 408). Andersson and Cuijpers (2009) found across 12 studies that telephone-based therapy can yield positive results in reducing depressive symptoms. Hammond et al. (2012) compared effectiveness of cognitive therapy delivered via telephone and face-to-face for depression and anxiety. Hammond et al. found no statistically significant differences between telephone-based therapy delivery and face-to-face therapy delivery. Hammond et al. noted that individuals with more severe symptoms yielded better results with face-to-face therapy. In another study, Rose, Skelly, Badger, Ferraro, and Helzer (2014) found that the use of alcohol

therapeutic interactive voice response (an outpatient therapy among patients with alcohol dependence) enabled daily monitoring of alcohol consumption, offered targeted feedback, and facilitated the use of coping skills. This analysis directly underpins the various advantages associated with the use of telephone-based therapy in treating various clinical disorders. However, the security associated with the use of telephone therapy needs to improve in order to promote data privacy and integrity.

Internet Therapy

Internet therapy is defined as the process of utilizing the use of Internet-based technologies in the provision of therapeutic services to patients. Many researchers have conducted empirical studies to illustrate the importance of using the Internet in the treatment of depression (Durland et al., 2014; Scogin et al., 2014). For instance, Kivi, Hange, Petersson, Johansson, and Björkelund (2012) stated that internet-based therapy is a cost effective manner to undertake therapy in a primary care setting. Kivi et al. also explained that Internet therapy has proven to be effective in reducing symptoms of depression. Results of two different studies indicated that implementation of Internet therapy for depression and CBT delivery via the Internet could provide a reasonable alternative in treating mild to moderate depression (Khatri et al., 2014; Kivi et al., 2012).

In another study, Gainsbury and Blaszczynski (2011) investigated the influence of Internet-based therapy on the treatment of depression, substance abuse, gambling, and smoking addiction among patients. Gainsbury and Blaszczynski (2011) explained that the use of traditional therapies was characterized with high attrition rates among many individuals, while the use of Internet-based technologies improves the efficiency of treating people with pathological gambling substance abuse disorders. Specifically, the

authors explained that 70 % of CBT Internet-based therapy participants achieved minimum two weeks of consecutive illicit substance abstinence (Gainsbury & Blaszczynski, 2011). The results of the data indicated that symptoms of depression, anxiety, and pathological gambling of 11,376 adult participants were reduced by 68% in a period of 18 months, and continued to stay low for 36 months (Gainsbury & Blaszczynski, 2011). Amichai-Hamberger, Klomek, Friedman, Zuckerman, and Shani-Sherman (2014) and Gainsbury and Blaszczynski stated that while psychotherapy delivered via the Internet may be an evolutionary step towards a better and more effective treatment option, more research is needed to determine which online psychotherapy or Internet-based therapy is most adequate for people with depression.

Adult et al. (2015) explained that CBT enables long-term relief for individuals suffering from depressive symptoms. The depressed adult population showed significant improvement when mental health providers implemented a structured CBT intervention, for consistent progress with patients Adult et al. (2015) suggested that a mental health provider needs to frequently identify challenges and work with the patient toward a mutual goal. The researchers discovered that offering CBT via the Internet presented many advantages (Hedman et al., 2011). First, the delivery of CBT via the Internet means time is used more efficiently (Hedman et al., 2011). In addition, the delivery of CBT via the Internet increases the number of patients who can be treated at one given point because these patients do not have to physically commute and are less likely to miss appointments. This saves on time required for undertaking therapeutic sessions (Hedman et al., 2011; Simpson & Reid, 2014). Wagner, Horn, and Maercker (2014) posited that no significant difference exists between the use of Internet-based therapies and the use of

traditional therapies in the treatment of depression. For instance, Andersson, Cuijpers, Carlbring, Riper, and Hedman (2014) stated that guided Internet cognitive behavioral therapy (iCBT) and face-to-face treatment are equivalent in terms of overall effects. Cuijpers, Donker, Van Straten, Li, and Andersson (2010) and Wagner et al. (2014) also expressed the same sentiments. Cuijpers et al. (2010) further indicated that no major differences were detected between in-person therapies and mental health providers who employ the use of technology.

Variations exist in the literature regarding the application of Internet-based therapy. However, little is known about what patients prefer when they have the option of receiving traditional psychotherapy, such as face-to-face, or an alternative psychotherapy delivery, such as videoconferencing (Amichai-Hamberger et al., 2014; Grubbs, Fortney, Dean, Williams, & Godleski, 2015; Woolf et al., 2015). There is even a bigger gap pertaining to adult depressed women's treatment delivery preference. This may stem from the lack of information offered by mental health providers regarding alternative psychotherapy options and the lack of resources available to people about telehealth (Luxton et al., 2015; Price & Gros, 2014; Tuerk & Shore, 2015). For this reason, a need exists to conduct research on the use of Internet therapy in the treatment of depression and other clinical disorders. The results of this study helped to fill the gap in the literature by obtaining adult depressed women's preference for treatment delivery, which provided additional insight for mental health practitioners regarding an alternative therapy delivery method and the significant demand and benefit it can provide for depressed women who are physically and geographically limited and unable to meet a psychologist face-to-face.

Videoconferencing

Another technology with effective applications in the treatment of depression is videoconferencing, which entails the patient and a mental health provider viewing each other via video during the session. This creates an environment that closely simulates meeting face-to-face and also allows viewing of facial expressions, which can provide extensive information regarding emotional states of participants. Unlike telephone or internet-based therapy, videoconferencing enables the patient and the mental health provider to see each other and interact with one another in real-time. Backhaus et al. (2012) explained that a variety of remote technologies exist, such as Internet and computer-based treatment and interactive video.

Unlike the Internet computer-based treatment that mainly offers non-verbal communication, and interactive video that provides participants with recorded information, videoconferencing offers both visual and verbal interaction in-real time. Most current method of videoconferencing is conducted via the internet using a secure computer software, such as Polycom View-station system, to manage the digital communication (Backhaus et al., 2012). Stubbings (2012) explained that the internet quality heavily relies on the reliability and speed of the internet connection. The faster the internet connection the greater is the quality of the video transmission. Stubbings (2012) stated that higher quality internet connection enables videoconferencing treatment bear the closest resemblance to face-to-face interactions.

An advantage of videoconferencing is that it enables clinical interaction to occur across distance. Videoconferencing may increase accessibility to culturally relevant services (Stubbings, 2012). Mental health professionals who are in demand because of

their specialized services, such as CBT treatment for adult depressed population, may offer treatment to patients in numerous locations. A specifically trained psychologist, working with a particular ethnic minority group, such as Latino adult depressed population, could see patients from that specific cultural group across distance. For instance, a psychologist located in Los Angeles, California may offer services to Latino adult depressed patients in Studio City, California, Pasadena, California or Canyon Country, California. Videoconferencing offers accessibility to patients with physical impairments and difficulties, such as quadriplegia, or individuals who have severe back, and leg pains, which lead to limited mobility. For physically disabled individuals, it is not only physically challenging to attend in-person treatment but it may also take a considerable amount of time, money, and organization to obtain appropriate transportation to reach the appointment.

Numerous researchers have conducted studies to determine the effectiveness of employing the use of videoconferencing in the treatment of depression and other clinical disorders among patients (Amichai-Hamberger et al.,2014; Andersson, 2015; Backhaus et al., 2012; Coon & Mitterer, 2012). Lazzari, Egan, and Rees (2011) investigated the use of videoconferencing in the treatment of depression among adult patients. In their study, Lazzari et al. (2011) indicated that the use of videoconferencing in the treatment of depression among adults produced positive results as mental health professionals could utilize videoconferencing technology to improve and enhance the accessibility of treatment for adults. The researchers explained that five behavioral psychotherapy sessions conducted via videoconferencing significantly reduced depressive symptoms (Lazzari et al., 2011).

Lazzari et al. (2011) conducted an uncontrolled pilot study to explore acceptability and effectiveness of psychotherapy delivered via videoconferencing. The study entailed adult depressed individuals ages 64 to 73 to receive five behavioral activation psychotherapy sessions via videoconferencing, with 1 month follow-ups (Lazzari et al., 2011). Results indicated that treatment via videoconferencing did not only increase positive effects, but also decreased depressive symptoms in older adults (Lazzari et al., 2011). Shingleton, Richards, and Thompson-Brenner (2013) explained that although some mental health professionals are still reluctant to mix technology with therapy, a recent study showed that providing psychotherapy through the use of videoconferencing yielded positive results. This result was confirmed in a study done by Choi et al. (2014) that entailed Skype video therapy to 121 depressed, low-income, homebound individuals age 50 and older. The data indicated that more than 50% of individuals expressed positive feedback regarding video therapy and symptom reduction. Choi et al. (2014) further explained that no statistical difference was found among participants who received in-person therapy and therapy via Skype video. Therefore, for those individuals who are homebound and suffer from depression, the most reasonable alternative solution to in-person therapy is therapy via video (Choi et al., 2014). This study added to the literature by providing insight regarding what adult depressed women prefer when choosing between the two delivery methods. This information allows mental health professionals to know patients' demand and the benefits this therapy can yield to populations in need of mental health services.

The results of this study might provide patients' information on overall treatment satisfaction when psychotherapy is delivered via videoconferencing. This may be

especially pertinent information to individuals who lack in mobility due to disability. Videoconferencing enables a mental health professional and the patient to have a synchronous interaction in real time. This particular technology allows a mental health provider and a patient to hear, see, and communicate live through the use of cameras. Rudestam, Giannetti, and Stamm (2005) stated that using videoconferencing to treat mental health is not an issue; rather, the concern pertains to how to provide adequate therapy to a patient when face-to-face therapy is not possible. This is particularly important if the patient is elderly and not familiar with how to operate the system that allows videoconferencing to occur. Rudestam et al. (2005) continued to point out that the purpose of integrating psychotherapy with technology is for the patient to benefit in the treatment process. Consequently, more information is needed regarding patients' preferences and satisfaction regarding videoconference treatment versus face-to-face treatment.

Thorp et al. (2012) stated that the use of videoconferencing therapy is extremely advantageous, because patients no longer have to spend money on gas, deal with traffic, parking issues, and other associated high costs of transportation. By using videoconferencing, the patient is no longer bound to meet a mental health provider at his or her office; instead, the location is up to the patient. Simpson, Bell, Knox, and Mitchell (2005) reported that patients who received therapy via videoconferencing showed improvement in their condition after three sessions. The patients who received therapy via videoconferencing revealed feeling less self-conscious and at ease, as opposed to receiving therapy in person. Other researchers agreed that using technology, such as videoconferencing, allows flexibility to patients who do not have access to seeing a

mental health provider in person (Cartreine et al., 2010). However, technology is not without challenges. Although many positive attributes exist to providing therapy via videoconferencing, one must foresee possible drawbacks to distance therapy. Possible challenges to videoconferencing therapy include ensuring privacy, confidentiality, and safety (Kramer et al., 2014; Luxton et al., 2014). Given that the patient can be anywhere to have a videoconference session, it is not certain that the environment is private and without interruption (Thorp et al., 2012). The patient may also have difficulty operating equipment, may experience connectivity issues, and may feel a lack of intimacy with a mental health provider.

Videoconferencing Ethical and Legal Concerns

One of the most concerning issues pertaining to videoconferencing is confidentiality because psychotherapy provided via digital means cannot be completely secure (Myers & Turvey, 2012; Perle et al., 2014; Tuerk & Shore, 2015). Nonetheless, specialized system exists that make it challenging for breach of confidentiality to occur, particularly because of firewall and encrypted software (Myers & Turvey, 2012; Street, Gold, & Manning, 2013). Street, Gold, and Manning (2013) explained that mental health providers should always ensure that their patients are fully aware about how the transcripts of the sessions are stored. Mental health provider should also consider that the setting of the session may limit confidentiality (Coon & Mitterer, 2012). For instance, if the patient's video camera is pointed in one particular direction, which limits the mental health provider's view of the room, it may be possible that the patient is not alone in the room during the session.

Coon and Mitterer (2012) and Myers and Turvey (2012) suggested that when

communicating with the patient through videoconferencing, the mental health provider should obtain and document the patient's consent to interact with him or her electronically. When a mental health provider conducts sessions via videoconferencing it is suggested that the room where the session occurs on both ends of the interaction is able to contain the audio, which limits other individuals of overhearing the conversation (Coon & Mitterer, 2012; Street et al., 2013). Another concern regarding videoconferencing is that a patient may record the digital interaction and upload the sessions on social media websites, such as Facebook or YouTube without the mental health provider's knowledge. Myers and Turvey (2012) and Street et al. (2013) suggested that because of the potential threat to digital interaction possibly recorded and shared by the patient, it may cause the psychotherapist to become distant and guarded, particularly about information communicated to the patient.

Mental health providers should be aware of the legal aspects of videoconferencing, such as state laws, licensure requirements, and possible legal setbacks that may arise when providing psychotherapy digitally (Coon & Mitterer, 2012; Luxton et al., 2014; Street et al., 2013). For instance, a mental health provider may be sued if during a session the patient fainted and the mental health provider was not able to obtain immediate help quickly enough. Luxton et al. (2014) and Myers and Turvey (2012) explained that prior to initiating digital interaction, the mental health provider must obtain informed consent in written format, preferably mailed to the mental health provider. If mailing the informed consent is not an option, email may be used, but only if the document is in a format that cannot be edited, such as PDF file. The purpose of this process is to increase security and ensure that the document is genuine. Informed consent

should include instructions detailing potential procedures in case of an emergency (Luxton et al., 2014).

A patient may experience distress during a session or may need medical assistance. In situations like this, practitioners should have safety plans in place that include explicit instructions for patients and psychotherapists, such as contacting local emergency services as well as patients' emergency contact (Luxton et al., 2014). If the patient declines to sign the informed consent, the mental health provider should politely decline remote services. Once the informed consent has been obtained, a mental health provider who offers remote psychotherapy needs to thoroughly screen the patient and review his or her history, and only then decide whether the patient is an appropriate candidate for remote psychotherapy (Hertlein & Ancheta, 2014; Thorp et al., 2012). A mental health provider needs to verbally and in written formant explain ethical and legal responsibility he or she is obligated to, such as notifying authorities if the patient discloses the desire to harm his or herself or others. Once the informed consent is granted, the mental health provider should thoroughly screen a patient's history to ensure that the patient is not prone to severe panic attacks or a high risk to harm self or others. A psychotherapist should offer the patient the option of in-person sessions because of safety concerns. Telehealth practitioners should also consider declining remote services to patients who have difficulty operating the system and those patients who might be under the influence of drugs or alcohol (Luxton et al., 2014).

Videoconferencing Effectiveness, Patient Satisfaction, and Preference

Despite possible videoconferencing challenges, Sharp, Kobak, and Osman (2011) discovered that 88.8% of participants reported high satisfaction with therapy delivery

through videoconferencing. The researchers further verified that most patients preferred videoconferencing because of its easy accessibility, flexibility, and effectiveness (Sharp, Kobak, & Osman, 2011). Similarly, Dustan and Tooth (2012) stated that establishing a working alliance with the patient through videoconferencing is no different from face-to-face, and researchers have proven this bond to be successfully accomplished via videoconferencing. Additionally, with improvements and the creation of user-friendly technology, issues relating to operating the equipment are less of a concern.

Another advantage associated with the use of videoconferencing as technology to deliver therapeutic service is that mental health professionals can utilize videoconferencing to deliver therapeutic services in rural areas. For example, researchers indicated that "it is feasible to use videoconferencing as a means of delivering therapeutic interventions for people with chronic conditions in rural communities" (Steel, Cox, & Garry, 2011, p. 20). Furthermore, Steel et al. (2011) analyzed 14 studies in which the researchers assessed clinical outcomes of therapeutic interventions for chronic conditions delivered via videoconferencing, which entailed randomized controlled trials of high quality. Steel et al. (2011) and Stubbings (2012) found that psychotherapeutic treatment for psychological and physical conditions, such as depression and mobility-impaired adults with paraplegia, delivered via videoconferencing yielded similar outcomes to treatment delivered in-person. Steel et al. (2011) further explained that therapeutic alliance and patient satisfaction with therapy delivery via videoconferencing is possible.

In another study, Backhaus et al. (2012) undertook a systematic literature review in determining the effectiveness of videoconferencing in treating depression among patients. Backhaus et al. found that the use of videoconferencing technologies improved

the access of therapeutic services in rural and remote places. The researchers explained that psychotherapy provided via videoconferencing is not only convenient for many individuals, but also positive technological innovations are found to have statistically similar results compared to individuals who received therapy in person (Backhaus et al., 2012). Research also indicates that web-based videoconferencing has yielded not only feasible and acceptable form of therapy to face-to-face therapy delivery but also was highly preferred due to convenience of the service (King, Brooner, Peirce, Kolodner & Kidorf, 2014).

Backhaus et al. (2012) pointed out that an urgent need exists to conduct more clinical trials to determine the effectiveness and efficiency associated with the use of videoconferencing technology for therapeutic services. King et al. (2014) investigated the feasibility and acceptability of web-based videoconferencing as opposed to in-person substance abuse counseling. The study entailed 85 randomly selected participants receiving 12 weeks of weekly individual counseling (King et al., 2014). The study consisted of 24 participants who received a web-based videoconferencing platform, eGetgoing, and 35 participants who received in-person counseling.

The study's results indicated higher satisfaction scores from eGetgoing (*SD* =.44) as opposed to in-person (*SD* = .52; King et al., 2014). King et al. (2014) also revealed that therapeutic alliance scores were higher for eGetoing (*SD* = .68) as opposed to in-person (*SD* =.52; King et al., 2014). In another study, Parikh et al. (2013) investigated the acceptability of brief videoconference-based standard neuropsychological tests in adults with and without cognitive impairment. The study entailed 40 participants who had undergone a brief assessment of a mini-mental state exam via videoconference and in-

person. Participants were between 50–82 years (*SD* = 70.8), and 62% were women (Parikh et al., 2013). Parikh et al. stated that seven participants were diagnosed with Alzheimer's disease and 12 showed mild cognitive impairment.

The researchers revealed that all participants completed the assessment and satisfactory survey (Parikh et al., 2013). Out of the total sample, 98 % of the participants expressed acceptability of videoconference-based test and 100% reported instructions were easy to follow and understand (Parikh et al., 2013). Cognitive impaired participants (*n* =19) indicated 95% were satisfied with assessment delivery via videoconferencing, 5% were indifferent, and 100% of nonimpaired participants endorsed the testing process delivered via videoconferencing (Parikh et al., 2013). Parikh et al. (2013) further explained that when participants were asked about their preference of testing delivery, 60% indicated no preference, with 30% choosing in-person and 10% preferring a test via videoconferencing. Parikh et al. stated that majority of 60% of the participants who preferred in-person assessment were cognitively impaired, and further research with a larger sample that may offer higher statistical significance and functional heterogeneity that would ensure generalizability. Research indicates that treatment delivery via videoconferencing yields participant satisfaction. Fatehi, Martin-Khan, Smith, Russell, and Gray (2015) assessed 24 diabetes patients' satisfaction with remote weekly, 1-month consultation delivered through videoconferencing. All 24 participants showed a 100% satisfaction rate for videoconferencing and had no problems building rapport (Fatehi et al., 2015). Stubbings (2012) compared patient satisfaction, working alliance, credibility, and symptom reduction through CBT via videoconferencing to CBT in-person in adults diagnosed with anxiety and depression. The study entailed 26 participants who received

12 CBT sessions via videoconferencing and CBT in-person treatments with 6-week follow-up (Stubbings, 2012).

The findings revealed no statistical significance between either modalities in regard to satisfaction, working alliance, and credibility perception (Stubbings, 2012). A number of researchers have addressed effectiveness of treatment in terms of reducing clinical symptomatology, but little is known about preferences and satisfaction of adult depressed women in regard to modality delivery, such as videoconferencing (Stubbings, 2012). By obtaining adult depressed women's preferences between CBT videoconference versus CBT face-to-face treatment delivery, the study results might provide patients with information regarding overall treatment satisfaction when psychotherapy is delivered via videoconferencing. By doing so, I aimed to fill the gap in the literature on this topic. Dunstan and Tooth (2012) conducted a pilot study to evaluate the provision of treatment using videoconferencing. In their study, the use of videoconferencing in the provision of treatment significantly reduced the level of symptoms associated with the disorder (Dunstan & Tooth, 2012). Dunstan and Tooth (2012) revealed that those participants who engaged in videoconferencing showed a reduction in symptoms and an improvement in general life functioning.

Videoconferencing Insurance Reimbursement and Licensure Concerns

Technological innovations allow many mental health professionals to provide therapy to patients in remote locations. Schoenberg (2015) and Sharp, Kobak, and Osman. (2011) further explained that live video or videoconferencing is the most reimbursed form of telehealth by insurance providers, including Medicaid. Records indicate that as of 2015, 47 states allow live video therapy and Medicaid insurance to

offer financial reimbursement (Duncan, 2013; Fatehi et al., 2015). However, Iowa, Massachusetts, and Rhode Island do not have a reimbursement policy for telehealth services, and the District of Columbia does not provide any reimbursement for treatment via technology (Gellis et al., 2014; Luxton et al., 2015; Perle et al., 2014). This indicates that individuals who reside in Iowa, Massachusetts, Rhode Island, and the District of Columbia have to either seek private insurance providers, such as Tufts Associated Health Maintenance Organization, or pay from their own financial funds.

Each state also differently defines the term *telehealth*. Several states specifically define telehealth in law and policy (Okoroh et al., 20162015). In some states' policies, telehealth applies to clinical services only, and phone, fax, and e-mail are excluded from the definition (Okoroh et al., 2016). For this reason, every practitioner who wants to provide remote treatment delivery needs to be aware of state licensure requirements pertaining to treatment via technology, as well as any other state policies and regulations regarding telehealth. Being aware of state licensure requirements pertaining to treatment via technology is particularly important in the United States because telehealth laws differ from state to state and, as a result, insurance coverage also varies by state (Perle et al., 2014; Polinski et al., 2015; Schoenberg, 2015). Given that the law pertaining to the delivery of CBT services provided via technology varies from state-to-state, I defined boundaries by requesting participants to complete demographic information. The demographic information involved participants identifying the state from which they received remote psychotherapy, as well as specifying if their psychologist provided services were from the same state or not. I carefully reviewed demographic data, and if the information indicated that videoconferencing was provided in a state that does not

support psychotherapy via videoconferencing, those participants were excluded from the study.

Hertlein and Ancheta (2014) explained that many psychologists have not embraced technological innovations such as videoconferencing. This is primarily because of safety, confidentiality, and privacy risks, as well as state-law limitations. By not embracing telehealth, these practitioners may be neglecting populations who are in dire need of psychotherapy but unable to receive it in-person because of personal or environmental barriers. However, those professionals who have embraced telehealth, particularly treatment via videoconferencing, are able to help people remotely, see significant improvements, and receive patients' positive remarks about therapy (Scogin et al., 2014; Simpson & Reid, 2014). Dunstan and Tooth (2012) continued to state that researchers need to conduct more research in order to determine how various mental health practitioners can utilize videoconferencing technology to increase the provision of treatment in rural areas.

Technology and the Therapeutic Alliance

Many empirical researchers have studied the use of technology in a therapeutic alliance. For instance, the use of technology provides various mental health providers with diversified options for functions and services that can aid in the provision of therapy services to patients (Simpson & Reid, 2014). For example, Germain, Marchand, Bouchard, Guay, and Drouin (2010) stated that such technology-based therapy enable individuals in need of mental health services to have access to treatment not otherwise available to them. The use of technology in the therapeutic alliance enables patients to effectively create strong relationships with the mental health providers. Wrzesien,

Burkhardt, Alcañiz, and Botella (2011) found in vivo exposure therapy (IVET) and augmented reality exposure therapy (ARET) were both effective.

Both therapies produced improvements in patient responses and allowed patients to engage with real stimuli that would normally produce phobic responses (Wrzesien et al., 2011). In another study to determine the use of technology in the formation of alliances between patients and mental health providers, Richards and Simpson (2014) investigated the effect of technology advanced system (goACT) use in developing therapeutic alliances and the effect of face-to-face therapy interactions on formation of alliance. In their study, Richards and Simpson found goACT broadened the parameters of the therapy beyond the one-hour session and proved to be a useful tool for improving the quality and quantity of psychotherapy. However, Rini, Porter, Somers, McKee, and Keefe (2014) stated that many refuted the notion that implementation of technology can promote effective development of working alliances between the patient and the mental health provider. For instance, Wagner et al. (2014) and Christensen et al. (2014) pointed out that no significant differences existed between traditional therapy and technology-based therapy regarding the effective creation of therapeutic alliances. Wiarda, McMinn, Peterson, and Gregor (2014) investigated the use of technology in note taking and forming of a therapeutic alliance through employing various technologies, such as the use of intake session, computer, and an iPad. Wiarda et al. found that no significant differences existed in the use of the three stated technologies towards creation of effective alliances. From this analysis, a lack of uniform agreement is evident regarding the efficacy of applying technology-based treatments in the development of therapeutic alliances. However, Christensen et al. (2014), Germain et al. (2010), and Richards and

Simpson (2014) stressed the positive effects of using technologies in the development of therapeutic alliances.

Summary

In summation, numerous researchers have addressed the issue of depression among individuals. However, a great deal of the literature focused predominantly on the causes, symptoms, diagnosis, and risk factors associated with depression. The advances in information technologies have created a necessity to adopt the technology-based therapeutic treatment options in treating patients with depression. For instance, the developments in information technology allowed mental health professionals to use a variety of technologies, such as the use of Internet-based therapeutic strategies, which entail email, telepsychology, the use of text-based therapy, and the use of videoconferencing in treating various disorders, among other technologies (Kramer et al., 2014; Luxton, Pruitt, & Jenkins-Guarnieri, 2015; Perle et al., 2014). To the detriment of many patients, mental health care professionals have not implemented these technologies effectively in treating depression and various clinical disorders. Depression affects women and is a common problem among the adult population. Researchers indicated that most women are more likely to exhibit high levels of depression compared to men (Maglione et al., 2014; National Alliance on Mental Illness, 2014). This implies that a need exists to undertake a study to analyze the best therapeutic strategies to treat depression among female patients. Literature further reveals that there is a substantial need for psychotherapy for individuals with physical disabilities, especially for those who reside in remote communities (Choi et al., 2014; Dustan & Tooth, 2012). A potential solution in addressing the needs of this patient group is by offering psychotherapeutic

services via technology. Hertlen and Ancheta (2014) point out that there is a variety of systems that can be used by mental health practitioners to provide remote communication, such as email, telephone, Internet text-based psychotherapy, virtual reality, and videoconferencing. Although every system has its strengths and limitations, it is videoconferencing that has the most similarity to face-to-face interaction (Coon & Mitterer, 2012; Fatehi et al., 2015). Mental health providers have applied most of the technology-based therapeutic interventions and in the treatment of other clinical disorders. Researchers have placed little emphasis on the application and integration of videoconferencing-based therapies in treating depression among adult women. Specifically, most literature highlighted the use of text-based and telephone-based technologies in offering therapeutic services to patients. This was especially emphasized by Adler, Pritchett, Kauth, and Nadorff (2014) and Andrews, Newby, and Williams (2014) when describing the implementation of telepsychology in treating mental health related illnesses. This underscores the importance of studying the application of videoconferencing to treat women with depression, as well as whether the participants prefer videoconference treatment instead of face-to-face treatment. Undertaking this study significantly bridged the gap in the literature regarding the application of videoconferencing in the treatment of women with depression, as demonstrated with the methodology presented in Chapter 3.

Chapter 3: Research Method

A review of the empirical and clinical literature indicated limited research regarding the integration of technology and psychotherapy for depressed adult women. If social scientists and mental health practitioners desire to incorporate technological advancements in their clinical practice, further analyses and investigation are required. This chapter presents comprehensive information regarding the methodology used for this study including the purpose statement, research questions and variables, study design, setting, samples, and instruments. I also address how data were collected, measured, and analyzed, as well as how participants' confidential information was protected.

Purpose Statement

The purpose of this quantitative study was to investigate the influence of method of delivery (i.e., videoconferencing and in-person) on patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships. I investigated whether differences existed in the chosen dependent variables (i.e., patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships) related to the method of delivery of treatment (videoconferencing versus in-person). The independent variable for this study was method of treatment delivery. The dependent variables were patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationship with the mental health provider. I conducted statistical analyses to assess potential differences in patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationship scores of participants receiving in-person and videoconference therapy formatted to align with CBT.

Research Questions

I developed the following research questions and hypotheses based on the research problem and purpose of the study.

RQ1: To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate patient perceptions of the clinical experience, as measured by the Treatment Credibility Questionnaire (TCQ)?

RQ2: To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate patient satisfaction, as measured by the Therapy and Therapists Scale (STTS-R)?

RQ3: To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate therapeutic relationships, as measured by the Therapeutic Bond Scales (TBS)?

Hypotheses

The null (H_0) and alternative (H_1) hypotheses were as follows:

RQ1: $H_0$1: There is no difference in patient perceptions of the clinical experience between CBT via videoconferencing and CBT delivered in person.

H_A1: CBT via videoconferencing produces better patient perceptions of the clinical experience compared to CBT delivered in person.

RQ2: $H_0$2: There is no difference in patient satisfaction between CBT via videoconferencing and CBT delivered in person.

H_A2: CBT via videoconferencing produces higher patient satisfaction compared to CBT delivered in person.

RQ3: $H_0$3: There is no difference in therapeutic relationship between CBT via videoconferencing and CBT delivered in person.

H_A3: CBT via videoconferencing produces better therapeutic relationship compared to CBT delivered in person.

Research Variables

I examined the relationships between several variables related to the therapy experience. The primary variable of interest was the delivery of treatment (videoconferencing vs. face-to-face). The therapy followed the same format based on the CBT model of therapeutic treatment. The other variables of interest were patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships. I tried to determine, by incorporating working alliance theory, whether the patient and mental health professional were able to establish a meaningful therapeutic relationship. I assessed this by analyzing patient satisfaction and therapeutic relationship.

The treatment delivery method was operationalized as face-to-face counseling or videoconference counseling. Therapy treatment was formatted to align with the CBT model, as indicated by potential participants' responses to the demographic questions (Appendix A) such as "Did you receive cognitive behavioral therapy, which may have entailed homework, writing in a journal, role-playing, problem resolution, and behavioral activation, which entails a list of activities for you to engage in and can blocked the avoidance of pleasurable activities?" and "What CBT technique(s) did you find most effective during your clinical experience?" The patient's perceptions of the clinical experience were operationalized as experience with clinical sessions. The TCQ (Addis et al., 2004) was used to measure outcomes of the therapy experience as related to

credibility, expectations, and information as perceived by the participant, using questions such as “Was the therapy logical to you?” and “How much do you expect this therapy to help you?” Patient satisfaction was operationalized as the patient’s contentment with the therapy experience. The STTS-R (Oei & Green, 2008) was used to measure satisfaction through statements listed on the scale such as “I am satisfied with the therapy and my needs were met by the therapy.” Therapeutic relationship assesses the relationship and motivation for therapy. The TBS (Saunders et al., 1989) was used to measure therapeutic relationship using questions and statements such as “To what extent are you looking forward to your next therapy session?” and “I hoped to work out a particular problem that’s been bothering me.”

Research Design and Rationale

A quantitative nonexperimental online survey design was used to determine preferences of psychotherapy delivery in adult women, and whether these individuals benefited from receiving psychotherapy through videoconferencing. I hypothesized that patients would have a higher level of satisfaction when the treatment was delivered via videoconferencing compared to face to face. The rationale for a quantitative nonexperimental online survey design was to provide statistically credible answers to the research questions. This design allowed me to draw conclusions from the sample through analytical methods (Haslam & McGarty, 2014). I analyzed the data gathered from online surveys through descriptive and inferential statistics. I examined the descriptive statistics and included frequency, distribution, mean, median, standard deviations, and standard errors. An online survey design was most appropriate for this study because it allowed me to obtain a diverse and unbiased sample. Because I did not manipulate the

independent variable (therapy type), the design was nonexperimental. Because I was recruiting participants who had already accessed therapy resources, I was not able to place participants in random groups.

The Internet allows a researcher to easily and quickly collect data from a large and diverse population. Internet-based surveys enable researchers to systematically obtain data from the target population (Chu & Snider, 2013; Yin, 2014). Similarly, the online respondent can complete the online questionnaires in the comfort and privacy of his or her home. Batterham (2014) explained that online surveys enable the researcher to ask participants numerous questions about topics, thereby providing researchers with extensive flexibility in data assessment and analyses. The data input and handling was automated (Chu & Snider, 2013), meaning participants' responses were securely and automatically stored in an encrypted survey database, which increased safety and handling of data and decreased chances of data loss. An online survey allows the researcher to apply advanced statistical procedures to determine reliability, validity, and statistical significance (Batterham, 2014; Morgan, Jorm, & Mackinnon, 2013). In the social sciences, limitations exist with all research designs, and the online survey design is no exception (Kapp, Peters, & Oliver, 2013). The limitation with this design was its inability to reach participants who did not have access to the Internet or who did not know how to operate a computer. In addition, participants may not have responded truthfully, may have felt uncomfortable disclosing personal opinions, may have lacked memory, and may have responded carelessly.

The Role of the Researcher

I contributed to every phase of the study. Wiid and Diggines (2009) explained that

in a quantitative study, the researcher's primary role is an observer. In this role, the researcher does not participate or directly affect the study. I recruited voluntary participants via the Internet. I collected and analyzed results from the surveys by using the Statistical Package for the Social Sciences (SPSS) software. Prior to conducting this study, I obtained approval from Walden University Intuitional Review Board (Approval # 06-10-16-0310321).

Population, Setting, and Sample

Population and Setting

The population consisted of women ages 40 to 65 diagnosed with MDD who received psychotherapy aligned with CBT in person from a psychologist for a minimum of 6 months in the last 16 months, as well as women who received psychotherapy aligned with CBT via videoconferencing from a psychologist for a minimum of 6 months in the last 16 months .The TCQ (Addis et al., 2004), STTS-R (Oei & Green, 2008), and TBS (Saunders et al., 1998) were used to gather data related to participants' psychotherapy. According to U.S. Census Bureau (2015) data collected from 2008 to 2010, an estimated 6,026,998 women ages 40 to 65 live in California. With an estimated 50% of women seeking treatment from mental health providers (Luoma, Martin, & Pearson, 2002), the approximate population for the study was 3,013,499.

To obtain a diverse sample of respondents, I obtained the face-to-face therapy sample (control group) and videoconferencing sample (test group) from social networking websites such as Facebook, LinkedIn, Instagram, Kik messenger, and Snapchat. The respondents from these websites were invited to complete an online survey from Survey Monkey. Potential participants were required to read and electronically sign

an informed consent form that described the criteria for participation. The sample included women who received treatment aligned with CBT face to face and women who received treatment aligned with CBT via videoconferencing.

Recruitment of the Sample

The study was posted on a popular research Internet survey website, surveymonkey.com. An enrollment message was also posted on social networking websites such as Facebook, LinkedIn, Instagram, Kik messenger, and Snapchat to recruit adult women who met the criteria for participation. Participants were redirected from the survey link to the actual study on Survey Monkey. Prior to the initial display of the website link to this study, every participant was made aware of the nature of the study and was requested to read and sign the consent form prior to participating in the study. At the end of the informed consent, participants had the option to exit the survey if they chose not to participate in the study. The questionnaire took approximately 20 minutes to complete.

Sampling Method

The sample in this study was dependent on specific criteria including gender, age, disorder condition, and delivery of psychotherapy treatment. For this reason, the study involved a nonprobability purposive sample. Trochim (2006) explained that a nonprobability sample enables the researcher to obtain the target population. However, this type of sample reduces the generalizability of the outcomes pertaining to participants in the study. Given that the survey was Internet based, recruitment bias may have occurred because participants who had knowledge of how to operate a computer and navigate the Internet were more likely to have been from middle and high socioeconomic

groups. Therefore, I presumed that individuals who were not knowledgeable about computers or did not have access to a computer would not participate in this study.

Sample Size

Raosoft (2004) explained that to determine the sample size for surveys, the researcher needs to use a sample size calculator. To detect a significant difference between groups, a minimum sample size was needed. To ensure that the sample had an adequate number of participants, I utilized G*Power software (Faul, Erdfelder, Buchner, & Lang, 2013). Looking at the difference between two independent means (two groups) with a small effect size of .05, alpha .05, and power of .80, I calculated the sample size to be 128. Howell (2010) recommended that power be near .80, an alpha of .05, and at least a small effect size. Based on the dichotomy of the predictor variable, a minimum sample size of 64 participants was needed for each group.

Eligibility Criteria

Participants met all of the following criteria to be included in the study: (a) 40 to 65 years of age, (b) female, (c) diagnosed with major depressive disorder, (d) received CBT face to face or via videoconferencing for a minimum of 6 months in the last 16 months, and (e) read and signed the consent form. Participants were also asked to complete demographic survey. Participants were made aware that their survey data would be omitted from the study if they did not meet all of the participation requirements. When potential participants agreed to participate in this study, they were asked to complete the survey only once. To avoid duplicate information from anonymous participants, Survey Monkey identified the same IP address and removed the duplicate data.

Description of the Survey Process

The TCQ (Addis et al., 2004), STTS-R (Oei & Green, 2008), and TBS (Saunders et al., 1989) surveys were available online on Survey Monkey. To make the public aware of the study, I posted an enrollment message with a hyperlink to the actual study on popular social media websites such as Facebook, LinkedIn, Instagram, Kik messenger, and Snapchat. By clicking on the link, potential participants were routed to Survey Monkey, which included comprehensive information regarding the nature of the study. Potential participants were asked to provide informed consent and were given the option to check *continue* or *exit.* Individuals who participated in the study were those who selected the continue option, linking them to the survey.

Instrumentation and Materials

The following sections detail each of the measures used for this study. This study involved the use of the TCQ (Addis et al., 2004), which measures patients' perceptions of the credibility and benefit of their therapy. I measured participants' satisfaction with therapy and the mental health provider through the STTS-R (Oei & Green, 2008). To measure the quality of the therapeutic relationship based on the patient's perspective, I used the TBS (Sunders, 2001). Further information about each of these instruments is listed in the paragraphs below. These instruments are well-known and considered reliable amongst mental health professionals.

Treatment Credibility Questionnaire (TCQ)

The TCQ (Addis et al., 2004) consists of six questions, which enabled the researcher to assess participants' perceptions of the credibility and benefit of their therapy. Participants responded to the TCQ questionnaire by marking the answer that best

identifies their preference, reasoning, and perception of treatment value for each of the 6 items (see Appendix C). Items 1–5 were measured on a 7-point Likert scale ranging from 1 (*never*) to 7 (*every time*). Question 6 was measured on a 7-point Likert scale ranging from 1 (*far below*) to 7 (*far above*). This was done to remove any ambiguity in the potential responses from participants. A composite score of these questions provided a score that reflects the benefit of the therapy, as perceived by the patient, focusing on credibility, expectations, and informative nature of the therapy.

The reliability of the instrument was achieved by Addis et al. (2004) with an internal consistency coefficient of .86. Borkovec and Nau (1972) created the TCQ, which until recently, was referred to as the Credibility/Expectancy Questionnaire (CEQ; Devilly & Borkovec, 2000). Devilly and Borkovec (2000) supported the instrument by running both principal component and confirmatory factory analyses. The TCQ demonstrated high internal consistency of .84 for the whole scale. Devilly and Spence (1999) used the TCQ to assess the treatment confidence of PTSD patients given cognitive behavioral therapy and eye movement desensitization and reprocessing. The TCQ has also assessed the credibility of a treatment that evaluated the effect of cognitive behavioral therapy on a veteran outpatient group in a lifestyle-management course (Devilly, 2002). The TCQ showed a high composite test-retest reliability (r = .83).

Therapy and Therapist Scale (STTS-R)

The Therapy and Therapists Scale (STTS-R; Oei & Green, 2008) consists of 13 items measured on a 5-point scale, ranging from 1 (*strongly agree*) to 5 (*strongly agree*). Oei and Green (2008) developed the STTS-R to measuring patients' levels of satisfaction with the therapeutic treatment process. This scale is based on a two-factor model that

measures patients' satisfaction with therapy and satisfaction with the mental health professional. Each participant chose an answer that best matches her opinion of the level of satisfaction with the therapy and mental health providers for each of the 13 items (see Appendix D). Two questions on the survey were modified to remove any ambiguity or distinction of therapy received. The first of the two questions, which originally read, "I would recommend the program to a friend," was changed to state, "I would recommend this therapy to a friend." The second question originally read, "I would return to the clinic if I needed help" and was modified to "I would return to this therapist if I needed help." Both of these changes were made to the original survey in order to ensure that respondents understand that the level of satisfaction for the therapy and mental health provider are of interest. I made the modifications to remove any confusion and doubt that respondents might have while responding to the survey. Oei and Green (2008) indicated that the two-factor measure model has exceptional psychometric properties.

Confirmatory factor analysis and psychometric properties of this instrument are reliable and may prove to be valuable in helping to identify patients' levels of satisfaction with a mental health provider and the therapy process. Thus, the instrument creates two scale-level scores: satisfaction with therapy and satisfaction with the mental health provider. Reliability for each level has been exhibited in the past; satisfaction with the mental health provider had an alpha coefficient of .89, and .90 for satisfaction with therapy. The overall scale received a coefficient of .93, indicating a high reliability (Oie & Green, 2008). Oie and Green (2008) applied the STTS-R, which was also tested against the Zung Self-Rating Depression Scale and the Beck Anxiety Inventory, to ascertain its validity and strength. The outcomes showed that the STTS-R was significant

in distinguishing between levels of satisfaction as described by the Self-Rating Depression Scale and Beck Anxiety Inventory (Oie & Green, 2008).

Therapeutic Bond Scales (TBS)

The TBS (Saunders, 2001) are comprised of three sections with 15 items pertaining to working alliance, 17 items relating to empathic resonance, and 18 items inquiring about mutual affirmation. Participants responded by marking the answer that best identifies their therapeutic relationship and motivation for continuing therapy for the 17 items that comprise the scales of working alliance, empathic resonance, and mutual affirmation (see Appendix B). These three scale scores were created by taking the average of the items pertaining to those scales. The purpose of TBS was to measure the quality of the therapeutic relationship based on the patients' point of view (Saunders, 2001). By using the TBS, my objective is to assess working alliance, empathic resonance, and mutual affirmation as a whole.

Saunders (2001) indicated that the TBS has a high reliability. For instance, the working alliance subscale indicates an alpha coefficient of .72. The empathic resonance subscale indicates an alpha coefficient of .77, and the mutual affirmation subscale indicated an alpha coefficient of .87 (Saunders, 2001). The overall score of the three subscales received an alpha coefficient of .62. Validity tests between the TBS and session quality found a high positive correlation of .60 (Saunders et al., 1989). Saunders et al. (1989) examined each individual scale of the TBS. The Empathetic Resonance Subscale (ERS), the Working Alliance Subscale (WAS), and the Mutual Affirmation Subscale (MAS) were shown to have acceptable levels of internal consistency, alphas of .77, .72, and .87, respectively.

The TBS is a well-known instrument and researchers have used this scale in a variety of clinical settings, based on high reliability scores; the TBS is considered a reliable instrument in mental health (Brandstetter, 2014). Brandstetter (2014) used the TBS to study a correlation of therapeutic alliance between face-to-face therapy and therapy delivered via technology, such as video, telephone, and email. The study included 101 participants who answered 107 questionnaires pertaining to treatment delivery via face-to-face and e-therapy. Brandstetter found that the TBS showed e-therapy alliance was slightly higher than for face-to-face treatment delivery. In the TBS, the ERS subscale had an average score of 5.81 (*SD* = .97), the WAS subscale had an average score of 5.88 (*SD* = .73), and the MAS subscale had an average score of 5.39 (*SD* = 1.04) for e-therapy (Brandstetter, 2014). The face-to-face scores showed that the ERS subscale had an average score of 6.44 (*SD* = .62), the WAS subscale an average of 6.09 (*SD* = .62), and the MAS subscale an average score of 6.06 (*SD* = .73; Brandstetter, 2014). The study revealed that therapeutic alliance could be successfully achieved via technology, as the test reported a higher mean of e-therapy scores (Brandstetter, 2014). Corso et al. (2012) used the TBS to assess the quality of the relationship between patients and providers. The researchers showed that the TBS had a high internal consistency of .94, using Cronbach's alpha (Corso et al., 2012). Jones (1995) utilized the TBS and its subscales to explore the facilitation of relationships between psychology and psychiatry training groups.

Data Collection and Analysis

Data was collected after receiving approval from Walden University Institutional Review Board (Approval # 06-10-16-0310321). Potential participants were informed of the nature of the study, including their rights and confidentiality. Potential participants'

involvement was voluntary, with the option to withdraw at any time from the survey without consequences. I analyzed the data by using SPSS software version 20.0. I obtained data through Survey Monkey, an online-based survey website that eliminates the possibility of missing data, because participants were not able to progress in the survey until completing all items in each section. Once all surveys were completed, I downloaded participants' responses from Survey Monkey into the SPSS system for comprehensive statistical analysis.

To answer the research questions, I conducted independent sample *t* tests to determine if differences exist among participants' scores on the TCQ, TBS, and STTS-R related to psychotherapy treatment delivery method. The independent sample *t* test was used to assess for differences in a single continuous dependent variable by a dichotomous independent variable (Tabachnick & Fidell, 2012). This study included three dependent variables: patient perceptions of the clinical experience, satisfaction of treatment, and therapeutic relationship. I conducted one *t* test for each dependent variable. The independent variable was therapy type: face-to-face vs. videoconferencing.

I screened the data for accuracy and outliers. The presence of outliers was tested by the examination of standardized values (Tabachnick & Fidell, 2012). I created standardized values for each measurement score. Each case was examined for values that fall above 3.29 and values that fall below -3.29 (Tabachnick & Fidell, 2012). The assumption of normality is vital for statistical significance. However, when using independent sample *t* tests, it may be acceptable if variables are not normally distributed for each group of the independent variable because of the central limit theorem. If the assumption of normality were not met, the nonparametric equivalent of the independent

sample *t* test, the Mann Whitney U test, was conducted to assess differences in the dependent variables by treatment delivery method. The nonparametric option allows the researcher to assess the data without being held to the assumptions that underlie the parametric form of the analysis. For the homogeneity of variances assumption to be met, the population variance for all groups in the independent variable needed to be similar (Haslam & McGarty, 2014). If the sample sizes were the same or similar, violation of this assumption was not a concern. To determine homogeneity of variances, SPSS includes an option to run Levene's test of equality of variances and two differently calculated independent sample *t* tests, which provides valid outcomes, regardless of whether this assumption has been met or not (Haslam & McGarty, 2014). If the assumptions were not met, I would utilize the Mann Whitney U test. I used an alpha level of .05 to assess for significance.

Threats to Internal and External Validity

Internal validity is the ability to draw a conclusion from the results of the analyses conducted. Confounding variables and selection bias are potential threats. *Confounding variables* refer to unmeasured variables that could potentially affect the outcome. Potential confounding variables are found in the literature as being related to the three outcome variables. However, no variables were found in the literature that had a strong relationship with any of the three outcome variables. I designed the study to exclude potential confounding variables such as age or gender, because of the specific sample of women aged 40–65. I used demographic data (see Appendix A) and conducted descriptive analyses on those demographics, such as a Chi-square test (Howell, 2010). This allowed me to assess for differences in demographic groups and include those

differences as confounding variables. *Selection bias* refers to the participants chosen to take part in the study. When gathering the data, I collected two groups of participants: those who use face-to-face therapy and those who use videoconferencing. However, the researcher has no control of placing participants into either group. The potential existed for one group to be different from the other group in areas that extend beyond simply the type of therapy. Because the researcher has no control of this, selection bias was a potential limitation to the study.

External validity is the ability to generalize the results of the study to a larger population. The main threat to external validity resided again in the selection of the participants. The participants selected to take part in a study should be an adequate representation of the population. In this case, the data was pulled from two populations: those who use face-to-face therapy and those who use videoconferencing. Because the researcher had no control of the type of therapy administered to participants, the populations that the participants came from may have differed. Inadequate power for the study, because of a small sample size or missing values, was also a potential threat to external validity. However, I conducted a power analysis to correctly reject the null hypothesis at the specified effect size (Cohen, 1988).

Protection of Participants Rights and Ethical Considerations

The following guidelines were in place to protect participants of this study:

1. Before collecting data, I obtained approval from Walden University's Institutional Review Board.
2. All participants were made aware of the nature and purpose of the study.
3. Participants were asked to thoroughly read and electronically sign an informed

consent. Given that the survey is Internet-based, consent was obtained by requesting potential participants to click the continue option if she agrees to participate in the study, and the exit option if she decides to no longer participate in the study.

4. I informed participants that their participation was voluntary and they had the right to withdraw at any time without consequence.
5. I did not obtain participants' personal identifying information. This ensured that the anonymity of the participants remained intact.
6. Any data obtained from the surveys is kept confidential and in a secure program by the researcher.
7. I only obtained results from the states that allow psychologists to practice telepsychology.
8. Per Walden University guidelines, collected data is kept for a period of 5 years and then deleted or destroyed.

Summary

Chapter 3 presented an overview of the research method and design of this study. Chapter 3 entailed the purpose, the research questions, and instruments employed in this study. Chapter 3 also included the procedures and study design, the sample and the sample size, data analysis, and data collection. Chapter 4 provides the results of the data analysis. In Chapter 5, I summarize and address the outcome of the study, with recommendations for further research.

Chapter 4: Results

The purpose of this study was to investigate the influence of method of delivery (videoconferencing or in-person) for CBT on patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships among women ages 40 to 65 with major depressive disorder (MDD). To answer the three research questions, I examined differences in patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships between treatment delivery methods.

This chapter begins with a preanalysis data screen to identify incomplete responses and outliers. I calculated descriptive statistics of the sample to identify trends in demographic traits and the variables of interest. I also conducted a reliability analysis on the three scales using Cronbach's alpha. To answer the research questions, I conducted a series of independent sample *t* tests and Mann-Whitney U tests to examine differences in clinical experience, satisfaction, and therapeutic relationship between treatment delivery methods. I evaluated statistical significance for the tests at the generally accepted alpha level of .05.

Data Collection

Pre-Analysis Data Cleaning

A total of 301 participants responded to the online survey. Prior to analysis, I examined the data for survey completion and outlying responses. A total of 34 removals were made because of participants not responding to an entire portion of the survey, such as the TCQ, STTS-R, and TBS. Participants were made aware that they would be disqualified, and their survey data omitted from the study, if they did not meet all of the participant requirements. Standardized values for patient perceptions of the clinical

experience, patient satisfaction, and therapeutic relationships were created and examined for values that fell at least ± 3.29 standard deviations away from the mean (Tabachnick & Fidell, 2012). I removed two low outliers for perceptions of clinical experience. One low outlier was removed for therapeutic relationship. The final sample consisted of 264 participants.

Descriptive Statistics

Three self-administered psychometric surveys (TCQ, STTS-R, and TBS) and a self-administered demographic questionnaire were made available via Survey Monkey to women ages 40 to 65 diagnosed with MDD who received CBT psychotherapy from a psychologist either in person or via videoconferencing for a minimum of 6 months in the last 16 months. Data collection began on June 16, 2016 and ended on July 5, 2016. Participants were invited to participate voluntarily in the study through Facebook, LinkedIn, Instagram, Kik messenger, and Snapchat. A notification announcing the study was posted on these social websites. The invitation directed prospective participants to Survey Monkey. The Survey Monkey system allowed participants to continue with the survey only if they agreed that they met the participation criteria. Individuals who did not meet all of the participant requirements were disqualified and data were omitted. In addition, the Survey Monkey system allowed participants to continue with the survey only when they reported that they had received treatment from a psychologist located in a state they were residing. Upon completion of the data collection, all data were downloaded, maintained in a secure file, and available to the researcher. A total of 301 participants responded to the online survey. A total of 34 removals were made because of participants not responding to an entire portion of the survey. Two low outliers for

perceptions of clinical experience and one low outlier for therapeutic relationship were removed, which provided the final sample of 264 participants.

Due to the age range, I could not report on how many participants were of what age. However, the majority of participants were White (*n* = 127, 48.1%), had obtained at least a bachelor's degree (*n* = 141, 53.4%), and were married (*n* = 173, 65.5%). Most participants were either retired (*n* = 116, 43.9%) or were employed through the military (*n* = 80, 30.3%). Most participants were not experiencing financial hardship (*n* = 210, 79.5%). Several participants were physically impaired or had difficulties walking (*n* = 102, 38.6%). The choice of treatment delivery method was approximately even in distribution: face to face (*n* = 128, 48.5%) and videoconferencing (*n* = 136, 51.5%). Participants indicated their most helpful techniques to be homework (*n* = 119, 45.1%), problem solving (*n* = 59, 22.3%), and writing (*n* = 39, 14.8%). Most participants received cognitive behavioral therapy via videoconferencing in California (*n* = 57, 21.6%), Texas (*n* = 14, 5.3%), Arizona (*n* = 9, 3.4%), New York (*n* = 8, 3.0%), and Pennsylvania (*n* = 8, 3.0%). Table 1 presents the frequencies and percentages of the demographic characteristics.

Table 1

Frequencies and Percentages of Demographics (*N* = 264)

Variable	*n*	%
Race/Ethnicity		
American Indian or Alaskan Native	2	0.8
Asian/Pacific Islander	19	7.2
Black or African American	25	9.5
Hispanic or Latino	49	18.6
White/Caucasian	127	48.1
Other	42	15.9
Highest level of education completed		
Some high school, no diploma	1	0.4
High school graduate or equivalent	1	0.4
Some college, no degree	17	6.4
Trade, technical, or vocational training	11	4.2
Associate's degree	46	17.4
Bachelor's degree	141	53.4
Master's degree	35	13.3
Professional degree	12	4.5
Marital status		
Married	173	65.5
Not married	89	33.7
No response	2	0.8
Employment		
Employed for wages	5	1.9
Self-employed	37	14.0
Out of work and looking for work	2	0.8
Out of work but not currently looking for work	5	1.9
Homemaker	19	7.2
Military	80	30.3
Retired	116	43.9
Experiencing financial hardship		
Yes	52	19.7
No	210	79.5
No response	2	0.8
Physically impaired or have difficulties walking?		
Yes	102	38.6
No	162	61.4

Table 1 Continued

Variable	*n*	%
Treatment delivery method		
Face to face	128	48.5
Videoconferencing	136	51.5
Most helpful technique		
Homework/assignments	119	45.1
Problem solving/resolution	59	22.3
Talking	5	1.9
Writing/journaling	39	14.8
Roleplay	6	2.3
Multiple Methods	36	13.6
State that videoconferencing was received		
Did not receive videoconferencing	128	48.5
Alaska	1	0.4
Arkansas	1	0.4
Arizona	9	3.4
California	57	21.6
Colorado	1	0.4
Connecticut	1	0.4
Florida	1	0.4
Hawaii	1	0.4
Iowa	1	0.4
Illinois	4	1.5
Kentucky	2	0.8
Louisiana	3	1.1
Maryland	1	0.4
Maine	4	1.5
Mississippi	1	0.4
Nebraska	2	0.8
New Jersey	3	1.1
New Mexico	2	0.8
Nevada	1	0.4
New York	8	3.0
Oklahoma	1	0.4
Oregon	2	0.8
Pennsylvania	8	3.0
South Dakota	1	0.4
Texas	14	5.3
Utah	1	0.4
Vermont	4	1.5
Wyoming	1	0.4

Note. Due to rounding error, all percentages may not sum to 100%.

I generated composite scores for perception of clinical experience, patient satisfaction, and therapeutic relationship. Perception of clinical experience was generated through an average of six 7-point Likert-scaled items, ranging from 1 (never) to 7 (every time). Patient satisfaction was generated through an average of 13 five-point Likert-scaled items, ranging from 1 (strongly disagree) to 5 (strongly agree). Therapeutic relationship was generated through an average of 50 three-point Likert-scaled items, ranging from 1 (do not agree at all) to 3 (completely agree).

Clinical experience scores ranged from 3.33 to 7.00, with $M = 5.60$ and $SD = 0.64$. Satisfaction scores ranged from 3.00 to 5.00, with $M = 4.13$ and $SD = 0.41$. Therapeutic relationship scores ranged from 2.16 to 2.96, with $M = 2.70$ and $SD = 0.17$. Table 2 presents the descriptive statistics for the continuous variables.

Table 2

Means and Standard Deviations for Continuous Variables

Variable	Min.	Max.	*M*	*SD*
Clinical experience	3.33	7.00	5.60	0.64
Satisfaction	3.00	5.00	4.13	0.41
Therapeutic relationship	2.16	2.96	2.70	0.17

Reliability

I used Cronbach's alpha to assess the reliability of the composite scores. Cronbach's alpha coefficients were evaluated using the guidelines by George and Mallery (2016): $\alpha \geq .9$ Excellent, $\alpha \geq .8$ Good, $\alpha \geq .7$ Acceptable, $\alpha \geq .6$ Questionable, $\alpha \geq .5$ Poor, and $\alpha < .5$ Unacceptable. The results for perception of clinical experience ($\alpha =$

.83) and therapeutic relationship (α = .89) were good. Results for patient satisfaction were excellent (α = .91). Table 3 presents the Cronbach's alpha for each variable.

Table 3

Cronbach's Alpha Reliability for Composite Scores

Composite Score	α	No. of items
Perception of clinical experience	.83	6
Patient satisfaction	.91	13
Therapeutic relationship	.89	50

Data Analysis

Research Question 1

To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate patient perceptions of the clinical experience, as measured by the Treatment Credibility Questionnaire (TCQ)?

$H_0$1: There is no difference in patient perceptions of the clinical experience between CBT via videoconferencing and CBT delivered in person.

H_A1: CBT via videoconferencing produces better patient perceptions of the clinical experience compared to CBT delivered in person.

To answer Research Question 1, I conducted an independent sample *t* test to assess for differences in patient perceptions of clinical experience between treatment delivery methods. An independent sample *t* test is an appropriate statistical analysis when assessing for differences in a continuous dependent variable between two groups (Howell, 2013). In this analysis, the independent grouping variable corresponded to

treatment delivery method. The continuous dependent variable corresponded to perceptions of clinical experience.

Assumptions for independent sample *t* test. Prior to analysis, I assessed the assumptions of normality and homogeneity of variance. Examination of normality involved use of the Kolmogorov-Smirnov (KS) test. The KS test was significant ($p < .001$), which indicated that the data for clinical experience were not normally distributed. However, the independent sample *t* test is a robust statistical analysis for nonnormality, especially when the sample sizes are large ($n > 50$; Stevens, 2009). Levene's test was used to test the homogeneity of variance. Results of Levene's test were not significant ($p = .194$), indicating that the variance in perceptions of clinical experience was approximately equal between the two groups. I used the equal variances assumed test statistic for interpretation of the independent sample *t* test. Because of the normality assumption not being met, the Mann-Whitney U Test was used as a nonparametric follow-up to the independent sample *t* test.

Independent sample *t*-test results. The results of the independent sample *t* test were significant, $t(262) = -3.46$, $p = .001$, indicating that significant differences existed in perceptions of clinical experience between face-to-face and videoconferencing delivery methods. Participants using the videoconferencing method ($M = 5.73$) had higher average clinical experience scores in comparison to participants using the face-to-face method ($M = 5.47$). Table 4 presents the results of the independent sample *t* test.

Table 4

Differences in Clinical Experience Between Treatment Delivery Methods (Independent Sample t test)

Variable	Treatment Delivery Method					
	Face-to-face (n = 128)		Videoconferencing (n = 136)			
	M	*SD*	*M*	*SD*	*t*(262)	*p*
Clinical experience	5.47	0.67	5.73	0.58	-3.46	.001

Mann-Whitney U test results. A Mann-Whitney U test is a nonparametric alternative to the independent sample *t* test and is frequently used when the assumptions for an independent sample *t* test are not met (Leech, Barrett, & Morgan, 2012). The results of the Mann-Whitney U test confirmed this trend (Z = -2.92, p =.003), indicating that significant differences existed in clinical experience scores between treatment delivery methods. The null hypothesis ($H_0$1) for Research Question 1 was rejected. Table 5 presents the results of the Mann-Whitney U test.

Table 5

Differences in Clinical Experience Between Treatment Delivery Methods (Mann-Whitney U Test)

Variable	Treatment Delivery Method			
	Face-to-face (n = 128)	Videoconferencing (n = 136)		
	Mean Rank	Mean Rank	*Z*	*p*
Clinical experience	118.44	145.74	-2.92	.003

Research Question 2

To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate patient satisfaction, as measured by the Therapy and Therapists Scale (STTS-R)?

$H_0$2: There is no difference in patient satisfaction between CBT via videoconferencing and CBT delivered in person.

H_A2: CBT via videoconferencing produces higher patient satisfaction compared to CBT delivered in person.

To address Research Question 2, I conducted an independent sample *t* test to assess for differences in patient satisfaction between treatment delivery methods. In this analysis, the independent grouping variable corresponds to treatment delivery method. The continuous dependent variable corresponds to patient satisfaction.

Assumptions for independent sample *t* test. Prior to analysis, I assessed the assumptions of normality and homogeneity of variance. Examination of normality involved use of the KS test. The KS test was significant ($p < .001$), which indicates that the data for patient satisfaction were not normally distributed. However, the independent sample *t* test is a robust statistical analysis for non-normality, especially when the sample sizes are large ($n > 50$; Stevens, 2009). Levene's test was used to test the homogeneity of variance statistical assumption. Results of Levene's test were not significant ($p = .773$), suggesting that the variance in patient satisfaction was approximately equal between the two groups. I used the equal variances assumed test statistic for interpretation of the independent sample *t* test. Because of the normality assumption not being met, the Mann-Whitney U Test was used as a non-parametric follow-up to the independent sample *t* test.

Independent sample *t*-test results. The results of the independent sample *t* test were significant, $t(262) = -5.93$, $p < .001$, suggesting that significant differences existed in patient satisfaction between face-to-face and videoconferencing delivery methods. Participants using the videoconferencing method ($M = 4.27$) had higher average satisfaction scores in comparison to participants using the face-to-face method ($M = 3.99$). Table 6 presents the results of the independent sample *t* test.

Table 6

Differences in Satisfaction Between Treatment Delivery Methods (Independent Sample t test)

Variable	Treatment Delivery Method					
	Face-to-face (n = 128)		Videoconferencing (n = 136)			
	M	*SD*	*M*	*SD*	*t*(262)	*p*
Satisfaction	3.99	0.40	4.27	0.37	-5.93	< .001

Mann-Whitney U test results. The results of the Mann-Whitney U test confirmed this trend ($Z = -5.73$, $p < .001$), suggesting that significant differences existed in satisfaction scores between treatment delivery methods. The null hypothesis ($H_0 2$) for Research Question 2 was rejected. Table 7 presents the results of the Mann-Whitney U test.

Table 7

Differences in Satisfaction Between Treatment Delivery Methods (Mann-Whitney U Test)

Variable	Treatment Delivery Method			
	Face-to-face (n = 128) Mean Rank	Videoconferencing (n = 136) Mean Rank	Z	p
Satisfaction	104.83	158.54	-5.73	<.001

Research Question 3

To what extent, if any, does CBT treatment delivery method (i.e., videoconferencing and in-person) differentiate therapeutic relationships, as measured by the Therapeutic Bond Scales (TBS)?

$H_0$3: There is no difference in therapeutic relationship between CBT via videoconferencing and CBT delivered in person.

H_A3: CBT via videoconferencing produces a better therapeutic relationship compared to CBT delivered in person.

To address Research Question 3, I conducted an independent sample *t* test w to assess for differences in therapeutic relationship between treatment delivery methods. In this analysis, the independent grouping variable corresponds to treatment delivery method. The continuous dependent variable corresponds to therapeutic relationship.

Assumptions for independent sample *t* test. Prior to analysis, I assessed the assumptions of normality and homogeneity of variance. Examination of normality involved use of the KS test. The KS test was significant ($p < .001$), which indicates that the data for therapeutic relationship were not normally distributed. However, the

independent sample *t* test is a robust statistical analysis for non-normality, especially when the sample sizes are large ($n > 50$; Stevens, 2009). Levene's test was used to test the homogeneity of variance statistical assumption. Results of Levene's test were not significant ($p = .689$), suggesting that the variance in therapeutic relationship was approximately equal between the two groups. I used the equal variances assumed test statistic for interpretation of the independent sample *t* test. Because of the normality assumption not being met, the Mann-Whitney U Test was used as a non-parametric follow-up to the independent sample *t* test.

Independent sample *t*-test results. The results of the independent sample *t* test were significant, $t(262) = -3.09$, $p = .002$, suggesting that significant differences existed in therapeutic relationship between face-to-face and videoconferencing delivery methods. Participants using the videoconferencing method ($M = 2.74$) had higher average therapeutic relationship scores in comparison to participants using the face-to-face method ($M = 2.67$). Table 8 presents the results of the independent sample *t* test.

Table 8

Differences in Therapeutic Relationship Between Treatment Delivery Methods (Independent Sample t test)

Variable	Treatment Delivery Method					
	Face-to-face ($n = 128$)		Videoconferencing ($n = 136$)			
	M	*SD*	*M*	*SD*	*t*(262)	*p*
Therapeutic relationship	2.67	0.17	2.74	0.17	-3.09	.002

Mann-Whitney U test results. The results of the Mann-Whitney U test confirmed this trend (Z = -3.41, p = .001), suggesting that significant differences existed in therapeutic relationship scores between treatment delivery methods. The null hypothesis ($H_0$3) for Research Question 3 was rejected. Table 9 presents the results of the Mann-Whitney U test.

Table 9

Differences in Therapeutic Relationship Between Treatment Delivery Methods (Mann-Whitney U Test)

Variable	Treatment Delivery Method			
	Face-to-face (n = 128) Mean Rank	Videoconferencing (n = 136) Mean Rank	Z	p
Therapeutic relationship	115.98	148.05	-3.41	.001

Chapter Summary

The purpose of this study was to investigate the influence of method of delivery (i.e., videoconferencing and in-person) for CBT on patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships among women age 40–65. This chapter began with a pre-analysis data screen and a description of the sample. Reliability for three scales met the acceptable threshold ($\alpha \geq .80$).

The results for the independent sample t test and Mann-Whitney U test for Research Question 1 indicated that significant differences existed in clinical experience scores between treatment delivery methods. Participants using the videoconferencing method had higher average clinical experience scores in comparison to participants using the face-to-face method. The null hypothesis ($H_0$1) was rejected.

The results for the independent sample *t* test and Mann-Whitney U test for Research Question 2 indicated that significant differences existed in patient satisfaction scores between treatment delivery methods. Participants using the videoconferencing method had higher average patient satisfaction scores in comparison to participants using the face-to-face method. The null hypothesis ($H_0$2) was rejected.

The results for the independent sample *t* test and Mann-Whitney U test for Research Question 3 indicated that significant differences existed in therapeutic relationship scores between treatment delivery methods. Participants using the videoconferencing method had higher average therapeutic relationship scores in comparison to participants using the face-to-face method. The null hypothesis ($H_0$3) was rejected.

Chapter 5 further presents the results, interpretations, and implications for social change. Additionally, in the next chapter I further discuss these findings and explore how they relate to the relevant literature. Chapter 5 details the strengths, limitations, and implications of the study. Chapter 5 concludes with suggestions for the future directions of research and a summary of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to investigate the influence of method of delivery (i.e., videoconferencing and in-person) for CBT on patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships among women ages 40 to 65 with major depressive disorder (MDD). I investigated whether differences existed in the dependent variables (patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationships) related to the method of delivery of treatment (videoconferencing versus in-person). Patients' perceptions of their clinical experience can help researchers and practitioners understand how patients feel about the credibility and benefits of their therapy, which can lead to better understanding the methods of therapy delivery patients prefer (Smith et al., 2013). Delivering CBT via technology can be an effective and reasonable alternative to face-to-face psychological services (Stubbings, 2012). Alternatives to face-to-face treatment can be significant for particular patient populations, including individuals living in small communities and rural areas who do not have easy access to psychotherapy (Thomas et al., 2012) and individuals with limited mobility, such as those with disabilities (Alfano & Beidel, 2014; Backhaus et al., 2012). Rees and Maclaine (2015) observed, however, that most researchers studying CBT in combination with videoconferencing had not focused on MDD in adult women.

Limited research exists on adult women's preference for psychotherapeutic treatment via video technology. This research and its significance were justified by the lack of empirical data in the literature concerning adult depressed women's perceptions of their clinical experience when receiving CBT treatment via videoconferencing technology. The quantitative nonexperimental online survey design was used to

determine adult depressed women's preference for receiving psychotherapy via videoconferencing or face to face. The objective of this study was to determine the relationship between patients' levels of satisfaction, patients' clinical experience, and therapeutic relationship when treatment was delivered through videoconferencing and face-to-face therapy.

Chapter 5 contains a summary of the findings and an interpretation of the findings in relation to previous research. This chapter also provides a discussion regarding how this research adds to the academic literature on adult depressed women's preference for treatment delivery. Additionally, I address the study limitations and strengths in this chapter. The chapter concludes with implications for positive social change and recommendations for future researchers.

Summary of Results

Three research questions guided this study. The first question addressed patient perception of the clinical experience, which entailed CBT treatment delivery method (i.e., videoconferencing and in-person). The second question addressed patient satisfaction with CBT treatment delivery method. The third question addressed therapeutic relationship, which included CBT treatment delivery method. Results indicated that statistically significant differences existed in patient perceptions of the clinical experience, patient satisfaction, and therapeutic relationship scores of participants receiving CBT in person and through videoconference therapy.

The findings indicated that the choice of treatment delivery method was approximately even in distribution: face-to-face were 48.5% and videoconferencing were 51.5%. Participants indicated their most helpful techniques to be homework, problem

solving, and writing. The findings also showed that participants believed that CBT via videoconferencing produced better patient perceptions, higher patient satisfaction, and better therapeutic relationship of the clinical experience compared to CBT delivered in person.

Interpretation of the Findings

Patient Perceptions of the Clinical Experience

Participants using the videoconferencing method had higher average clinical experience scores in comparison to participants using the face-to-face method; the null hypothesis ($H_0$1) for Research Question 1 was rejected. Participants believed that CBT via videoconferencing produced better patient perceptions of the clinical experience compared to CBT delivered in person. Patients' perceptions of their clinical experiences are important because how patients perceive treatment can influence not only the choice of therapy type but patient outcomes as well (Smith et al., 2013). Adult depressed women preferred videoconferencing over face-to-face treatment, suggesting that this population viewed videoconferencing not only as more convenient but more credible than face-to-face treatment. If credibility and preference can lead to desirable patient outcomes, practitioners in psychology might increase their efforts to offer convenient online treatment to adult depressed women. In addition, researchers might continue to study the treatment preference of other depressed populations as well. The finding also suggests that online treatment delivery may be an increasingly effective delivery option for the future.

This finding supports previous research. For example, Simpson et al. (2005) stated that it is not uncommon for patients to report positive clinical experience when

receiving therapy via video because remote therapy helps some patients overcome nervousness and self-consciousness as opposed to receiving therapy in person. Sharp et al. (2011) also indicated that remote therapy often encourages therapists to pay extra attention to patients' needs and concerns. Luxton et al. (2014) and Myers and Turvey (2012) explained that remote psychotherapy often increases mental health professionals' awareness of patients' needs. Mental health providers who provide remote psychotherapy must be aware of the legal aspects of videoconferencing, such as state laws, licensure requirements, and possible legal setbacks that may arise when providing psychotherapy remotely (Coon & Mitterer, 2012; Luxton et al., 2014; Street et al., 2013). Because therapists who provide their services remotely need to be attentive to legal requirements and professional guidelines, this increased attentiveness may result in patients obtaining or perceiving a more positive clinical experience than they experience in face-to-face delivery.

The findings in regards to most participants who received cognitive behavioral therapy via videoconferencing in California 21.6%, Texas 5.3%, Arizona 3.4%, New York 3.0%, and Pennsylvania 3.0% were consistent with previous research studies (Hincapie, Warholak, & Armstrong, 2011; Rhoads, Bankston, Roach, Jahnke, & Roth, 2014; Weinstein et al., 2014;). Hincapie et al. (2011) explained that over the last 16 years in Arizona, telehealth professionals provided over one million therapeutic treatments via technology. Weinstein et al. (2014) explained that telehealth, including treatment via videoconferencing, continue to be in demand, especially in states such as Arizona, California, New York, and Texas. Rhoads et al. (2014) explained that telehealth services that entail videoconferencing are not only desired but also urgently needed in rural

Pennsylvania. Rhoads et al. further explained that people in rural Pennsylvania lack face-to-face access to mental health providers, and often the alternative is to seek therapeutic services through videoconferencing.

Patient Satisfaction

Participants using the videoconferencing method had higher average patient satisfaction scores in comparison to participants using the face-to-face method; the null hypothesis ($H_0$2) for Research Question 2 was rejected. Not only did adult depressed women view treatment via videoconferencing as credible and prefer it over face-to-face delivery, but they had higher patient satisfaction than using face-to-face methods. Patient satisfaction is also important to patient outcomes (Dustan & Tooth, 2012). The findings from RQ1 and RQ2 are strong indicators that videoconferencing and online therapy are becoming preferred delivery options, and potentially more effective options, than face-to-face treatment. Psychologists might prepare for increased online treatment for adult depressed women and potentially other populations as well.

This finding is consistent with research by Sharp et al. (2011) and Stubbings (2012) who found high patient satisfaction with therapy delivery through videoconferencing. Sharp et al. further explained that many patients preferred videoconferencing because of its accessibility, flexibility, and effectiveness. Stubbings asserted that patients who have social phobias or fear one-on-one intimacy with a therapist are likely to experience satisfaction with alternative options of treatment. Research revealed that patients who experience difficulty with mobility and have the option for alternative treatment are more inclined to therapeutic experience and often are highly satisfied with the treatment (Backhaus et al., 2012; Dustan & Tooth, 2012; Steel et

al., 2011; Stubbings, 2012). Similarly, researchers indicated that videoconferencing represented not only a feasible and acceptable form of therapy delivery, but that patients were also highly satisfied because of their providers' attentiveness and convenience of service (Backhaus et al., 2012; King et al., 2014; Steel et al., 2011). Additionally, Dustan and Tooth (2012) stated that receiving therapy remotely is easier than it was in the past because user-friendly technology no longer requires patients to be technologically savvy to operate computer video systems.

Therapeutic Relationship

Participants using the videoconferencing method had higher average therapeutic relationship scores in comparison to participants using the face-to-face method; the null hypothesis ($H_0$3) for Research Question 3 was rejected. The analysis in the present study revealed a significant positive therapeutic relationship between a patient and a mental health professional when CBT was delivered via videoconferencing. Another important component of patient outcome is the therapeutic relationship established between a patient and a mental health professional. Although online delivery methods may lack face-to-face intimacy, online delivery methods can still involve strong therapeutic relationships between patients and providers (Wrzesien et al., 2011). Combined with the findings of RQ1 and RQ2, the findings that adult depressed women had higher therapeutic relationship scores for videoconferencing in comparison to face-to-face methods indicates that videoconferencing methods are forms of treatment based on patient preference, satisfaction, and patient-provider relationship that may lead to desirable patient outcomes. Psychologists' willingness to offer online options for

treatment delivery may be key to providing convenient, satisfying, and effective treatment to adult depressed women, as well as to other depressed populations.

This finding supports the research of Backhaus et al. (2012), Stubbings (2012), and King et al. (2014) who revealed that patients who receive remote psychotherapy are capable of developing a positive therapeutic relationship. Wiarda et al. (2014) explained that developing a positive therapeutic bond is highly possible via technology, and often depends on the mental health provider's ability and professional awareness. Golds and Glueck (2016) explained that if the patient and a therapist are interested in building a rapport and establishing a therapeutic relationship, then the influence of technology and the use of equipment is minimal. Furthermore, Christensen et al. (2014), Wiarda et al. (2014), and Wrzesien et al. (2011) pointed out that developing a therapeutic relationship with a patient via video is no different than in person. However, considering that remote therapy may require more attentiveness and guidance from a therapist, it is likely that the therapist will try to increase his or her awareness, understanding, and compassion (Nevanperä, Keränen, Ukkola, & Laitinen, 2015).

The results of this study demonstrate that most participants preferred videoconferencing CBT treatment versus in-person CBT treatment. These results were consistent with previous research (Andersson et al., 2014; Gainsbury & Blaszczynski, 2011; Hedman et al., 2011; Simpson & Reid, 2014), which indicated that videoconferencing offers accessibility to patients with physical impairments, such as quadriplegia, or individuals who have severe back and leg pains, which lead to limited mobility. Many of the participants in the present study were employed through the military. Issues related to relocation and deployment may explain why some participants

may have preferred remote psychotherapy to face-to-face psychotherapy and had a significant positive therapeutic relationship with their mental health professional. Egede et al. (2015), Jacobs and Saunders (2014), Luxton et al. (2015), and Morland et al. (2015) explained that the U.S. military has been supportive of technological advances such as psychotherapy via videoconferencing to help active personnel and veterans overcome psychological disorders. Researchers further pointed out that many military personnel and veterans prefer to receive remote psychotherapy because it enables them to be discreet and in the comfort of their home or a location of their choice (Grubbs et al., 2015; Shore et al., 2014; Strachan et al., 2015). Yuen et al. (2015) and Zivin et al. (2015) explained that many military personnel and veterans prefer remote psychotherapy vs. face-to-face psychotherapy to treat depression. Researchers further revealed that using videoconferencing technology to treat depression and other psychological disorders can provide an effective form of treatment delivery for active duty military personnel and veterans (Luxton et al., 2015; Morland et al., 2015; Shore et al., 2014).

Many participants in the current study were retired, which may have played an important role in the preferred mode of psychotherapy and therapeutic relationships with their mental health professional. For reasons related to age or infirmity, retired individuals may not be able to travel easily to face-to-face therapy sessions, which may explain why some participants may have preferred remote psychotherapy to face-to-face psychotherapy and had a significant positive therapeutic relationship with their mental health professional. However, individuals born before the digital age are typically less comfortable and less proficient with online technology than younger individuals who were born during the digital age (Silverman, 2013).

Working Alliance Theory

The working alliance theory was the theoretical foundation for this study (Bordin, 1994). The working alliance theory suggests that mental health professionals must establish a positive working relationship with the patient to provide appropriate care and reach successful therapeutic outcomes (Barber et al., 2009; Bordin, 1994). The working alliance theory was built on three essential elements: (a) the connection between the patient and the mental health professional, (b) the agreement on the mental health provider's suggestions, and (c) the mutual understanding and agreement on therapeutic outcomes and potential goals. A mental health professional who exudes patience, empathy, compassion, understanding, and objectivity is likely to develop a positive working alliance with the patient (Barber et al., 2009; Huang et al., 2013) A therapeutic alliance is one of the fundamental mechanisms of change (Wampold, 2001). If the mental health provider does not establish a positive therapeutic bond from the first session, it is probable that the patient may not return to the next scheduled session (Huang et al., 2013).

Research Question 3 addressed the therapeutic relationship between the CBT treatment delivery method (i.e., videoconferencing and in-person) measured by the TBS. The results showed that participants using the videoconferencing method had higher average therapeutic relationship scores in comparison to participants using the face-to-face method. Ducat and Kumar (2015) explained that working alliances via videoconferencing exist and have been found to provide favorable therapy outcomes. Similarly, Huang et al. (2013) and Rini et al. (2014) explained that working alliance is possible via technology, especially when a mental health professional develops a bond

with the patient and both parties agree on the goals of therapy. These findings further strengthen the argument that CBT via videoconferencing produces a better therapeutic relationship compared to CBT delivered in person. Ducat and Kumar (2015) pointed out that working alliance is an essential part of psychotherapy and could be generated through collaboration in therapy, agreement on therapy objectives, and understanding the patient's needs. Stiles-Shields et al. (2014) and Tyron (2014) explained that without working alliance, a disconnect exists between a mental health provider and a therapist, which could lead to unsuccessful therapy outcomes. As Bordin (1994) indicated in research on working alliance, therapeutic bond is an essential element for adequate care and successful treatment outcomes.

Limitations of the Study

This study had several limitations. The first limitation was that a majority of participants were contacted through Facebook, LinkedIn, Instagram, Kik messenger, and Snapchat. A selection bias may have occurred because this was an online study, which limited the number of surveys obtained because potential participants may not have had access to the Internet, and may not have had a Facebook, LinkedIn, Instagram, Kik messenger, or Snapchat account. This data collection method may have limited opportunities to participate in the study for individuals who were not comfortable with or proficient in using online technology. Online data collection may have drawn people who were more comfortable engaging in online activities than individuals who were not. Consequently, collecting data through in-person surveys may have yielded different results. Researchers explained that in some rural areas, adult populations lacked online access and likely felt uncomfortable using online therapy services (Allen et al., 2014;

Gilroy et al., 2014; Popplewell et al., 2014; Thomas et al., 2012). Additionally, self-selection was a limitation because it allowed individuals to choose to participate, which may have led to systematic differences in participation than individuals chosen from the population at random.

Furthermore, the study relied on participants' self-reports. Stone et al. (1999) explained that there are several limitations to self-report data, entailing the degree of bias that enters into the participant responses, known as self-report bias. Additionally, given that data collected had no face-to-face interaction, it could have led to incorrect or missing information. For instance, I could not have detected participants who lacked proficiency with the English language or if they were mentally lucid, or not, or under the influence of drugs or alcohol. I could also not have detected if participants received treatment from a psychologist and not from a clinician who was a counselor or a social worker.

Another limitation was the emphasis on the self-described CBT therapy model. Although a variety of CBT methods have proven to be effective in the treatment of depression (Kobak et al., 2015; Stubbings, 2012), this model automatically removed participants who received other forms of therapy to treat MDD. Another limitation was treatment delivered via videoconferencing. Even though videoconferencing offers flexibility and access to a mental health provider remotely, this therapy delivery is only accessible to a small minority of individuals. For instance, in states such as Iowa, Massachusetts, and Rhode Island do not have a reimbursement policy for telehealth services, and the District of Columbia does not provide any reimbursement for treatment via technology (Okoroh, et al., 2016). Individuals who reside in these states would have

to either seek private insurance providers or pay from their own financial funds.

Although videoconferencing decreased the technological concerns that have negatively influenced prior research, and is equivalent to the existing technology used by mental health professionals in the 21st century, psychotherapy via videoconferencing systems may not be accessible to individuals who are homebound or available to rural area residents. Therefore, the ability to generalize the outcome of this study to other systems that may be more accessible (i.e., online-based counseling, email, or by telephone) is limited. Self-selection bias might have occurred if some participants chose not to complete the survey because of the sensitive nature of the survey content. Empirical research that entails self-reporting processes is subject to limitations, which may influence the reliability of data collection (Ahern, 2015). The extent to which participants were truthful in their answers is uncertain. Social desirability might have influenced adult women's answers. Krumpal (2013) stated that social desirability bias may occur when participants feel the need to answer questions in a socially acceptable manner.

However, Anhern (2015) explained online anonymous surveys offer participants a sense of privacy that their identity is not revealed to the researcher, thus increasing the possibility of limiting social desirability bias. I could not control the testing environment, data privacy, or confirmation of who completed the survey because data collection occurred via the Internet. If participants completed the survey in a distracting environment, such as a local coffee shop or a restaurant, inaccurate reporting could have occurred. Participants might not have taken precaution to ensure their privacy when completing the survey via the Internet. The survey invitation link to the study was posted

on social websites and only included adult women, 40–65 years of age, diagnosed in the past or currently with MDD, and who received CBT in person or via videoconferencing for a minimum period of 6 months in the last 16 months from a psychologist. However, I had no way of verifying that the contacted participant was the individual who completed the survey.

Another limitation was that participants had to meet age specific criteria and had to have CBT for a minimum period of 6 months in the last 16 months from a psychologist. Joiner et al. (2014) and Smolderen et al. (2015) explained that many young women have experienced depressive symptoms and have been diagnosed with MDD More participants may have answered the survey if they did not have to meet the age criteria. Furthermore, most CBT treatments are short-term, thus the study could have had more individuals respond to the survey if the time frame was less than 6 months. Demographic variables were examined in conjunction with adult women's clinical experience, treatment satisfaction, and therapeutic relationship between CBT videoconference-based treatment and in-person treatment delivery. These variables included ethnic identity, education, marital status, employment, financial, and physical mobility status. However, I might not have accounted for other factors that in this study, influencing the generalizability of findings and affecting the validity of outcomes.

Although the sample size collected was larger (face-to-face, $n = 128$; videoconferencing, $n = 136$) than initially anticipated (face-to-face, $n = 64$; videoconferencing, $n = 64$), it limited the generalizability of the findings, as the sample may not be representative of the larger population of adult women suffering from depression and who received CBT treatment. In addition, a larger sample size might have

provided better statistical analysis, adding to the generalizability of the study outcomes. Finally, this study only pertained to adult women between 40-65 years of age diagnosed with MDD; however, MDD seldom presents as an isolated illness. Comorbid issues often present with depressive symptomatology, and this restricted the ability to generalize the study's results to individuals with multifarious psychological disorders. Including only those who in the past or currently diagnosed with MDD limits the ability to generalize the results of this study to individuals experiencing other mental health related illnesses. Therefore, caution should be used when interpreting these data.

The demographic variables considered in this study were age, gender, race, education, marital status, economic status, employment status, as well as other variables (i.e., the state where patients received videoconference therapy, the state where videoconference therapists worked, the most helpful CBT techniques, and physical impairment status). Other factors not considered include religiosity, cultural factors, where patients reside, the influence of patients' depression, such as occupation, family, medical health, and the influence of psychotherapists' gender. Stubbings (2012) and Wemakor et al. (2014) suggested that relationships between demographic variables and therapy delivery exist. Furthermore, in some states' policies, telehealth applies to clinical services only, and phone, fax, and e-mail are excluded from the definition (Okoroh, et al., 2016). For this reason, every practitioner who wants to provide remote treatment delivery needs to be aware of state licensure requirements pertaining to treatment via technology, as well as any other state policies and regulations regarding telehealth.

Okoroh, et al. (2016) explained that as of 2015, 47 states allow live video therapy and Medicaid insurance to offer financial reimbursement. Although it is unknown in

which state the 128 participants received face-to-face CBT treatment, it is known that most participants who received CBT treatment via videoconferencing were from California, Texas, Arizona, New York, and Pennsylvania. The findings of this study also showed that majority of participants were either retired or were employed through the military. It is unknown what specific age participants were who were employed through the military; only the age range of participants was known, between 40-65 years of age. As described in Chapter 2, the barriers to a population seeing a mental health professional in person may entail stigma, lack of mobility, and physical disability (Langkamp, McManus, & Blakemore, 2015). Bozzelli and Beehr (2016) and Wagener et al. (2016) explained that many retired women with MDD experience mobility issues. Other barriers to adult women seeing a psychologist face-to-face may entail mental health related issues, such as social phobias and severe post-traumatic-stress disorder (PTSD), such as found in female combat veterans (Bonde et al., 2016; Haskell et al.,2010; Hoge et al., 2007). Haskell et al. (2010) explained that symptoms of depression were detected in female veterans who served in Iraq and Afghanistan.

Furthermore, the results of the study indicated that the most helpful CBT techniques were homework, problem solving, and writing. Kobak et al. (2015) and Stubbings (2012) explained that there are a variety of CBT methods that have proven to be effective in the treatment of depression. Participants in this study may not have been aware which CBT method was most helpful in their treatment and selected a method with which they were most familiar. The study also revealed that majority of participants were of White ethnicity. Research shows that videoconferencing is a new phenomenon for many individuals, especially those from Eastern and Middle Eastern countries, such as

Afghanistan, China, Japan, Kazakhstan, Macau, Magnolia, North Korea, Taiwan, Turkmenistan and others. (Lim, 2012; Dwairy, 2015; Kiesler, 2014). Individuals from Eastern culture are likely to refrain from using videoconferencing (Lim, 2012; Weaver et al., 2015). Research shows that women of color, especially those age 40-64 years, were more inclined to take antidepressant drugs than seek psychotherapeutic treatment, such as CBT (Mercier et al., 2015; Sheu et al., 2015; Withers et al. 2015). Results of the present study showed that a majority of participants were married. Mohammadi et al. (2014) and Kessler (2003) explained that women who are married and found themselves in traditional female roles were more inclined to experience negative moods and depression. The concern with telehealth is that many insurance providers are not willing to pay for treatment received via technology; therefore, patients are responsible for paying for their treatment and have to look for alternative financial assistance (Kramer et al., 2014; Newman et al., 2011). In this study, a majority of participants who were able to receive videoconferencing treatment reported that they had a bachelor's degree and did not experience financial hardship. Ultimately, individuals who experienced financial hardships would not be able to obtain services needed via video if insurance providers did not offer financial coverage.

Recommendations for Further Research

The present study provided insight regarding the psychotherapy delivery preference for adult depressed women. Future researchers should explore other presenting issues (e.g., anxiety, bipolar disorder, obsessive-compulsive disorder, post-traumatic stress disorder) to investigate the method of delivery (i.e., videoconferencing and in-person) on patient perceptions of the clinical experience, patient satisfaction, and

therapeutic relationships. In addition, it would also be beneficial to the field for researchers to explore the use of psychological assessments via videoconferencing (Alnemary et al., 2015; Germain et al., 2010; Luxton et al., 2015; Stubbings, 2012). Given the increased rate of depression in the U.S. and the world, further study is recommended regarding the delivery of psychotherapy services for adults with depression.

In recent studies, Chang, Sequeira, McCord, and Garney (2016) and Nelson and Patton (2016) showed promising results for the use of a videoconferencing system to deliver psychotherapeutic services (psychological interventions and educational) through university group counseling to students in rural Texas. The use of psychotherapeutic services via video suggests the demand and need for research in this area. Compared to socioeconomically privileged groups, underprivileged adults, particularly adult women, are more likely to develop symptoms of depression (Batterham, Christensen, & Calear, 2013). Therefore, future researchers should explore underprivileged depressed adult women's preference for psychotherapy delivery (i.e. videoconferencing vs. face-to-face). Future studies should not be limited only to adult women.

Hetrick et al. (2015) and Rawana and Morgan (2014) explained that many teenagers and young adults suffer from depression. Research indicates that many adolescents and young adults embrace social media, and it is more likely that younger people embrace technological advancements, including therapy via videoconferencing, than individuals 40 years old and older (Fietkiewicz, Lins, Baran, & Stock, 2016; Magsamen-Conrad, Dowd, Abuljadail, Alsulaiman, & Shareefi, 2015). A correlational study comparing preference delivery between depressed young women and adult women

may provide even further insight regarding women's preference for treatment delivery Research also indicates that many young and adult women have limited access to mobility due to physical disability (Choi et al., 2014; Eide et al., 2015; Popplewell et al., 2015). A correlational study comparing preference delivered between young and adult women with mobility difficulties could help to fill the gap in the literature regarding this area of study. Similarly, future researchers may want to explore other types of psychotherapy treatment models other than CBT. Information about videoconferencing and face-to-face preference delivery may have been different if the study included other types of treatment models. For this reason, I suggest that future research is not limited to one treatment model. Assessing the long-term benefits of videoconferencing though longitudinal studies is also important for determining the effectiveness of videoconferencing over time. Additionally, collecting qualitative data on videoconferencing might provide information on the experiences of individuals using this method that could supplement quantitative data and potentially lead to the identification of additional treatment factors. Finally, I also recommend research on the psychotherapy delivery preferences of other vulnerable populations, such as the elderly and depressed men.

Implications for Social Change

Despite the study's limitations, this research has potential to provide mental health professionals deeper insight into adult depressed women's cognitive behavioral therapy delivery preference, and further development of cognitive behavioral therapy via videoconferencing. This study contributes to the literature because of the feasibility of this approach to psychotherapy, and helps to fill the gap in the literature regarding this

area of study. Additionally, the findings of the study aid to bridge a gap between academia and the accessibility of the real-world practice. Participants who chose to participate in the study were aware that they were providing information for academic research. Nathan et al. (2000) explained that hypothetically, it may be appealing to speculate that participants who actively seek psychotherapy treatment in community settings are different from those who participate in a study, however, no evidence exists to validate this perspective. Therefore, it can be presumed that the information gathered from the study has applicability to real-world practice.

The results of the study also extend to the clinical relationship between a therapist and a patient. Kramer et al. (2014) and Luxton et al. (2014) explained that some therapists are reluctant to provide CBT via videoconference because of concerns regarding how treatment via video technology might negatively influence the working alliance. The findings of the present study revealed that the therapeutic relationship was possible more via videoconferencing than in-person treatment. Similarly, Dustan and Tooth (2012), Gainsbury and Blaszczynski (2011), Grubbs et al. (2015), Khatri et al. (2014), and Woolf et al. (2015) pointed out that establishing a therapeutic relationship with the patient through technology is possible, which was confirmed in several empirical studies. However, certain barriers pertain to the implementation of psychotherapy treatment via videoconferencing. One barrier relates to the dissemination of recent state and federal laws regarding telemental health services and current telemental health research (Dunstan & Tooth, 2012; Hertlein & Ancheta, 2014; National Telehealth Policy Resource Center, 2015). If therapists are not aware of the recent state and federal laws pertaining to remote therapy delivery via videoconferencing, then they are putting their

patients' health and confidentiality at risk. Similarly, if therapists are not aware of the current telehealth research developments, then they may have false beliefs about the applicability and utility of treatment via videoconference.

The results of this study demonstrated that a statistically significant variance exists between videoconference and in-person treatment outcomes relating to clinical experience, patient satisfaction, and therapeutic relationship. Because 136 adult women in this study indicated preference for CBT treatment via videoconferencing, therapists should be informed of these research findings and encourage the mental health community to offer professional seminars and workshops aimed at training and educating mental health providers. Another barrier relates to the training of therapists and providing them resources to learn as well as adapt to the new technology. Polinski et al. (2015) and Luxton et al. (2014) explained that some therapists are reluctant to provide treatment via video because of the assumption that it may be difficult to operate. On the other hand, if therapists were encouraged by their state boards to attend educational workshops pertaining to videoconference-based psychotherapy, mental health professionals will become more informed and their beliefs may change regarding the difficulty of operating videoconference technology.

The converging evidence indicates that psychotherapy via videoconference is better than no treatment, and this method of therapy is more convenient and has a farther reach than face-to-face psychotherapy services (Acierno et al., 2015; Khatri et al., 2014; Polinski et al., 2015; Richardson et al., 2009). Stubbings (2012) and May et al. (2001) explained that to overcome barriers to adopting new technologies, such as videoconferencing, awareness needs to be generated and increased though mental health

professional media. If mental health leaders adopt the new technology, other therapists are likely to be encouraged to use video-based psychotherapy in their practice. Major depressive disorder is a mental illness that is a national health concern. As explained in Chapter 2, MDD approximately affects 15 million people in the United States, and two-thirds of that population do not get help (Nami, 2009).

Therapists who employ using remote technology, such as videoconferencing, provide accessibility to patients who would not have access to seeing a mental health provider in person (Cartreine et al., 2010). The primary focus of this research was to explore adult depressed women's preference for CBT treatment delivery (i.e., face-to-face vs. videoconferencing). This study contributes to the literature on adult depressed women's positive clinical experiences, patient satisfaction, and therapeutic relationships when using videoconferencing. These findings may lead to positive social change by providing information for practitioners to modify their approaches and delivery options by offering technological delivery choices for the effective treatment of adult depressed women and other depressed patient populations. This study filled a gap in the literature by focusing on the use of videoconferencing as a means of treatment and management for adult depressed women, which I addressed by examining patients' perceptions of their clinical experiences. By contributing to the preexisting literature and filling the academic void, the results of this study contribute to the possible alleviation of treating women with depression who reside in rural areas, or lack mobility because of physical disability.

The implication for positive social change entails the possibility of improving the lives of adult women suffering from depression by providing an alternative option to receiving psychological services not otherwise available. This study may encourage

Walden students and other researchers to conduct further studies concerning the influence of therapy via videoconferencing with different populations. The results of the study may motivate the mental health community to offer alternative solutions to individuals who are geographically limited in seeing a therapist in-person. By successfully completing the study, I hope to reach a wider range of mental health leaders across the globe who can support the use of psychotherapy services via video in a real-world practice. Therapists who obtain insight from this study may see how beneficial videoconferencing can be for individuals who are physically or geographically limited in receiving face-to-face psychotherapy. By providing therapists insight regarding adult depressed women's preference for treatment delivery, the therapists may encourage insurance providers to offer financial coverage for videoconferencing. Additionally, online therapeutic services can reduce costs associated with travelling to face-to-face sessions (e.g., transportation, gas, parking; Acierno et al., 2015; Scott, Klech, Lewis, & Simons, 2015). These savings could be passed along to clients and insurance providers, potentially incentivizing insurance providers to offer coverage for therapy via videoconferencing. The study also has theoretical implications as well. The findings of the study confirm that working alliance theory is appropriate to help explain the importance of the positive working relationship between mental health professionals and patients in providing appropriate and effective care in reaching desirable therapeutic outcomes.

Recommendations for Action

As discussed in Chapter 2, approximately one in eight women suffer from MDD (WHO, 2008). Findings from previous studies revealed that psychotherapeutic treatment accessibility to individuals with physical disabilities, mental disabilities, and economic

constraints as well as those who live in rural areas are lacking (Allen et al., 2014; Gilroy et al., 2014; Groh, 2013, Kempen & Zijlstra, 2014; Popplewell et al., 2014; Thomas et al., 2012). According to Groh (2013) and Thomas et al. (2012), many women in rural areas experience depressive symptoms or are diagnosed with MDD but often opt for not obtaining psychotherapeutic treatment because the doctor's office is more than 60 miles away. Pradeepet et al. (2014) explained that many women in rural areas want to see a mental health professional but often cannot because of transportation difficulties and the extensive time it may take to reach a mental health provider's location. Insurance providers and policy makers need to expand the use of videoconferencing technology to include psychotherapeutic services, particularly in rural United States. The infrastructure is in place, and with necessary training, other psychologists and mental health providers may offer psychotherapy via videoconferencing technology. Expanding the use of psychotherapy delivered through video technology can provide better access to regulate and help manage patients' symptoms and diagnoses, especially in areas where psychological services are not otherwise available.

Conclusion

Therapy via videoconferencing is used for the delivery of a variety of psychotherapeutic services, including the treatment of PTSD (Rees & Maclaine, 2015); those living with chronic illness, such as cancer (Steel et al., 2011); anxiety (Théberge-Lapointe et al., 2015); eating disorders, and children with obsessive-compulsive disorder (Olatunji, et al., 2015). The results of this study demonstrate that out of 264 participants, 136 participants preferred therapy delivery via videoconferencing. The lack of research pertaining to women diagnosed with MDD and who receive CBT psychotherapy in

person or via videoconferencing justified the investigation of this study. The study responded to the recommendations of previous researchers, who have suggested further research to investigate adult depressed women's preferences for videoconference treatment versus face-to-face treatment. Consistent with previous research, exploring the psychotherapy delivery via videoconferencing, the results of this study demonstrated that CBT treatment of MDD delivered via videoconferencing plays an important role in patient's clinical experience. The findings of this study revealed that a statistically significant variance existed in clinical experience, patient satisfaction, and therapeutic relationship between the two treatment delivery methods (i.e., videoconferencing and in-person). The results of the study indicated that adult women favored CBT treatment delivery via videoconferencing over in-person treatment.

Study findings have implications for both the practice of psychology and social change in relation to the mental health of individuals. It is clear that the field of psychotherapy has been changed by advances in technology and the Internet. Individuals prefer videoconferencing treatment options and find them credible and satisfying as well. Consequently, to offer potentially effective treatment, practitioners should be prepared to offer an increasing array of technological-based treatment options. The study provides preliminary support for the preference of psychotherapeutic services delivered via videoconferencing. Given the increased rating for the clinical experience, patient satisfaction, and in therapeutic relationship for remote psychotherapy, researchers should further investigate therapy delivered through videoconferencing for use with adults who have difficulty with physical mobility and who reside in rural areas. Because of the lack of research pertaining to adult women's preference for CBT treatment delivery via

videoconferencing technology, this study broadened the understanding of adult depressed women's preference for CBT treatment via videoconferencing. The study also filled a gap in the literature regarding alternative options to face-to-face CBT treatment, and that videoconferencing is not only a convenient option for individuals who are unable to see a therapist in-person, but also represented a preferred choice by 51.5 % of participants in this study.

References

Abela, J. R., Hankin, B. L., Sheshko, D. M., Fishman, M. B., & Stolow, D. (2012). Multi-wave prospective examination of the stress-reactivity extension of response styles theory of depression in high-risk children and early adolescents. *Journal of Abnormal Child Psychology, 40*(2), 277–287. http://dx.doi.org/10.1007/s10802-011-9563-x

Acierno, R., Muzzy, W., & Hernandez-Tejada, M. (2015). *Innovative service delivery for secondary prevention of PTSD in at-risk OIF-OEF service men and women*. Charleston Research Inst Sc. Retrieved from http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA614427

Addis, M. E., Hatgis, C., Krasnow, A. D., Jacob, K., Bourne, L., & Mansfield, A. (2004). Treatment Credibility Questionnaire. *Psyctests.* doi:10.1037/t09839-000

Adler, G., Pritchett, L. R., Kauth, M. R., & Nadorff, D. (2014). A pilot project to improve access to telepsychotherapy at rural clinics. *Telemedicine and e-Health*, *20*(1), 83–85. doi:10.1089/tmj.2013.0085

Ahern, N. R. (2005). Using the Internet to conduct research. *Nurse Researcher, 13(2),* 55– 70. doi:10.7748/nr2005.10.13.2.55.c5968Albert, P. R. (2015). Why is depression more prevalent in women? *Journal of Psychiatry & Neuroscience: JPN*, *40*(4), 219. Retrieved from http://jpn.ca/

Alderson, S. L., Foy, R., Glidewell, L., & House, A. O. (2014). Patients understanding of depression associated with chronic physical illness: A qualitative study. *BMC Family Practice, 15*(37), 1–9. doi:10.1186/1471-2296-15-37

Alfano, C. A., & Beidel, D. C. (Eds.). (2014). *Comprehensive evidence based interventions for children and adolescents*. Hoboken, NJ: John Wiley & Sons.

Ali, A. (2015). Women's loss of self through antidepressants: The depression diagnosis as a form of social control. In M. C. McHugh & J. C. Chrisler (Eds.), *The wrong prescription for women: How medicine and media create a "need" for treatments, drugs, and surgery* (pp. 239–256). Santa Barbara, CA: ABC-CLIO.

Allen, H., Wright, B. J., Harding, H., & Broffman, L. (2014). The role of stigma in access to health care for the poor. *Milbank Quarterly, 92*(2), 289–318. http://dx.doi.org/10.1111/1468-0009.12059

Alnemary, F. M., Wallace, M., Symon, J. B., & Barry, L. M. (2015). Using international videoconferencing to provide staff training on functional behavioral assessment. *Behavioral Interventions, 30*(1), 73–86. doi:10.1002/bin.1403

Altemus, M., Sarvaiya, N., & Neill Epperson, C. (2014). Sex differences in anxiety and depression clinical perspectives. *Frontiers in Neuroendocrinology*. Retrieved from http://www.sciencedirect.com/science/article/pii/S009130221400051X

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM 5.* Arlington, VA: Author.

American Psychological Association. (2010). *American Psychological Association ethical principles of psychologists and code of conduct.* Retrieved from http://www.apa.org/ethics/code

American Psychological Association (2015). *Mental and behavioral health and older Americans*. Retrieved from http://www.apa.org/about/gr/issues/aging/mental-health.aspx

Amichai-Hamberger, Y., Klomek, A. B., Friedman, D., Zuckerman, O., & Shani-Sherman, T. (2014). The future of online therapy. *Computers in Human Behavior, 41*, 288–294. Retrieved from http://www.sciencedirect.com/science/article/pii/S0747563214004683

Andersson, G. (2015). Internet-based psychotherapy. In E. Aboujaoude & V. Starcevic (Eds.), *Mental health in the digital age: Grave dangers, great promise*. Retrieved from http://books.google.com/books?hl=en&lr=&id=wP7VBgAAQBAJ&oi=fnd&pg=PT196&dq=psychotherapy+via+video+for+depressed&ots=-yvKiH-SAU&sig=nm4rQ7ZH_1T0qZ54ldkwJv26RK0#v=onepage&q&f=false

Andersson, G., & Cuijpers, P. (2009). Internet-based and other computerized psychological treatments for adult depression: A meta-analysis. *Cognitive Behaviour Therapy, 38*(4), 196–205. doi:10.1080/16506070903318960

Andersson, G., Cuijpers, P., Carlbring, P., Riper, H., & Hedman, E. (2014). Guided Internet-based vs. face-to-face cognitive behavior therapy for psychiatric and somatic disorders: A systematic review and meta-analysis. *World Psychiatry, 13*(3), 288–295. http://dx.doi.org/10.1002/wps.20151

Andrews, G., Newby, J. M., & Williams, A. D. (2015). Internet-delivered cognitive behavior therapy for anxiety disorders is here to stay. *Current Psychiatry Reports, 17*(1), 1–5. doi:10.1007/s11920-014-0533-1

Andrews, L. W. (2010). *Encyclopedia of depression*. Retrieved from https://books.google.com/books?hl=en&lr=&id=bDYlGTfdAk0C&oi=fnd&pg=PP1&dq=Louis+Delasiauve+1856+depression&ots=Jf3y27y9lu&sig=EWJNB0ttZ

N749HikLQNRrriuVOg#v=onepage&q=Louis%20Delasiauve%201856%20depression&f=false

Angst, J., Azorin, J. M., Bowden, C. L., Perugi, G., Vieta, E., Gamma, A., & BRIDGE Study Group. (2011). Prevalence and characteristics of undiagnosed bipolar disorders in patients with a major depressive episode: The BRIDGE study. *Archives of General Psychiatry, 68*(8), 791–799. http://dx.doi.org/10.1001/archgenpsychiatry.2011.87

Anthony, K. (2014). Training therapists to work effectively online and offline within digital culture. *British Journal of Guidance & Counselling, 17,* 36–42. doi:10.1080/03069885.2014.924617

Aroian, K., Uddin, N., & Ullah, D. (2015). Stress, social support, and depression in Arab Muslim immigrant women in the Detroit area of the USA. In Khanlou, N. & F. B. Pilkington (Eds.), *Women's mental health* (pp. 69–81). Berlin, Germany: Springer.

Avenevoli, S., Swendsen, J., He, J. P., Burstein, M., & Merikangas, K. R. (2015). Major depression in the national comorbidity survey–adolescent supplement: Prevalence, correlates, and treatment. *Journal of the American Academy of Child & Adolescent Psychiatry*, *54*(1), 37–44. http://www.jpsychores.com/article/S0022-3999(15)00029-X/abstract?cc=y=

Backhaus, A., Agha, Z., Maglione, M. L., Repp, A., Ross, B., Zuest, D., . . . Thorp, S. R. (2012). Videoconferencing psychotherapy: A systematic review. *Psychological Services, 9*(1), 111. http://dx.doi.org/10.1037/a0027924

Ballard, E. D., Patel, A. B., Ward, M., & Lamis, D. A. (2015). Future disposition and suicidal ideation: Mediation by depressive symptom clusters. *Journal of affective disorders*, *170*, 1–6. doi:10.1016/j.jad.2014.08.029

Bandura, A., Bannister, D., Beck, A., Bierer, J., & Blake, W. (2014). A late developer. In W. Dryden & L. Spurling (Eds.), *On becoming a psychotherapist* (pp. *59,* 242). Retrieved from http://books.google.com/books?hl=en&lr=&id=l78TAwAAQBAJ&oi=fnd&pg=PA242&dq=humanistic+theory+psychology&ots=ozaBU4tZyb&sig=bPbtSGozDYd935X4M4FpXYz__CM#v=onepage&q=humanistic%20theory%20psychology&f=false

Banikazemi, Z., Mokhber, N., Safarian, M., Mazidi, M., Mirzaei, H., Esmaily, H., ... & Ferns, G. A. (2015). Dietary vitamin E and fat intake are related to Beck's depression score. *Clinical Nutrition ESPEN, 10*(2), e61–e65. http://dx.doi.org/10.1016/j.clnesp.2014.12.001

Barber, J. P., Connolly, M. B., Crits-Christoph, P., Gladis, L., & Siqueland, L. (2009). Alliance predicts patients' outcome beyond in-treatment change in symptoms. *Personality Disorders: Theory, Research, and Treatment, S*(1), 80–89. doi:10.1037/1949-2715.S.1.80

Barbic, S. P., Durisko, Z., & Andrews, P. W. (2014). Measuring the bright side of being blue: A new tool for assessing analytical rumination in depression. *PloS One, 9*(11), e112077. doi:10.1371/journal.pone.0112077

Batterham, P. J. (2014). Recruitment of mental health survey participants using internet advertising: Content, characteristics and cost effectiveness. *International Journal*

of Methods in Psychiatric Research, 23(2), 184–191. doi:10.1002/mpr.1421

Batterham, P. J., Christensen, H., & Calear, A. L. (2013). Anxiety symptoms as precursors of major depression and suicidal ideation. *Depression and Anxiety, 30*(10), 908–916. http://dx.doi.org/10.1002/da.22066

Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York, NY: International Universities Press.

Beck, A. T. (Ed.). (1979). *Cognitive therapy of depression*. Retrieved from https://books.google.com/books?hl=en&lr=&id=L09cRS0xWj0C&oi=fnd&pg=PP15&dq=psychotherapy+is+most+effective+in+treating+depression&ots=FWOkfLeock&sig=OFd8UzG3mROSznuKTdBnOMXqyV4#v=onepage&q=psychotherapy%20is%20most%20effective%20in%20treating%20depression&f=false

Beck, A. T., & Alford, B. A. (2009). *Depression: Causes and treatment*. Retrieved from https://books.google.com/books?hl=en&lr=&id=Ntw8AwAAQBAJ&oi=fnd&pg=PR17&dq=the+cause+of+depression+research&ots=I-5GFwbNFQ&sig=DoqSHdOYAQYWvh86cj0OM0IL1o#v=onepage&q=the%20cause%20of%20depression%20research&f=false

Beck, J. S. (1979). *Cognitive therapy*. Hoboken, NJ: John Wiley & Sons.

Belbase, M., Khan, T. A., & Jalan, R. K. (2013). Depressive disorder and its mental comorbidity. *Journal of Psychiatrists' Association of Nepal, 2*(2), 18–21. http://dx.doi.org/10.3126/jpan.v2i2.9720

Bellón, J. Á., Moreno-Peral, P., Moreno-Küstner, B., Motrico, E., Aiarzagüena, J. M., Fernández, A., . . . Amezcua, M. (2014). Patients' opinions about knowing their risk for depression and what to do about it. The PredictD-Qualitative Study. *PloS One*, *9*(3), e92008. Retrieved from http://www.researchgate.net/profile/Patricia_MorenoPeral/publication/260949851_Patients'_Opinions_about_Knowing_Their_Risk_for_Depression_and_What_to_Do_about_It._The_PredictD-Qualitative_Study/links/0a85e532db7a16df0c000000.pdf

Bender, J. L., Radhakrishnan, A., Diorio, C., Englesakis, M., & Jadad, A. R. (2011). Can pain be managed through the Internet? A systematic review of randomized controlled trials. *PAIN*, *152*(8), 1740–1750. doi:10.1016/j.pain.2011.02.012

Birnbaum, H. G., Kessler, R. C., Kelley, D., Ben-Hamadi, R., Joish, V. N., & Greenberg, P. E. (2010). Employer burden of mild, moderate, and severe major depressive disorder: Mental health services utilization and costs, and work performance. *Depression and Anxiety*, *27*(1), 78–89. http://dx.doi.org/10.1002/da.20580

Black, S. W., & Pössel, P. (2014). Integrating Beck's cognitive model and the response style theory in an adolescent sample. *Journal of Youth And Adolescence*, 1–16. doi:10.1007/s10964-013-0087-2

Blackmore, E. R., & Chaudron, L. (2014). Psychosocial and cultural considerations in detecting and treating depression in Latina perinatal women in the United States. *Perinatal Depression among Spanish-Speaking and Latin American Women* (pp. 83–96). doi:10.1007/978-1-4614-8045-7_6

Boggs, C. (2015). The medicalized society. *Critical Sociology, 41*(3), 517–535. doi:10.1177/0896920514528818

Boland, E. A., Tansey, T. N., & Brooks, J. (2015). Cognitive behavioral therapy. In F. Chan, N. L. Berven, & K. R. Thomas (Eds.), *Counseling theories and techniques for rehabilitation and mental health professionals* (pp. 90–108). Retrieved from https://books.google.com/books?hl=en&lr=&id=etqLBgAAQBAJ&oi=fnd&pg=PA91&dq=cognitive+theory+vs+CBT&ots=L4_0_fNbSm&sig=HJYjBPd6e3h0Gq81r2zr_Ir89q0#v=onepage&q&f=false

Bonde, J. P., Utzon-Frank, N., Bertelsen, M., Borritz, M., Eller, N. H., Nordentoft, M., ... & Rugulies, R. (2016). Risk of depressive disorder following disasters and military deployment: systematic review with meta-analysis. *The British Journal of Psychiatry*, bjp-bp. Retrieved from http://bjp.rcpsych.org/content/early/2016/02/04/bjp.bp.114.157859.abstract

Bordin, E. S. (1994). Theory and research on the therapeutic working alliance: New directions. In A. O. Horvath & L. S. Greenberg (Eds.), *The working alliance: Theory, research, and practice* (pp. 13–37). Retrieved from https://books.google.com/books

Borkovec, T. D., & Nau, S. D. (1972). Credibility of analogue therapy rationales. *Journal of Behavior Therapy and Experimental Psychiatry*, *3*(4), 257-260. doi:10.1016/0005-7916(72)90045-6

Bozzelli, E. K., & Beehr, T. A. (2016). Retirement, transition to the Encyclopedia of adulthood and aging. Retrieved from http://onlinelibrary.wiley.com/doi/10.1002/9781118521373.wbeaa008/abstract;jse

ssionid=F662ABF8E0D9AF9F07804205FC579796.f01t03?userIsAuthenticated=false&deniedAccessCustomisedMessage=

Brandstetter, S. (2014). *A comparison of therapeutic bond between e-therapy and face-to-face therapeutic modalities* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3643912)

Brewer, G., & Olive, N. (2014). Depression in men and women: Relative rank, interpersonal dependency, and risk-taking. *Evolutionary Behavioral Sciences, 8*(3), 142–147. http://dx.doi.org/10.1037/h0097761

Brüne, M. (2015). *Textbook of evolutionary psychiatry and psychosomatic medicine: The origins of psychopathology*. Retrieved from https://books.google.com/books?hl=en&lr=&id=ymG8CgAAQBAJ&oi=fnd&pg=PP1&dq=History+of+depression+and+Medical+Psychology:+With+an+Epilogue+on+Psychiatry+...&ots=Hut_QAkSr0&sig=mvMGlB2oyZQx-F_Y34ugWUFVtrs#v=onepage&q&f=false

Butler, A. C., Chapman, J. E., Forman, E. M., & Beck, A. T. (2006). The empirical status of cognitive-behavioral therapy: A review of meta-analysis. *Clinical Psychology Review, 26*(1), 17–31. http://dx.doi.org/10.1016/j.cpr.2005.07.003

Cadigan, R. J., & Skinner, D. (2015). Symptoms of depression and their management among low-income African-American and White mothers in the rural South. *Ethnicity & Health*, *20*(3), 293–308. doi:10.1080/13557858.2014.921889

California Board of Psychology. (2012). Identified issues, background, recommendations, and board response for the board of psychology. Retrieved from http://www.psychology.ca.gov/forms_pubs/sunset2012.pdf

California Board of Psychology. (2015). Laws and regulations. Retrieved from http://www.psychology.ca.gov/laws_regs/2015lawsregs.pdf

Cameron, A. Y. (2015). Dialectical behavior therapy (DBT). *The Encyclopedia of Clinical Psychology*. http://dx.doi.org/10.1002/9781118625392.wbecp531

Carek, P. J., Laibstain, S. E., & Carek, S. M. (2011). Exercise for the treatment of depression. *The International Journal of Psychiatry in Medicine, 41*(1), 15–28. http://dx.doi.org/10.2190/pm.41.1.c

Carey, M., Small, H., Yoong, S. L., Boyes, A., Bisquera, A., & Sanson-Fisher, R. (2014). Prevalence of comorbid depression and obesity in general practice: A cross-sectional survey. *British Journal of General Practice, 64*(620), e122–e127. Retrieved from http://bjgp.org/content/64/620/e122

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, 38 (2), 233–245. Retrieved from http://pwq.sagepub.com/content/38/2/233.short

Cartreine, J. A., Ahern, D. K., & Locke, S. E. (2010). A roadmap to computer-based psychotherapy in the United States. *Harvard College Journal, 18*, 80–95. http://dx.doi.org/10.3109/10673221003707702

Carvalho, J. P., & Hopko, D. R. (2011). Behavioral theory of depression: Reinforcement as a mediating variable between avoidance and depression. *Journal of Behavioral Therapy and Experimental Psychiatry, 42*(2), 154–162. http://dx.doi.org/10.1016/j.jbtep.2010.10.001

Centers for Disease Control and Prevention. (2010). Current depression among adults. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5938a2.htm

Centers for Disease Control and Prevention. (2012). Morbidity and mortality weekly report. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6051a7.htm

Chakrabarti, S. (2015). Usefulness of telepsychiatry: A critical evaluation of videoconferencing-based approaches. *World Journal of Psychiatry*, *5*(3), 286. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4582305/

Chang, J. E., Sequeira, A., McCord, C. E., & Garney, W. R. (2016). Videoconference Grief Group Counseling in Rural Texas: Outcomes, Challenges, and lessons learned. *The Journal for Specialists in Group Work, 41*(2), 140-160. Retrieved from http://dx.doi.org/10.1080/01933922.2016.1146376

Chavira, D. A., Bustos, C. E., Garcia, M. S., Ng, B., & Camacho, A. (2015). Delivering CBT to rural Latino children with anxiety disorders: A qualitative study. *Community Mental Health Journal*, 1–9. doi:10.1007/s10597-015-9903-3

Chocano-Bedoya, P. O., O'Reilly, E. J., Mirzae, F., Okereke, O. I., Fung, T. T., Hu, F. B., & Ascherio, A. (2013). Prospective study on long-term dietary patterns and incident depression in middle-aged and older women. *American Journal of Clinical Nutrition, 98*(3), 813–820. http://dx.doi.org/10.3945/ajcn.112.052761

Choi, N. G., Hegel, M. T., Marti, C. N., Marinucci, M. L., Sirrianni, L., & Bruce, M. L. (2014). Telehealth problem-solving therapy for depressed low-income homebound older adults. *The American Journal of Geriatric Psychiatry*, *22*(3), 263–271. doi:10.1016/j.jagp.2013.01.037

Choi, N. G., Marti, N., Bruce, M. L., Hegel, M. T., Wilson, N. L., & Kunik, M. E. (2014). Six-month postintervention depression and disability outcomes of in-home telehealth problem-solving therapy for depressed, low-income homebound older adults. *Depression and Anxiety: Focus on Treatment, 31*, 653–661. http://dx.doi.org/10.1002/da.22242

Choudhury, K. (2013). Cognitive therapy (CT). In K. Choudhury (Ed.), *Managing workplace stress* (pp. 19–35). doi:10.1007/978-81-322-0683-5

Christensen, H., Mackinnon, A. J., Batterham, P. J., O'Dea, B., Guastella, A. J., Griffiths, K. M., . . . Hickie, I. (2014). The effectiveness of an online e-health application compared to attention placebo or sertraline in the treatment of generalised anxiety disorder. *Internet Interventions, 1*(4), 169–174. doi:10.1016/j.invent.2014.08.002

Chu, J. L., & Snider, C. E. (2013). Use of a social networking web site for recruiting Canadian youth for medical research. *Journal of Adolescent Health, 52*(6), 792–794. Retrieved from http://www.sciencedirect.com/science/article/pii/S1054139X12007835

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). St. Paul, MN: West.

Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science, 1*(3), 98–101. Retrieved from http://online.sagepub.com/

Coon, D., & Mitterer, J. (2012). *Introduction to psychology: Gateways to mind and behavior with concept maps and reviews*. Retrieved from https://books.google.com/books?id=-4jCBAAAQBAJ&pg=PA491&dq=advantages+and+disadvantages+of+videoconf

erencing+psychotherapy&hl=en&sa=X&ved=0ahUKEwjN6f3zmJ7JAhXHK4gKHd8gC1sQ6AEINjAB#v=onepage&q=advantages%20and%20disadvantages%20of%20videoconferencing%20psychotherapy&f=false

Cooper-Vince, C. E., Emmert-Aronson, B. O., Pincus, D. B., & Comer, J. S. (2014). The diagnostic utility of separation anxiety disorder symptoms: An item response theory analysis. *Journal of Abnormal Child Psychology*, *42*(3), 417–428. http://dx.doi.org/10.1007/s10802-013-9788-y

Correa, J. B., Sperry, S. L., & Darkes, J. (2015). A case report demonstrating the efficacy of a comprehensive cognitive-behavioral therapy approach for treating anxiety, depression, and problematic eating in polycystic ovarian syndrome. *Archives of Women's Mental Health, 4*(1), 1–6. doi:10.1007/s00737-015-0506-3

Corso, K. A., Bryan, C. J., Corso, M. L., Kanzler, K. E., Houghton, D. C., Ray-Sannerud, B., & Morrow, C. E. (2012). Therapeutic alliance and treatment outcome in the primary care behavioral health model. *Families, Systems, & Health, 30(2*), 87.

Craighead, W. E., & Dunlop, B. W. (2014). Combination psychotherapy and antidepressant medication treatment for depression: For whom, when, and how. *Annual Review of Psychology*, *65*, 267–300. http://dx.doi.org/10.1146/annurev.psych.121208.131653

Cronin, T. J., Lawrence, K. A., Taylor, K., Norton, P. J., & Kazantzis, N. (2015). Integrating between-session interventions (homework) in therapy: The importance of the therapeutic relationship and cognitive case conceptualization. *Journal of Clinical Psychology*, *71*(5), 439–450. doi:10.1002/jclp.22180

Cruwys, T., Haslam, A. S., Dingle, G. A., Jetten, J., Hornsey, M. J., Desdemona Chong,

E. M., & Oei, T. P. (2014). Feeling connected again: Interventions that increase social identification reduce depression symptoms in community and clinical settings. *Journal of Affective Disorders, 159*, 139–146. Retrieved from http://www.sciencedirect.com/science/article/pii/S0165032714000573

Cruwys, T., South, E. I., Greenaway, K. H., & Haslam, S. A. (2014). Social identity reduces depression by fostering positive attributions. *Social Psychological and Personality Science, 6*(1), 65–74. http://dx.doi.org/10.1177/1948550614543309

Cuijpers, P., Andersson, G., Donker, T., & Straten, A. (2011). Psychological treatment of depression: Results of a series of meta-analyses. *Nordic Journal of Psychiatry, 65*(6), 354–364. http://dx.doi.org/10.3109/08039488.2011.596570

Cuijpers, P., de Wit, L., & Taylor, A. (2014). The effects of psychological treatments for adult depression on physical activity: A systematic review. *Mental Health and Physical Activity, 7*(1), 6–8. doi:10.1016/j.mhpa.2014.01.002

Cuijpers, P., Donker, T., Van Straten, A., Li, J., & Andersson, G. (2010). Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. *Psychological Medicine, 40,* 1943–1957. http://dx.doi.org/10.1017/s0033291710000772

Dagher, R. K., & Green, K. M. (2015). Does depression and substance abuse co-morbidity affect socioeconomic status? Evidence from a prospective study of urban African Americans. *Psychiatry Research, 225*(1), 115-121. Retrieved from http://www.sciencedirect.com/science/article/pii/S0165178114008531

Damoiseaux, V. A., Proost, J. H., Jiawan, V. C., & Melgert, B. N. (2014). Sex differences in the pharmacokinetics of antidepressants: influence of female sex hormones and oral contraceptives. Clinical pharmacokinetics, 53(6), 509-519. Retrieved from https://www.researchgate.net/profile/Barbro_Melgert/publication/262607208_

Daniels, S. (2015). Cognitive behavior therapy for patients with cancer. *Journal of the Advanced Practitioner in Oncology*, *6*(1), 54. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4577033/

Davidson, K. M., & Tran, C. F. (2014). Impact of treatment intensity on suicidal behavior and depression in borderline personality disorder: A critical review. *Journal of Personality Disorders*, *28*(2), 181–197. Retrieved from http://guilfordjournals.com/doi/abs/10.1521/pedi_2013_27_113

Dekker, J. J., Hendriksen, M., Kool, S., Bakker, L., Driessen, E., De Jonghe, F., ... & Van, H. L. (2014). Growing evidence for psychodynamic therapy for depression. *Contemporary Psychoanalysis*, *50*(1-2), 131–155. http://dx.doi.org/10.1080/00107530.2014.880312

Devilly, G. J. (2002). The psychological effects of a lifestyle management course on war veterans and their spouses. *Journal of Clinical Psychology*, *58*(9), 1119-1134. doi:10.1002/jclp.10041

Devilly, G. J., & Borkovec, T. D. (2000). Psychometric properties of the credibility/expectancy questionnaire. *Journal of behavior therapy and experimental psychiatry*, *31*(2), 73-86. doi:10.1016/S0005-7916(00)00012-4

Devilly, G. J., & Spence, S. H. (1999). The relative efficacy and treatment distress of EMDR and a cognitive-behavior trauma treatment protocol in the amelioration of

posttraumatic stress disorder. *Journal of Anxiety Disorders*, 13(1-2), 131-157. doi:10.1016/S0887-6185(98)00044-9

Diehle, J. (2015). Treating PTSD with cognitive-behavioral therapies–Interventions that work. *Cognitive Behaviour Therapy*, *44*(1), 85–85. doi:10.1080/16506073.2014.973441

Dobson, K. S., & Khatri, N. (2000). Cognitive therapy: Looking backward, looking forward. *Journal of Clinical Psychology*, *56*(7), 907–923. http://dx.doi.org/10.1002/1097-4679(200007)56:7<907::aid-jclp9>3.0.co;2-i

Doehring, C. (2015). Posttraumatic stress disorder: Coping and meaning making. In F. B. Kelcourse & K. B. Lyon (Eds.), *Transforming wisdom: Pastoral psychotherapy in theological perspective* (pp. 150–167). Retrieved from https://books.google.com/books?hl=en&lr=&id=W_K7CgAAQBAJ&oi=fnd&pg=PA150&dq=CBT+journaling&ots=UugiGY34C0&sig=IxMnq3xWNvwk5MRG2NH_Ov3eky4#v=onepage&q=CBT%20journaling&f=false

Donahue, D. A. (2015). Gender, coping style, and depression severity in emerging adult university students. Retrieved from http://trace.tennessee.edu/cgi/viewcontent.cgi?article=4672&context=utk_gradthes

Drennan, V. M., Grant, R. L., & Harris, R. (2014). Trends over time in prescribing by English primary care nurses: A secondary analysis of a national prescription database. *BMC health services research*, *14*(1), 54. Retrieved from http://www.biomedcentral.com/1472-6963/14/54/

Dryden, W., & Spurling, L. (Eds.). (2014). *On becoming a psychotherapist*. New York,

NY: Routledge.

Ducat, W. H., & Kumar, S. (2015). A systematic review of professional supervision experiences and effects for allied health practitioners working in non-metropolitan health care settings. *Journal of Multidisciplinary Healthcare*, *8*, 397. http://dx.doi.org/10.2147/jmdh.s84557

DuGoff, E. H., Schuler, M., & Stuart, E. A. (2013). Generalizing observational study results: Applying propensity score methods to complex surveys. *Health Services Research*, *49*(1), 284–303. doi:10.1111/1475-6773.12090

Duncan, A. B., Velasquez, S. E., & Nelson, E. (2013). Using videoconferencing to provide psychological services to rural children and adolescents: A review and case example. *Journal of Clinical Child & Adolescent Psychology*, *43*(1), 5–9. http://dx.doi.org/10.1080/15374416.2013.836452

Durland, L., Interian, A., Pretzer-Aboff, I., Dobkin, R. D., Durland, L., Interian, A., ... Dobkin, R. D. (2014). Effect of telehealth-to-home interventions on quality of life for individuals with depressive and anxiety disorders. *Mental Health Care*, *9*, 12. Retrieved from http://scholar.googleusercontent.com/scholar?q=cache:MXClP2NHrzAJ:scholar.google.com/+effective+internet-based+psychotherapy+for+physically+impaired&hl=en&as_sdt=0,5&as_ylo=2014

Dustan, D., & Tooth, S. M. (2012). Treatment via videoconferencing: A pilot study of delivery by clinical psychology trainees. *The Australian Journal of Rural Health, 20*(2), 88–94. http://dx.doi.org/10.1111/j.1440-1584.2012.01260.x

Dwairy, M. (2015). *From psycho-analysis to culture-analysis: A within-culture psychotherapy*. Basingstoke, United Kingdom: Palgrave Macmillan.

Egede, L. E., Acierno, R., Knapp, R. G., Lejuez, C., Hernandez-Tejada, M., Payne, E. H., & Frueh, B. C. (2015). Psychotherapy for depression in older veterans via telemedicine: A randomised, open-label, non-inferiority trial. *The Lancet Psychiatry*, *2*(8), 693–701. http://dx.doi.org/10.1016/s2215-0366(15)00122-4

Eide, A. H., Mannan, H., Khogali, M., van Rooy, G., Swartz, L., Munthali, A., ... & Dyrstad, K. (2015). Perceived barriers for accessing health services among individuals with disability in four African countries. http://dx.doi.org/10.1371/journal.pone.0125915

Ellis, D. J., & Rovira, M. (2015). Rational emotive behavioural therapy: The evolution of a revolution. *Europe's Journal of Psychology*, *11*(1), 7. Retrieved from http://search.proquest.com/

Fabricatore, A. N., Wadden, T. A., Higginbotham, A. J., Faulconbridge, L. F., Nguyen, A. M., Heymsfield, S. B., & Faith, M. S. (2011). Intentional weight loss and changes in symptoms of depression: A systematic review and meta-analysis. *International Journal of Obesity*, *35*(11), 1363–1376. http://dx.doi.org/10.1038/ijo.2011.2

Fann, J. R., Bombardier, C. H., Vannoy, S., Dyer, J., Ludman, E., Dikmen, S., . . . Temkin, N. (2015). Telephone and in-person cognitive behavioral therapy for major depression after traumatic brain injury: A randomized controlled trial. *Journal of Neurotrauma*, *32*(1), 45–57. http://dx.doi.org/10.1089/neu.2014.3423

Fatehi, F., Martin-Khan, M., Smith, A. C., Russell, A. W., & Gray, L. C. (2015). Patient satisfaction with video teleconsultation in a virtual diabetes outreach clinic. *Diabetes Technology & Therapeutics*, *17*(1), 43–48. doi:10.1089/dia.2014.0159

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2013). G* Power Version 3.1. 7 [computer software]. Uiversität Kiel, Germany.

Fietkiewicz, K. J., Lins, E., Baran, K. S., & Stock, W. G. (2016). Inter-generational comparison of social media use: Investigating the online behavior of different generational cohorts. In *2016 49th Hawaii International Conference on System Sciences (HICSS)* (pp. 3829-3838). Retrieved from https://www.phil-fak.uni-duesseldorf.de/fileadmin/Redaktion/Institute/Informationswissenschaft/stock/Fietkiewicz_Lins_Baran_Stock_HICSS_2016.pdf

Forlani, C., Morri, M., Ferrari, B., Dalmonte, E., Menchetti, M., Ronchi, D., & Atti, A. R. (2014). Prevalence and gender differences in late-life depression: A population-based study. *The American Journal of Geriatric Psychiatry, 22*(4), 370–380. doi:10.1016/j.jagp.2012.08.015

Fuchs, T., Breyer, T., & Mundt, C. (Eds.). (2014). *Karl Jaspers' philosophy and psychopathology*. doi:10.1007/978-1-4614-8878-1

Gainsbury, S., & Blaszczynski, A. (2011). A systematic review of Internet-based therapy for the treatment of addictions. *Clinical Psychology Review*, *31*(3), 490–498. http://dx.doi.org/10.1016/j.cpr.2010.11.007

Gallagher, M. W., Thompson-Hollands, J., Bourgeois, M. L., & Bentley, K. H. (2015). Cognitive behavioral treatments for adult posttraumatic stress disorder: Current

status and future directions. *Journal of Contemporary Psychotherapy*, 1–9. doi:10.1007/s10879-015-9303-6

Gao, Y., Huang, C., Zhao, K., Ma, L., Qiu, X., Zhang, L., . . . & Xiao, Q. (2013). Depression as a risk factor for dementia and mild cognitive impairment: A meta-analysis of longitudinal studies. *International journal of geriatric psychiatry, 28*(5), 441–449. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/22815126

Gellis, Z. D. (2015). Telemental health. *Encyclopedia of Geropsychology*, 1–6. doi:10.1007/978-981-287-080-3_157-1

Gellis, Z. D., Kenaley, B. L., & Have, T. T. (2014). Integrated telehealth care for chronic illness and depression in geriatric home care patients: The integrated telehealth education and activation of mood (I-TEAM) study. *The American Geriatrics Society, 62*, 889–895. http://dx.doi.org/10.1111/jgs.12776

George, D. & Mallery, P. (2016). *SPSS for Windows step by step: a simple guide and reference, 11.0 update* (14th ed.). Boston, MA: Allyn and Bacon.

Germain, V., Marchand, A., Bouchard, S., Guay, S., & Drouin, M. S. (2010). Assessment of the therapeutic alliance in face-to-face or videoconference treatment for posttraumatic stress disorder. *Cyberpsychology, Behavior, and Social Networking, 13*(1), 29–35. http://dx.doi.org/10.1089/cpb.2009.0139

Gilroy, H., Nava, A., Maddoux, J., McFarlane, J., Symes, L., Koci, A., & Fredland, N. (2014). Poverty, partner abuse, and women's mental health: New knowledge for better practice. *Journal of Social Service Research, 41*(2), 1–13. doi:10.1080/01488376.2014.972010

Goldstein, F., & Glueck, D. (2016). Developing rapport and therapeutic alliance during

telemental health sessions with children and adolescents. *Journal of child and adolescent psychopharmacology, 26*(3), 204-211. Retrieved from http://online.liebertpub.com/doi/abs/10.1089/cap.2015.0022

Gomez, R., Summers, M., Wolf, A., & Summers, J. (2014). Depression anxiety stress scales-21: Measurement and structural invariance across ratings s ratings of men and women. *Sage Journals, 13*(1), 8–15. http://dx.doi.org/10.1177/1073191113514106

Gramm, L., Stone, S., & Pittman, S. (2014). *Mental health and mental disorders – a rural challenge.* Retrieved from http://sph.tamhsc.edu/centers/rhp2010/08Volume1mentalhealth.htm

Green, S. M., Key, B. L., & McCabe, R. E. (2015). Cognitive-behavioral, behavioral, and mindfulness-based therapies for menopausal depression: A review. *Maturitas, 80*(1), 37–47. doi:10.1016/j.maturitas.2014.10.004

Grubbs, K. M., Fortney, J. C., Dean, T., Williams, J. S., & Godleski, L. (2015). A comparison of mental health diagnoses treated via interactive video and face to face in the Veterans Healthcare Administration. *Telemedicine and e-Health, 21*(7), 564–566. http://dx.doi.org/10.1089/tmj.2014.0152

Hagen, E. H. (2011). Evolutionary theories of depression: A critical review. *Canadian Journal of Psychiatry, 56*(12), 716–726. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/22152640

Hammond, G. C., Croudace, T. J., Radhakrishnan, M., Lafortune, L., Watson, A., McMillan-Shields, F., & Jones, P. B. (2012). Comparative effectiveness of cognitive therapies delivered face-to-face or over the telephone: An observational

study using propensity methods. *PLOS One.* http://dx.doi.org/10.1371/journal.pone.0042916

Haskell, S. G., Gordon, K. S., Mattocks, K., Duggal, M., Erdos, J., Justice, A., & Brandt, C. A. (2010). Gender differences in rates of depression, PTSD, pain, obesity, and military sexual trauma among Connecticut war veterans of Iraq and Afghanistan. *Journal of Women's Health, 19*(2), 267-271. http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2009.166165

Haslam, S. A., & McGarty, C. (2014). *Research methods and statistics in psychology*. Retrieved from http://books.google.com/books?hl=en&lr=&id=UfGGAwAAQBAJ&oi=fnd&pg=PP1&dq=Haslam+%26+McGarty,+2014+SPSS&ots=gMER1IjByJ&sig=vANkuu870ptmSz1OeRe2uDYMKCI#v=onepage&q=Haslam%20%26%20McGarty%2C%202014%20SPSS&f=falseHatcher, R. L., & Gillaspy, J. A. (2006). Development and validation of a revised short version of the Working Alliance Inventory. *Psychotherapy Research, 16(1),* 12-25. doi.org/10.1080/10503300500352500

Hedman, E., Andersson, G., Ljotsson, B., Andersson, E., Rück, C., Mörtberg, E., & Lindefors, N. (2011). Internet-based cognitive behavior therapy vs. cognitive behavioral group therapy for social anxiety disorder: A randomized controlled non-inferiority trial. *PLoS ONE, 6*(3), 20–30. http://dx.doi.org/10.1371/journal.pone.0018001

Henderson, J., Crotty, M. M., Fuller, J., & Martinez, L. (2014). Meeting unmet needs? The role of a rural mental health service for older people. *Advances in Mental Health, 12*(3), 182–191. Retrieved from http://maint.e-contentmanagement.com/

Hertlein, K. M, & Ancheta, K. (2014). Advantages and disadvantages of technology in relationships: Findings from an open-ended survey. *The Qualitative Report, 19(22),* 1–11. Retrieved from http://www.nova.edu/ssss/QR/QR19/hertlein22.pdf

Hetrick, S. E., Bailey, A., Rice, S. M., Magenta, B. S., Joanne, E. M., & Alice, E. (2015). A qualitative analysis of the descriptions of cognitive behavioural therapy (CBT) tested in clinical trials of depressed young people. *Journal of Depression and Anxiety, 4,* 172. doi:10.4172/2167-1044.1000172

Hind, D., Cotter, J., Thake, A., Bradburn, M., Cooper, C., Isaac, C., & House, A. (2014). Cognitive behavioural therapy for the treatment of depression in people with multiple sclerosis: A systematic review and meta-analysis. *BMC Psychiatry*, *14*(1), 5. Retrieved from http://www.biomedcentral.com/1471-244X/14/5

Hincapie, A., Warholak, T. L., & Armstrong, E. P. (2011). Socioeconomic impact of mandated health coverage for telemedicine in the state of Arizona. *Arizona Center for Rural Health. Retrieved from http://crh.arizona.edu/sites/default/files/Telemedicine%20Report%20V12Ana-1.pdf*

Hirsch, J. K. (2006). A review of the literature on rural suicide. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, *27*(4), 189–199. doi: 10.1027/0227-5910.27.4.189

Hochberg, M. S., Berman, R. S., Kalet, A. L., Zabar, S. R., Gillespie, C., & Pachter, H. L. (2013). The stress of residency: Recognizing the signs of depression and suicide in you and your fellow residents. *The American Journal of Surgery*, *205*(2), 141–146. http://dx.doi.org/10.1016/j.amjsurg.2012.08.003

Hofmann, S. G., Dozois, D. J., Rief, W., & Smits, J. A. (Eds.). (2014). *The Wiley handbook of cognitive behavioral therapy*. http://dx.doi.org/10.1108/RR-04-2014-0105

Hoge, C. W., Clark, J. C., & Castro, C. A. (2007). Commentary: Women in combat and the risk of post-traumatic stress disorder and depression. *International Journal of Epidemiology*, *36*(2), 327-329. Retrieved from http://ije.oxfordjournals.org/content/36/2/327.short

Høglend, P., Monsen, J. T., & Havik, O. E. (2001). Quality of working alliance in psychotherapy. *Journal of Psychotherapy Practice and Research*, *10*(4), 205. Retrieved from www.georgiadisaster.info/Healthcare

Hollon, S. D., Thase, M. E., & Markowitz, J. C. (2002). Treatment and prevention of depression. *Psychological Science in the public interest*, *3*(2), 39–77. Retrieved from http://psi.sagepub.com/content/3/2/39.short

Howell, D. C. (2010). *Statistical methods for psychology* (7th ed.). Belmont CA: Wadsworth Cengage Learning.

Howell, D. C. (2013). *Statistical methods for psychology* (8th ed.). Belmont CA: Wadsworth Cengage Learning.

Huang, T., Hill, C., & Gelso, C. (2013). Psychotherapy engagers versus non-engager. Differences in alliance, therapist verbal response modes, and client attachment.

Psychotherapy Research, 23(5), 568–577. doi:10.1080/10503307.2013.807378

Huibers, M. J., van Breukelen, G., Roelofs, J., Hollon, S. D., Markowitz, J. C., van Os, J., . . . & Peeters, F. (2014). Predicting response to cognitive therapy and interpersonal therapy, with or without antidepressant medication, for major depression: A pragmatic trial in routine practice. *Journal of Affective Disorders, 152*, 146–154. Retrieved from http://www.sciencedirect.com/science/article/pii/S0165032713006617

Ingram, R. E. (Ed.). (2009). *The international encyclopedia of depression*. New York, NY: Springer.

Izard, C. E. (2013). *Patterns of emotions: A new analysis of anxiety and depression* (pp. 65-298). Retrieved from https://books.google.com/books?hl=en&lr=&id=NYVGBQAAQBAJ&oi=fnd&pg=PP1&dq=depressed+individuals+experience+fear+&ots=EAZvHGplDM&sig=4NDoyLGv7mquSoSUo1Yxgp1Ft6U#v=onepage&q=%20depression-%20phenomena%20experienced&f=false

Jacobs, P. G., & Saunders, G. H. (2014). New opportunities and challenges for teleaudiology within department of veterans affairs. *Journal of Rehabilitation Research & Development, 51*(5), vii–xi. Retrieved from http://www.ohsu.edu/xd/education/schools/school-of-medicine/departments/basic-science-departments/biomedical-engineering/bme-labs/jacobs-lab/upload/jrrd-2014-04-0093.pdf

Jarrett, R. B., & Vittengl, J. R. (2015). The efficacy of cognitive behavioural therapy for depression. In A. Wells & P. Fisher (Eds.), *Treating depression: MCT, CBT and*

third wave therapies (pp. 52–80). Retrieved from https://books.google.com/books?hl=en&lr=&id=A3jiCgAAQBAJ&oi=fnd&pg=PA52&dq=cbt+EFFECTIVENESS+OF+CBT+FOR+DEPRESSION+jACOBSON&ots=lDj5Qu2PVw&sig=fM1UoLEo-KxP2gr2y8g3pgwTHVU#v=onepage&q=cbt%20EFFECTIVENESS%20OF%20CBT%20FOR%20DEPRESSION%20jACOBSON&f=false

Jayasekara, R. S., Procter, N., Deuter, K., & Hampel, S. (2014). Cognitive behavioral therapy for depression in older adults: Clinician and consumer views and perspectives. *2nd annual Worldwide Nursing Conference.* http://dx.doi.org/10.5176/2315-4330_wnc14.23

Jiang, R. F., Tong, H. Q., Delucchi, K. L., Neylan, T. C., Shi, Q., & Meffert, S. M. (2014). Interpersonal psychotherapy versus treatment as usual for PTSD and depression among Sichuan earthquake survivors: A randomized clinical trial. *Conflict and Health, 8*(1), 14. Retrieved from http://www.biomedcentral.com/content/pdf/1752-1505-8-14.pdf

Joel, I., Begley, A. E, Mazumdar, S., Dew, M. A., Blumberger, D., Butters, M., Reynolds, C. F. (2014). Dynamic prediction of treatment response in late-life depression. *The American Journal of Geriatric Psychiatry, 22(2),* 167–176. doi:10.1016/j.jagp.2012.07.002

Joiner, T. E., Brown, J. S., & Kistner, J. (2014). The interpersonal, cognitive, and social nature of depression. Routledge. Retrieved from https://books.google.com/books?hl=en&lr=&id=4xbKAgAAQBAJ&oi=fnd&pg=PP1&dq=young+women+and+depression&ots=OS_b90nu7v&sig=v8KW12PXM

cQRyS91ccRLuj9tnTs#v=onepage&q=young%20women%20and%20depression&f=false

Jones, S. H. (1995). A study of the effects of psychotherapy training on doctoral-level clinical psychology graduate students and psychiatry residents. Retrieved from https://books.google.com/books?id=vDIdAQAAMAAJ

Jones, S., Ownsworth, T., & Shum, D. H. (2015). Feasibility and utility of telephone-based psychological support for people with brain tumor: A single-case experimental study. *Frontiers in Oncology*, *5*, 71. Retrieved from doi:10.3389/fonc.2015.00071

Jung, C. G. (2014). *The practice of psychotherapy* (Vol. 16). Retrieved from https://books.google.com/books?hl=en&lr=&id=oq_gBQAAQBAJ&oi=fnd&pg=PP1&dq=psychotherapy+takes+time+to+take+an+effect&ots=uKsRnW9TZ5&sig=QGJNqkAyRiWeHnswNiZ486e5AvY#v=onepage&q=psychotherapy%20takes%20time%20to%20take%20an%20effect&f=false

Jung, C. G. (2015). *Collected works of CG Jung: The first complete English edition of the works of CG Jung*. Retrieved from https://books.google.com/books?hl=en&lr=&id=9eY4CQAAQBAJ&oi=fnd&pg=PP1&dq=History+of+Psychiatry+and+Medical+Psychology:+With+an+Epilogue+on+Psychiatry+...&ots=7uc06EQYK_&sig=KCEZGFEsA1gkLMXQn_EQG3sL80k#v=onepage&q&f=false

Junghaenel, D. U., Schneider, S., Stone, A. A., Christodoulou, C., & Borderick, J. E. (2014). Ecological validity and clinical utility of patient-reported outcomes measurement information system (PROMIS) instruments for detecting

premenstrual symptoms of depression, anger, and fatigue. *Journal of Psychosomatic Research, 76*(4), 300–306. doi:10.1016/j.jpsychores.2014.01.010

Kaldo, V., Jernelöv, S., Blom, K., Ljótsson, B., Brodin, M., Jörgensen, M., ... & Lindefors, N. (2015). Guided internet cognitive behavioral therapy for insomnia compared to a control treatment–A randomized trial. *Behaviour Research and Therapy, 71*, 90–100. doi:10.1016/j.brat.2015.06.001

Kaplan, E. H. (1997). Telepsychotherapy. Psychotherapy by telephone, videotelephone, and computer videoconferencing. *Journal of Psychotherapy Practice and Research, 6*(3), 227–237. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/9185068

Kapp, J. M., Peters, C., & Oliver, D. P. (2013). Research recruitment using Facebook advertising: Big potential, big challenges. *Journal of Cancer Education*, *28*(1), 134–137. doi:10.1007/s13187-012-0443-z

Katon, W. J., Young, B. A., Russo, J., Lin, E. H, Ciechanowski, P., Ludman, E. J., & Von Korff, M. R. (2013). Association of depression with increased risk of severe hypoglycemic episodes in patients with diabetes. *Annals of Family Medicine, 11*(3), 245–250. http://dx.doi.org/10.1370/afm.1501

Kempen, G. I., & Zijlstra, G. A. (2014). Clinically relevant symptoms of anxiety and depression in low-vision community-living older adults. *American Journal of Geriatric Psychiatry*, *22*(3), 309–313. Retrieved from http://www.sciencedirect.com/science/article/pii/S1064748112000346

Kessler, R. C. (2003). Epidemiology of women and depression. *Journal of Affective Disorders, 74*(1), 5–13. http://dx.doi.org/10.1016/s0165-0327(02)00426-3

Khalsa, S. R., McCarthy, K. S., Sharpless, B. A., Barrett, M. S., & Barber, J. P. (2011). Beliefs about the causes of depression and treatment preferences. *Journal of Clinical Psychology*, *67*(6), 539–549. http://dx.doi.org/10.1002/jclp.20785

Khatri, N., Marziali, E., Tchernikov, I., & Shepherd, N. (2014). Comparing telehealth-based and clinic-based group cognitive behavioral therapy for adults with depression and anxiety: A pilot study. *Clinical Interventions in Aging*, *9*, 765. doi:10.2147/CIA.S57832

Khanna, M. S., & Kendall, P. C. (2015). Bringing technology to training: Web-based therapist training to promote the development of competent cognitive-behavioral therapists. *Cognitive and Behavioral Practice, 22*, 291–301. doi:10.1016/j.cbpra.2015.02.002

Kiesler, S. (2014). *Culture of the internet.* New York, NY: Psychology Press. Retrieved from http://books.google.com/

King, V. L., Brooner, R. K., Peirce, J. M., Kolodner, K., & Kidorf, M. S. (2014). A randomized trial of Web-based videoconferencing for substance abuse counseling. *Journal of Substance Abuse Treatment*, *46*(1), 36–42. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3818495/

Kirsch, I. (2014). The emperor's new drugs: Medication and placebo in the treatment of depression. In *Placebo* (pp. 291–303). Berlin, DE: Springer.

Kivi, M., Eriksson, M. C., Hange, D., Petersson, E. L., Johansson, B., & Björkelund, C. (2012). Internet therapy for depression in primary care (PC). *The Future of Primary Health Care in Europe IV, 22*(8), 13–23. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/24911260

Kivi, M., Eriksson, M. C., Hange, D., Petersson, E. L., Vernmark, K., Johansson, B., & Björkelund, C. (2014). Internet-based therapy for mild to moderate depression in Swedish primary care: Short term results from the PRIM-NET randomized controlled trial. *Cognitive Behaviour Therapy*, *43*(4), 289–298. doi:10.1080/16506073.2014.921834

Kobak, K. A., Mundt, J. C., & Kennard, B. (2015). Integrating technology into cognitive behavior therapy for adolescent depression: A pilot study. *Annals of General Psychiatry*, *14*(1), 37. Retrieved from http://www.annals-general-psychiatry.com/

Koenig, A. M., & Butters, M. A. (2014). Cognition in late-life depression: Treatment considerations. *Current Treatment Options in Psychiatry, 1*(1), 1–14. doi:10.1007/s40501-013-0001-2

Koenig, H. G., Pearce, M. J., Nelson, B., Shaw, S. F., Robins, C. J., Daher, N. S., ... & King, M. B. (2015). Religious vs. conventional cognitive behavioral therapy for major depression in persons with chronic medical illness: A pilot randomized trial. *The Journal of Nervous and Mental Disease*, *203*(4), 243–251. Retrieved from http://journals.lww.com/jonmd/pages/currenttoc.aspx

Kohen, D. (2010). *Oxford textbook of women and mental health.* Oxford, NY: Oxford University.

Kramer, G. M., Kinn, J. T., & Mishkind, M. C. (2014). Legal, regulatory, and risk management issues in the use of technology to deliver mental health care. *Cognitive and Behavioral Practice, 22*(3), 258–268. doi:10.1016/j.cbpra.2014.04.008

Krumpal, I. (2013). Determinants of social desirability bias in sensitive surveys: A literature review. Quality & Quantity: *International Journal of Methodology, 47(4),* 2025–2047. doi: 10.1007/s11135-011-9640-9

Lammers, M. W., Vroling, M. S., Ouwens, M. A., Engels, R. C., & Strien, T. (2015). Predictors of outcome for cognitive behaviour therapy in binge eating disorder. *European Eating Disorders Review*, *23*(3), 219–228. doi:10.1002/erv.2356

Lancaster, C. A., Gold, K. J., Flynn, H. A., Yoo, H., Marcus, S. M., & Davis, M. M. (2010). Risk factors for depressive symptoms during pregnancy: A systematic review. *American Journal of Obstetrics and Gynecology*, *202*(1), 5–14. http://dx.doi.org/10.1016/j.ajog.2009.09.007

Langkamp, D. L., McManus, M. D., & Blakemore, S. D. (2015). Telemedicine for children with developmental disabilities: A more effective clinical process than office-based care. *Telemedicine and e-Health*, *21*(2), 110–114. http://dx.doi.org/10.1089/tmj.2013.0379

Lazzari, C., Egan, S. J., & Rees, C. S. (2011). Behavioral activation treatment for depression in older adults delivered via videoconferencing: A pilot study. *Cognitive and Behavioral Practice, 18*(4), 555–565. http://dx.doi.org/10.1016/j.cbpra.2010.11.009

Leech, N. L., Barrett, K. C., & Morgan, G.A. (2012). *SPSS for intermediate statistics: Use and interpretation* (5th ed.). New York, NY: Lawrence Erlbaum Associates.

Lemmens, L. H. J. M., Arntz, A., Peeters, F., Hollon, S. D., Roefs, A., & Huibers, M. J. H. (2015). Clinical effectiveness of cognitive therapy v. interpersonal

psychotherapy for depression: Results of a randomized controlled trial. *Psychological Medicine*, *45*(10), 2095–2110. http://dx.doi.org/10.1017/s0033291715000033

Leseth, A. B. (2015). What is culturally informed psychiatry? Cultural understanding and withdrawal in the clinical encounter. *BJPsych Bulletin*, 187–190. doi:10.1192/pb.bp.114.047936

Leung, C. W., Epel, E. S., Willett, W. C., Rimm, E. B., & Laraia, B. A. (2015). Household food insecurity is positively associated with depression among low-income supplemental nutrition assistance program participants and income-eligible nonparticipants. *The Journal of Nutrition*, *145*(3), 622–627. http://dx.doi.org/10.3945/jn.114.199414

Levine, B. E. (2011). *400% rise in anti-depressant pill use: American are disempowered – can the OWS uprising shake us out of our depression?* Retrieved from http://www.alternet.org/story/152873/400_rise_in_antidepressant_pill_use%3A_americans_are_disempowered_can_the_ows_uprising_shake_us_ouf_our_depression

Lighthall, N. R., Mather, M., & Gorlick, M. A. (2009). Acute stress increases sex differences in risk seeking in the balloon analogue risk task. *Plos Medicine*, *9*(2), 10–35. http://dx.doi.org/10.1371/journal.pone.0006002

Lim, N. (2016). Cultural differences in emotion: differences in emotional arousal level between the East and the West. Integrative Medicine Research. *Kiom*, *5*(2), 105–2016. http://www.sciencedirect.com/science/article/pii/S2213422016300191

Lindner, D., Lacefield, K., Dunn, S. T., & Dunn, M. E. (2013). The use of videoconference in the treatment of panic disorder with Agoraphobia in a housebound woman. *Clinical Case Studies*, 146–166. doi:10.1177/1534650113504292

Lingiardi, V., & Colli, A. (2015). Therapeutic alliance and alliance ruptures and resolutions: Theoretical definitions, assessment issues, and research findings. In C. G. Omar, A. Pritz, & B. Rieken (Eds.), *Psychotherapy research* (pp. 311–329). doi:10.1007/978-3-7091-1382-0_16

Liu, X. S., Loudermilk, B., & Simpson, T. (2014). Introduction to sample size choice for confidence intervals based on *t* statistics. *Measurement in Physical Education and Exercise Science*, *18*(2), 91–100. doi:10.1080/1091367X.2013.864657

Lokkerbol, J., Adema, D., Cuijpers, P., Reynolds, C. F., Schulz, R., Weehuizen, R., & Smit, F. (2014). Improving the cost-effectiveness of a healthcare system for depressive disorders by implementing telemedicine: A health economic modeling study. *The American Journal of Geriatric Psychiatry*, *22*(3), 253–262. doi:10.1016/j.jagp.2013.01.058

Luoma, J. B., Martin, C. E., & Pearson, J. L. (2002). Contact with mental health and primary care providers before suicide: A review of the evidence. *American Journal of Psychiatry, 159*(6), 909–916. doi:10.1176/appi.ajp.159.6.909

Luxton, D. D., Pruitt, L. D., & Jenkins-Guarnieri, M. A. (2015). Clinical assessment in clinical videoconferencing. *Behavioral Telehealth,* 203–220. http://dx.doi.org/10.1007/978-3-319-08765-8_9

Luxton, D. D., Pruitt, L. D., O'Brien, K., & Kramer, G. (2015). An evaluation of the feasibility and safety of a home-based telemental health treatment for posttraumatic stress in the US military. *Telemedicine and e-Health*. http://dx.doi.org/10.1089/tmj.2014.0235

Luxton, D. D., Pruitt, L. D., & Osenbach, J. E. (2014). Best practices for remote psychological assessment via telehealth technologies. *American Psychological Association, 45*(1), 27–35. http://dx.doi.org/10.1037/a0034547

Maglione, J. E., Ancoli-Israel, S., Peters, K. W., Paudel, M. L., Yaffe, K., Ensrud, K. E., . . . Stone, K. L. (2014). Depressive symptoms and circadian activity rhythm disturbances in community-dwelling older women. *The American Journal of Geriatric Psychiatry*, *22*(4), 349–361. Retrieved from http://www.sciencedirect.com/science/article/pii/S1064748112000462

Magsamen-Conrad, K., Dowd, J., Abuljadail, M., Alsulaiman, S., & Shareefi, A. (2015). Life-span differences in the uses and gratifications of tablets: Implications for older adults. *Computers in human behavior*, *52*, 96-106. Retrieved from http://www.sciencedirect.com/science/article/pii/S0747563215003957

Malhotra, S., Chakrabarti, S., & Shah, R. (2013). Telepsychiatry: Promise, potential, and challenges. *Indian Journal of Psychiatry*, *55*(1), 3. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3574452/

Mamdani, F., Berlim, M.T., Beaulieu, M., & Turecki, G. (2014). Pharmacogenomic predictors of citalopram treatment outcome in major depressive disorder. *World Journal of Biological Psychiatry, 15*(2), 135–144. doi:10.3109/15622975.2013.766762

Mansikkamäki, K., Raitanen, J., Malila, N., Sarkeala, T., Männistö, S., Fredman, J., . . . Luoto, R. (2015). Physical activity and menopause-related quality of life–A population-based cross-sectional study. *Maturitas*, *80*(1), 69–74.

Marcus, M., Yasamy, M. T., Van Ommeren, M., Chisholm, D., & Saxena, S. (2013). *Depression: A global public health concern*. Retrieved from http://www.who.int/mental_health/management/depression/who_paper_depression_wfmh_2012.pdf 201411061843289651612O4

May, C., Gask, L., Atkison, T., Ellis, N., Mair, F., & Esmail, A (2001). Resisting and promoting new technologies in clinical practice: The case of telepsychiatry. *Social Science & Medicine, 52,* 1889–1901. doi:10.1016/S0277-9536(00)00305-1

Mehta, M., & Sagar, R. (2015). *A practical approach to cognitive behaviour therapy for adolescents*. Retrieved from https://books.google.com/books?id=w-F5BgAAQBAJ&pg=PA179&dq=Cognitive-Behavioral+therapy+2015&hl=en&sa=X&ved=0CFwQ6AEwB2oVChMIrM7R0v-XyQIVQsNjCh1eSArW#v=onepage&q=Cognitive-Behavioral%20therapy%202015&f=false

Mercier, A., Benichou, J., Auger-Aubin, I., Lebeau, J. P., Houivet, E., Van Royen, P., & Peremans, L. (2015). How do GP practices and patient characteristics influence the prescription of antidepressants? A cross-sectional study. *Annals of General Psychiatry*, *14*(1), 1–10. http://dx.doi.org/10.1186/s12991-015-0041-7

Mewton, L., & Andrews, G. (2015). Cognitive behaviour therapy via the internet for depression: A useful strategy to reduce suicidal ideation. *Journal of Affective Disorders, 170,* 78–84. doi:10.1016/j.jad.2014.08.038

Michaud, C. M., Murray, C. J., & Bloom, B. R. (2001). Burden of disease—Implications for future research. *Journal of American Medical Association, 285*(5), 535–539. Retrieved from http://jama.jamanetwork.com/article.aspx?articleid=193516

Milgrom, J., Gemmill, A. W., Ericksen, J., Burrows, G., Buist, A., & Reece, J. (2015). Treatment of postnatal depression with cognitive behavioural therapy, sertraline and combination therapy: A randomised controlled trial. *Australian and New Zealand Journal of Psychiatry, 49*(3), 236–245. doi:10.1177/0004867414565474

Mitchell, P. B., Frankland, A., Hadzi-Pavlovic, D., Roberts, G., Corry, J., Wright, A., & Breakspear, M. (1999). Comparison of depressive episodes in bipolar disorder and in major depressive disorder within bipolar disorder pedigrees. *The British Journal of Psychiatry, 4*, 303–309. http://dx.doi.org/10.1192/bjp.bp.110.088823

Mohammadi, A., Ebrahimi, S., & Hasanzadeh, R. (2014). Compare self-regulation strategies in single and married university depressed women student. *Journal of Social Issues & Humanities, 2*(2), 25–27. Retrieved from http://www.journalsih.com/Research%20Articles/Vol%202/Issue%202/Compare%20Self%20Regulation%20Strategies%20in%20Single%20and%20Married%20University%20Depressed.pdf

Mohr, D. C., Ho, J., Duffecy, J., Reifler, D., Sokol, L., Burns, M. N., & Siddique, J. (2012). Effect of telephone-administered vs face-to-face cognitive behavioral therapy on adherence to therapy and depression outcomes among primary care patients: A randomized trial. *Journal of American Medical Association Psychiatry, 307*(21), 2278–2285. http://dx.doi.org/10.1001/jama.2012.5588

Morgan, A. J., Jorm, A. F., & Mackinnon, A. J. (2013). Internet-based recruitment to a depression prevention intervention: lessons from the Mood Memos study. *Journal of Medical Internet Research, 15*(2). Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3636291/

Morland, L. A., Mackintosh, M. A., Rosen, C. S., Willis, E., Resick, P., Chard, K., & Frueh, B. C. (2015). Telemedicine versus in-person delivery of cognitive processing therapy for women with posttraumatic stress disorder: A randomized noninferiority trail. *Depression and Anxiety*. http://dx.doi.org/10.1002/da.22397

Morris, B. H., McGrath, A. C., Goldman, M. S., & Rottenberg, J. (2014). Parental depression confers greater prospective depression risk to females than males in emerging adulthood. *Child Psychiatry & Human Development, 45*(1), 78–89.

Mulligan, J., Haddock, G., Hartley, S., Davies, J., Sharp, T., Kelly, J., . . . Barrowclough, C. (2014). An exploration of the therapeutic alliance within a telephone-based cognitive behaviour therapy for individuals with experience of psychosis. *Psychology and Psychotherapy: Theory, Research and Practice*. doi:10.1111/papt.12018

Mulligan, N. (2015). A discourse analysis of psychotherapists' account of their work with people who are taking prescribed anti-depressant medication. Retrieved from http://doras.dcu.ie/20419/1/Nigel_Mulligan.pdf

Murphy, S. L., Xu, J., & Kochaneck, K. D. (2013). Deaths: Final data for 2010. *National Vital Statistics Report, 61*(4), 1–118. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf

Myers, K., & Turvey, C. (Eds.). (2012). *Telemental health: Clinical, technical, and*

administrative foundations for evidence-based practice. Retrieved from https://books.google.com/books?id=A8ySufEe384C&pg=PA212&dq=CBT+DEPRESSION+video+conferencing&hl=en&sa=X&ved=0CD4Q6AEwAzgKahUKEwj5gJ2B25rJAhXH2T4KHX9KA_8#v=onepage&q=CBT%20DEPRESSION%20video%20conferencing&f=false

Myles, P., & Shafran, R. (2015). *The CBT handbook: A comprehensive guide to using CBT to overcome depression, anxiety, stress, low self-esteem and anger*. Retrieved from https://books.google.com/books?hl=en&lr=&id=_2NpBgAAQBAJ&oi=fnd&pg=PT8&dq=The+CBT+Handbook:+A+&ots=jNtx5DMlWO&sig=mq2SkIT0Lvh-k1QH9r8J014AX2I#v=onepage&q=The%20CBT%20Handbook%3A%20A&f=false

Nathan, P. E., & Gorman, J. M. (Eds.). (2015). *A guide to treatments that work*. Retrieved from https://books.google.com/books?hl=en&lr=&id=1RaCCQAAQBAJ&oi=fnd&pg=PP1&dq=psychotherapy+is+most+effective+in+treating+depression&ots=MLFPrHHXCk&sig=DH6-gkTfHTdk70Z4L0_LUGGYRGw#v=onepage&q=psychotherapy%20is%20most%20effective%20in%20treating%20depression&f=false

National Alliance on Mental Illness. (2008). Women and depression: Fact sheet. Retrieved from http://www.networkofcare.org/library/womenanddepression.pdf

National Alliance on Mental Illness. (2009). Women and depression fact sheet. Retrieved from

http://www.nami.org/Content/NavigationMenu/Mental_Illnesses/Women_and_Depression/womenanddepression.pdf

National Alliance on Mental Illness. (2014). Tell me about depression. Retrieved from http://www.nami.org/Search?searchtext=DEPRESSION&searchmode=anyword

National Alliance on Mental Illness. (2014). *Women and depression: Discovering hope*. Retrieved from http://www.nimh.nih.gov/health/publications/women-and-depression-discovering-hope/index.shtml

Nielsen, R. M., Olsen, K. S., Lauritsen, A. O. E., & Boesen, H. C. (2014). Electroconvulsive therapy as a treatment for protracted refractory delirium in the intensive care unit: Five cases and a review. *Journal of Critical Care, 29*, 881. http://dx.doi.org/10.1016/j.jcrc.2014.05.012

Nelson, E. L., & Duncan, A. B. (2015). Cognitive behavioral therapy using televideo. *Cognitive and Behavioral Practice*, 22(1), 269–280. Retrieved from http://www.sciencedirect.com/science/article/pii/S1077722915000231

Nevanperä, N., Keränen, A. M., Ukkola, O., & Laitinen, J. (2015). Effects of group counseling transmitted through videoconferencing on changes in eating behaviors. *Journal of Nutrition Education and Behavior, 47(6),* 555–559. Retrieved from https://www.researchgate.net/profile/AnnaMaria_Keraenen/publication/28151890

Newman, M. G., Szkodny, L. E., Llera, S. J., & Przeworski, A. (2011). A review of technology-assisted self-help and minimal contact therapies for anxiety and depression: Is human contact necessary for therapeutic efficacy? *Clinical Psychology Review, 31*(1), 89–103. http://dx.doi.org/10.1016/j.cpr.2010.09.008

Nezu, C. M., & Nezu, A. M. (Eds.). (2015). *The Oxford handbook of cognitive and behavioral therapies*. Retrieved from https://books.google.com/books?hl=en&lr=&id=4v7VCgAAQBAJ&oi=fnd&pg=PP1&dq=The+CBT+Handbook:+A+&ots=35OlLdSbKN&sig=SFOjwqoRfbiRtQt8EqltFXY4R94#v=onepage&q=The%20CBT%20Handbook%3A%20A&f=false

Oei, T. P., & Green, A. L. (2008). The Satisfaction with Therapy and Therapist Scale--Revised (STTS-R) for group psychotherapy: Psychometric properties and confirmatory factor analysis. *Professional Psychology: Research and Practice, 39*(4), 435. doi:10.1037/0735-7028.39.4.435

O'Kelly, M. E., & Collard, J. J. (2015). Rational emotive behavior therapy. In C. M. Nezu & A. M. Nezu (Eds.), *The Oxford handbook of cognitive and behavioral therapies* (pp. 142–159). Retrieved from https://books.google.com/books?hl=en&lr=&id=4v7VCgAAQBAJ&oi=fnd&pg=PA142&dq=The+ABCs+of+REBT+Revisited:+&ots=35OlNeSeOO&sig=Ww6WFmnIWE_B6WzPEQ01dblu7wo#v=onepage&q&f=false

Okoroh, E. M., Kroelinger, C. D., Smith, A. M., Goodman, D. A., & Barfield, W. D. (2016). US and territory telemedicine policies: identifying gaps in perinatal care. *American Journal of Obstetrics and Gynecology, 215*(6), 772-e1. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5206488/

Olatunji, B. O., Davis, M. L., Powers, M. B., & Smits, J. A. (2015). Cognitive-behavioral therapy for obsessive-compulsive disorder: A meta-analysis of treatment outcome and moderators. *Focus, 13*(2), 222–231. http://dx.doi.org/10.1176/appi.focus.130219

O'Loughlin, R. E., Duberstein, P. R., Veazie, P. J., Bell, R. A., Rochlen, A. B., Garcia, E. F., & Kravitz, R. L. (2014). Role of the gender-linked norm of toughness in the decision to engage in treatment for depression. *Psychiatric Services, 62*(7), 740–746. http://dx.doi.org/10.1176/ps.62.7.pss6207_0740

O'Neil, A., Taylor, B., Sanderson, K., Cyril, S., Chan, B., Hawkes, A. L., . . .Oldenberg, B. (2014). Efficacy and feasibility of a tele-health intervention of acute coronary syndrome patients with depression: Results of the "mood care" randomized control trial. *Annals of Behavioral Medicine, 48*(2), 163–174. http://dx.doi.org/10.1007/s12160-014-9592-0

Owens, D. G. (2014). A guide to the extrapyramidal side-effects of antipsychotic drugs. Retrieved from https://books.google.com/books/about/A_Guide_to_the_Extrapyramidal_Side_Effec.html?id=RwRSahg71GkC

Pan, Y. J., Kuo, K. H., Chan, H. Y., & McCrone, P. (2014). Cost-effectiveness and cost-utility of selective serotonin reuptake inhibitors, serotonin norepinephrine reuptake inhibitors, and tricyclic antidepressants in depression with comorbid cardiovascular disease. *Journal of Psychiatric Research, 54*, 70–78. http://dx.doi.org/10.1016/j.jpsychires.2014.03.002

Papageorgiou, C., & Siegle, G. J. (2003). Rumination and depression: Advances in theory and research. *Cognitive Therapy and Research*, *27*(3), 243–245. Retrieved from http://www.springerlink.com/index/v424874328652470.pdf

Parikh, S. V. (2015). Improving access to psychosocial treatments—Integrating patient, provider, and systems approaches. *Canadian Journal of Psychiatry*, *60*(6), 242. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4501581/

Parikh, M., Grosch, M. C., Graham, L. L., Hynan, L. S., Weiner, M., Shore, J. H., & Cullum, C. M. (2013). Consumer acceptability of brief videoconference-based neuropsychological assessment in older individuals with and without cognitive impairment. *The Clinical Neuropsychologist*, *27*(5), 808–817. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3692573/

Parikh, S. V., & Huniewicz, P. (2015). E-health: An overview of the uses of the Internet, social media, apps, and websites for mood disorders. *Current Opinion in Psychiatry*, *28*(1), 13–17. doi:10.1097/YCO.0000000000000123

Parker, G., & Kennedy, S. H. (2015). Psychotherapies for adult depression: Recent developments. *Current Opinion in Psychiatry*, *28*(1), 24–29. Retrieved from http://journals.lww.com/copsychiatry/Abstract/2015/01000/Psychotherapies_for_adult_depression___recent.6.aspx

Pearce, M. J., Koenig, H. G., Robins, C. J., Nelson, B., Shaw, S. F., Cohen, H. J., & King, M. B. (2015). Religiously integrated cognitive behavioral therapy: A new method of treatment for major depression in patients with chronic medical illness. *Psychotherapy*, *52*(1), 56. Retrieved from http://psycnet.apa.org/journals/pst/52/1/56/

Pearson, N., & Biddle, S. J. (2011). Sedentary behavior and dietary intake in children, adolescents, and adults. A systematic review. *American Journal of Preventive Medicine*, *41*(2), 178–188. http://dx.doi.org/10.1016/j.amepre.2011.05.002

Perle, J. G., Burt, J., & Higgins, W. J. (2014). Psychologist and physician interest in telehealth training and referral for mental health services: An exploratory study. *Journal of Technology in Human Services*, *32*(3), 158–185. doi:10.1080/15228835.2014.894488

Perlis, R. H., Iosifescu, D. V., Castro, V. M., Murphy, S. N., Gainer, V. S., Minnier, J., ... Smoller, J. W. (2012). Using electronic medical records to enable large-scale studies in psychiatry: Treatment resistant depression as a model. *Psychological Medicine*, *42*(1), 41–50. http://dx.doi.org/10.1017/s0033291711000997

Pilgrim, D. (2014). *Key concepts in mental health*. Retrieved from http://books.google.com/books?hl=en&lr=&id=HfSZAwAAQBAJ&oi=fnd&pg=PP1&dq=existential+and+the+humanistic+theory+in+mental+health&ots=tZsYcZdKCe&sig=ISx_2YCUiDQZQjWurQ0-BAfSYsg#v=onepage&q=existential%20and%20the%20humanistic%20theory%20in%20mental%20health&f=false

Polinski, J. M., Barker, T., Gagliano, N., Sussman, A., Brennan, T. A., & Shrank, W. H. (2015). Patients' satisfaction with and preference for telehealth visits. *Journal of General Internal Medicine*, 1–7. doi:10.1007/s11606-015-3489-x

Pollock, J., & Cunningham, S. (2015). Gender and the law: 25 years of progress?. *Women & Criminal Justice*, *25*(1-2), 33–49. doi:10.1080/08974454.2015.1023886

Popplewell, N. T., Rechel, B. P., & Abel, G. A. (2014). How do adults with physical disability experience primary care? A nationwide cross-sectional survey of access among patients in England. *BMJ Open*, *4*(8), e004714. http://dx.doi.org/10.1136/bmjopen-2013-004714

Pradeep, J., Isaac, A., Shanbag, D., Selvan, S., & Srinivasan, K. (2014). Enhanced care by community health workers in improving treatment adherence to antidepressant medication in rural women with major depression. *Indian Journal of Medical Research*, *139*(2), 236–245. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/24718398

Prairie, B. A., Wisniewski, S. R., Luther, J., Hess, R., Thurston, R. C., Wisner, K. L., & Bromberger, J. T. (2015). Symptoms of depressed mood, disturbed sleep, and sexual problems in midlife women: Cross-sectional data from the study of women's health across the nation. *Journal of Women's Health*, *24*(2), 119–126. http://dx.doi.org/10.1089/jwh.2014.4798

Pratt, L. A., Brody, D. J., & Gu, Q. (2011). *Antidepressant use in persons aged 12 and over: United States, 2005–2008*. Retrieved from http://www.cdc.gov/

Price, M., & Gros, D. F. (2014). Examination of prior experience with telehealth and comfort with telehealth technology as a moderator of treatment response for PTSD and depression in veterans. *The International Journal of Psychiatry in Medicine*, *48*(1), 57–67. doi:10.2190/PM.48.1.e

Rachman, S. (2015). The evolution of behaviour therapy and cognitive behaviour therapy. *Behaviour Research and Therapy*, *64*, 1–8. doi:10.1016/j.brat.2014.10.006

Raosoft. (2004). *Sample size calculator*. Retrieved from http://www.raosoft.com/samplesize.html20141207133912160017 2878

Rathod, S., Kingdon, D., Pinninti, N., Turkington, D., & Phiri, P. (2015). *Cultural adaptation of CBT for serious mental illness: A guide for training and practice*.

Retrieved from https://books.google.com/books?hl=en&lr=&id=Jc46BgAAQBAJ&oi=fnd&pg=PA248&dq=Cultural+Adaptation+of+CBT+for+Serious+Mental+Illness:+A+Guide+for+Training&ots=AcQ2GDDyxM&sig=rbZ27ERwk-YEWGTlXBi4t_YdQgk#v=onepage&q=Cultural%20Adaptation%20of%20CBT%20for%20Serious%20Mental%20Illness%3A%20A%20Guide%20for%20Training&f=false

Rawana, J. S., & Morgan, A. S. (2014). Trajectories of depressive symptoms from adolescence to young adulthood: The role of self-esteem and body-related predictors. *Journal of Youth and Adolescence*, *43*(4), 597–611. Retrieved from http://link.springer.com/article/10.1007/s10964-013-9995-4

Rawson, R. A., & Galanter, M. (2015). Behavioural approaches: An introduction. *Textbook of Addiction Treatment: International Perspectives*, 775–778. doi:10.1007/978-88-470-5322-9_151

Rees, C. S., & Haythornthwaite, S. (2004). Telepsychology and videoconferencing: Issues, opportunities and guidelines for psychologists. *Australian Psychologist*, *39*(3), 212–219. doi:10.1080/00050060412331295108

Rees, C. S., & Maclaine, E. (2015). A Systematic review of videoconference-delivered psychological treatment for anxiety disorders. *Australian Psychologist*, *50*(4), 259-264. doi:10.1111/ap.12122

Rhoads, C. J., Bankston, G., Roach, J., Jahnke, R., & Roth, W. (2014). Telehealth in Rural Pennsylvania. Retrieved from http://www.rural.palegislature.us/documents/reports/Telehealth-2014.pdf

Richards, P., & Simpson, S. (2014). Beyond the therapeutic hour: An exploratory pilot study of using technology to enhance alliance and engagement within face-to-face psychotherapy. *British Journal of Guidance & Counseling, 5*, 1–37. http://dx.doi.org/10.1080/03069885.2014.936824

Richardson, L. K., Frueh, B. C., Grubaugh, A. L., Johnson, R. H., Egede, L. E., & Elhai, J. D. (2009). Current directions in videoconferencing tele-mental health research. *Clinical and Practice, 16*, 323–338. doi:10.1111/j.1468-2850.2009.01170.x

Rini, C., Porter, L. S., Somers, T. J., McKee, D. C., & Keefe, F. J. (2014). Retaining critical therapeutic elements of behavioral interventions translated for delivery via the internet: recommendations and an example using pain coping skills training. *Journal of Medical Internet research*, *16*(12), e245. Retrieved from http://www.jmir.org/2014/12/e245

Rist, P. M., Schürks, M., Buring, J. E., & Kurth, T. (2013). Migraine, headache, and the risk of depression: Prospective cohort study. *Cephalalgia*, *33*(12), 1017–1025. Retrieved from http://cep.sagepub.com/content/33/12/1017.short

Rocha, N. S., & Schuch, F. B. (2014). Gender differences in perception of quality of life in adults with and without chronic health conditions: The role of depressive symptoms. *Journal of Health Psychology, 19*(6), 721–729. doi:10.1177/1359105313478644

Romero, K., & Feinstein, A. (2015). Depression and multiple sclerosis: Imaging, mechanisms. In *Neuropsychiatric symptoms of inflammatory demyelinating diseases* (pp. 27–38). doi:10.1007/978-3-319-18464-7_3

Rose, G. L., Skelly, J. M., Badger, G. J., Ferraro, T. A., & Helzer, J. E. (2014). Efficacy

of automated telephone continuing care following outpatient therapy for alcohol dependence. *Addictive Behaviors, 23*(1), 516–523. http://dx.doi.org/10.1016/j.addbeh.2014.10.022

Rudestam, K. E., Giannetti, R. A., & Stamm, B. H. (2005). Role of technology in clinical psychology. *Health Psychology, 23*(2), 170–183. doi:10.1002/0471264385

Ruusunen, A., Lehto, S. M., Mursu, J., Tolmunen, T., Tuomainen, T. P., Kauhanen, J., & Voutilainen, S. (2014). Dietary patterns are associated with the prevalence of elevated depressive symptoms and the risk of getting a hospital discharge diagnosis of depression in middle-aged or older Finnish men. *Journal of Affective Disorders, 159*, 1–6. Retrieved from http://www.sciencedirect.com/science/article/pii/S0165032714000482

Sanchez-Villegas, A., Toledo, E., De Irala, J., Ruiz-Canela, M., Pla-Vidal, J., & Martinez-Gonzalez, M. A. (2012). Fast-food and commercial baked goods consumption and the risk of depression. *Public Health Nutrition, 15*(3), 424–432. http://dx.doi.org/10.1017/s1368980011001856

Sarason, I. G., Pierce, G. R., & Sarason, B. R. (Eds.). (2014). *Cognitive interference: Theories, methods, and findings*. Retrieved from http://books.google.com/books?hl=en&lr=&id=vrK3AwAAQBAJ&oi=fnd&pg=PT9&dq=cognitive+therapy+theory+created+by&ots=8rXVPJEC6d&sig=mwicu8iIV_d_jJuB6eNmWBHOTdc#v=onepage&q=cognitive%20therapy%20theory%20created%20by&f=false

Saunders, S. M. (2001). Pretreatment correlates of the therapeutic bond. *Journal of clinical psychology, 57*(12), 1339–1352. doi:10.1002/jclp.1101

Sbarra, D. A., Emery, R. E., Beam, C. R., & Ocker, B. L. (2014). Marital dissolution and major depression in midlife a propensity score analysis. *Clinical Psychological Science*, *2*(3), 249–257. Retrieved from http://cpx.sagepub.com/content/2/3/249.short

Schoenberg, R. (2015). 8 Telehealth: Connecting patients with providers in the 21st century. In M. A. Grando, R. Rozenblum, & D. W. Bates (Eds.), *Information technology for patient empowerment in healthcare* (pp. 125–140). Retrieved from https://books.google.com/books?hl=en&lr=&id=0PJeCAAAQBAJ&oi=fnd&pg=PA125&dq=private+insurance+companies+pay+for+telehealth&ots=m8E5VioQyu&sig=FX47cPRJHphYMXzrecBLLub0b1I#v=onepage&q=private%20insurance%20companies%20pay%20for%20telehealth&f=false

Schoenfeld, T. J., & Cameron, H. A. (2015). Adult neurogenesis and mental illness. *Neuropsychopharmacology*, *40*(1), 113–128. Retrieved from http://www.nature.com/npp/journal/v40/n1/abs/npp2014230a.html

Schouten, K. A., Knipscheer, J. W., Kleber, R. J., & Hutschemaekers, G. J. (2014). The effectiveness of art therapy in the treatment of traumatized adults a systematic review on art therapy and trauma. *Trauma, Violence, & Abuse, 16*(2), 220–228. http://dx.doi.org/10.1177/1524838014555032

Schwartz, T. J., & Lonborg, S. D. (2011). Security management in telepsychology. *Professional Psychology: Research and Practice, 42*(6), 419–425. http://dx.doi.org/10.1037/a0026102

Scogin, F. R., Moss, K., Harris, G. M., & Presnell, A. H. (2014). Treatment of depressive symptoms in diverse, rural, and vulnerable older adults. *International Journal of*

Geriatric Psychiatry, *29*(3), 310–316. doi:10.1002/gps.4009

Scott, K., Klech, D., Lewis, C. C., & Simons, A. D. (2015). What did they learn? Effects of a brief cognitive behavioral therapy workshop on community therapists' knowledge. *Community Mental Health Journal*, 1–6. doi:10.1007/s10597-015-9876-2

Shalev, I., Moffitt, T. E., Braithwaite, A. W., Danese, A., Fleming, N. I., Goldman-Mellor, S., . . . Caspi, A. (2014). Internalizing disorders and leukocyte telomere erosion: a prospective study of depression, generalized anxiety disorder and post-traumatic stress disorder. *Molecular Psychiatry*, *19*, 1163–1170. Retrieved from http://www.nature.com/mp/journal/v19/n11/full/mp2013183a.html

Sharf, R. (2015). *Theories of psychotherapy & counseling: Concepts and cases*. Boston, MA: Cengage Learning.

Sharp, I. R., Kobak, K. A., & Osman, D. A. (2011). The use of videoconferencing with patients with psychosis: A review of the literature. *Annals of General Psychology*, *10*, 1–14. http://dx.doi.org/10.1186/1744-859x-10-14

Sheu, Y. H., Lanteigne, A., Stürmer, T., Pate, V., Azrael, D., & Miller, M. (2015). SSRI use and risk of fractures among perimenopausal women without mental disorders. *Injury Prevention*, injuryprev-2014. http://dx.doi.org/10.1136/injuryprev-2014-041483

Shingleton, R. M., Richards, L. K., & Thompson-Brenner, H. (2013). Using technology within the treatment of eating disorders: A clinical practice review. *Journal of Psychotherapy*, *50*(4), 210–218. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/23527906

Shirk, S. R., & Karver, M. S. (2011). *Alliance in child and adolescent psychotherapy* (2nd ed.). doi:10.1093/acprof:oso/9780199737208.003.0003

Shirk, S. R., Karver, M. S., & Brown, R. (2011). The alliance in child and adolescent psychotherapy. *Psychotherapy, 48*(1), 17. Retrieved from http://psycnet.apa.org/journals/pst/48/1/17/

Shore, P., Goranson, A., Ward, M. F., & Lu, M. W. (2014). Meeting veterans where they're: A VA home-based telemental health (HBTMH) pilot program. *The International Journal of Psychiatry in Medicine, 48*(1), 5–17. doi:10.2190/PM.48.1.b

Shulman, K. I., Herrmann, N., & Walker, S. E. (2013). Current place of monoamine oxidase inhibitors in the treatment of depression. *CNS Drugs, 27*(10), 789–797. http://dx.doi.org/10.1007/s40263-013-0097-3

Silverman, W. H. (2013). The future of psychotherapy: One editor's perspective. *Psychotherapy, 50*(4), 484–489. doi:10.1037/a0030573.

Silverstein, B. (2014). Gender differences in the prevalence of somatic versus pure depression: A replication. *American Journal of Psychiatry*, *159*(6), 1051–1052. Retrieved from http://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.159.6.1051

Simmons, D. (2015). *Implementation of Telehealth among behavioral health providers serving rural and hard to reach populations.* Presented at the 143rd APHA Annual Meeting and Exposition (October 31-November 4, 2015). Retrieved from https://apha.confex.com/apha/143am/webprogram/Paper336594.html

Simonds, S. (2001) *Depression and women*. New York, NY: Springer.

Simpson, S., Bell, L., Knox, J., & Mitchell, D. (2005). Therapy via videoconferencing: A

route to client empowerment? *Clinical Psychology and Psychotherapy*, *12*, 156–165. http://dx.doi.org/10.1002/cpp.436

Simpson, S. G., & Reid, C. L. (2014). Therapeutic alliance in videoconferencing psychotherapy: A review. *Australian Journal of Rural Health*, *22*(6), 280–299. doi:10.1111/ajr.12149

Singh, G. K., & Siahpush, M. (2014). Widening rural–urban disparities in life expectancy, US, 1969–2009. *American journal of preventive medicine*, *46*(2), e19–e29. doi:10.1016/j.amepre.2013.10.017

Strien, T., Winkens, L., Toft, M. B., Pedersen, S., Brouwer, I., Visser, M., & Lähteenmäki, L. (2016). The mediation effect of emotional eating between depression and body mass index in the two European countries Denmark and Spain. *Appetite*, 105, 500–508. http://www.sciencedirect.com/science/article/pii/S0195666316302537

Skiba, D. J. (2015). Connected health 2015: The year of virtual patient visits. *Nursing Education Perspectives*, *36*(2), 131–133. http://dx.doi.org/10.5480/1536-5026-36.2.131

Smith, A. H., Norton, P. J., & Mclean, C. P. (2013). Client Perceptions of Therapy Component Helpfulness in Group Cognitive-Behavioral Therapy for Anxiety Disorders. *Journal of Clinical Psychology*, *69*(3), 229–239. doi:10.1002/jclp.21926

Smolderen, K. G., Strait, K. M., Dreyer, R. P., D'Onofrio, G., Zhou, S., Lichtman, J. H., ... & Krumholz, H. M. (2015). Depressive symptoms in younger women and men with acute myocardial infarction: insights from the VIRGO study. *Journal of the*

American Heart Association, 4(4), e001424. Retrieved from http://jaha.ahajournals.org/content/ahaoa/4/4/e001424.full.pdf

Sommers-Flanagan, J., & Sommers-Flanagan, R. (2015). *Counseling and psychotherapy theories in context and practice: Skills, strategies, and techniques*. Retrieved from https://books.google.com/books?hl=en&lr=&id=SqWLBgAAQBAJ&oi=fnd&pg=PA225&dq=Counseling+and+psychotherapy+theories+in+context+and+practice:+Skills,+strategies,+and+techniques&ots=BXlbtiagCN&sig=trTnBpBkpz82ORua4DiQK2iHGZo#v=onepage&q=Counseling%20and%20psychotherapy%20theories%20in%20context%20and%20practice%3A%20Skills%2C%20strategies%2C%20and%20techniques&f=false

Spielmans, G. I., & Kirsch, I. (2015). Antidepressant research controversies. *The Encyclopedia of Clinical Psychology*. doi:10.1002/9781118625392.wbecp483

Stahl, S. M. (2013). *Stahl's essential psychopharmacology: Neuroscientific basis and practical applications*. Retrieved from https://books.google.com/books?hl=en&lr=&id=BBtMzTV8OMgC&oi=fnd&pg=PR1&dq=stahl+(2013)+&ots=Hfpmx7KuN2&sig=ktuq-BIPAYc_IwgHQJBMBSio7aM#v=onepage&q=stahl%20(2013)&f=false

Stafford, L., Judd, F., Gibson, P., Komiti, A., Quinn, M., & Mann, G. B. (2014). Comparison of the hospital anxiety and depression scale and the center for epidemiological studies depression scale for detecting depression in women with breast or gynaecological cancer (2014). *General Hospital Psychiatry, 36*(1), 74–80. doi:10.1016/j.genhosppsych.2013.08.010

Steel, K., Cox, D., & Garry, H. (2011). Therapeutic videoconferencing interventions for

the treatment of long-term conditions. *Journal of Telemedicine and Telecare, 17*(3), 109–117. http://dx.doi.org/10.1258/jtt.2010.100318

Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Mahwah, NJ: Routledge Academic.

Stiles-Shields, C., Corden, M. E., Kwasny, M. J., Schueller, S. M., & Mohr, D. C. (2015). Predictors of outcome for telephone and face-to-face administered cognitive behavioral therapy for depression. *Psychological Medicine*, *45*(15), 3205–3215. http://dx.doi.org/10.1017/S0033291715001208

Stiles-Shields, C., Kwasny, M. J., Cai, X., & Mohr, D. C. (2014). Therapeutic alliance in face-to-face and telephone-administered cognitive behavioral therapy. *Journal of consulting and clinical psychology*, *82*(2), 349. Retrieved from http://psycnet.apa.org/journals/ccp/82/2/349/

Stolorow, R. D., Brandchaft, B., & Atwood, G. E. (2014). *Psychoanalytic treatment: An intersubjective approach*. Retrieved from http://books.google.com/books?hl=en&lr=&id=Bi_KAgAAQBAJ&oi=fnd&pg=PP1&dq=therapeutic+working+alliance+theory+and+Freud%27s&ots=7_BPMsneEJ&sig=VgQB6JVQnWnFza8ji5jpW_zTvx8

Stone, A. A., Bachrach, C. A., Jobe, J. B., Kurtzman, H. S., & Cain, V. S. (Eds.). (1999). *The science of self-report: Implications for research and practice*. Psychology Press. Retrieved from https://books.google.com/books?hl=en&lr=&id=k9p4AgAAQBAJ&oi=fnd&pg=PP1&dq=self+report+bias&ots=OKzPjDVman&sig=B0W8oUlprtKsWbFuEvs_eTl0xYI#v=onepage&q=self%20report%20bias&f=false

Stoppard, J. M. (2013). *Understanding depression: Feminist social constructionist approaches.* New York, NY: Routledge.

Strachan, M., Gros, D. F., Ruggiero, K. J., Lejuez, C. W., & Acierno, R. (2012). An integrated approach to delivering exposure-based treatment for symptoms of PTSD and depression in OIF/OEF veterans: Preliminary findings. *Behavior Therapy, 43*(3), 560–569. doi:10.1016/j.beth.2011.03.003

Strasser, A. (2015). Trauma-focused cognitive behavioral therapy: An evidence based practice applicable with minority children. *Gallaudet Chronicles of Psychology*, 38–42. Retrieved from https://www.gallaudet.edu/Documents/Gallaudet-Chronicles-Psychology.pdf#page=38

Street, R. L., Gold, W. R., & Manning, T. R. (2013). *Health promotion and interactive technology: Theoretical applications and future directions*. Retrieved from https://books.google.com/books?hl=en&lr=&id=kVv-AQAAQBAJ&oi=fnd&pg=PP1&dq=The+Mental+Health+Professional+and+the+New+Technologies:&ots=_PjsbwYf4q&sig=wQWnIl34DYQK2GC0neBZjHPmUdc#v=onepage&q=technology&f=false

Stubbings, D. R. (2012). *The effectiveness of videoconference-based cognitive-behavioural therapy* (Doctoral dissertation, Curtin University). Retrieved from http://espace.library.curtin.edu.au/cgi-bin/espace.pdf?file=/2012/12/06/file_1/188325

Subramaniam, M., Prasad, R. O., Abdin, E., Vaingankar, J. A., & Chong, S. A. (2016). Single mothers have a higher risk of mood disorders. Retrieved from https://open-

access.imh.com.sg/bitstream/123456789/4406/1/Single%20mothers%20have%20a%20higher%20risk%20of%20mood%20disorders.pdf

Sudak, D. M., Codd III, R. T., Ludgate, J. W., Sokol, L., Fox, M. G., Reiser, R. P., & Milne, D. L. (2015). *Teaching and supervising cognitive behavioral therapy*. Retrieved from https://books.google.com/books?hl=en&lr=&id=0BjICgAAQBAJ&oi=fnd&pg=PR17&dq=Teaching+and+Supervising+Cognitive+Behavioral+Therapy&ots=WT_ig5oprw&sig=b-gbQDW2mZSoUgN6ENB99OYMg1Q#v=onepage&q=Teaching%20and%20Supervising%20Cognitive%20Behavioral%20Therapy&f=false

Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.

Teychenne, M., Ball, K., & Salmon, J. (2010). Physical activity, sedentary behavior and depression among disadvantaged women. *Oxford Journal, 25*(4), 632–644. http://dx.doi.org/10.1093/her/cyq008

Teychenne, M., Torres, S., McNaughton, S. A., Salmon, J., & Ball, K. (2014). Mediators of the relationship between sedentary behavior and depressive symptoms amongst disadvantaged women. *Mental Health in Physical Activity, 7*(1), 30–36. http://dx.doi.org/10.1016/j.mhpa.2013.09.005

Thase, M. E., Kingdon, D., & Turkington, D. (2014). The promise of cognitive behavior therapy for treatment of severe mental disorders: A review of recent developments. *World Psychiatry, 13*(3), 244–250. Retrieved from http://onlinelibrary.wiley.com/doi/10.1002/wps.20149/full

Théberge-Lapointe, N., Marchand, A., Langlois, F., Gosselin, P., & Watts, S. (2015). Efficacy of a cognitive-behavioural therapy administered by videoconference for generalized anxiety disorder. *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology*, *65*(1), 9–17. doi:10.1016/j.erap.2014.10.001

Thomas, D., MacDowell, M., & Glasser, M. (2012). Rural mental health workforce needs assessment-national survey. *National Center for Rural Health Professionals, 12*, 1–12. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/23088609

Thorp, S. R., Fidler, J., Moreno, L., Floto, E., & Agha, Z. (2012). Lessons learned from studies of psychotherapy for posttraumatic stress disorder via video teleconferencing. *Psychological Services*, *92*(2), 197–199. http://dx.doi.org/10.1037/a0027057

Tovote, K. A., Schroevers, M. J., Snippe, E., Sanderman, R., Links, T. P., Emmelkamp, P. M., & Fleer, J. (2015). Long-term effects of individual mindfulness-based cognitive therapy and cognitive behavior therapy for depressive symptoms in patients with diabetes: A randomized trial. *Psychotherapy and Psychosomatics*, *84*(3), 186–187. Retrieved from http://www.karger.com/Article/Abstract/375453

Travis, C. B. (2014). *Women and health psychology: Mental health issues*. New York, NY: Lawrence Erlbaum Associates.

Trochim, W. M. (2006). *Descriptive statistics*. Retrieved from http://www.socialresearchmethods.net/kb/statdesc.php

Tryon, G. S. (2014). *Working alliance*. Retrieved from

http://www.fordham.edu/images/undergraduate/psychology/all%20overheads/tryon/First%20Year/Class%202/class%

Tschuschke, V., Crameri, A., Koehler, M., Berglar, J., Muth, K., Staczan, P., . . . Koemeda-Lutz, M. (2014). The role of therapists' treatment adherence, professional experience, therapeutic alliance, and clients' severity of psychological problems: Prediction of treatment outcome in eight different psychotherapy approaches. Preliminary results of a naturalistic study. *Psychotherapy Research*, *25*(4), 420–434. doi:10.1080/10503307.2014.896055

Tuerk, P. W., & Shore, P. (Eds.). (2015). *Clinical videoconferencing in telehealth: Program development and practice*. New York, NY: Springer.

U.S. Census Bureau. (2015). Profile of general population and housing characteristics: 2010 demographic profile data. Retrieved from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk

VanBuskirk, K., Roesch, S., Afari, N., & Wetherell, J. L. (2014). Physical activity of patients with chronic pain receiving acceptance and commitment therapy or cognitive. *Behaviour Change, 31*(02), 131–143. http://dx.doi.org/10.1017/bec.2014.6

van Dooren, F. E., Nefs, G., Schram, M. T., Verhey, F. R., Denollet, J., & Pouwer, F. (2013). Depression and risk of mortality in people with diabetes mellitus: a systematic review and meta-analysis. *PLoS One, 8*(3), e57058. Retrieved from http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0057058

Veasy, A. (2015). Albert Ellis. In D. L. Dobbert & T. X. Mackey (Eds.), *Deviance: Theories on behaviors that defy social norms* (pp. 98–107). Retrieved from https://books.google.com/books?hl=en&lr=&id=u_H3CQAAQBAJ&oi=fnd&pg=PA98&dq=Albert+Ellis+Revisited&ots=d7jDMPLI_7&sig=fCVWfkQXE51QM8Pj3l1PgEyzK9o#v=onepage&q&f=false

Verdoux, H., Cortaredona, S., Dumesnil, H., Sebbah, R., & Verger, P. (2014). Psychotherapy for depression in primary care: a panel survey of general practitioners' opinion and prescribing practice. *Social Psychiatry and Psychiatric Epidemiology*, *49*(1), 59–68. Retrieved from http://link.springer.com/article/10.1007/s00127-013-0717-8

Vieira, E. R., Brown, E., Raue, P. (2014). Depression in older adults: Screening and referral. *Journal of Geriatric Physical Therapy, 37*(1) 24–30. doi:10.1519/JPT.0b013e31828df26f

Von Wolff, A., Hölzel, L. P., Westphal, A., Härter, M., & Kriston, L. (2013). Selective serotonin reuptake inhibitors and tricyclic antidepressants in the acute treatment of chronic depression and dysthymia: A systematic review and meta-analysis. *Journal of Affective Disorders, 144*(1), 7–15. http://dx.doi.org/10.1016/j.jad.2012.06.007

Wagener, A., Baeyens, C., & Blairy, S. (2016). Depressive symptomatology and the influence of the behavioral avoidance and activation: A gender-specific investigation. *Journal of affective disorders*, *193*, 123–129. Retrieved from http://s3.amazonaws.com/academia.edu.documents/41068988/Wagener__Baeyens___Blairy._2016._JAD_Accepted_Manuscript.pdf?AWSAccessKeyId=AKIAJ5

6TQJRTWSMTNPEA&Expires=1478759113&Signature=HrJwy89%2B0w0lJ5J1%2BAG0uX%2Bw2C8%3D&response-content-disposition=inline%3B%20filename%3DDepressive_symptomatology_and_the_influe.pdf

Wagner, B., Horn, A. B., & Maercker, A. (2014). Internet-based versus face-to-face cognitive-behavioral intervention for depression: A randomized controlled non-inferiority trial. *Journal of affective disorders*, *152*, 113–121. doi:10.1016/j.jad.2013.06.032

Wampold, B. E. (2001). *The great psychotherapy debate: Models, methods and findings.* Mahwash, NJ: Erlbaum.

Watson, M., White, C., Davolls, S., Mohammed, A., Lynch, A., & Mohammed, K. (2013). Problem-focused interactive telephone therapy for cancer patients: A phase II feasibility trial. *Psycho-Oncology, 22*(7), 1485–1491. http://dx.doi.org/10.1002/pon.3194

Weaver, A., Himle, J. A., Taylor, R. J., Matusko, N. N., & Abelson, J. M. (2015). Urban vs rural residence and the prevalence of depression and mood disorder among African American women and Non-Hispanic White women. *JAMA Psychiatry, 72*(6), 576. http://dx.doi.org/10.1001/jamapsychiatry.2015.10

Weinstein, R. S., Lopez, A. M., Joseph, B. A., Erps, K. A., Holcomb, M., Barker, G. P., & Krupinski, E. A. (2014). Telemedicine, telehealth, and mobile health applications that work: opportunities and barriers. *The American journal of medicine, 127*(3), 183–187. Retrieved from http://s3.amazonaws.com/academia.edu.documents/42581191/Applications_that_

work.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1482373123&Signature=PU3jwObU7oD3hHR14NRHhuULotw%3D&response-content-disposition=inline%3B%20filename%3DTelemedicine_Telehealth_and_Mobile_Healt.pdf

Wemakor, A., Casson, K., & Dolk, H. (2014). Prevalence and sociodemographic patterns of antidepressant use among women of reproductive age: A prescription database study. *Journal of Affective Disorders*, *167*, 299–305. http://dx.doi.org/10.1016/j.jad.2014.06.015

Wenzel, A. (2013). *Strategic decision making in cognitive behavioral therapy*. Retrieved from http://psycnet.apa.org/psycinfo/2013-02671-000/ https://books.google.com/books?hl=en&lr=&id=SqWLBgAAQBAJ&oi=fnd&pg=PA225&dq=Cognitive+Behavioral+Therapy:+Techniques+for+Retraining+Your+Brain&ots=BXlbtiaeAO&sig=uNFxcJQ9Bz6l6usFInhyQTdZEYw#v=onepage&q&f=false

Wiarda, N. R., McMinn, M. R., Peterson, M. A., & Gregor, J. A. (2014). Use of technology for note taking and therapeutic alliance. *Journal of Psychotherapy, 51*(3), 443–446. http://dx.doi.org/10.1037/a0035075

Wiid, J., & Diggines, C. (2009). *Marketing research measurement and method* (6th ed.). Cape Town, ZA: Macmillan.

Withers, M., Moran, R., Nicassio, P., Weisman, M. H., & Karpouzas, G. A. (2015). Perspectives of vulnerable US Hispanics with rheumatoid arthritis on depression: Awareness, barriers to disclosure, and treatment options. *Arthritis Care & Research*, *67*(4), 484–492. http://dx.doi.org/10.1002/acr.22462

Witters, D., Liu, D., & Agrawal, S. (2013). Depression costs U.S. workplace $23 billion in absenteeism. Retrieved from http://www.gallup.com/poll/163619/depression-costs-workplaces-billion-absenteeism.aspx

Wodarski, J. S., & Frimpong, J. (2015). Application of e-therapy programs to social work practice. In J. S. Wodarski & S. V. Curtis (Eds.), *e-therapy for substance abuse and co-morbidity* (pp. 1–10). doi:10.1007/978-3-319-12376-9_1

Woolf, C., Caute, A., Haigh, Z., Galliers, J., Wilson, S., Kessie, A., ... & Marshall, J. (2015). A comparison of remote therapy, face to face therapy and an attention control intervention for people with aphasia: A quasi-randomised controlled feasibility study. *Clinical Rehabilitation.* http://dx.doi.org/10.1177/0269215515582074

World Health Organization. (2008). *The global burden of disease: 2004 update*. Retrieved from http://www.who.int/topics/global_burden_of_disease/en/

World Health Organization. (2012). World suicide prevention. Retrieved from http://www.who.int/mediacentre/events/annual/world_suicide_prevention_day/en/

Wrzesien, M., Burkhardt, J. M., Alcañiz, M., & Botella, C. (2011). How technology influences the therapeutic process: A comparative field evaluation of augmented reality and in vivo exposure therapy for phobia of small animals. *In Human-Computer Interaction, 27,* 523–540. http://dx.doi.org/10.1007/978-3-642-23774-4_43

Wustenberg, S., Greiff, S., Molnar, G., & Funke, J. (2014). Cross-national gender differences in complex problem solving and their determinants. *Learning and Individual Differences, 29,* 18–29. doi:10.1016/j.lindif.2013.10.006

Xue, R., Zhang, Y. P., Jin, Z. L., Yuan, L., He, X. H., Zhao, N., & Li, Y. F. (2013). The discovery of 071031B, A novel serotonin and noradrenaline reuptake inhibitor. *Neuroscience Letters, 544*, 68–73. http://dx.doi.org/10.1016/j.neulet.2013.02.076

Yin, R. K. (2014). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Yoshimura, S., Okamoto, K., Onoda, M., Matsunaga, G., Okada, Y., Kunisato, A., . . . Yamawaki, S. (2014). Cognitive behavioral therapy for depression changes medial prefrontal and ventral anterior cingulated cortex activity associated with self-referential processing. *Social Cognitive and Affective Neuroscience, 9*(4), 487–493. http://dx.doi.org/10.1093/scan/nst009

Young, W. H., & Young, N. K. (2007). *The Great Depression in America: A cultural encyclopedia* (Vol. 2). Westport, CT: Greenwood.

Yuen, E. K., Gros, D. F., Price, M., Zeigler, S., Tuerk, P. W., Foa, E. B., & Acierno, R. (2015). Randomized controlled trial of home-based telehealth versus in-person prolonged exposure for combat-related PTSD in veterans: Preliminary results. *Journal of Clinical Psychology*, *71*(6), 500–512. http://dx.doi.org/10.1002/jclp.22168

Yuen, E. K., Herbert, J. D., Forman, E. M., Goetter, E. M., Juarascio, A. S., Rabin, S., ... & Bouchard, S. (2013). Acceptance based behavior therapy for social anxiety disorder through videoconferencing. *Journal of Anxiety Disorders*, *27*(4), 389–397. Retrieved from https://www.researchgate.net/publication/237820279_Acceptance-based_behavior_therapy_for_social_anxiety_disorder_through_videoconferencing_Manuscript_under_review

Zettle, R. D. (2015). Acceptance and commitment therapy for depression. *Current Opinion in Psychology, 2*, 65–69. Retrieved from http://www.sciencedirect.com/science/article/pii/S2352250X14000323

Zhang, N., Chen., H., Zou, Y. (2014). A joint model of binary and longitudinal data with non-ignorable missingness, with application to martial stress and late-life depression in women. *Journal of Applied Statistics, 41*(5), 1028–1039. http://dx.doi.org/10.1080/02664763.2013.859235201412071551541596050024

Zivin, K., Yosef, M., Miller, E. M., Valenstein, M., Duffy, S., Kales, H. C., . . . Kim, H. M. (2015). Associations between depression and all-cause and cause-specific risk of death: A retrospective cohort study in the Veterans Health Administration. *Journal of Psychosomatic Research, 78*(4), 324–331. Retrieved from http://www.sciencedirect.com/science/article/pii/S002239991500029X

Zlotnick, C., Tzilos, G., Miller, I., Seifer, R., & Stout, R. (2016). Randomized controlled trial to prevent postpartum depression in mothers on public assistance. *Journal of affective disorders*, *189*, 263-268. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4641029/

Appendix A: Demographic Information

The information contained in this questionnaire will remain confidential. All published reports will not include any identifying information of the participants in this study.

1. **What is your gender?**

   ☐ Female

   ☐ Male

2. **Are you between 40–65 years of age?**

   ☐ Yes

   ☐ No

3. **Have you been diagnosed with depression in the last 16 months?**

   ☐ Yes

   ☐ No

4. **Did you receive cognitive behavioral therapy (CBT) that may have entailed homework, writing in a journal, role-playing, and problem resolution as well as behavioral activation, which entails a list of activities for you to engage in?**

   ☐ Yes

   ☐ No

5. **What CBT technique(s) did you find most effective during your clinical experience?**

   _____

6. **Have you received cognitive behavioral face-to-face psychotherapy for a minimum of 6 months in the last 16 months?**

   ☐ Yes

☐ No

7. **Have you received cognitive behavioral therapy via videoconferencing for a minimum of 6 months in the last 16 months?**

   ☐ Yes

   ☐ No

8. **In what state did you receive cognitive behavioral therapy via videoconferencing psychotherapy?**

   _____

9. **In what state was your psychologist when he/she provided you cognitive behavioral therapy via videoconferencing?**

   _____

10. **What race or ethnicity best describes you? (Please choose only one)**

    ☐ American Indian or Alaskan Native

    ☐ Asian/Pacific Islander

    ☐ Black or African American

    ☐ Hispanic or Latino

    ☐ White/Caucasian

    ☐ Other

11. **What is the highest level of education you have completed?**

    ☐ No schooling completed

    ☐ Some high school, no diploma

☐ High school graduate, diploma or the equivalent (GED)

☐ Some college credit, no degree

☐ Trade, technical, or vocational training

☐ Associate degree

☐ Bachelor's degree

☐ Master's degree

☐ Professional degree

☐ Doctorate degree

12. Are you currently…? (Please choose only one)

☐ Employed for wages

☐ Self-employed

☐ Out of work and looking for work

☐ Out of work but not currently looking for work

☐ A homemaker

☐ Military

☐ Retired

☐ Unable to work

13. Are you experiencing financial hardship?

☐ Yes

☐ No

14. Are you physically impaired or have difficulties walking?

☐ Yes

☐ No

15. Marital Status:

☐ Married

☐ Not Married

Appendix B: Therapeutic Bond Scale

Please complete the following online questionnaire by marking (X) the answer below that best identifies your therapeutic relationship and your motivation for continuing therapy.

1. **How do you feel about the psychotherapy you are currently receiving or have received in the last 6 months?**

   ☐ Poor

   ☐ Average

   ☐ Excellent

2. **To what extent are you looking forward to your next session?**

   ☐ Poor

   ☐ Average

   ☐ Excellent

To what extent do you agree with the following statements regarding your psychotherapy?

3. **I hoped to get a chance to let go and get things off my chest.**

   ☐ Poor

   ☐ Average

   ☐ Excellent

4. **I hoped to get relief from tension or unpleasant feelings.**

   ☐ Poor

   ☐ Average

   ☐ Excellent

5. I hoped to understand the reasons behind my feelings and behaviors.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

6. I hoped to find out what my feelings really were, and what I really wanted.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

7. I hoped to work out a particular problem that's been bothering me.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

8. I felt determined.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

9. I felt serious.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

10. I was able to focus on what was of real concern to me.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

11. I took initiative in bringing up the subjects that were talked about.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

12. I talked.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

13. My therapist appeared thoughtful.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

14. My therapist appeared involved.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

15. My therapist appeared confident.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

To what extent do you agree with the following statements regarding your psychotherapy?

1. **To what extent did your therapist understand what you were feeling and thinking.**

   ☐ Did Not Understand At All

   ☐ Neutral

   ☐ Completely Understood

2. **My therapist seemed to understand when I felt frustrated.**

   ☐ I Do Not Agree At All

   ☐ Neutral

   ☐ I Completely Agree

3. **My therapist seemed to understand when I felt impatient.**

   ☐ I Do Not Agree At All

   ☐ Neutral

   ☐ I Completely Agree

4. **My therapist seemed to understand when I felt withdrawn.**

   ☐ I Do Not Agree At All

   ☐ Neutral

   ☐ I Completely Agree

5. **My therapist seemed to understand when I felt confused.**

   ☐ I Do Not Agree At All

   ☐ Neutral

   ☐ I Completely Agree

6. **My therapist seemed to understand when I felt cautious.**

   ☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

7. My therapist seemed to understand when I felt strange.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

8. My therapist seemed to understand when I felt embarrassed.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

9. My therapist seemed to understand when I felt confident.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

10. My therapist seemed to understand when I felt inhibited.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

11. My therapist seemed to understand when I felt helpless.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

12. My therapist was attentive to what I was trying to get across.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

13. I was attentive to what my therapist was trying to get across to me.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

14. I talked about what I was feeling.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

15. My therapist seemed bored.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

16. My therapist seemed interested.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

17. My therapist seemed alert.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

To what extent do you agree with the following statements regarding your psychotherapy?

1. **I felt grateful.**
   - ☐ I Do Not Agree At All
   - ☐ Neutral
   - ☐ I Completely Agree
2. **I felt accepted.**
   - ☐ I Do Not Agree At All
   - ☐ Neutral
   - ☐ I Completely Agree
3. **I felt hopeful.**
   - ☐ I Do Not Agree At All
   - ☐ Neutral
   - ☐ I Completely Agree
4. **I felt close.**
   - ☐ I Do Not Agree At All
   - ☐ Neutral
   - ☐ I Completely Agree
5. **I felt pleased.**
   - ☐ I Do Not Agree At All
   - ☐ Neutral
   - ☐ I Completely Agree
6. **I felt likeable.**

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

7. I felt affectionate.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

8. I have a person-to-person relationship with my therapist.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

9. My therapist was friendly and warm towards me.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

10. I tended to accept or agree with what my therapist said.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

11. My therapist tended to accept or agree with my ideas and point of view.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

12. I showed friendliness or respect towards my therapist.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

13. My therapist seemed to feel pleased.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

14. My therapist seemed to feel close.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

15. My therapist seemed to feel cheerful.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

16. My therapist seemed to feel affectionate.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

16. My therapist seemed to feel affectionate.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

17. My therapist seemed to feel attracted.

☐ I Do Not Agree At All

☐ Neutral

☐ I Completely Agree

Appendix C: Treatment Credibility Questionnaire

Treatment Credibility Questionnaire (TCQ)

Please complete the following online questionnaire by marking (X) the answer that best identifies your preference, reasoning, and perception of treatment value.

1. **How much do you expect this therapy to be helpful to you?**

   ☐ Never 1

   ☐ Rarely 2

   ☐ Occasionally 3

   ☐ Sometimes 4

   ☐ Frequently 5

   ☐ Usually 6

   ☐ Every time 7

2. **How logical does your therapy seem to you?**

   ☐ Never 1

   ☐ Rarely 2

   ☐ Occasionally 3

   ☐ Sometimes 4

   ☐ Frequently 5

   ☐ Usually 6

   ☐ Every time 7

3. **How scientific does your therapy seem to you?**

   ☐ Never 1

   ☐ Rarely 2

☐ Occasionally 3

☐ Sometimes 4

☐ Frequently 5

☐ Usually 6

☐ Every time 7

4. **How much do you think your therapy will help you to understand the causes of your problems?**

☐ Never 1

☐ Rarely 2

☐ Occasionally 3

☐ Sometimes 4

☐ Frequently 5

☐ Usually 6

☐ Every time 7

5. **How much do you think your therapy will help you to learn effective ways of coping with your problems?**

☐ Never 1

☐ Rarely 2

☐ Occasionally 3

☐ Sometimes 4

☐ Frequently 5

☐ Usually 6

☐ Every time 7

6. **To what degree does the treatment you are receiving match your ideas of what helps people in psychotherapy?**

   ☐ Far below

   ☐ Moderately below

   ☐ Slightly below

   ☐ Met expectations

   ☐ Slightly above

   ☐ Moderately above

   ☐ Far above

Appendix D: Revised STTS-R

Satisfaction With Therapy and Therapist Scale – Revised (STTS-R)

Please check mark the number that best describes your opinion of your satisfaction with the therapy and therapists.

1. **I am satisfied with the quality of the therapy I received.**
   - ☐ Strongly Disagree 1
   - ☐ Disagree 2
   - ☐ Neutral 3
   - ☐ Agree 4
   - ☐ Strongly Agree 5
2. **The therapist listened to what I was trying to get across.**
   - ☐ Strongly Disagree 1
   - ☐ Disagree 2
   - ☐ Neutral 3
   - ☐ Agree 4
   - ☐ Strongly Agree 5
3. **My needs were met by the therapy.**
   - ☐ Strongly Disagree 1
   - ☐ Disagree 2
   - ☐ Neutral 3
   - ☐ Agree 4
   - ☐ Strongly Agree 5

4. **The therapist provided an adequate explanation regarding my therapy**

   ☐ Strongly Disagree 1

   ☐ Disagree 2

   ☐ Neutral 3

   ☐ Agree 4

   ☐ Strongly Agree 5

5. **I would recommend this therapy to a friend.**

   ☐ Strongly Disagree 1

   ☐ Disagree 2

   ☐ Neutral 3

   ☐ Agree 4

   ☐ Strongly Agree **5**

6. **The therapist was not negative or critical towards me.**

   ☐ Strongly Disagree 1

   ☐ Disagree 2

   ☐ Neutral 3

   ☐ Agree 4

   ☐ Strongly Agree 5

7. **I would return to this therapist if I needed help.**

   ☐ Strongly Disagree 1

   ☐ Disagree 2

   ☐ Neutral 3

   ☐ Agree 4

☐ Strongly Agree 5

8. The therapist was friendly and warm towards me.

☐ Strongly Disagree 1

☐ Disagree 2

☐ Neutral 3

☐ Agree 4

☐ Strongly Agree 5

9. I am now able to deal more effectively with my problems.

☐ Strongly Disagree 1

☐ Disagree 2

☐ Neutral 3

☐ Agree 4

☐ Strongly Agree 5

10. I feel free to express myself.

☐ Strongly Disagree 1

☐ Disagree 2

☐ Neutral 3

☐ Agree 4

☐ Strongly Agree 5

11. I was able to focus on what was of real concern to me.

☐ Strongly Disagree 1

☐ Disagree 2

☐ Neutral 3

☐ Agree 4

☐ Strongly Agree 5

12. The therapist seemed to understand what I was thinking and feeling.

☐ Strongly Disagree 1

☐ Disagree 2

☐ Neutral 3

☐ Agree 4

☐ Strongly Agree 5

13. How much did this treatment help with the specific problem that led you to therapy?

☐ Made things a lot better 1

☐ Made things somewhat better 2

☐ Made no difference 3

☐ Made things somewhat worse 4