

SPIRITUALLY ORIENTED COGNITIVE PROCESSING THERAPY FOR SPIRITUAL
STRUGGLE IN CHRISTIAN SEXUAL ASSAULT SURVIVORS WITH POSTTRAUMATIC
STRESS DISORDER

by

Deborah A. Driggs

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

A Single Case Research Design (SCRD) with a multiple-baseline across participants was used to investigate the effects Spiritually Oriented Cognitive Processing Therapy-Cognitive (SOCPT-C) had on spiritual struggle, posttraumatic stress disorder (PTSD) scores and depression in four Christian sexual assault survivors with PTSD reporting spiritual struggle. A complex reciprocal relationship between spiritual struggle and PTSD is suggested in the literature as influencing posttraumatic adjustment and treatment for Christian trauma survivors. Many empirically supported treatments (EST) for PTSD lack spiritual interventions to directly target effects from this relationship. Individuals completed an online pre-screening evaluation and an assessment was scheduled with those meeting inclusion criteria. Staggered treatment occurred in the counseling setting and included either (1) Cognitive Processing Therapy-Cognitive (CPT-C) or (2) SOCPT-C, a spiritually modified version of CPT-C. Data was collected through continuous assessment with two sessions weekly for eight weeks. Visual analysis was conducted through examining data patterns related to (1) level, (2) trend, (3) variability, (4) immediacy of the effect, (5) overlap and (6) consistency of data patterns across similar phases. Results indicated change was often gradual with no rapid shift and mixed treatment effects. The study findings indicated SOCPT-C was an effective intervention for decreasing spiritual struggle and PTSD. For depression scores, results were mixed and inconclusive for both interventions and their influences. Future research that evaluates the effects an EST inclusive with spiritual interventions have on the identified reciprocal relationship remains are indicated.

Keywords: trauma, spiritual struggle, PTSD, spiritual intervention, SCRD, CPT-C, SOCPT-C

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List of Abbreviations

American Psychiatric Association (APA)

American Psychological Association (APA)

Clinician-Administered PTSD Scale (CAPS-5)

Cognitive Processing Therapy-Cognitive (CPT-C)

Continuous Assessment (CA)

Diagnostic and Statistical Manual of Mental Disorders (DSM)

Empirically Supported Treatment (EST)

Evidence-Based Practice (EBP)

Mini-Mental Status Exam (MMSE)

National Center for PTSD (NCPTSD)

Negative Religious Cognitions (NRCog)

Negative Religious Coping (NRCop)

Patient Health Questionnaire -9 (PHQ-9)

Posttraumatic Growth (PTG)

Posttraumatic Stress Disorder (PTSD)

PTSD Checklist for DSM-5 (PCL-5)

Religious/Spiritual (R/S)

Single Case Research Design (SCRD)

Spiritual Struggle (SS)

Spiritually Oriented Cognitive Processing Therapy-Cognitive (SOCPT-C)

Standard Assessment (SA)

Treatment-As-Usual (TAU)

CHAPTER ONE: INTRODUCTION

Religious and spiritual (R/S) beliefs comprise a substantial part of many people's global meaning systems and therefore inform how they understand, react to and cope with trauma (Anderson-Mooney, Webb, Mvududu, & Charbonneau, 2015; Fontana & Rosenheck, 2005; Park, 2005; Steger & Park, 2012; Wortmann, Park, & Edmondson, 2011). Research suggests R/S issues often arise following a traumatic experience and may result in spiritual growth (SG) or spiritual struggle (SS), both of which play a central role in the wake of trauma and influence posttraumatic growth (PTG) (Boehnlein, 2007; FalLOT, 1997; Pargament, Desai, & McConnell, 2006; Park, 2005; Park, Cohen, & Muruch, 1996; Tedeschi, Park &, Calhoun, 1998). For example, an individual believing God to be close to them prior to a trauma that views God as distant and uncaring following a trauma is likely experiencing SS. The R/S issues often resulting in post-trauma and associated with PTG are further discussed in Chapter Two.

Potential protective factors identified that the influences the association between exposure to trauma and Posttraumatic Stress Disorder (PTSD) include spiritual well-being and religious beliefs (Bormann, Liu, Thorp, & Lang, 2011; Falsetti, Resick, & Davis, 2003; Hofman, Hahn, Tirabassi, & Gaher, 2016; Hunt & Evans, 2004). Further, Christian clients that have experienced a traumatic event often identify their religious beliefs and/or faith as an important factor in their recovery process (Bohnlein, 2007; Cragun & Friedlander, 2012; Fontana, 2004; Koenig, Pargament, & Nielsen, 1998; Pargament, Koenig, Tarakeshwar, & Hahn, 2001; Propst, Ostrom, Watkins, & Mashburn, 1992). Those that experience SG following a trauma undergo a strengthening of R/S beliefs that may serve as a protective factor in PTG following trauma (Calhoun & Tedeschi, 2006; Park, 2005).

Spiritual change indicative of SS as represented by negative religious cognitions (NRCog) about the self, God, and the world seem to parallel cognitions known to be factors in the development and maintenance of PTSD symptoms (Bohnlein, 2007; Brewin & Holmes, 2003; Janoff-Bulman, 2005; Park, 2005; Wortmann, Parks, & Edmondson, 2011) and SS has been linked to PTSD in a variety of trauma-exposed samples (Dura`-Vila`, Littlewood, & Leavey, 2013; Harris, Erbes, Engdahl, Olson, Winskowski, & McMahill, 2008). Further, individuals developing PTSD following a traumatic event have been identified as more likely to report reduced spiritual well-being and weakened religious beliefs following the traumatic event (Bormann, Liu, Thorp, & Lang, 2011; Falsetti et al, 2003; Fontana & Rosenheck, 2004). The complex reciprocal relationship identified between a R/S belief system, SG versus SS, and the development and maintenance of PTSD will be further delineated in studies considered within Chapter Two.

Background to the Problem

Prevalence of PTSD

Trauma affects an individual psychologically, physically, socially, and spiritually (Kusner & Pargament, 2012; van der Kolk, McFarlane, & Weisaeth 2012). PTSD is one of the most prevalent disorders treated in psychotherapy (Bradley et al., 2005) and is characterized by debilitating symptoms that persist in response to a traumatic event (American Psychological Association, 2015). About 7%-8% of trauma survivors will develop PTSD at some point in their lives and about 10% of women develop PTSD following a traumatic event (The National Center for PTSD, 2016). According to the National Institute of Mental Health (NIMH, 2015) 3.5% of the U.S. population has PTSD with 36.6% of these experiencing severe PTSD symptoms.

While a large percentage of people in the United States experience a traumatic event during the lifetime, not all develop PTSD (Bonanno, 2004; Falsetti, Resick, & Davis, 2003; Park, 2005). Meichenbaum (2013) indicates about 70% of trauma survivors do not develop PTSD or related adjustment difficulties; rather, the natural recovery process takes place as evidenced by resilience from the trauma. While mechanisms through which PTSD symptoms develop and predict PTSD are not fully understood, spiritual struggle (SS) as evidenced by negative religious cognitions (NRCog) in the meaning-making process have been identified as one potential mechanism (Anderson-Mooney et al, 2015; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999; Janoff-Bulman, 1989; Park, 2005; Wortman, Park & Edmondson, 2011).

Meaning-Making of Trauma

Regardless of culture, ethnic or religious background, most trauma survivors continually search for meaning for both their traumatic experience and their future (Bohnlein, 2007; Bulman & Wortman, 1977; Fontana & Rosenheck, 2005; Fowler, 1981; Frankl, 1992; Park, 2010; Schwartzbert & Janoff-Bulman, 1991). Traumatic life events often create issues of existential meaning (Frankl, 1963, 1992), shatter fundamental assumptions (Janoff-Bulman, 1992) held about ourselves and our world pre-trauma and change basic schemas (McCann & Pearlman, 1990; Piaget, 1952; Resick & Schnicke, 1992, 1993) that reflect a degree of disillusionment and personal vulnerability within a survivor post-trauma, resulting in more negative views of the world and their own security (Janoff-Bulman, 1992, 2005; Schwartzbert & Janoff-Bulman, 1991).

Attempts to make meaning of trauma often lead to questions such as “Why did God allow this to happen?” or “Where is God?” (Pargament, 1996; Bohnlein, 2007; Exline & Rose, 2005; Falsetti et al, 2003; Park, 2005; Thomas & Habermas, 2008, 2011). Two primary meaning-

making responses to a traumatic event have been consistently identified in relation to an individual's R/S beliefs. Posttraumatic growth (PTG) occurs when pre-trauma R/S beliefs (1) successfully change the appraised meaning of a trauma, (2) identify positive aspects of a trauma, and (3) guide thinking toward new possibilities, personal strength, positive spiritual change, and appreciation of life as a survivor (Ai & Park, 2005; Park, 2005; Tedeschi & Calhoun, 1996, 1998; Wortmann, 2011). Spiritual struggle (SS) occurs when pre-trauma R/S beliefs become maladaptive, negatively inform the religious meaning system, reduce coping, and recovery and increase PTSD symptoms (Ai & Park, 2005; Pargament, Smith, Koenig, & Perez, 1998; Wortmann, Park, & Edmondson, 2011).

R/S Belief Changes in PTSD Population

The majority of survivors diagnosed with PTSD experience a decline or growth in their R/S belief system post-trauma (Falsetti, Resick, & Davis, 2003; Foa & Riggs, 1993; Fontana & Rosenheck, 2005; Park, 2005; Schaefer et al., 2008; Walker, Reid, O'Neill, & Brown, 2009). Religious beliefs can have a positive and/or negative influence on how an individual interprets the meaning of a trauma and processes post-trauma questions (Kusner & Pargament, 2012). The R/S belief system is said to mediate the meaning-making process (Bohnlein, 2007; Park, 2005). Changes identified in the R/S beliefs of survivors with PTSD support a complex relationship between trauma, R/S beliefs and the development of PTSD.

Role of R/S Belief Changes

The reasons that individual's R/S beliefs may play such differing roles in meaning-making after trauma remain unclear but it is posited it may be due in part to maladaptive R/S cognitions consistent with SS that contribute to an existential crisis that mirrors or enhances the distress presented by the trauma (Cadell, Regehr, & Hemsworth, 2003; Falsetti et al., 2003;

Harris, Erbes, Engdahl, Olson, Winskowski, & McMahonill, 2007). The pursuit of mental health services for many suffering with PTSD has been found to be driven more by their weakening of religious faith than by the severity of their PTSD symptoms or deficits in social functioning (Fontana & Rosenheck, 2004).

Gaps in Current Literature and Treatment

The potential role of SS as evidenced by NRCog as related to the development and maintenance of PTSD symptoms is not substantially addressed in the research or treatment of PTSD (Bohnlein, 2007; Wortmann, Park & Edmondson, 2011). While religious and spiritual needs are identified as having an essential role in treatment, particularly for religious or spiritual clients (Fontana & Rosenheck, 2004; Peteet, Lu, & Narrow, 2011; Ripamonti, Borreani, Maruelli, Proserpio, Pessi, & Miccinesi, 2010), empirically supported treatment (EST) models for PTSD continue to lack inclusion of strong spiritual interventions that directly address R/S needs, such as the NRCogs that arise in an individual experiencing SS following a trauma (Bohnlein, 2007; Falsetti et al, 2003; Pargament, Ano, & Wachholtz, 2005; Wortmann et al., 2011).

Prominence of a Christian Population

According to the World Christian database, 90 percent of the world's population report involvement in religious or spiritual practices (Koenig, 2009) and 70.6% of participants in a recent poll with over 35,000 Americans identifying themselves as Christians (Pew, 2015). Religious clients prefer spiritual dialogue to be incorporated into the treatment process of therapy (Plante, 2009; Post, Wade, & Cornish, 2014). The support for integration of religion and psychotherapy continues to grow (Hill & Pargament, 2008; Post & Wade, 2014).

Treatment Needs of Christian Survivors

Many Christian clients are fundamentally grounded with a Christian worldview that strongly informs their meaning-making of life experiences through an R/S belief system. Religious and spiritual factors have been identified as resources a Christian utilizes to cope with the effects of a traumatic event (Bormann, Liu, Thorp, & Lang, 2012; Falsetti, Resick, & Davis, 2003; Fontana & Rosenheck, 2004). Traumatic experiences consistently disrupt a survivor's R/S belief system, impeding their ability to draw from pre-trauma R/S beliefs. A Christian client experiencing SS after a trauma may disconnect with primary spiritual resources such as spiritual beliefs, practices, values, and motivations, subsequently rendering these pre-trauma protective factors limited or inaccessible (Aldwin, Park, Jeong, & Nath, 2014; Fitchett, Murphy, Kim, Gibbons, Cameron, & Davis, 2004; Koenig, Berk, Daher, Pearce, Bellinger, Robins, Nelson, Shaw, Cohen, & King, 2014). Expectations for the religious beliefs of the client to be integrated into therapy is said to have increased in recent years (Post & Wade, 2014).

Inclusion of Spiritual Interventions in Treatment

A Christian's R/S beliefs play an essential role in personal, familial, sociopolitical, cultural, and religious life experiences. Many posttraumatic symptoms are thought to be the human response to cognitive disruption of a sense of order and meaning previously provided by a stable cultural or religious belief system (Bohnlein, 2007; Anderson-Mooney et al., 2015). Addressing the spiritual changes for the Christian client with PTSD and SS following a trauma is paramount to the Christian trauma survivor. Psychotherapy that includes spiritual interventions that directly deal with cognitive disruptions that result from changes in R/S beliefs and SS may be more effective for Christian clients than conventional treatment models that do not always specifically and intentionally address spiritual components.

Challenges for Inclusion of Spiritual Interventions

Despite research supporting the benefits of directly addressing the spiritual domain within psychotherapy, challenges remain regarding inclusion of specific spiritual interventions within EST protocols. The lack of spiritual intervention within ESTs may be, in part, due to long-standing difficulties in the relationships between psychiatry, psychopathology, and religion that uniquely inform treatment (Bohnelein, 2007; Curlin, Lawrence, Odell, Chin, Lantos, Koenig, & Meador, 2007; Jones, 2007; Peteet, Lu, & Narrow, 2011; Watters, 1992). Nonetheless, research suggests ESTs that directly incorporate spiritual interventions and specifically address changes within R/S beliefs and spiritual resources for Christian clients experiencing PTSD may be more effective than a standard EST that does not directly address the spiritual domain.

Statement of the Problem

Spiritual and religious needs of clients have gained attention in recent years as playing an integral role in treatment, particularly for clients identifying as religious or spiritual (Kazdin, 2011; Ripamonti, Borreani, Maruelli, Proserpio, Pessi, & Miccinesi, 2010). A complex reciprocal relationship identified between SS and PTSD may interfere with the goals and main purpose of psychotherapy in the clinical setting (Falsetti et al., 2003; Kazdin, 2011; Park & Mills, 2010). The importance of directly addressing changes in religious cognitions, particularly for those identifying as Christian clients, through clearly identified spiritual interventions within ESTs is supported in the research but remains lacking in treatment protocols (Donahue, 1985; Falsetti, et al., 2003; Kazdin, 2011; Kazdin, George, & Siegler, 1988; Pargament et al., 2006; Worthington, Hook, David, & McDaniel, 2011). The lack of direct intervention may be, in part, due to the latent nature of the spiritual domain or the ongoing controversy within the fields of faith and science.

Current literature suggests a gap remains within many available treatment protocols for addressing the spiritual needs of Christian clients presented in the clinical setting. More specifically, Cognitive Processing Therapy (CPT) protocol and resources lack inclusion of a spiritual intervention that directly and intentionally addresses or measures changes in the survivor's R/S beliefs or the effect spiritual struggle may be having on posttraumatic adjustment (Resick, Monson, & Chard, 2014). This discrepancy and the need for direct spiritual interventions within EST in the clinical setting is further discussed in Chapter Two.

Further research is needed to consider the changes in R/S beliefs for individuals following a traumatic event and the effects these changes, particularly spiritual struggle, may have on PTSD. A need for research that evaluates outcome differences between ESTs such as CPT-C (Treat-As-Usual) (TAU) and treatment that specifically addresses the spiritual domain of NRCog and spiritual struggle in survivors following a traumatic experience is supported in current research.

Purpose of the Study

The overall purpose of the present study is to examine, within a clinical setting, the role of spiritual struggle in PTSD among Christian female survivors of sexual assault. Specifically, there will be two aims. The first is to evaluate the treatment effects of SOCPT-C vs. Cognitive Processing Therapy-C (CPT-C) (TAU) in the identified population experiencing PTSD and spiritual struggle. The second will be to examine the reciprocal relationship between an individual's R/S belief system and posttraumatic adjustment that an emphasis on the influence of spiritual struggle, as evidenced by NRCog, has on the development and maintenance of PTSD following a sexual assault. Empirically based psychotherapy is the gold standard of treatment for trauma survivors. EST protocols help survivors reframe beliefs that are contributing to PTSD

symptomology to more adaptive beliefs that can restore psychological well-being and promote PTG. EST protocols more often lack inclusion of a spiritual intervention that directly targets R/S maladaptive beliefs that promote SS. Understanding and addressing changes in the R/S belief systems of trauma survivors, as well as the reciprocal relationship between SS and PTSD is indicated in the literature as an important area of study lacking in current research.

Research Questions

Given the purpose identified within this current study, the principal research questions framing this study are:

RQ1. What is the prevalence of changes, if any, in R/S beliefs for individuals that have experienced a traumatic event of sexual assault?

RQ2. Are the changes in R/S beliefs that lead to spiritual struggle, as evidenced by NRCog, more likely to be associated with PTSD than changes in R/S beliefs that lead to posttraumatic growth?

RQ3. What are the outcome differences, if any, in SOCPT-C and CPT-C (TAU) treatment as related to spiritual struggle and PTSD?

It is expected that SOCPT-C (1) will have a direct negative effect on SS and NRCog, (2) will have an indirect negative effect on PTSD through addressing SS and (3) will be more effective at relieving PTSD in Christian clients. It is expected that PTSD (1) will have a direct negative effect on SG and direct positive effect on SS. It is expected that spiritual struggle (1) will have a direct negative effect on meaning-making, (2) will have a direct positive effect on PTSD and (3) will mediate the relationship between trauma and PTSD.

It is reasoned that this study represents an important contribution to understanding the importance of utilizing direct spiritual interventions with Christian clients for treatment of PTSD and SS.

Assumptions and Limitations

Generally, it was assumed that both PTSD and SS were measured with reference to an identified specific event and changes reported at each session assessment were a result of the treatment administered. Application of EST inclusive of spiritual interventions for Christian clients with PTSD in the clinical setting was assumed to be a higher standard of treatment because (1) many clients had spiritual needs related to PTSD that influence client satisfaction, treatment course and prognosis; (2) R/S beliefs influenced coping with trauma, and the development and maintenance of PTSD, (3) R/S beliefs influenced compliance with treatments,, and (4) standards of care required respect for clients' cultural and spiritual beliefs.

Assumptions

SS and R/S beliefs were quantified through questionnaires and self-report inventories, specifically by utilizing the Brief RCOPE (Pargament, 2000, 2005). PTSD was quantified through questionnaires and self-report inventories, specifically by utilizing the CAPS and PCL-5. A sufficient sample was garnered to yield sound statistical results and casual inferences to the standard of a typical Single Case Research Design (SCRD). Subjects responded truthfully to all items on each of the measurements. Different kinds of treatment were expected to be more efficacious for different kinds of clients.

Limitations

The infrequency of attention given to SS in the literature created potential difficulty in measuring the variable. Still, studies have reported that SS often occurs in a survivor's R/S

beliefs following a trauma. The sample represented only a small part of the population of female sexual assault survivors with PTSD. The single type of trauma experienced by this sample of female adult survivors was sexual assault. R/S cognitions and PTSD symptoms may be very different in other sample populations. Individual and cultural differences between participants may impact how trauma survivors express SS. The sample in this study was Christian females. Results may not be generalized to groups beyond the one that was studied. The sample size used in this study may compromise internal validity. Lack of ethnic diversity was present in this study. The Caucasian population was used primarily and this study lacked examination of how trauma and SS is experienced across different ethnic groups. The focus of this study was on the single religious belief system, Christianity, and did not represent how individuals from other R/S belief systems find meaning in traumatic experiences. The therapist performed dual roles of researcher and counselor, as well as balanced the administrative role within private practice.

Research Design

A SCRD with multiple baselines was proposed to examine the effects of SOCPT-C versus CPT-C through treatment application within a clinical setting and with a Christian population of female sexual assault survivors experiencing PTSD and SS following a trauma. A breakdown of the treatment phases was noted in the section on theoretical framework within this chapter and further delineated in Chapter Three.

This study evaluated if spiritually oriented treatment (i.e., SOCPT-C) was more effective in treating PTSD for Christian female survivors of sexual assault experiencing SS than CPT-C whose protocol is absent of a specific and direct spiritual intervention for negative R/S beliefs (i.e., NRCog). The significance of this research is that it may be helpful in examining the role SS plays in changes within R/S beliefs of Christian females following sexual trauma and add to the

current literature on how these changes inform the maintenance and development of PTSD within this Christian population. Further, this study explored the benefits of an EST that incorporates and utilizes a specific and direct spiritual intervention to address spiritual issues of Christian clients with PTSD. It was proposed that SS as evidenced by NRCog plays a mediating role in the development of PTSD for Christian clients.

Definition of Terms

Appraised Meaning of Events. The second of two levels of meaning within the Meaning-making Coping Model conceptualized within the coping process that categorizes events as a loss, threat or challenge (Park, 2010).

Cognitive Processing Therapy (CPT). A short-term evidence-based treatment for PTSD utilizing a specific protocol that is a form of cognitive behavioral treatment (Resick, Monson, & Chard, 2014).

Cognitive Processing Therapy-C (CPT-C). A short-term evidence-based treatment for PTSD utilizing a specific protocol that is a form of cognitive behavioral treatment. The CPT-C format excludes the written trauma account found in the CPT format (Resick et al., 2014).

Complex Trauma. The experience of multiple or chronic or prolonged, developmentally adverse traumatic events, most often of an interpersonal nature with an early-life onset (Spinazzola et al., 2005).

Empirical Supported Treatment (EST). Treatments identified as efficacious in randomized controlled trials (RCTs) or their logical equivalents (Chambless et al., 1998).

Evidence-Based Practice (EBP). A broad template of activities that include assessment, case formulation, relationship factor, and treatment decisions that will assist the clinician to work with a patient to achieve the best possible outcome (Levant, 2005).

Extrinsic Religiosity (ER). Faith as way to provide comfort or status and are self-serving in terms of a faith commitment. Extrinsic religiosity is a utilitarian use of religion as a means to an end (Falsetti, Resick, & Davis, 2003).

Global Beliefs. Basic internal cognitive structures that individuals construct about the nature of the world (Janoff-Bulman, 1992; Park, 2013).

Global Goals. Basic internal representations of desired outcomes that motivate people in their lives (Park, 2013).

Intrinsic Religiosity (IR). A meaning-endowing framework in terms of which all of life is understood. Those intrinsically motivated in terms of their religious commitment see faith in their life as "integrated, and directed by the master value of religion" (Allport, 1967, p. 141). In *The Individual and His Religion* (1950), Gordon Allport illustrates how people may use religion in different ways. He makes a distinction between mature religion and immature religion. Mature religious sentiment is how Allport characterized the person whose approach to religion is dynamic, open-minded, and able to maintain links between inconsistencies.

Meaning-Making. Ways in which people attribute significance to life events in relation to their broader understanding of their lives (Steger & Park, 2012).

Negative Religious Cognition (NRCog). The manifestation of negative religious coping characteristics (Pargament et al., 2011). *R*

Negative Religious Coping (NRCop). The notion that struggle embodies the possibility of growth and transformation through the process of coping (Pargament et al., 2011).

Posttraumatic Growth (PTG). Positive change experienced as a result of the struggle with a major life crisis or a traumatic event (Yalom & Lieberman, 1991).

Religious Coping. An effort to deal with life stressors in ways related to the sacred (Pargament et al., 2011).

Religiosity. A sociological term used to refer to the condition of being religious to the degree to which one believes and is committed to their chosen faith or belief system (Falsetti et al., 2003).

Religiousness. Demonstrated by formal interactions with institutional settings, and characterized by participation in a set of rituals, doctrines, and practices (Canda & Furman, 1999).

Sacred. A higher power or a divine God as well as anything in life that gives meaning to the divine nature (Kusner & Pargament, 2012).

Secular Humanism. A view of human existence without reference to religion with a focus on the rational self, science, and community as the ultimate source of power and meaning (Koenig, 2016).

Spiritual Decline. A decrease in the domains of goals and priorities, worldview, sense of self and relationships following a trauma (Cole, Hopkins, Tisak, Steel, & Carr, 2008).

Spiritual Growth (SG). An increase in the domains of goals and priorities, worldview, sense of self, and relationships following a trauma (Cole et al., 2008).

Spiritual Resources. Spiritual beliefs, practices, values, and motivations (Koenig, 2015)

Spiritual Struggle. A set of negative religious cognitions related to making meaning of or responding to traumatic events (Pargament, Koenig, & Perez, 2000).

Spirituality. The beliefs and practices that people use to make meaning out of their lives, cope with fundamental transitions and difficulties (Pargament, 1997); a sense of belonging or connection to a community beyond one's individual self; "search for the sacred" and an inner

belief system providing an individual with meaning and purpose in life; a sense of sacredness of life and a vision for the betterment of the world (NCPTSD, 2017).

Spiritually Oriented Cognitive Processing Therapy-C (SOCPT-C). A modified version of the short-term evidence-based PTSD treatment CPT-C. SOCPT-C utilizes the same protocol within CPT-C, adding modified worksheet borrowed from within the protocol to create direct spiritual interventions that specifically address spiritual struggle as evidenced by religious negative cognitions. For treatment fidelity, the modified spiritual intervention worksheets are used *in addition to* the standard CPT-C protocol.

Stress-Related Growth. Positive changes in coping skills, relationships,, and life perspectives; (Schaefer & Moos, 1992).

Systems of Global Meaning. Includes global beliefs and global goals. It is one of two levels of meaning (global meaning and appraised meaning of specific events) within the Meaning-making Coping Model conceptualized within the coping process.

Trauma. Exposure to significant negative events that shifts beliefs, behavior, and mood adversely affecting all aspects of one's life (McMackin, Fogler, Newman, & Keane).

Significance of the Study

This study adds to the current literature regarding the association between trauma, R/S beliefs, and the development and maintenance of PTSD by examining the prevalence of SS as evidenced by NRCog for Christian individuals who have experienced a trauma. The relationship between R/S beliefs and the development and maintenance of PTSD following a trauma will be examined. In addition, the association between SS and the development and maintenance of PTSD will be considered. Religious beliefs play a role in coping with a traumatic event and whether SOCPT-C is more likely than conventional CPT-C to successfully reduce SS and treat

PTSD in Christian female adult survivors of sexual assault will add to the body of knowledge about the complex reciprocal relationship present. Treatment guidelines from the International Society for Traumatic Stress Studies essentially concur regarding the lack of adequate empirical data to guide treatments for comorbid disorders and suggest the possibility of adding modules to cognitive behavior therapy approaches to address specific forms of co-morbidity (Bradley et al., 2005). This study fills a gap in the literature by examining whether SOCPT-C is more effective than conventional CPT-C to successfully reduce SS and treat PTSD in the identified Christian population through the addition of spiritual interventions to CPT-C that specifically addresses SS. This study evaluates the effectiveness of these identified spiritual interventions.

Theoretical and Conceptual Framework

Christian survivors of trauma often experience SS and PTSD following trauma and have been recognized in research to utilize religion as a coping behavior to manage stress and to cope with life challenges of uncertainty, fear, pain, loss of control, and loss of hope (Koenig, 2016). Numerous theories have been postulated to further the understanding of SS and PTSD that often result following a trauma. While R/S beliefs are identified as a potential resource for coping with life stressors, SS experienced by survivors in the aftermath of a traumatic event often challenges prior belief systems or shatters assumptions of previously held beliefs (Park, 2005; Wortmann, et al., 2011). For a Christian, SS may cause significant reduction of prior functioning, produce adverse responses to prior spiritual supports, and religious involvement and mediate the relationship of posttraumatic adjustment (Galovski, Sobel, Phipps & Resick, 2005; Johnson, Rosenheck, Fontana, & Lubin, 1996).

Incorporating assessments of functional outcomes into treatment of individuals suffering from PTSD have been identified as imperative because studies have shown that the impact of the

trauma on domains of psychosocial functioning may be even more meaningful to traumatized individuals than the specific symptoms of PTSD (Galovski et al., 2005; Johnson et al., 1996). More specifically, for the Christian client, incorporating assessments on spiritual functioning may be of significance to increase awareness of the individual's comprehensive experience across domains (Bormann, 2011; Cumella, 2002; Gunderson, 2000; Prest, 2005; Prest & Robinson, 2006). Assessing and treating the effects of PTSD within all domains of psychosocial functioning is supported within the bio-psycho-socio-spiritual model (BPSS). Galovski et al. (2005) identifies multiple domains of a survivor impacted by trauma such as cognitive processing (e.g., temperament or personality) and personal R/S belief systems utilized in coping (Bormann, 2011; Cumella, 2002; Gunderson, 2000; Prest, 2005; Prest & Robinson, 2006).

Following a trauma, R/S questions often arise that challenge a person's core belief system (personal, secular, and religious) (Anderson-Mooney et al., 2015; Boehnlein, 2007; Wortmann, Parks, & Edmondson, 2011), and require examination of previously stable cultural and religious assumptions for resolution of complex posttrauma R/S questions that now inform the degree of optimum posttraumatic adjustment (Anderson-Mooney et al., 2015; Bohnlein, 2007). R/S beliefs are not only affected by trauma, but also serve as an important component in the meaning-making process that informs recovery following a trauma and posttraumatic adjustment (Janoff-Bulman, 2005; Park, 2005).

A religious meaning system can provide a basis for making sense of a traumatic event through allowing the individual to view the trauma through a lens of a bigger, more benign plan (Frazier et al., 2004; Pargament, 1997). By reconstructing an integrated assumptive world that incorporates the traumatic experience through personally meaningful cognitive reappraisals will begin rebuilding their inner world (Janoff-Bulman, 1992, 2005; Schwartzbert & Janoff-Bulman,

1991). Over time, trauma survivors can reestablish positive core assumptions through the meaning-making process rather than overgeneralize from the trauma (Janoff-Bulman, 2005; Park & Bluberg, 2002).

Attempts to make meaning of trauma often lead to questions such as “Why did God allow this to happen?” or “Where is God?” (Anderson-Mooney et al, 2015; Boehnlein, 2007; Exline & Rose, 2005; Falsetti et al, 2003; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999; Janoff-Bulman, 1989; Pargament, 1996; Park, 2005; Park, 2005; Wortman, Park & Edmondson, 2011), “The world should be easy” (When it’s not, God isn’t good.) or “The world should be orderly and predictable” (When it’s not, God can’t be trustworthy.) “The world should be fair” (When it’s not, God isn’t just.) (Thomas & Habermas, 2008, 2011). A spiritually integrated empirically-based trauma model that specifically utilizes spiritual interventions to address changes in R/S beliefs for Christian survivors of trauma may be more effective in reducing the development of PTSD than conventional CPT-C with no specific R/S interventions.

It is suggested that Christian trauma survivors that take the painful journey of transformation regarding spiritual awakening following a trauma may experience relief from various PTSD symptoms, such as guilt, shame, and intense emotions of rage during the process of psychotherapy (Bohnlein, 2007) through access of prior R/S beliefs. However, because the experience of a traumatic event often weakens one’s R/S beliefs, it becomes necessary to address these changes during treatment to restore or reconcile R/S beliefs held pre-trauma and reestablish access to this identified protective factor in Christian survivors.

Theories and concepts found in the literature that are relevant to the proposed study and lend understanding to the relationship of main concepts within the study are further explored in Chapter Two, including (1) meaning-making, (2) Schema theory, (3) Theory of Coping, (4) The

Belief in a Just World, (5) Shattered Assumptions Theory, (6) Religious Coping Theory, (7) Information Processing Theory, (8) Social Cognitive Theories, (9) Cognitive Processing Theory, (10) theories behind CPT-C, and (11) populations treated using CPT-C.

Organization of the Remaining Chapters

Chapter Two presents a literature review of the history and theories behind spiritual change as it relates to trauma, PTSD, and its recommended treatment. Themes emphasized include a thorough discussion on the component of SS and the supporting research for incorporating spiritual interventions into therapy for the treatment of NRCog. Issues related to the assessment of spiritual growth and spiritual decline are explored, including the empirical literature regarding the impact of trauma on religious beliefs and spiritual beliefs as well as its relationship with the development and maintenance of PTSD.

Chapter Three addresses the methodology used in this study including sample population, instrumentation utilized, research design, data collection, and methods of analysis. Ethical and multicultural considerations are also presented within this chapter.

Chapter Four presents a review of the collected data as it relates to the research questions set forth by the researcher in Chapter One. The results through visual analyses consistent with SCRD are reported and displayed in tables and text format to support the validity of the findings.

In Chapter Five, an interpretation of the results is applied in relationship to the original problem are discussed along with current literature and directions for future research. The interpretations reported by the Chapter Summary reflect data analyses from the study.

Chapter Summary

Chapter One has provided a general review on the gap in current literature regarding the development and maintenance of PTSD as it relates to R/S beliefs, specifically SS. The role of

changes in R/S beliefs that are part of a Christian survivor's ability to make meaning of a traumatic event were considered. The prevalence of PTSD was explored, as well as the treatment needs of a Christian population experiencing PTSD and R/S belief changes. A review of the positive and negative responses a survivor may have specific to R/S beliefs following a traumatic experience were identified and discussed.

This chapter further introduced the argument and necessity for direct spiritual interventions to be incorporated within EST models and identified ongoing challenges for the same. A review of the effects PTSD and SS may have on pre-trauma spiritual resources was given along with the possible role these changes have had in post-trauma adjustment.

CHAPTER TWO: REVIEW OF THE LITERATURE

This chapter describes the literature that relates directly to the purpose of the current study. Specifically, this review describes major themes and perceptions explored in the study, trauma, and PTSD, concepts of religious/spiritual (R/S) beliefs, meaning-making, effects of R/S beliefs and spiritual struggle (SS), effects of trauma and PTSD, treatment for trauma, PTSD, and R/S issues, theories considered of trauma, R/S belief changes and meaning-making, theories behind CPT-C and populations treated using CPT. Further, spiritually-oriented therapy and interventions are considered and research findings regarding the relationship between trauma, PTSD, R/S beliefs, and SS explored. Lastly, the literature regarding the measurements and research method (SCRD) chosen for this current study is reviewed.

The strategy used for searching the literature relevant to these topics includes utilizing resources available through the Liberty University library and online library portals (i.e., electronic databases, e-books, journals, dissertations and physical books) to analyze the research and literature related to the problem statement. Primary search terms used to accomplish a review of current literature on the study topic included posttraumatic stress disorder, trauma, Christian trauma survivors, spiritual struggle, sexual abuse survivor, sexual assault survivor, spiritual growth following trauma, spiritual struggle, posttraumatic growth, religious beliefs, and trauma, spiritual beliefs and trauma, single case research, spiritual interventions in therapy, and Cognitive Processing Therapy. Comparisons and contrasts of different points of view identified in current literature were synthesized and further considered about the current study, then explicated within this chapter.

This review is divided into thirteen categories (1) trauma and PTSD, (2) concepts of religious/spiritual beliefs, (3) meaning-making, (4) effects of R/S beliefs and spiritual struggle,

(5) effects of trauma and PTSD, (6) treatment for trauma, PTSD, and R/S issues, (7) theories considered of trauma, R/S belief changes, and meaning-making, (8) theories behind CPT, (9) populations treated by CPT, (10) spiritually-oriented therapy and interventions, (11) relationship between trauma, PTSD, R/S beliefs, and spiritual struggle, (12) discussion of measurements used in this study, and (13) research method (SCRD).

Trauma

Multi-Perspective View of Trauma

Trauma is a keyword utilized by clinicians and scholars from many disciplines to describe an experience of violence and its aftermath (Kirmayer, Lemelson, & Bard, 2007). It has also been extended to cover a vast array of situations of extremity and equally varied individual and collective responses (APA, 2013; Kirmayer et al., 2007). Trauma is referenced as a sociopolitical event, psychophysiological process, physical and emotional experience, and a narrative theme in explanations of individual and social suffering (Kirmayer et al., 2007).

Trauma is often associated with the psychological impact emphasized within psychology and counseling fields, and operationalized within the diagnostic construct of posttraumatic stress disorder (PTSD) (Harris et al., 2008; Kirmayer et al., 2007) or other trauma-related stressors (APA, 2013). The clinical approach to trauma remains a primary focus in research, writing, and clinical interventions (Kirmayer et al., 2007).

Varying perspectives of trauma are found in the literature including neurobiological, clinical, and cultural (Kirmayer et al., 2007). Kusner and Pargament (2012) suggest that trauma affects an individual across most domains: psychologically, physically, socially, and spiritually. From a neurobiological perspective, trauma is viewed through an understanding of mechanisms of learning, memory, and emotion (Kirmayer et al., 2007). Research emphasizes the behavioral,

neurophysiological, and molecular mechanisms that may contribute to a trauma response (Cacioppo, Visser, & Pickett, 2006; Hebb, 1946; Jones, 1924; Pennebaker, 1995; Vasterling & Brewin, 2005; Wolpe, 1969). Biobehavioral mechanisms that affect trauma have been identified through classical conditioning, as well as the mechanisms behind the conditioning, extinction and inhibition of fear (Barlow, 2002; Bouton, 2004; Kirmayer et al., 2007; Pitman, Shalev, & Orr, 2000).

From a clinical perspective, trauma is viewed through a focus on symptoms and signs, diagnosis of specific problems, and interventions to alleviate distress and impairment resulting from the trauma (APA, 2013; Kirmayer et al., 2007). While various theories, therapies, and clinical approaches are applied in the treatment of trauma, effectiveness of the clinical treatment is identified as the final arbiter of clinical relevance (Kirmayer, 2004). Examples from a clinical perspective of trauma include consideration of the underlying cognitive processes implicated in trauma and PTSD (Bonanno, 2004; Brewin, Andrews, & Valentine, 2000; Pargament et al., 2002; Yadin & Foa, 2007), the developmental impact of trauma (van der Kolk, 2007), the role of religion and spirituality following trauma (Boehnlein, 2007; Fontana & Rosenheck, 2004) and consideration of specific cultural concepts of the person and individualistic values in the organization of the self (Bellah, 1985; Farmer, 2004; Kirmayer, 2004).

From a cultural perspective, trauma is considered by how collective cultural meanings intersect with the individual psychological and biological responses to trauma identified through neuroscience and clinical research (Kirmayer, 2007). Cultural perspective of trauma examines the social construction of the concepts of trauma and the role of social and cultural knowledge and practice in the individual and collective responses to trauma (Kirmayer, 2007). Kirmayer

(2007) suggests that the ways individuals make sense of their sufferings are embedded in and interact with larger social meanings to cultural and historical contexts of the trauma experience.

Trauma from this multi-perspective view may provide a basis for understanding the diversity of trauma responses. Individuals are often identified in the literature as experiencing traumatic events that are similar in many ways while divergent trajectories of trauma outcomes are observed. The complex interaction of sociocultural, psychological, and neurobiological processes may account, in part, for this divergence (Kirmayer, 2007). Diverse ethnic, cultural, and religious differences have been noted in research as mechanisms by which many individuals cope with the aftermath of violence and loss (Kirmayer, 2007; Young, 1995). It is suggested that while diagnostic categories have utility for treatment, the cultural perspective of a client requires consideration (Hacking, 1999; Kirmayer, 2007; Kleinman, 1999; Young, 1995).

History of Trauma Responses

Trauma symptoms in survivors have also been described historically with multiple perspectives. Symptoms have been noted as being temporary or chronic, resulting from a weak will, exploited for secondary gains, the fault of the survivor or even fake (Friedman, Resick, & Keane, 2007; Monson et al., 2007; van der Kolk, 2007). van der Kolk (2007) describes early observations of trauma symptoms noted by the Greek poet Homer and German neurologist Herman Oppenheim. Homer described trauma as overwhelming terror with troubling memories, arousal, and avoidance. Herman Oppenheim described cardiovascular signs of anxiety he associated as resulting from molecular changes in the central nervous system when a trauma occurred and referred to these changes as *traumatic neurosis* (van der Kolk, 2007). Monson et al. (2007) described various terms coined through observation of traumatic responses in survivors of war. Cardiovascular symptoms of returning soldiers from the American Civil War were

identified as *soldier's heart*. WWI veterans were described as experiencing *shell shock* or *war neurosis* based on symptoms of re-experiencing and physiological hyperarousal theorized to result from nerve damage and neurocircuitry disruptions. Young (2004) suggested trauma symptoms common to veterans have also been referred to as *combat exhaustion*, *combat fatigue*, and *operational fatigue*.

According to Monson et al. (2007), several theories are postulated to explain how trauma symptoms develop. For example, the behaviorist perspective, as supported through the work of Pavlov, suggests a reminder of a traumatic stressor can evoke a similar response as during the original stressor. Operant conditioning, as defined by Skinner and consistent with symptom maintenance, suggests avoidance behaviors within PTSD promotes symptom maintenance, precludes the opportunity for the survivor to experience exposure, and extinction of the conditioned response (Friedman et al., 2007).

Posttraumatic Stress Disorder (PTSD)

The representation of trauma symptoms throughout the evolution of the DSM has continued to develop. The DSM-I (APA, 1952) described trauma symptoms as *gross stress reaction* and the DSM-II (APA, 1968) as *transient situational disturbance*. The eventual diagnosis of PTSD was first distinguished in the DSM-III (APA, 1980) as an anxiety-related disorder (van der Kolk, 2007) when increased research resulted in recognition of different trauma syndromes (rape trauma syndrome, battered woman syndrome, Vietnam Veterans syndrome, and the abused child syndrome) (Monson et al., 2007). The initial PTSD diagnosis included these syndromes (Monson et al., 2007).

PTSD Defined

DSM-5 (APA, 2013) identifies the diagnostic features of PTSD as being associated with symptoms characteristic to direct or indirect exposure to one or more traumatic events. PTSD symptomology may develop immediately following a traumatic experience as Acute Stress Disorder, or may present six months or even later from the occurrence of the trauma, a characteristic referred to as delayed expression (APA, 2013).

Three categories of diagnostic symptoms for PTSD include (1) re-experiencing, (2) avoidance, and (3) hyperarousal. Re-experiencing symptoms include flashbacks, re-occurring dreams about the event, and distressing thoughts inducing fear. Avoidance symptoms include the individual avoiding certain places or people relating to the event, experiencing feelings of numbness, guilt or depression, loss of interest in once enjoyed activities, and memory loss of the event. Lastly, hyperarousal includes symptoms of being startled or easily fearful, feeling tense, and trouble sleeping or easily triggered to anger (NIMH, 2015).

DSM-5 Criteria for PTSD

The primary symptomology of PTSD, as described in the DSM-5 (APA, 2013) includes a potential to develop when an individual is exposed to a traumatic event such as actual or threatened death, serious injury or sexual violence in which they experienced intense fear, helplessness or horror. Such events can include rape, assault, combat or kidnapping, as well as a person witnessing someone else experiencing such a traumatic event. Re-experiencing of the trauma may include the presence of intrusive symptoms such as images, thoughts, or dreams about the event, and the belief it is recurring (APA, 2013).

Other common responses include avoidance of stimuli that trigger re-experiencing, negative alterations in cognition, mood, marked alterations in arousal, and reactivity associated

with the trauma. Reactivity by the individual to cues in the environment reminiscent of the event may result in increased fear, distress or physiological responses resulting in lowered engagement in activities, feelings of detachment from others, difficulty experiencing certain emotions or being affectionate; a sense that one's future is foreshortened. Arousal symptoms may include difficulty sleeping or concentrating, irritability, hypervigilance, and exaggerated startle response. An individual may be diagnosed with PTSD when the trauma criteria are met and the duration of identified symptoms is more than one month and not attributable to the physiological effects of a substance or medical condition (APA, 2013).

Hypothesis of Development and Maintenance of PTSD

Hypotheses on the development of PTSD come from various perspectives and the disturbance in psychological processes associated with PTSD encompass a wide range including memory, attention, cognitive-affective reactions, beliefs, coping strategies, and social support (Brewlin & Holmes, 2003). Researchers continue to seek understanding why some individuals that experience a trauma develop PTSD while others are resilient (Brewlin & Holmes, 2003).

Research suggests complex, multi-dimensional domains of an individual inform the development and maintenance of PTSD following a trauma and should be considered in its conceptualization and treatment (Jakovljević et al., 2012; Southwick et al., 2011). Key concepts such as trauma vulnerabilities, individual strengths, resilience, and posttraumatic growth suggest integrative, although distinct, perspectives of the explanation and treatment of PTSD (Jakovljević et al., 2012; Southwick et al., 2011).

A meta-analysis by Brewin, Andrews, and Valentino (2000) examined 14 separate risk factors for PTSD. Factors influencing the development of PTSD often included gender, age at trauma, and race. Other factors such as education, previous trauma, severity of trauma, lack of

social support, additional life stressors, general childhood adversity, psychiatric history, reported childhood abuse, and family psychiatric history held predictive effects (Brewin et al., 2000). Also, factors present during or after the trauma had stronger effects than pre-trauma factors. While the meta-analyses cautioned effects of risk factors are not uniform across studies and a common set of pre-trauma predictors of PTSD is premature, some indicators were noted. Women were identified as more at risk of developing PTSD. Also, trauma intensity and post-trauma variables appeared to effect PTSD more than did pre-trauma variables. Overall findings indicated the impact of pre-trauma factors on later PTSD was mediated by responses to the trauma, suggesting pre-trauma factors interact with trauma severity and responses to increasing the risk of PTSD (Brewin et al., 2000). Further examination of the proximal links in the causal chain between the association of pre-trauma risk factors and immediate trauma responses was recommended.

Other studies identified risk or vulnerability factors, protective factors, creativity factors (Cloninger, 2012; Friedman, 2011; Sheldon, 2012), personality resources and individual strengths (Friedman, 2011) as playing a role in the development of PTSD. Vulnerabilities identified toward PTSD include negative appraisals responses and behaviors, symptoms that develop afterward, disruption in daily life, and reinforcement of critical negative schemas (Ehlers & Clark, 2000; Foa, 1998; Foa & Riggs, 1993).

Beneficent relationships between the traumatized individual and the larger social and physical environment for outside intervention may help restore an overall balance in an individual's life following a traumatic experience (Cloninger, 2012; Sheldon, 2012). Healing, recovery, and resilience, as well as suffering or increased negative functioning, is identified as being ecologically impacted through human behavior, and a social context via the family,

community, society, and culture (Jakovljević et al., 2012). A systems perspective suggests each system holds the potential to affect an individual's coping with adversity and traumatic events (Jakovljević et al., 2012; Southwick et al., 2011).

Negative Appraisals of a Trauma

Ehlers and Clark (2000) suggest these negative appraisals of a trauma experience and the nature of the trauma memory itself promote a sense of current threat to safety or an internal threat to the self and future and promote pathological responses leading to PTSD. Themes involving danger, violation of standards by self or others, or loss support the emotions and cognitions have been reported by individuals with PTSD. Cognitive-affective reactions resulting from such themes have been referred to as 'mental defeat,' all of which increase the risk factor associated with PTSD for self-appraisals of being weak, ineffective, or unable to protect oneself. Further, as these appraisals interact with the trauma memory, maladaptive behavioral strategies, and cognitive processing styles increase. Cognitive processing styles include thought suppression, distraction, avoidance of trauma reminders, substance use, abandonment of normal activities or increased safety behaviors, selective attention to threat cues, rumination, and dissociative responses maintaining, and intensifying PTSD symptomology (Ehlers & Clark, 2000).

In a study by Fairbrother and Rachman (2006), the appraisal of a sexual assault experience by female survivors was examined. It was reported that 50 women that appraised the sexual assault negatively had increased PTSD symptoms when exploring their views of others, the world, and their futures. Consistent with the concept of meaning-making postulated by Janoff-Bulman, this study found that negative appraisals regarding the impact of the traumatic event were strongly correlated to posttraumatic stress (Fairbrother & Rachman, 2006).

Pargament (2004) indicated engagement in negative reappraisals is more likely to support spiritual struggle. Further, religious and spiritual cognitions are identified as a part of a victims' maladaptive cognitions and emotions surrounding the traumatic event that altar or shatter the meaning system of the individual (Wortmann, Park, & Edmondson, 2011).

Religious/Spiritual (R/S) Beliefs

Multidimensional Perspective of R/S Beliefs

Research reflects multiple definitions of religion and spirituality. Pargament (2013), a distinguished researcher on the topics of religion and spirituality, as well as their effects on individuals experiencing trauma, interprets the multiplicity of meanings of religion, and spirituality to be multidimensional, multilevel, and having multiple valences. Individuals often do not differentiate between religion and spirituality. The terms have been understood to have more related than independent meanings (Barnett & Johnson, 2011; Hill, Pargament, Hood, McCullough, Swyers, Larson, & Zinnbauer, 2000).

Examples of pre-trauma beliefs reflective of views toward self, others, and the world include "I can get close to others" or "The world is safe." Common post-trauma beliefs may be "I can't get close to anyone" or "The world is completely unsafe" (Resick et al., 2008). R/S beliefs challenged by traumatic experiences often include benevolent religious reappraisal. Following a trauma, survivors' R/S beliefs may include "God abandoned me," "God doesn't love me" or "God is not all powerful" as they search for such things as meaning, identity, control, or transformation as a result of the trauma (Pargament, 2011). From this multidimensional perspective of an individual, researchers, and providers often conceptualize from a bio-psycho-socio-spiritual model (Pargament, 2007).

R/S Beliefs as Cognitive Schema

As cognitive schema, religious beliefs are likely to be tools in the meaning-making and coping processes following life events and can affect the interpretation of a traumatic event (McIntosh, 1997; Pargament, 2007, 2013; Ray, 2015). Religious beliefs can be a source of meaning and resilience but also have the potential to be damaging (Griffith, 2010). Religion, for some people, can make reality, and suffering understandable and bearable (Pargament, 1997; Park, 2005). They frequently serve as a core schema system for an individual, informing their beliefs about the self, the world, and their interaction (McIntosh, 1995; Park, 2005). Within this study, beliefs are identified as trust, faith, or confidence in someone or something, and are a fundamental component by which an individual engages in the meaning-making process about self, others, the world, and God (Janoff-Bulman, 2005; Park, 2005). Cognitions are the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses (Barlow, 2008).

McIntosh (1997) suggested religion is a cognitive schema that allows individuals to organize their beliefs within a broader system of beliefs drawn from during unexpected life events. Within the religious schema, new information can be cataloged, evaluated, and utilized for problem-solving. Religious beliefs that become cognitive schema are indicated to be helpful tools in the meaning-making and coping processes following an unexpected life event (McIntosh, 1997) and may enable a survivor the ability to change the interpretation of the traumatic event. McIntosh's theory is akin to the assumptive world theory postulated by Janoff-Bulman (1992) and reviewed further in this chapter.

Studies exploring the use of spiritual coping have identified two patterns of R/S coping: positive pattern (forgiveness, seeking spiritual support, collaborative religious coping, spiritual

connection, religious purification, and benevolent religious reappraisal) and negative pattern (spiritual discontent, punishing God reappraisal, interpersonal religious discontent, demonic reappraisal, and reappraisal of God's powers).

R/S Beliefs as Protective Factor

Research identifies R/S beliefs as a potential protective factor in times of life stress or trauma (Bryant-Davis & Wong, 2013; Falloot & Hechman, 2005; George, Ellison, & Larson, 2002; George, Larson, & Koenig, 2000; Hill & Pargament, 2008; Pargament, 2004; Park & Cohen, 1993; Park, Cohen, & Murch, 1996; Powell, Shahabi, & Thoresen, 2003; Thoresen, 1999). R/S beliefs are consistently supported within the literature as serving as a protective factor for various biological (George, Ellison, & Larson, 2002; George, Larson, & Koenig, 2000; Koenig, King, & Carson, 2012; Koenig, Pargament, & Nielsen, 1998; Pargament, Koenig, Tarakeshwar, & Hahn, 2004; Thoresen, 1999), psychological (Falloot & Hechman, 2005; Koenig, McCullough, & Larson, 2001; Koenig & Vaillant, 2009; Pargament, 2004; Park, Cohen, & Murch, 1996), social (Bandura, 1981; Harris, Erbes, Engdahl, Olson, Winkowski, & McMahon, 2008; Prati & Pietrantonio, 2009; Tedeschi & Calhoun, 2004), and spiritual (Harris et al., 2008; Koenig et al., 1998; Pargament, 2004; Prati & Pietrantonio, 2009; Tedeschi & Calhoun, 2004; Walker, 2000) issues (Meichenbaum, 2013).

Religious coping as a protective factor is also identified as a predictor of positive outcome in mental health (Bryant-Davis & Wong, 2013; Pargament, Falb, Ano, & Wachholtz, 2013; Thomas & Savoy, 2014). Numerous studies identify R/S coping as a useful resource during difficult life stressors (Cook, Conrad, Bender, & Kaslow, 2003; Pargament & Park, 1995; Pargament, Smith, Koenig, & Perez, 1998).

The positive aspects of the human condition such as well-being, hope and optimism, positive emotions; capacities for love, courage, interpersonal skill, perseverance, forgiveness, and wisdom; civic virtues and institutions such as responsibility, nurturance, altruism, civility, and tolerance play a role in recovering from a trauma, particularly relating to hope and optimism (Ai & Park, 2005). Further, a person's general expectancies and perceived estimations of the likelihood of future good versus bad events also play a role in recovering. Optimal expectations are a mechanism that may explain the role of other protective factors in posttraumatic symptoms. Optimism was found to mediate the effect of faith-based and secular factors on distress and PTSD after 9/11 (Ai & Park, 2005).

Ai and Park (2005) suggest that people experiencing overwhelming threats tend to pursue support from a higher power and spiritual coping may increase with distress for resource mobilization. However, both religious coping patterns (i.e. PTG and SS) have been linked to more PTSD symptoms. This may be because strong faith can be related to more initial distress when an individual's positive worldview is shattered by trauma but can readjust as the trauma integrates into their meaning system (Ai & Park, 2005). Religiousness has been associated with better adjustment and less PTSD symptoms (Ai & Park, 2005). While research suggests that spirituality's protective effects operate through complex processes, various mechanisms have been identified that may explain the protective role of spirituality, including spiritual support inherent in a diverse belief system (Ai & Park, 2005). Empirical support continues to grow that identifies certain R/S beliefs and practices as fostering coping, healing, and growth (Aldwin, 2006; Exline & Martin, 2005; Richards, 2000).

Posttraumatic Growth

PTG is defined by various terms in the literature including stress-related growth (Ickovics & Park, 1998), perceived benefit (Affleck & Tennen, 1996), and posttraumatic growth (Tedeschi & Calhoun, 1995, 2004). PTG refers to positive change that occurs from an individual's grappling with highly challenging circumstances (Batson & Ventis, 1982; Boehnlein, 2007; Denney et al., 2010). The theme of PTG suggests a fundamental belief that adversity, such as a traumatic experience, can result in personal growth and stronger R/S beliefs (Ai & Park, 2005; Falot, 1997; Schultz, Tallman, & Altmaier, 2010; Shaw, Joseph, & Linley, 2005; Tedeschi & Calhoun, 1995). Walker (2000) identified a significant positive relationship was identified between PTG and the individual's spiritual beliefs and involvement. Further, the importance of a person's religious belief was primarily correlated to PTG following trauma (Schultz, Tallman, & Altmaier, 2010). Pargament, Koenig, and Perez (2000) found greater levels of stress-related growth were related to more use of positive religious coping methods. Religious coping accounted for significant unique variance in measures of adjustment (stress-related growth, religious outcome, physical health, mental health, and emotional distress) after controlling for the effects of demographics and global religious measures.

In a meta-analysis of 31 studies that examined variables of religious coping strategies of making-meaning through belief of a benevolent God and religious support, a correlation was identified between religious coping and PTG (Prati & Pietrantonio, 2009). In this study, positive religious coping had a stronger relationship with PTG than optimism and social support.

Not unlike the theory behind PTG, processes such as assimilation or accommodation occur when an individual has encountered an event that challenges their core beliefs or schemas about self, others, or the world. Through the process of making meaning of these challenges,

they experience growth that positively changes how they view self, others (Affleck & Tennen, 1996) or the world (philosophy of life) (Friedman, Resick, & Kean, 2007; Lechner, 2003; Pratii & Pietrantonio, 2009; Tedeschi & Calhoun, 1998). Tedeschi and Calhoun (2004) suggest individuals that experience PTG following a trauma not only return to baseline but also obtain a higher level of functioning than experienced pre-trauma.

Evidence suggests early posttraumatic growth may result in better mental health and fewer posttraumatic symptoms later (Ai & Park, 2005; Falsetti et al., 2003; Park, 2006). Shaw et al. (2005) reviewed 11 studies on religious beliefs and PTG and found they were positively correlated in three main findings. (1) Religious beliefs may be helpful to cope with the aftermath of trauma. (2) Trauma may strengthen religious beliefs. (3) Positive religious coping may be attributed to finding meaning, strong social supports, and intrapersonal strength.

Incorporating spirituality into therapy as a positive coping resource has the potential to increase mental well-being (Hill & Pargament, 2008; Koenig, King, & Carson, 2012; Pargament, 1997; Piedmont & Wilkens, 2013; Tarakeshwar, Stanton, & Pargament, 2003; Walker, Reid, O'Neill, & Brown, 2009), and has been identified as playing a role in posttraumatic recovery, posttraumatic adjustment, and positive life changes and growth (Ai & Parks, 2005; Falsetti et al., 2003; Park, 2006; Tedeschi & Calhoun, 2004). For this study, PTG is defined as positive changes in view of self, relationships, and creating new meanings after experiencing a traumatic or stressful event (Tedeschi & Calhoun, 2004).

Spiritual Struggle

Concepts of negative religious coping and spiritual struggle have also gained attention in the research (Ellison & Lee, 2010; Exline & Rose, 2013; Hale, Park, & Edmondson, 2012; Pargament, 2007; Wortmann et al., 2011). Spiritual struggle has been described as a person's

religious beliefs colliding with a distressing experience (Exline & Rose, 2013; Reinert & Edwards, 2009; Walker et al., 2009). Resick, Schnicke, and Markway (1991) suggested that R/S beliefs might be disturbed by a traumatic event. Resick and colleagues (2008) found that a negative influence on prior religious beliefs may occur that result in spiritual struggle when an individual frames a traumatic event through a faulty belief system of NRCog. Negative effects of religious beliefs can be maladaptive for a survivor dealing with a traumatic event (Ellison & Lee, 2010; Exline & Rose, 2013; Wortmann et al., 2011). Pargament (2007) described the colliding of trauma and spiritual beliefs as a "spiritual fork in the road," at which point the individual will either experience PTG and renewed faith with new meaning or will experience decline of faith and feel despair and hopelessness.

Different types and repeated abuse have been identified as being greater correlated with spiritual struggle (Gall, Basque, Damasceno-Scott, & Vardy, 2007). For example, abuse occurring by a family member or the father-figure may affect the survivor's ability to access positive religious coping and cause interpersonal struggle consistent with spiritual struggle (Exline, 2013). Intrapersonal struggle has been related to an individual's doubts about their personal beliefs (Exline, 2013) and an inner struggle often emerges following a traumatic event that leaves the survivor doubting long-held religious beliefs, and questioning good and evil (Exline, 2013; Krause & Ellison, 2009). Further, pre-trauma beliefs can be challenged based on both the post-trauma thoughts and beliefs that contradict prior held R/S beliefs and foster SS (Exline, 2013; Krause & Ellison, 2009; Resick et al., 2008).

Meaning-making

Role of Meaning-making in Trauma

The Meaning-making model was derived from existential theory (Frankl, 1992) and cognitive perspectives (Park, 2010; Park & Folkman, 1997). In *Man's Search for Meaning*, Frankl (1992) described how he utilized meaning-making to overcome personal complex trauma experienced in concentration camps of Auschwitz. From this, a form of coping with traumatic events is identified as one's ability to give meaning to horrific life experiences with a broader understanding through the individual's belief systems (Steger & Park, 2012). Meaning-making is an attempt to restore beliefs held prior to trauma (Steger & Park, 2012) and making new meanings out of traumatic experiences have been identified as a protective factor against PTSD (Park, 2013; Walker et al., 2009). The construction of meaning is often a process that involves many different elements including personal, familial, sociopolitical, cultural, and religious (Bohnlein, 2007; Gonsiorek et al., 2009; Wortmann, Park & Edmondson, 2011).

Exline (2013) points out that the search for new answers through prior meaning systems following a trauma may also lead to doubt and contribute to a new belief system in conflict with pre-trauma beliefs. Park, Edmondson, and Mills (2010) indicate people's meaning systems help them interpret and label experiences that then create the emotional and behavioral impact of the experience. Lazarus and Folkman (1984) and Park (2005) identify meaning systems as a guide to individuals' choices of cognitive and behavioral goals.

The search for meaning from trauma regularly arises in psychotherapy in the clinical setting with traumatized clients (Bohnlein, 2007; Bradley, Greene, Russ, Dutra, & Westen, 2005; Curlin, Lawrence, Odell, Chin, Lantos, Koenig, & Meador, 2007; Fontana & Rosenheck, 2005; Gonsiorek, Richards, Pargament, & McMinn, 2009; Harris, Erbes, Endahl, Thuras, Murray-

Swann, Grace, & Le, 2011; Park, 2005). Theories aimed at restoring assumptions and schemas held prior to the trauma are emphasized within many of the theories utilized today for the treatment of PTSD. Individual's attempt to make meaning of a trauma through processes such as 'sense making' or 'benefit finding' (Davis, Nolen-Hoeksema & Larson, 1998). Through sense making, the survivor attempts to make sense of the trauma within their understanding of the world as being controllable and understandable (Davis et al., 1998), a meaning-making process also referred to as 'meaning-as-comprehensibility' (Janoff-Bulman & Frantz, 1997).

Meaning-making through benefit finding is the process of a survivor finding the positive or significant outcome in a trauma event, a meaning-making process referred to by Janoff-Bulman et al. (1997) as 'meaning-as-significance.' Still, other theories have conceptualized benefit finding through meanings derived as 'perceived benefits' (Calhoun & Tedeschi, 1998) and 'stress-related growth' (Park, Cohen, & Muruch, 1996). Many theorists concur that the meaning a trauma survivor attributes to the traumatic event will inform the level of post-trauma distress associated with the event. Successful recovery from trauma will involve one or more of these identified forms of meaning-making (Calhoun & Tedeschi, 1998; Janoff-Bulman & Frantz, 1997; Park, Cohen, & Muruch, 1996).

Religion as a Meaning-making System

Religion is thought to influence lives through pathways that are impacted by experiences, ultimate goals, family dynamics, values, and attitudes (Park, 2005). Life purpose, fundamental motivation, and life goals are often derived from a person's religion. Religious meaning systems are characterized as a primary example of a belief system that guides pathways of understanding following suffering and loss (Ozorak, 2006; Park, 2005). Intrinsic religiousness has been defined as having a deep faith and personal relationship with God and "the degree to which religion

serves as an individual's framework for meaning" (p. 96) (Park, Cohen, & Murch, 1996). Park et al. (1996) found that participants possessing a strong religious orientation to life were positively related to an experience of stress-related growth during stressful times.

Pargament (1997) describes religion as a common basis for an individual's discovery of global meanings in life suggests that religion provides a means of understanding and enduring pain and suffering. Parks (2005) defines and examines religion as a meaning-making system, explores its influence on coping with adversity and presents a model of the role of meaning-making in coping. A prior longitudinal study conducted by Park (2005) with 169 bereaved college students was presented to demonstrate pathways in which religious meaning influences the coping process in making meaning following loss.

These study findings suggested associations between religion and adjustment vary across time since loss and associations are mediated by meaning-making coping. Park (2005) suggests that while various aspects of religion have been unequivocally related in research to psychological well-being and in the context of coping with adversity, how religion transforms into well-being remains a question in the research. Pargament (1997) and Park (2013) both indicate that positive religious appraisals of traumatic events consistent with an individual's global beliefs may prevent global meanings from being challenged and result in less distress following a trauma.

Effects of Meaning-making on Coping

Coping is a complex process described through various conceptual models including the *Transactional Stress and Coping Model* and the *Meaning-Making Coping Model*, an expanded version of the first model that considers meaning-making in coping (Park, 2005). The transactional stress and coping model highlights cognitive appraisals of a situation and the

coping strategies (problem-solving or emotion-focused) that are utilized following the appraisals. The meaning-making coping model is a strategy that involves significant internal psychological and cognitive processes, also referred to as ‘meaning-making,’ that enables the individual to transform the meaning of the experience through cognitive adaptation (Park, 2005).

Two levels of meaning distinguish the meaning-making coping model: systems of global meaning and the appraised meaning of specific events (Park, 2005). According to this model, stressful events may cause distress because their appraised meaning challenges the individual's global beliefs or goals. The extent of this discrepancy will determine the level of distress the event causes the individual. The global meaning or the appraised meaning of the event must be changed to accommodate the new information and to facilitate integration of the appraised meaning of the event into their global meaning system to relieve distress. This is posited to lead to adjustment to the event and lower levels of negative symptoms, improved well-being, and stress-related growth (Park, 2005). Cognitively, Park (2005) suggests the meaning-making process utilizes mechanisms such as reappraising events as more positive or creating more benign reattributions a coping process that has been identified as particularly relevant in trauma and loss situations that are not solvable or reparable.

Steger and Park (2012) identified tenets of a meaning-making system that contribute to post-trauma trajectory including an established global meaning system of beliefs, goals, and feelings present before the traumatic event that can be challenged as individuals attempt to make meaning of and appraise a traumatic situation. When an appraised meaning conflicts with the individual's global meaning, increased distress is experienced (Steger & Park, 2012). In response to the distress, the individual attempts to restore global meaning to find purpose in or make sense of the traumatic experience.

Meaning-making and R/S Beliefs

Many theorist and researchers have established the necessity of restoring or rebuilding fundamental beliefs, such as R/S beliefs, following a traumatic event. The process of ‘finding meaning’ in the trauma is at the core of the recovery process (Bulman & Wortman, 1977; Frankl, 1963; Janoff-Bulman, 1989; Moos & Schaefer, 1986).

Janoff-Bulman (1992) proposed that trauma could shatter beliefs held prior to the trauma, result in shattered assumptions about God and negatively affect religious beliefs. Shattered assumptions can be detrimental to trauma survivors as this may lead to a loss of sense of meaning in life and foster beliefs such as *life events are unpredictable* and *the world is evil* (Janoff-Bulman, 1992). Pargament (2007) identified the meaning-making model as one method for an individual to resolve traumatic experiences by looking to their religious beliefs to make meaning of the event. In Christian philosophy, this process is related to the concept of soul-making (Harpur, 1996; Pargament, 1997). Meaning-making can enable an individual to reframe a traumatic experience to see it through a beneficial lens that brings a sense of meaning and purpose to the experience (Park, 2013).

In meaning appraisals, religious beliefs inform understanding and meaning of an event. Religious beliefs that suggest positive results that came from a traumatic experience through transformation have been identified in empirical research as a strong and consistent predictor of positive change following a trauma. Having a religious framework can guide an individual toward understanding and positive meaning-making of a traumatic experience (Park, 2006).

Outcomes to Meaning-making

Studies have established that outcomes following a stressful event and post-trauma adjustment are directly related to appraised meanings of stressors and stress-related growth

(Park, 2006; Steger & Park, 2012). Further, meaning-making has been identified in many studies as a mediator of the religiousness-adjustment link (Park, 2006). Resiliency and recovery are experienced from the traumatic experience when the meaning-making process is adaptive (Park, 2010; Steger & Park, 2012).

Resilience is considered as the experience of people who encounter a trauma but who display low levels of impairment or distress (Steger & Park, 2012). Recovery is the process through which an individual encounters an initial violation of global beliefs and goals, but then, as time passes, returns to low or baseline levels of beliefs and goals. This suggests that the discrepancy between global meaning and the appraisal of a particular situation has been adequately resolved through the meaning-making process (Steger & Park, 2012).

Kumar (2017) characterizes resilience as the utilization of coping skills to reinstate an internal and external process that becomes affected by trauma or stress, revitalization at the time of adversities and making use of protective factors that reduces the intensity of risk factors, and instills competence in individuals (Kumar, 2017). Kumar (2017) describes recovery as the capability of an individual to return to the original form systematically to conquer adversity.

A survey of the literature related to the meaning-making process following a trauma suggests attempts to reframe traumatic experiences through reappraisal and cognitive processing may be beneficial for pursuing congruence with the individual's global meaning system. This may potentially provide a means for the survivor to resolve discrepancies related to pre-trauma and post-trauma belief systems and meaning-making (Park, 2013; Pargament, 1997; Steger & Park, 2012), thus reducing posttraumatic stress and allowing an opportunity for growth (Pargament, 1997).

Research indicates adjustment outcomes of religious meaning-making coping are often positive and strongly related to recovery (Emmons et al., 1998; Park, 2005). Stress-related growth that is religiously oriented is often reflected through positive changes in relationships, life perspectives, and coping strategies. For those experiencing religious stress-related growth following a stressful event, an increase in religious coping, and increased involvement in their religious community is often reported and positive religious growth has been related to other areas of post-trauma adjustment.

Effects of R/S Beliefs and Spiritual Struggle (SS)

Effects of R/S Beliefs

R/S beliefs can be a positive factor that contributes to greater levels of well-being and mental health (Hill & Pargament, 2008; Koenig, King, & Carson, 2012; Piedmont & Wilkens, 2013; Walker, Reid, O'Neill, & Brown, 2009). Cole, Benore, and Pargament (2004) suggest that R/S beliefs provide a spiritual orienting system that may be utilized for coping with trauma. For example, engaging in benevolent reappraisals is likely to support PTG (Pargament, 2004). Further, while being religious or spiritual may prove to be a positive coping skill, R/S beliefs can also be a stress factor when an individual is trying to make reasonable meaning of a negative event (Resick, Monson, & Chard, 2008). For example, Falot and Heckman (2005) found negative religious coping for female trauma survivors with co-occurring issues were significantly correlated with higher scores on PTSD.

R/S beliefs influence how an individual applies meaning to a traumatic experience (Kusner & Pargament, 2012; Pargament, Falb, Ano, & Wachholtz, 2013). Research indicates religious beliefs have been utilized by survivors to reframe trauma positively through identifying the trauma experience as a means of growth, as part of a larger plan, or as a means of learning

how to help others (Pargament et al., 2013; Wortmann et al. (2011). Ai and Park (2005) highlight the need for clinicians to recognize that religious and spiritual beliefs may be present as either a resource or as a negative force following a stressful life event. Treatments designed for spiritual struggle will be beneficial for some clients. Evaluating the clients' personal feelings toward spiritual struggle, support of personal growth, and interventions that challenge religious and spiritual maladaptive cognitions is supported in the literature (Ai & Park, 2005; Wortmann, Park, & Edmondson, 2011).

Religious Coping Strategies

Individuals attempting to make meaning following a stressful situation often rely on religious coping strategies. In religious reappraisal, meaning of an event may be derived from prayer, benevolent religious reappraisals, 'punishing God' reappraisals, religious forgiveness, seeking of religious support, or spiritual discontent (Pargament, Koenig, & Perez, 2000; Park, 2005). Pargament et al. (2000) suggest the appraised meaning of a stressful situation can be altered by religion by guiding meaning-making toward positive aspects derived from the situation, benign reattributions, positive reinterpretations, and adaptive coping responses. Still, some trauma experiences result in such discrepancy between appraised and global meaning that the individual is unable to reappraise the event meaning to align with pre-trauma beliefs and goals (Slattery & Park, 2015). As a result, meaning-making following such traumatic events may involve a change in the individual's global beliefs about self, the world, and one's view of God. This may lead to the development of a new religious framework of meaning (Park, 2005; Slattery & Park, 2015).

The extent to which religion impacts an individual's coping following a stressful event is mostly predicated on the role religion plays in their orienting system overall (Park, 2005). For

those that religion plays a prominent role in the understanding of self and world, religion will also play a prominent role in coping following a stressful event whereas those who are less devout will demonstrate a lesser role of religion in their coping processes. Thus, religion may catalyze to restore beliefs that the world is safe, predictable, and controllable, as well as positively affect religious cognitions toward God following a trauma or loss.

Study findings indicated religion is related to more meaning-making coping as reflected in positive reinterpretations and is related to depressed mood and avoidant and intrusive symptomology in the reverse direction (Park, 2005, 2006). Further, results indicated religion was a significant predictor of subjective well-being outcome and was a significant predictor of stress-related growth (Park, 2005, 2006). These findings are consistent with Pargament (1997) that identified religion as regularly influencing the appraised meanings of stressors.

Park (2006) examined the associations of religiousness with the making of meaning in context to both current and previous stressful situations. Eighty-three older adults reported on their current most stressful experience and their most stressful life experience, their appraisal of these events, their personal and public religiousness and religious coping style. One month later, 69 participants reported in their adjustment. Religiousness was associated with appraised meanings of stressors and with subsequent adjustment. Appraised meanings were also related to some aspects of both positive and negative adjustment to both current and most stressful life experiences (Park, 2006).

Religiousness is suggested to provide a sense of meaning and purpose for many individuals and may provide a pathway for positive meaning-making in the face of stressful circumstances through which mental and physical well-being may be impacted (Park, 2006). Two aspects of meaning-making affect adjustment to stressful life events (1) appraising the

significance or meaning of the event and (2) experiencing growth or positive meaning from the event. Religiousness is strongly related to both the appraising and experiencing growth aspects of meaning. Further, research suggests the impact of religion on adjustment may be mediated by meaning-making coping (Park, 2005).

Ellison and Fan (2008) report that individuals, regardless of social demographics or religious practices, reporting increased daily spiritual activities have a higher chance of experiencing positive psychological effect and lower chance of experiencing distress. Wortmann et al. (2011) suggest PTSD symptoms remain stable when an individual allows their spiritual beliefs to reinforce their subjective view of the traumatic event. Psychological functioning and well-being have been correlated with R/S well-being (Lazar, 2009; Unterrainer et al., 2010).

Bormann, Liu, Thorp, and Lang (2012) identified spiritual well-being as a protective factor that mediates PTSD change in veterans with military-related PTSD. In this study, an intervention of saying a sacred word was shown to reduce severity of PTSD symptoms. Religious beliefs were cited as the most significant factors in helping veterans accept various problems. The loss of religious belief may be associated with increased problems (Bormann et al., 2012). These findings suggest one contributing mechanism of explanation of how the mantram intervention reduces PTSD symptom severity in veterans may be by increasing levels of ESWB (Bormann et al., 2012).

Parks and Slattery (2013) proposed a model of the relationship between religious and spiritual dimensions and mental health and suggested several identified mediators (Figure 2.1).

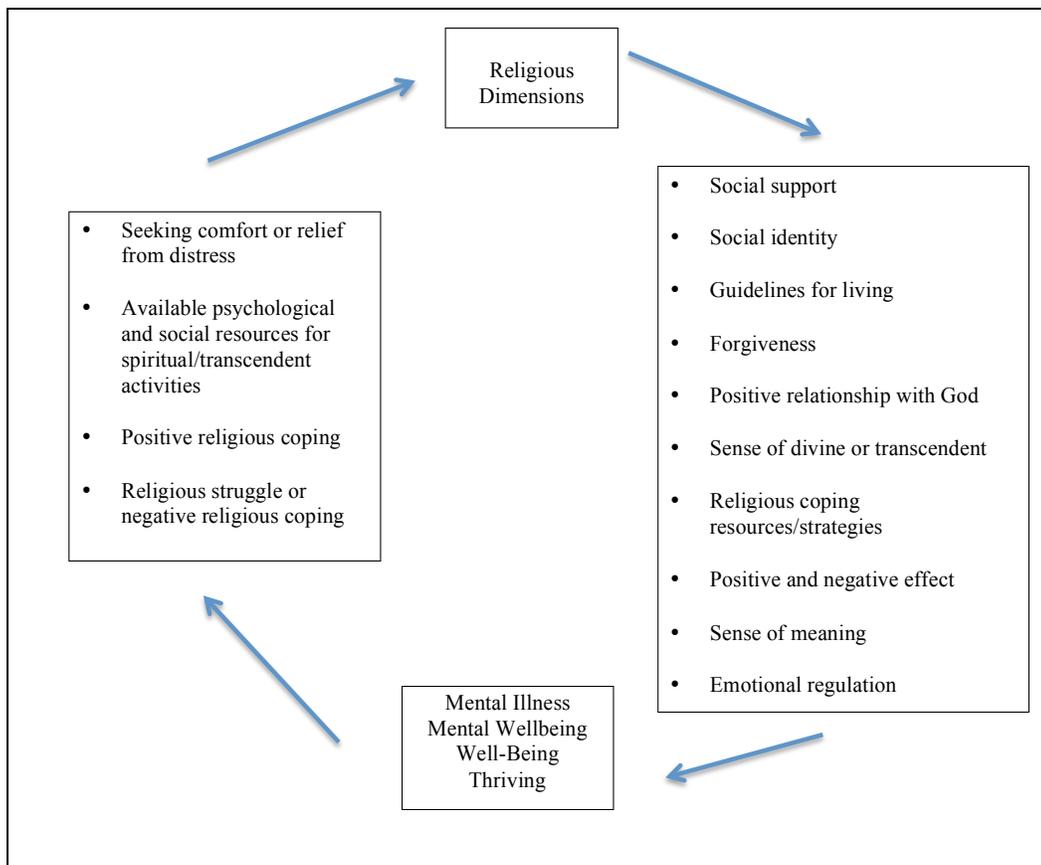


Figure 2.1 Model of proposed relationship between religious and spiritual dimensions and mental health (Park & Slattery, 2013).

Effects of Spiritual Struggle

Spiritual struggle may distort an individual's thoughts about oneself, about God or the world (Brewin & Holmes, 2003). Exline and Rose (2013) identified three types of spiritual struggle (1) divine struggle reflected by negative emotions such as anger toward God; (2) interpersonal struggle, such as conflict with family, social support, and those of similar religious beliefs; and (3) intrapersonal struggle that leads to significant religious doubting and questioning of prior held beliefs (Exline, 2013; Pargament, 2007). Divine struggle and interpersonal struggle focus on God and others (Exline, 2013) and has been identified as a predictor of poor mental health outcomes (Smith, 2004). These are associated with depression, anxiety, symptoms of

PTSD, suicide, and low self-esteem (Ano & Vasconelles, 2005; Ellison & Lee, 2010; Harris et al., 2008; Smith, McCullough, & Poll, 2003).

Wortmann et al. (2011) identified spiritual struggle as one of the constructs reflected in negative personal meanings for stressful events that facilitate the development and maintenance of PTSD symptoms. This prospective study evaluated the role of spiritual struggle in the development and maintenance of PTSD symptoms following a trauma. Mechanisms by which PTSD symptoms develop were considered, specifically the mechanism of spiritual struggle. Spiritual struggle was defined as a set of negative religious cognitions (NRCog) related to understanding or responding to stressful events (Wortmann et al., 2011).

This study points out that while cognitive factors are emphasized in prominent theories addressing the development and maintenance of PTSD symptoms, theories do not explicitly address spiritual struggle and negative religious cognitions (Wortmann et al., 2011). Intervening factors such as cognitive interpretations of events may play an important role in determining the occurrence and severity of PTSD symptoms and are relevant for cognitive therapy for PTSD (Bradley, Greene, Russ, Dutra, & Westen, 2005; Wortmann et al., 2011).

The study suggests that as negative post-trauma cognitions are associated with PTSD symptoms, negative religious responses to trauma may be predictive as well (Wortmann et al., 2011). Spiritual struggle is said to relate to PTSD symptoms in complex ways and consideration for future research in evaluating causal direction is recommended (Wortmann et al., 2011).

Effects of Trauma and PTSD

Life stressors such as trauma or loss often result in a range of negative changes from a bio-psycho-socio-spiritual perspective (Bowlby, 1980; Clayton, 1990; Figley, Bride, & Mazza, 1997; Kusner & Pargament, 2012). A traumatic situation that can lead to PTSD is followed by

psychological symptoms that persist long after the trauma experience (Carlson, 2010). An individual's response to a traumatic experience is influenced by components such as age of trauma onset (Cloitre et al., 2009; van der Kolk, 2005), type of trauma (Cloitre et al., 2009; Ford et al., 2006), and single-incident versus cumulative trauma status (Suliman et al., 2009; van der Kolk, 2005). Further, the relationship between trauma exposure and trauma symptoms is described as influenced by moderators such as avoidant coping (Pineles et al., 2011), attachment (Moriarty, Hoffman, & Grimes, 2006), resilience (Madsen & Abell, 2010), reliance on spiritual or religious beliefs, (Askay & Magyar-Russell, 2009; Fontana & Rosenheck, 2004) and spirituality (Cadell, Regehr & Hermsworth, 2003; Smith, 2004). Trauma does not always result in PTSD (Bonanno, 2004; Falsetti, Resick, & Davis, 2003; Park, 2005) and resiliency is often exhibited following a trauma to return the survivor to a similar level of prior functioning (Steger & Park, 2012).

Trauma can lead to mental health issues, such as PTSD when the exposure to the traumatic event develops and meets diagnostic criteria consistent with trauma-related disorders (APA, 2013). Trauma that leads to negative self-talk can solidify firm core beliefs and help to define negative spiritual beliefs that hinder recovery (Smith, 2004). Reduced functioning in multiple domains of the survivor's life may occur as they attempt to cope with and manage the effects of a traumatic event (Jakovljević et al., 2012; Southwick et al., 2011). Areas of life are often impacted by a traumatic experience include individual functioning, family, work/school, community, society, and culture (Jakovljević, Brajković, Jakšić, Lončar, Aukst-Margetić, & Lasić, 2012; Southwick, Litz, Charney, & Friedman, 2011).

Trauma and PTSD Effects on R/S Beliefs

One of the most pervasive effects of a trauma experience is the challenge to an individual's religious beliefs and the comfort they derive from it (Fontana & Rosenheck, 2004). Following a first/only trauma, survivors that experienced PTSD were more likely to report changes in religious beliefs and became less religious (Falsetti et al., 2003). For those holding pre-trauma negative or inflexible preexisting R/S beliefs, it is suggested a traumatic event may serve as a confirming of the beliefs and promote PTSD (Foa & Riggs, 1993).

Spirituality and religion are said to play a significant role for many people in the experiences of coping with health and illness (Chandler, 2012). Experiences of trauma have been described as challenging to one's religious and spiritual beliefs related to meaning and purpose of life (Falsetti, 2004; Fontana & Rosenheck, 2004). Traumatic events may also lead to a negative change in R/S beliefs that deteriorate this identified protective factor and meaning-making system (Falsetti, Resick, & Davis, 2003; Fontana & Rosenheck, 2004; Resick et al., 1991).

In 2003, a study that examined the relationships among trauma, posttraumatic stress disorder (PTSD), and religious beliefs found that the PTSD group reported more changes in religious beliefs (becoming less religious) following the traumatic event (Falsetti, Resick, & Davis, 2003). A total of 120 participants were included in the study that focused on the impact of traumatic events and PTSD status on religious beliefs. The results of this study indicate that one's beliefs about spiritual or religious issues may be altered or disrupted following the experience of a traumatic event. The findings support the importance of (1) conducting an in-depth assessment of changes in a survivors' spirituality, (2) evaluating spiritual issues that arise following a trauma, and (3) assessing the therapeutic value of including interventions targeted at spiritual issues (Falsetti et al., 2003).

Fontana and Rosenheck (2004) examined a model of the interrelationships among veterans' traumatic exposure, posttraumatic stress disorder (PTSD), guilt, social functioning, change in religious faith, and continued use of mental health services. The sample included 1,385 veterans. Eighty-nine percent of the sample identified as Christians. Change in religious faith (FAITH) was measured as the difference between two items, present time, and the time entering the military. The model suggested participants experienced weakened religious faith and veterans' pursued services driven more by guilt and weakening of religious faith than by the severity of their PTSD symptoms or deficits in social functioning (Fontana & Rosenheck, 2004). Wider inclusion of spiritual issues in traditional psychotherapy for PTSD was indicated as central to treatment (Fontana & Rosenheck, 2004).

In 2005, a controlled study on the effect of trauma on spirituality and religiousness in a veteran population reported that approximately half of the veterans diagnosed with PTSD also experienced a decline or growth in their religious or spiritual belief system (Fontana & Rosenheck, 2005). Walker et al. (2009) examined the potential role of childhood abuse on a survivor's spirituality and religiousness and the role personal R/S faith may have played in the survivor's recovery from abuse. In their literature review examining 34 studies of child abuse with 19,090 total participants within the studies, Walker et al. found a decline in R/S beliefs following a traumatic experience in study participant majority or a combination of both growth, and decline (Walker, 2009). Seven of these studies examined by Walker et al. suggested R/S could moderate the development of PTSD symptomology.

In a 2005 study that examined findings of prior studies on childhood abuse and religiousness and spirituality, fourteen of the studies indicated there was a decline in R/S beliefs

of abuse survivors following the trauma while 12 studies noted both spiritual growth and spiritual decline following the trauma (Fontana & Rosenheck, 2005).

Trauma and PTSD Effects on Spiritual Struggle

Violence and trauma challenge people's core values and create questions about meaning, and life's purpose (Ai & Park, 2005; Janoff-Bulman & Frantz, 1997). The influence of trauma on a survivors' subsequent spirituality suggests many people become more spiritual following trauma while others lose their faith or become less religious following a trauma, which has been found to negatively affect their ability to cope, and increased PTSD symptomology (Ai & Park, 2005). Similarly, individuals that experience a traumatic event may report symptoms related to either posttraumatic growth (Bade, 2000; Calhoun, Cann, Tedeschi, & McMillian, 2000; Helgeson, Reynolds, & Tomich, 2006; Pargament, et al. 2013; Shaw, Joseph, & Linley, 2005) or spiritual struggle (Pargament, et al. 2013; Tedeschi & Calhoun, 1996). This trend focuses on the human capacity for transformation following a trauma. While ones valued life roles, core values, and beliefs may be disrupted, confronting these disruptions is said to promote broadened perspectives, new coping skills, and the development of personal and social resources (Ai & Park, 2005).

Despite spirituality being identified as an important focus for treatment that serves as an internal motivating resource that undergirds mental resources, few studies integrate the role of spirituality into trauma research and practice (Ai & Park, 2005).

Theories Considered in Trauma, R/S Beliefs, & Meaning-making

Prominent theories that examine trauma, R/S beliefs, and the meaning-making process of a survivor following a traumatic event considered in this study include (1) Religious Coping (Pargament, 1996), (2) Schema theory (McCann & Pearlman, 1990; Piaget, 1952; Resick &

Schnicke, 1992, 1993), (3) Theory of Coping (Lazarus, 1966; Lazarus & Folkman, 1984), (4) Emotional Processing theory (Foa & Riggs, 1993), (5) Information Processing theory (Broadbent, 1958; Chemtob, Roitblat, Hamada, Carlson, & Twentyman, 1988; Foa, Steketee, & Rothbaum, 1989; Treisman, 1964), (6) Social Cognitive theory (Bandura, 1985; Foa & Riggs, 1993; Janoff-Bulman, 1992), and (7) “Just World Belief” (Janoff-Bulman, 1989; Janoff-Bulman & Frantz, 1997; Lerner & Miller, 1978). Cognitive Processing Therapy (CPT) is the treatment model of focus within the current study.

Schema Theory

Piaget and Cook (1954) suggested individuals process information through assimilation and the assimilated information is adapted into the individual's existing schema. Schema theory suggests an individual tends to preserve established schemas and new information is interpreted regarding what is already believed (Piaget, 1971). Piaget suggested people are born and develop as children with a very basic mental structure (genetically inherited and evolved) on which subsequent learning and knowledge is based. The goal of Schema theory is to explain the mechanisms and processes by which an infant, and then the child, develops into an individual that can reason and think using an hypothesis (Piaget, 1952; Wadsworth, 2004). Schemas are the basic building blocks of cognitive models that enable us to form a mental representation of the world (Piaget, 1952) and Piaget referred to schemas as ‘units’ of knowledge, each relating to one aspect of the world. These schemata are used to both understand and respond to the situations.

Similar to the CPT literature, Piaget addressed assimilation and accommodation within his theory (Piaget, 1952; Wadsworth, 2004). Assimilation is the process of taking new information received and changing it to fit our preexisting belief system of schemas (McCann & Pearlman, 1990; Piaget, 1952, 1971; Resick & Schnicke, 1992, 1993). Through assimilation, one

uses an existing schema to deal with a new situation or object. Accommodation occurs when the existing schema (knowledge) fails and must be changed to deal with a new situation or object.

Piaget posited that equilibrium occurs when a child's schemas successfully deals with new information through assimilation (McLeod, 2015; Piaget, 1952, 1958). However, disequilibrium occurs when new information fails to fit into an existing schema.

CPT protocol indicates individuals have three cognitive possibilities once a trauma occurs. (1) The information matches pre-trauma beliefs and is incorporated into memory (accommodation). (2) The individual changes their view of the self, others and/or world to incorporate the new information (assimilation). (3) They change too much and interpret everything in light of this new information (over-accommodation) Resick (2013). R/S pre-trauma beliefs will encounter these cognitive possibilities following a trauma.

Theory of Coping

Lazarus (1966, 1981) proposed a coping theory suggesting that rather than stressful events or individual personality traits themselves determining outcomes of stressful events, it is a dynamic and contextual process grounded in the individual's cognitive appraisal of the stressful event, as well as the coping strategies they have available following the event itself, that determines the outcome (Lazarus, 1966, 1981; Lazarus & Folkman, 1984). Coping as a process is described as a person's ongoing efforts in thought and action to manage specific demands appraised as taxing or overwhelming (Lazarus, 1993).

Lazarus (1966) emphasized the importance of an individual's interpretations and appraisals in determining their response to stress and distinguished three kinds of stress: harm, threat, and challenge (Lazarus, 1966, 1981; Lazarus & Folkman, 1984; Lazarus & Launier, 1978). Harm refers to psychological damage that had already been done. Threat is the

anticipation of harm that has not yet taken place but may be imminent. Challenge results from difficult demands that we feel confident about overcoming by effectively mobilizing and deploying our coping resources. Lazarus contended that individual differences in motivational and cognitive variables intervene between the stressor. The reaction and appraisal play a significant role in stress reactions (Lazarus, 1966; Lazarus et al. 1952).

Similar to Lazarus' theory, individuals often use religious coping strategies in an attempt to make meaning of a stressful situation. Meaning may be derived from religious reappraisal, prayer, religious forgiveness or seeking of religious support (Pargament, Koenig, & Perez, 2000; Park, 2005). While coping strategies such as prayer, church attendance or meditation have been identified as beneficial for a Christian trauma survivor, negative religious appraisal is said to impede the survivor's recovery from trauma (Harris et al., 2008).

The Belief in a Just World

Lerner (1965, 1980) identified 'belief in a just world' (BJW) as the assumptions that underlie the way people orient themselves to their environment. The BJW asserts that good things tend to happen to good people and bad things to bad people, despite the fact this is patently not the case (Furnham, 2002). The functional component attached to these assumptions results in the image of a manageable and predictable world and is central to the ability to engage in long-term goal-directed activity (Lerner, 1980).

Just World Belief rejects the belief that things just happen in the world and contends there is a pattern to events which conveys not only a sense of orderliness or predictability but also the compelling experience of appropriateness expressed in the judgment, "Yes, that is the way it should be" (Lerner, 1980). To plan, pursue, and acquire things desired while avoiding

those things that are frightening or painful, people assume that there are manageable procedures that are effective in producing the desired outcomes (Erikson, 1950; Merton, 1957).

Lerner (1980) suggests good behaviors are rewarded and mistakes or bad behavior are punished. The just world hypothesis postulates people get what they deserve and deserve what they get (Lerner, 1980). People contend order and justice are present despite the occurrence of a random negative event. However, a trauma experience has the potential to challenge a JWB for a survivor (Lerner & Miller, 1978).

Shattered Assumptions Theory

Shattered Assumptions theory by Janoff-Bulman (1989) draws from Schema theory (Piaget & Cook, 1954). Janoff-Bulman (1989) postulates that according to Schema theory when a trauma occurs that generates new information in conflict with an existing schema, the trauma survivor is faced with the dilemma of changing existing schema to accommodate the new trauma information. This accommodation is said to lead the individual to fundamental schema change, including changes in R/S beliefs. Janoff-Bulman (1992) contends there is a strong bias towards assimilating information rather than accommodation. However, trauma experiences often lead to a survivor altering and/or seriously questioning pre-trauma fundamental assumptions because the post-trauma data cannot fit into the prior established schemas. Thus, Shattered Assumptions theory may be one lens through which we can conceptualize the mechanisms through which SS and PTSD develop.

The theory of Shattered Assumptions suggests that trauma survivors experience a breaking of fundamental bonds of trust with others and with the divine (Boehnlein, 2007; Janoff-Bulman, 1989; 1992; Janoff-Bulman & Frantz, 1997; Lerner & Miller, 1978; Poulin, 2007). Janoff-Bulman identified changes in 'world assumptions' in her studies conducted in 1989 and

1992 that demonstrated the impact of trauma on fundamental religious beliefs. Within the theory of world assumptions, as related to trauma, three negative effects on sets of beliefs emerged (1) perceived benevolence of the world; (2) the meaningfulness of the world, and (3) the worthiness of the self (Janoff-Bulman, 1989; 1992; Solomon & Laufer, 2004). Later studies indicated that changes in world assumptions might occur in conjunction with the development and maintenance of PTSD (Falsetti et al., 2003; Ginzburg, 2004).

The perceived benevolence of the world is related to the extent to which we see the world as a good place. The meaningfulness of the world basic assumption is related to the degree to which an individual perceives fairness and justice in the world. The last assumption, worthiness of self, is related to both one's character and one's abilities and applies to the extent that we see ourselves as good, capable, and moral individuals. Janoff-Bulman (1992) proposed that overall, individual's embrace a positive bias within each of these assumption domains that can be inaccurate and in the face of a traumatic event, are often challenged. This perspective of the Shattered Assumptions theory compares to the Just World hypothesis (Lerner, 1980) that postulates people get what they deserve and deserve what they get. Also, the assumptions within this model are compared to schemas identified within other theories. Janoff-Bulman (1992) defined schemas as “a mental structure that represents organized knowledge about a given concept or type of stimulus (p. 29)”. Trauma survivors that experience a ‘shattering of assumptions’ about safety, power/control, self, and the world (Boehnlein, 2007; Ginzburg, 2004; Janoff-Bulman, 1989; 1992; NCPTSD, 2017; Poulin, 2007) and a disruption of beliefs in a benevolent, omnipotent God (Boehnlein, 2007; Exline & Rose, 2005; Pargament, Smith, Koenig, & Perez, 1998) often develop maladaptive R/S cognitions that present a cognitive dissonance between pre-trauma beliefs and the beliefs resulting from a trauma experience.

Religious Coping Theory

Pargament et al. (1990) identified religion itself as a resource for coping that literature often overlooks and found that positive religious coping as evidenced by positive R/S beliefs were associated with positive outcomes following stressful life events (Pargament et al., 1990). In a 1996 study, Pargament theorized that stressful experiences lead to disruption in religious or spiritual beliefs and move an individual to conserve (assimilate) or transform (accommodate) their religious beliefs, thereby promoting spiritual growth or spiritual decline. Pargament (1997) postulated the theory referred to as Religious Coping that expounded on the Theory of Coping by Lazarus in 1966.

Religious Coping Theory (Pargament, 1996) focuses on two types of coping, conservational and transformational, that may occur following a trauma. In conversational coping the individual holds on to prior beliefs while in transformational coping, the individual seeks new sources of meaning and significance following a trauma (Falsett et al., 2003). Pargament suggests spiritual growth may be evidenced by positive religious cognitions following a stressful event. These may result in positive outcomes such as better mental and physical health following a stressful event (Pargament et al., 1990; Pargament, Ano, & Wachholtz, 2005; Pargament, Smith, Koenig, & Perez, 1998).

Information Processing Theory (IPT)

IPT, as proposed by Foa and colleagues (1989), focuses on the importance of perceptions or meaning at the time of a trauma, such as a perception of danger, in the development and maintenance of traumatic stress. IPT also focuses on memory networks (Chemtob, Roitblat, Hamada, Carlson, & Twentyman, 1988; Creamer, Burgess, & Pattison, 1992; Foa, Steketee, & Rothbaum, 1989; Litz & Keane, 1989). Information processing theorists

propose that traumatic events can lead to disruptions in the processing of information and changes in beliefs or schemas following a trauma (Falsetti et al., 2003; Foa, Steketee, & Rothbaum, 1989). Resick and Schnicke (1992) developed an information-processing model of trauma response patterns distinguishing assimilation, accommodation, and over-accommodation, a model, further supported by findings of studies involving women who were survivors of rape (Littleton, 2007; Littleton & Grills-Taquechel, 2011).

When a trauma survivor attempts integration of new information regarding a traumatic experience, information processing theory suggests the new information is integrated through assimilation, accommodation, or over-accommodation (Falsetti et al., 2003; Resick & Schnicke, 1992). Further, Falsetti et al. suggest that changes identified in the areas of safety, trust, power, esteem, and intimacy are said to support the likelihood that trauma can also lead to disruptions in religious or spiritual beliefs (Broadbent, 1958; Chemtob, Roitblat, Hamada, Carlson, & Twentyman, 1988; Foa, Steketee, & Rothbaum, 1989; Treisman, 1964).

Emotional Processing Theory (EPT)

EPT incorporates elements of other theories, including IPT (Foa et al., 1989) and Assumptive World (Janoff-Bulman, 1982). Drawing from information processing theories, Foa and Riggs (1993) proposed the model of emotional processing that restates the importance of perceptions and meanings at the time of the trauma in the development of post-trauma stress. They added the hypothesis that PTSD occurs when a trauma does not fully process emotionally. Like assumptive world theory, EPT acknowledges ‘memory networks’ that house generic knowledge and contain two main general schemas about the self and schemas about the world. Also, Foa and Riggs (1993) suggest in EPT that the traumatic event is incongruent with positively held schemas and require accommodation, rather than assimilation, of the new

incongruent information. EPT also postulates that trauma can confirm negative schema in an individual's memory networks just as it can present incongruent information with positive schemas. PTSD may result when a trauma either shatters prior held positive schema (shattered assumptions theory) or when the trauma confirms one's prior held negative schemas (Foa & Riggs, 1993).

Social Cognitive Theories (SCT)

Social cognitive theories are among the empirically supported theoretical frameworks for understanding PTSD reactions following a trauma (Bandura, 1985). SCT emphasizes that PTSD is reflected in attempts to integrate new trauma-related information with preexisting beliefs about the self and world (Foa & Riggs, 1993; Janoff-Bulman, 1992). Much SCT's focus on the role of trauma in changing the individual's fundamental beliefs or views. These include the Assumptive World and Emotional Processing Theory, two theories considered within the conceptualization of CPT treatment.

Resick et al. (2014) indicate that although social cognitive theories are not incompatible with information or emotional processing theories, these theories focus beyond the development of a fear network to other pertinent affective responses such as horror, anger, sadness, humiliation, or guilt. Emotions such as fear, anger, or sadness may emanate directly from the trauma (primary emotions) because the event is interpreted as dangerous and abusive and may result in losses (Resick et al., 2014). Faulty interpretations made by the survivor may also result in secondary emotions, such as blame and shame, which are the result of the interpretation rather than the trauma experience itself. (Resick et al., 2014).

Social-cognitive theories focus on the content of cognitions and the effect that distorted cognitions have on emotional responses and behavior (Resick et al., 2014). Individuals tend to

assimilate, accommodate, or over-accommodate trauma information to reconcile the traumatic event with prior schemas. According to Resick et al. (2014), assimilation is altering the incoming information to match prior beliefs ("Because a bad thing happened to me, I must have been punished for something I did."). Accommodation is altering beliefs enough to incorporate the new information ("Although I didn't use good judgment in that situation, most of the time I make good decisions."). Over-accommodation is altering one's beliefs about oneself and the world to the extreme to feel safer and more in control ("I can't ever trust my judgment again."). A primary goal of therapy is working toward accommodation of the trauma that will result in a balance in beliefs that take in to account the reality of the traumatic event without going overboard (Resick et al., 2014).

Affective expression is needed in the social-cognitive model to change the affective elements of the stored trauma and to begin the work of accommodating the memory and beliefs. It is suggested that once the natural effect is accessed, it will dissipate and no longer be stored in the trauma memory (Resick et al., 2014). Also, Resick (2014) suggests that once faulty beliefs about the event (self-blame, guilt) and over-generalized beliefs about oneself and the world (e.g., safety, trust, control, esteem, intimacy) are challenged, then the secondary emotions will decrease as well, along with the intrusive reminders (Resick et al., 2014).

Many of these prominent theories emphasize cognitive factors in the development and maintenance of PTSD symptoms but more often fail to explicitly address meaning-making exemplified through the negative religious cognitive responses of SS or the role this cognitive response may play in the development and maintenance of PTSD (Wortman, Park, & Edmondson, 2011). Further, while many views on PTSD acknowledge that changes in R/S beliefs following a trauma may be associated with maladaptive cognitions (Falsetti, et al., 2003;

Kazdin, 2011; Pargament et al., 2006; Resick & Calhoun, 2001) and the development and maintenance of PTSD symptoms (Bohnlein, 2007; Park, 2005; Wortmann, Park & Edmondson, 2011). The treatment for PTSD still often lacks inclusion of a spiritual intervention that directly addresses SS (Bohnlein, 2007; Falsetti et al., 2003; Wortmann, Park & Edmondson, 2011). Worthington, Hook, David and McDaniel (2011) found that utilizing participant's spiritual beliefs in psychotherapy results in superior outcomes to secular treatments or treatment-as-usual (TAU).

Treatment for Trauma and PTSD

Numerous randomized controlled trials (RCT) have been conducted for the development and testing of empirically based and evidence-based treatment for survivors of abuse (Cloitre, Koenen, Cohen, & Han, 2002; Edmond, Rubin, & Wambach, 1999; Foa, Rothbaum, Riggs, & Murdock, 1991; Resick, Nishith, Weaver, Astin, & Feuer, 2002; Rothbaum, 1997) including Eye Movement Desensitization and Reprocessing (EMDR) (Rothbaum, 1997), Stress Inoculation Training (SIT) (Foa et al., 1991; Meichenbaum, 1994), Prolonged Exposure (PE) (Foa et al., 1991; Resick et al., 2002), and CPT (Resick, Nishith, & Griffin, 2003; Resick & Schnicke, 1996). Research on these various treatments provides strong evidence for their application in the treatment of sexual trauma survivors in a clinical setting.

Structured trauma-focused CBT approaches are the most strongly supported and evidence-based psychotherapies for the treatment of PTSD and are recommended as a first-line intervention (Department of Veteran Affairs and Department of Defense, 2010). Prolonged exposure therapy (PET) and Cognitive processing therapy (CPT) are two CBT approaches that have the greatest amount of evidence supporting efficacy (Foa et al., 2005; Resick et al., 2008b).

Cognitive therapies promote restructuring of maladaptive cognitions to address troubling memories of traumatic events, the personal meaning of the event and its consequences (Ehlers & Clark, 2008; Keane et al., 1994; Resick et al., 2008). The cognitive-processing tasks that challenge the trauma survivor include identifying target assumptions and existential reevaluation, both of which require an understanding of the process and content involved in the reconstruction of assumptive worlds (Fontana & Rosenheck, 2005; Gonsiorek et al., 2009; Janoff-Bulman, 2005).

In a randomized controlled trial of Exposure Therapy (ET) and Cognitive Restructuring (CR) for PTSD, the extent to which cognitive restructuring would augment treatment response when provided with exposure therapy, was investigated. Participants were consecutive civilian trauma survivors randomly assigned to one of four cognitive-behavioral treatments for PTSD (Bryant, Moulds, Guthrie, Dang, Mastrodomenico, Nixon, Felmingham, Hopwood, and Creamer, 2008). The major finding of this study was that combining imaginal exposure (IE), in vivo exposure (IVE) and cognitive restructuring (CR) resulted in greater treatment effects for both PTSD and depressive symptoms than did exposure alone. This suggests therapists consider implementing cognitive restructuring techniques in conjunction with exposure-based therapies (Bryant et al., 2008).

A study comparing the efficacy of prolonged exposure therapy in combat- and terror-related PTSD to treatment as usual (TAU) was conducted. The main outcome variables were PTSD and depression. The findings showed PTSD symptom severity was significantly lowered in patients who received PET in comparison to patients who received TAU. This suggests that PET is beneficial in the amelioration of combat- and terror-related PTSD symptoms and is

superior to TAU in the reduction of such symptoms (Nacasch, Foa, Huppert, Tzur, Fostick, Dinstein, Polliack, & Zohar, 2011).

A randomized clinical trial conducted from 2006 to 2012 examined the effects of counselor-delivered prolonged exposure therapy compared with supportive counseling for adolescents with PTSD (Foa, McLean, Capaldi, & Rosenfield, 2013). The sample size was determined by examining within-group effect sizes from Cohen et al. The findings reflect significant improvement from baseline to post-treatment on PTSD symptoms severity. Prolonged exposure was significantly greater than improvement in supportive counseling. The study suggests greater benefit to adolescent girls with sexual abuse-related PTSD from prolonged exposure therapy than from supportive counseling (Foa, McLean, Capaldi, & Rosenfield, 2013).

In a 2002 comparison study of cognitive-processing therapy (CPT) with prolonged exposure and a waiting condition for the treatment of chronic posttraumatic stress disorder in female rape victims, Resick (2002) found that CPT (predominantly cognitive restructuring combined with a small dose of exposure) and imaginal exposure (IE) alone resulted in comparable gains in the treatment of PTSD and depression (Resick, Nishith, Weaver, Astin, & Feuer, 2002).

One hundred seventy-one female rape victims were randomized into one of the three conditions. At the post-treatment assessment, positive effect sizes indicated that (1) participants in the CPT condition evidenced greater symptomatic improvement than participants in the MA condition. (2) Participants in the PE condition evidenced greater symptomatic improvement than participants in the MA condition. (3) Participants in the CPT condition evidenced greater symptomatic improvement than participants in the PE condition.

CPT and PE have been shown in studies to have large decreases in PTSD symptoms (75% decrease on average) (Resick, Nishith, & Griffin, 2003). Eighty percent of participants in both treatment groups remitted from their PTSD diagnosis. In addition to PTSD, there were similar decreases in depression, anger, dissociation, and other indicators of complex PTSD (Barlow, 2008; Resick, Nishith, & Griffin, 2003). Chard, Ricksecker, Healy, Karlin, and Resick (2012) also supported the positive effects of CPT beyond PTSD symptoms to include improvements in frequently co-occurring symptoms and use of cognitive-behavioral treatments (Chard et al., 2012).

CPT was also well tolerated among veterans with comorbid alcohol use disorder and was associated with significant reductions in symptoms of PTSD and depression in an outpatient treatment setting (Kaysen et al., 2014). The results suggest that CPT appears well tolerated among veterans with comorbid alcohol-use disorder (AUD) and is associated with significant reductions in symptoms of PTSD and depression in an outpatient treatment setting. CPT has additional and strong research support for the treatment of PTSD with a variety of populations (cf. Addendum 2).

A study in 2005 expanded CPT to work with the range of problems observed in adults who were sexually abused as children (CPT-SA). Chard (2005) provided the core CPT protocol in a combination of group and individual therapy. Sixty percent of the intent to treat and 93% of the treatment completer samples remitted from their PTSD by post-treatment. Their treatment gains were maintained through the one-year follow-up (Barlow, 2008; Chard, 2005).

Monson and colleagues (2006) conducted a waiting list controlled study of CPT in male and female veterans with chronic, military-related PTSD. CPT was superior to waiting list in reducing PTSD and comorbid symptoms. Forty percent of the intention-to-treat sample receiving

CPT no longer met criteria for a PTSD diagnosis at the end of treatment (Monson et al., 2006). CPT has also demonstrated a true effectiveness under naturalistic conditions within a fully controlled study, proving it is possible to achieve these effects in a naturalistic setting with routine clients of that clinical service and with non-expert clinicians drawn from a variety of therapeutic orientations and disciplines (Forbes et al., 2012).

Comorbidity, Ethnic, and Cultural Considerations in Treatment

To better address individual differences along the developmental spectrum and across ethnically or culturally diverse populations, it is important for the treating provider to be well trained in the treatment model of choice, to understand the research behind the treatment including any limitations and to make necessary modification to treatment application based on the individual client. The International Society for Traumatic Stress Studies recommends adding modules to cognitive behavior therapy approaches to address specific forms of comorbidity (Bradley et al., 2005). A lack of adequate empirical data to guide treatments for comorbid disorders is identified in the literature (Bradley, 2005; Shalev, Friedman, Foa, & Keane, 2000).

Ethnic and cultural differences influence the treatment course of individuals with PTSD and require consideration for effective treatment (NCPTSD, 2017). Cultural variations in interpretations of and reactions to severe stressors are important for consideration in both the assessment and treatment of clients from different cultural backgrounds (U.S. Department of Veteran Affairs, 2015). Research explores the role of race and ethnicity as important variables for understanding PTSD, the impact of race-related stressors and what providers should understand regarding ethnic differences.

A major strength of the CAPS-5, the primary PTSD assessment tool utilized in the current study, as it relates to ethnic and cultural sensitivity is its behaviorally based anchors for

all ratings for evaluating PTSD. These CAPS-5 anchors increase the capacity of the CAPS to assess PTSD across ethnocultural groupings, because people from different cultures and ethnic groups may express posttraumatic symptoms differently (Weathers, Blake, Schnurr, Kaloupek, Marx, & Keane, 2015).

Cognitive Processing Therapy (CPT)

Cognitive Processing Therapy (CPT) is a form of Cognitive behavioral therapy with strong research support for the treatment of PTSD. CPT-C, the specific model utilized within this current study, is a variation of the standard CPT model and is without the Trauma Account sessions (Resick et al., 2014). CPT-C was elected for use within the current study because it allows for increased time to address cognitive therapy components and aligns best with the identified research goals. The CPT-C model conceptualization of PTSD suggests that PTSD symptoms are nearly universal immediately following a serious traumatic stressor. Recovery takes a few months under normal circumstances (Barlow, 2008). PTSD that extends beyond this timeframe and can be thought of as a disruption or stalling out of a normal recovery process, rather than the development of a unique psychopathology where thoughts or avoidance behaviors are interfering with emotional processing and cognitive restructuring (Barlow, 2008).

CPT-C utilizes exposure therapy to traumatic memories but is predominantly a Cognitive therapy in that client's focus on self-blame regarding the trauma and the resulting beliefs about self and others (Barlow, 2008). Its basic premise suggests that changing the content of cognitions about a trauma can impact emotional and behavioral responses to the trauma (Barlow, 2008; Resick et al., 2012).

Theories Behind CPT-C

According to Resick et al. (2014), CPT is based on a social cognitive theory of PTSD that focuses on how the traumatic event is construed and coped with by a person who is trying to regain a sense of mastery and control in his or her life. The other major theory utilized within CPT-C for explaining PTSD is Lang's (1977, 2016) information processing theory, which was extended to PTSD by Foa, Steketee and Rothbaum (1989) in their emotional processing theory of PTSD. In this theory, PTSD is believed to emerge due to the development of a fear network in memory that elicits escape and avoidance behavior (Resick et al., 2014). Mental fear structures include stimuli, responses, and meaning elements. Anything associated with the trauma may elicit the fear structure or schema and subsequent avoidance behavior. According to Resick et al. (2014), the fear network in people with PTSD is thought to be stable and broadly generalized so that it is easily accessed. When reminders of a trauma activate a fear network, the information in the network enters consciousness (intrusive symptoms). Attempts to avoid this activation result in the avoidance symptoms of PTSD. According to emotional processing theory (Foa et al., 1989), repetitive exposure to the traumatic memory in a safe environment will result in habituation of the fear, and subsequent change in the fear structure. As emotion decreases, Foa et al. (1989) contend patients with PTSD will begin to modify their meaning elements spontaneously and will change their self-statements and reduce their generalization. Repeated exposures to the traumatic memory are thought to result in habituation or a change in the information about the event, and subsequently, the fear structure (Foa et al., 1989; Resick et al., 2014).

The two main theories behind CPT-C are Social cognitive theory (Bandura, 1985; Resick, 2014) and Emotional processing theory (Foa et al., 1989). Social cognitive theory

focuses on how the traumatic event is construed and coped with by a person who is trying to regain a sense of mastery and control in his or her life. Emotional processing theory focuses on the development of a fear network in memory that elicits escape and avoidance behavior (Barlow, 2008; Foa et al., 1989; Resick et al., 2012; Resick, Monson, & Chard, 2008). Further, drawing from Information processing theory, CPT-C protocol addresses cognitive themes of safety, trust, power, esteem, and intimacy that are considered effected by traumatic experiences (Resick et al., 2014).

Grounded in Social Cognitive Theory, Resick et al. (2014) theorize through CPT-C that people take in new information from all of their senses throughout their lives. An individual works to organize all of that information (words, categories, schemas) in an attempt to understand, predict, and control. People are taught early in life the ‘just world belief’ from parents, teachers, religion, society, and culture. A trauma experience has the potential to challenge a JWB for a survivor (Lerner & Miller, 1978). Trauma that leads to PTSD is schema (belief) that are incongruent with prior positive beliefs and/or schema that are congruent with previous negative beliefs. From the new trauma information, intrusive symptoms occur from the individual's inability to accommodate the trauma information (Resick, Monson, & Chard, 2008). It is these intrusive symptoms that may lead many to develop PTSD.

The process of assimilation and accommodation of new trauma information into the survivor's belief system, as described by Pargament (1990, 1997), is also highlighted within the treatment protocol of CPT-C. Overall goals of the therapy model are to improve the client's PTSD symptoms, as well as associated symptoms such as depression, anxiety, guilt, and shame. It also aims to improve day-to-day living. During administration of CPT-C, which includes manualized protocol of 12-individual therapy sessions, Socratic questioning is utilized to

challenge distorted cognitions, self-blame, hindsight bias, and other guilt cognitions as the therapist attempts to uncover what has interfered with normal recovery following a trauma (Resick, Monson, & Chard, 2014). The CPT-C protocol lacks, however, inclusion of specific, and direct spiritual measures or interventions that intentionally target SS, evidenced by NRCogs that may result from a traumatic experience and inform the development and maintenance of PTSD.

CPT-C suggests that once the trauma is over, it becomes a memory of important information that requires integration. Three possibilities for integrating the trauma memory are identified: (1) the information matches pre-trauma beliefs/schemas and is incorporated; (2) the individual changes their view of the world/themselves to incorporate the new information; (3) the individual changes too much, and interprets everything from this new trauma information (Resick et al., 2008).

CPT-C treatment rationale suggests PTSD is a disorder of non-recovery, aided, and maintained by avoidance. From this perspective, trauma interacts with pre-existing beliefs, and informs how a survivor makes sense of and copes with trauma effects and recovery. The CPT-C protocol is recovery-focused and teaches a specific way of reconciling one's beliefs with a traumatic experience, while staying connected to the natural emotions. SCT of PTSD suggests beliefs equal trauma (Resick et al., 2008).

For individual's holding pre-existing *positive* beliefs prior to the trauma, such as "It is a just world", "People can be trusted" or "I am in control", trauma challenges these beliefs, and presents beliefs such as "I must have done something bad to deserve this", "It is my fault" or "I could have prevented this". For those holding pre-existing *negative* beliefs prior to the trauma, such as "I am a bad person", "People can't be trusted" or "I have no control over anything"

trauma strengthens these beliefs by presenting posttrauma beliefs such as "I deserve it", "I knew I shouldn't have trusted him/her", "It proves I have no control". Regardless of whether the survivor held positive or negative pre-trauma beliefs, the concept of assimilation presents or strengthens new beliefs following the trauma. These may create *stuck points* in the survivor's ability to integrate the new trauma information into memory successfully, thus creating the opportunity for non-recovery and the development of PTSD (Resick et al., 2008).

Over-accommodation and accommodation are two cognitive responses initiated by survivors attempting to process and integrate trauma information. The process of over-accommodation of beliefs as indicated within CPT-C suggests pre-trauma beliefs such as "I can get close to others" or "The world is safe." The post-trauma beliefs become "I cannot get close to anyone" and "The world is completely unsafe." With accommodation, pre-trauma beliefs such as "Bad things happen to good people", "Good people do bad things", "I have power over many things, but not all things", and "A different action might have had a bad or worse outcome" (Resick et al., 2008), as well as "The world should be easy" (when not, God isn't good), "The world should be orderly and predictable" (when not, God can't be trustworthy), and "The world should be fair" (when not, God isn't just) (Thomas & Habermas, 2008, 2011) help to expedite the recovery process following a trauma for the purpose of processing and integrating the new trauma information into the individual's pretrauma belief system (Resick et al., 2008, 2014).

A goal of CPT-C is to guide the client toward identifying stuck points in their thinking as related to assimilation (about the past/trauma) (i.e., undoing, guilt or blame about the trauma) and over-accommodation (about present and future) (i.e., conclusions, implications of trauma that are inaccurate, and often distressing beliefs) that interfere with recovery from the impact of

trauma, contributes to PTSD, and prevents integration of the new trauma information (Resick et al., 2008).

Populations Treated Using CPT

Randomized controlled trials utilizing CPT have focused on interpersonal traumas including rape (Resick et al., 2002), child sexual abuse (Chard, 2005), rape, and physical assault (Resick et al., 2008), interpersonal trauma (Galovski et al., 2012), DRC, rape victims (Bass et al., 2013), and an interpersonal trauma, sleep trial (Galovski et al., 2016). Military and veterans are also a strong population within CPT studies including U.S. veterans (Maieritsch et al., 2015; Monson et al., 2006; Morland et al., 2014), Australian veterans (Forbes et al., 2012), U. S. veterans with military sexual trauma (Suris et al., 2013), active duty (Resick et al, 2015) and U.S. veterans and community women (Morland et al., 2015). Individuals with a wide range of comorbid disorders and extensive trauma histories are also identified in research about CPT (Barlow, 2008; Resick et al., 2008, 2015). In the research setting, CPT protocol has been implemented with individuals ranging from three months to 60 years post-trauma, with individuals having no more than a fourth-grade education and as little of an IQ as 75 (Resick et al., 2014).

The American Psychological Association has identified ‘best research evidence’ as a major component of evidence-based practice (APA Presidential Task Force on Evidence-Based Practice, 2006). It further stipulates the necessity of combining evidence-based psychological treatment with clinician expertise and patient values and characteristics for determining an optimum treatment approach (APA Presidential Task Force on Evidence-Based Practice, 2006). Three of the psychological treatments for PTSD that have been evaluated with scientific rigor and have been found to have strong empirical support include: Present-Centered Therapy

(Classen, Butler, & Spiegel, 2001; McDonagh, McHugo, Sengupta, Demment, Schnurr, Friedman, Ford, Mueser, Fournier, & Descamps, 2005), Prolonged Exposure Therapy (PET) (Foa, 2011; McClean & Foa, 2011; Powers et al., 2010) and Cognitive Processing Therapy (CPT) (Monson et al., 2012; Resick et al., 2012; Resick, Monson, & Chard, 2014).

These ESTs lack inclusion of a direct spiritual intervention within the treatment protocol to specifically address NRCog or SS resulting from traumatic events (Chambless et al., 1998; Tolin et al., 2015). R/S interventions may be described as (1) any secular techniques used to strengthen the faith of a religious/spiritual client, (2) secular techniques modified to include explicitly religious content (e.g., Christian cognitive therapy) or (3) religious/spiritual interventions as an action or behavior derived from religious practice such as blessings, reference to sacred texts, or audible prayer (Worthington, 1986).

The prevalence of trauma experiences, PTSD, SS, NRCog, and the possibility for diminished protective factors of spiritual well-being and R/S beliefs further supports the need for a spiritual intervention to be directly considered within EST protocol for PTSD (Barlow, 2008; Chard et al, 2012; Fontana & Rosenheck, 2004; Galovski et al., 2012; Peteet, Lu, & Narrow, 2011; Resick & Schnicke, 1992, 1993; Wachen et al., 2014).

A direct spiritual intervention toward getting *unstuck*, a concept utilized within Cognitive Processing Therapy-Cognitive (CPT-C), regarding pre-trauma R/S beliefs, and changes in R/S beliefs post-trauma may be more successful in identifying target assumptions, and existential conflict for reevaluation, and integration of the traumatic experience for the Christian client.

Spiritually Oriented Therapy and Spiritual Interventions

The Competencies for Addressing Spiritual and Religious Issues in Counseling (ASERVIC, 2009) are identified guidelines that complement the values and standards espoused

in the ACA Code of Ethics (2015). The purpose of ASERVIC Competencies is to "recognize diversity and embrace a cross-cultural approach in support of the worth, dignity, potential, and uniqueness of people within their social and cultural contexts" (ASERVIC, 2009, p. 3).

ASERVIC competencies are recommended for use in conjunction with counseling approaches that are evidence-based and align with best practices in counseling. Based on these guidelines it is suggested that R/S issues resulting from a trauma require consideration in treatment for best practice. A direct spiritual intervention toward getting *unstuck*, a concept utilized within Cognitive Processing Therapy-Cognitive (CPT-C), regarding pre-trauma R/S beliefs and changes in R/S beliefs post-trauma may be more successful toward integrating the traumatic experience for the Christian client.

Spiritually Oriented Therapy

In a meta-analysis that evaluated 31 outcome studies of spiritually oriented therapies, positive outcomes were observed in mental disorders including depression, anxiety and PTSD (Smith et al., 2007). Further, spiritually oriented CBT therapies were identified as effective for religious individuals with small effect size greater than secular therapist in this population (Worthington et al., 1996). However, intervention studies utilizing R/S interventions also continue to be lacking (Bryant-Davis & Wong, 2013; Propst, 1980; Propst, Ostrom, Watkins, Dean, & Mashvurn, 1992; Smith, 2004). Kusner and Pargament (2012) indicate spiritually oriented trauma-focused treatments remain in the early stages of development and more studies are needed to evaluate its effectiveness (Walker & Aten, 2012).

Peres, Moreira-Almeida, Nasello and Koenig (2007) recommend religious trauma survivors may benefit from identifying a skilled mental health provider equipped to assist the survivor in evaluating their R/S beliefs and to navigate the interpreting of trauma effects and

coping post trauma. Sperry (2012) suggests that once false cognitions are identified, they can be viewed and challenged through a spiritual belief system.

Harold Koenig (2016) conducted a Religious Psychotherapy Study consisting of 132 people with major depressive disorder and chronic medical illness. Participants were randomized to Religious CBT versus. Conventional Secular CBT. Ten fifty-minute psychotherapy sessions by telephone were conducted over 12 weeks. Study findings indicated that both forms of treatment worked equally well; however, for those identifying as more religious, a mild advantage was observed for the religious therapy. Also, it was determined that religious CBT group did better overall after the study than those who received conventional secular CBT (Koenig, 2016). After the trial, the religious CBT group did better overall.

Hodge (2013) identified religious assessment through the lens of a bio-psycho-socio-spiritual model (BPSS) as an important tool for treating clients from different cultural backgrounds. Through a BPSS model treatment approach, the therapist and client are better equipped to evaluate how existing beliefs of the client may serve as either a resource or hindrance to coping with problems (Hodge, 2013). Research supports an assessment approach that considers the spiritual domain of the client. In addition, it is indicated that spiritual beliefs of a trauma survivor play a role in coping, as well as in the interpretation of trauma (Kusner & Pargament, 2012). The Brief RCOPE is a common religious assessment tool utilized for spiritual assessment and will be utilized in this study. A discussion on this measure is further described in the measurement section in this chapter.

In a 2011 study of 54 veterans diagnosed with PTSD, two groups were established to address spiritual conflict and to increase meaning-making. One group was assigned to Building Spiritual Strength (BSS) treatment that integrates spirituality into trauma treatment. The second

group was a wait-listed control group. Spiritual interventions utilized during treatment included written prayers, prayer log, praying out loud, meditation, discussion of doctrinal beliefs attributed to spiritual conflict and the trauma, practice of religious coping skills, psychoeducation, examination of forgiveness, and conflict resolution with oneself, others and God. This study suggested those receiving BSS treatment experienced a decrease in PTSD symptoms (Harris et al., 2011).

A treatment model that addresses issues often comorbid to trauma *Healing Emotional Affective Responses to Trauma* (HEART) (Keyes, 2009) is a Christian therapy model specifically designed for trauma and comorbidity such as dissociation, DID, PTSD, early childhood sexual abuse, domestic violence, and deep emotional hurt. From a spiritual perspective, at the core of this model is the concept of forgiveness, both self-forgiveness and forgiveness of others (Worthington, 1998). It suggests that forgiveness may resolve resentments and cognitive distortions towards God (Keyes, 2009).

Spiritually Oriented Cognitive Processing Therapy-Cognitive (SOCPT-C), a spiritual adaptation of CPT-C (Resick, Monson, & Chard, 2014), may be more effective than Treatment as Usual (TAU) for the treatment of PTSD symptoms in Christian clients with PTSD and SS through its inclusion of a spiritual intervention (Bradley, Greene, Russ, Dutra, & Westen, 2005). This current study seeks to examine the relationship between religious cognitive change consistent with SS and the development and maintenance of PTSD within a female, Christian population of adult sexual assault survivors receiving treatment in an outpatient clinical setting. It is hypothesized that SS, as evidenced by NRCog, will mediate PTSD symptoms more in clients that receive SOCPT-C than clients that receive conventional CPT-C. It will also result in increased use of spiritual resources (spiritual beliefs, practices, values, and motivations), an

identified protective factor in those experiencing PTSD. Further, consideration is given to the impact a direct spiritual intervention has on identified NRCog and the development and maintenance of PTSD when added to the EST administered in individual outpatient therapy.

Spiritual Interventions

Numerous researchers and practitioners continue to show how spiritual interventions help to improve clients' mental, physical, and spiritual well-being (Smith et al., 2007). Integration of spiritual interventions into psychotherapy may provide an opportunity for an individual to access R/S beliefs for evaluating the meaning they ascribe to a traumatic event and consider how their R/S beliefs are contributing to impairment (i.e., SS) or growth (i.e., PTG) (Bryant-Davis & Wong, 2013).

Bormann et al. (2012) point out that very few spiritual interventions for PTSD have been empirically tested or are in use in treatment despite evidence that R/S is repeatedly identified as an important coping resource for some people and that trauma impacts such beliefs (Bormann et al., 2012). Propst (1996) suggested that religious clients should be able to utilize spiritual rationale for debating their thoughts and assumptions as a therapeutic tool in treatment. Further, the American Psychological Association (APA, 2010) indicates that clinicians are ethically responsible for addressing the impact of cultural and religious beliefs of a client when those beliefs are attributed to symptoms of trauma.

According to Post and Wade (2009),

...there are at least three common views on defining religious/spiritual interventions (Worthington, 1986). One view defines religious/spiritual interventions as any secular techniques used to strengthen the faith of a religious/spiritual client. A second view defines religious/spiritual interventions as secular techniques modified to include

explicitly religious content (e.g., Christian cognitive therapy). A third view defines religious/spiritual interventions as an action or behavior derived from religious practice (e.g., blessings, reference to sacred texts, audible prayer) (p. 140).

Despite the ethical consideration, it is suggested that many therapists remain underequipped to integrate spiritual interventions into treatment with trauma survivors (Bryant-Davis & Wong, 2013; Sperry, 2012). Moreover, while research suggests that individuals identifying with a religious affiliation report interest in the integration of spiritual interventions into therapy, they express concern to whether therapists are equipped to respectfully administer these interventions (Stanley et al., 2011).

Murray-Swank (2004) conducted a study that included a spiritual intervention of experiential exercises such as breath work and guided imagery for survivors of sexual abuse in individual therapy. The participants reported having a belief in God or other high power and were open to address spiritual issues within therapy. Eighty percent of the participants reported significant reductions in anxiety at one to two months following the study. This study suggests spiritual issues occur throughout recovery for survivors and need to be addressed during treatment (Murray-Swank, 2004). A limitation of this study was the small sample size of 5 participants.

Resick, Monson and Rizvi (2008) posited that based on cognitive theory, complex trauma survivors could decrease negative symptoms through using Socratic questioning to process R/S questions that arise following a trauma. Hodge (2013) encourages the therapist to engage in preliminary assessment questions consistent with the Socratic questioning method to explore the importance of spirituality to the client, to evaluate support drawn from R/S beliefs by the client and to identify previous coping that utilized R/S beliefs.

Other examples of religious interventions discussed in the literature include religious imagery and use of religious texts as tools for cognitive restructuring (Propst, 1996). Religious imagery can be beneficial for an individual experiencing intense memories of trauma by invoking a calming of emotions through the spiritual images (Propst, 1996). Religious texts can be drawn from to support or challenge existing beliefs held by the survivor as it relates to the trauma and R/S beliefs (Propst, 1996). Specific spiritual interventions represented in the research include prayer (Aten, McMinn, & Worthington, 2011; Sperry, 2012; Tan, 2007), meditation (Kristeller, 2011; Shapiro & Walsh, 2003), scripture reading, (Pargament, 2007; Sperry, 2012) and spiritual journaling (Wiggins, 2011). Prayer is a commonly used spiritual intervention and is often reported by clients as an important element of their spiritual life (Sperry, 2012). Various types of prayer include intercessory prayer, confession, meditation, gratitude, forgiveness, and prayer of worship (Tan, 2007). In a systematic meta-analysis review, researchers reported that including intercessory prayer in therapy showed a small but significant effect (Hodge, 2007). Also, prayer had been identified as having a calming factor predictive of PTG (Harris et al., 2010).

Meditation practices have been identified as a predictor of improved mental health in areas of depression, anxiety, and PTSD (Shapiro & Walsh, 2003). Christian traditions including meditation include acts of reciting/praying scripture verses or repeating prayers silently (Wachholtz & Austin, 2013). Centered Prayer is recognized in the Christian faith as a form of meditation and prayer that focuses on an awareness of God's presence, the identification of a sacred word associated with God (Sperry, 2012).

The reading of spiritual texts, such as the Holy Bible, is also identified as a spiritual intervention that promotes spiritual well-being (Pargament, 2007; Sperry, 2012). The use of

scripture readings in sessions and as homework is a common spiritual intervention drawn from to challenge dysfunctional or irrational thoughts, reframe negative thoughts related to stressors or trauma, to reframe experiences through a spiritual perspective, and to reduce shame and guilt and promote forgiveness (Sperry, 2012). Lastly, spiritual journaling is a spiritual intervention utilized in therapy where clients are instructed to journal their thoughts, feelings, questions, and experiences about life events (Murray-Swank & Pargament, 2005; Wiggins et al., 2011). Through spiritual journaling, clients may explore current belief systems or changes in R/S beliefs, process unanswered spiritual questions promoting spiritual struggle or distress and move toward reframing interpretations of trauma or other stressful life events (Wiggins et al., 2011). Writing details of a trauma, along with thoughts and feelings about the experience was shown in a 1988 study of 50 college students to reduce stress and physical illness in the aftermath of a trauma. These created a way for the participant to find new meanings of the event that promoted recovery (Pennebaker, Kiecolt-Glaser & Glaser, 1988). The literature suggests that spirituality-based interventions may be a mechanism of change for individuals experiencing mental health issues such as PTSD (Bormann et al., 2012).

Relationship Between Trauma, PTSD, R/S Beliefs, and Spiritual Struggle

The research explored within this chapter as it relates to R/S beliefs, spiritual struggle, trauma, and PTSD suggest an underlying, intricate relationship exists between these variables. While trauma has been identified as having the potential to undermine faith and spirituality (Berrett et al., 2007; Harris et al., 2008) and result in spiritual struggle (Harris et al., 2008; Pargament et al., 2011), spirituality has been established as a variable for meaning-making, support. Positive coping may also aid in the recovery process from trauma (Park, 2008, 2010; Park et al., 2012; Peres et al., 2007). R/S beliefs have been associated with PTG after a trauma

(Cadell, Regehr, & Hemsworth, 2003) and reduced traumatic stress (Lee & Waters, 2003). R/S beliefs have also been identified as moderating the relationship between trauma exposure and PTSD symptoms following a trauma (Govender, 2010). Depending on the response of the individual, a stressful event may prompt a spiritual struggle that ends in PTG or spiritual decline (Harris et al., Pargament & Sweeney, 2009; Wortmann et al., 2011). These findings support the basis that the spiritual domain of an individual is as critical to functioning following a trauma as the biological, psychological, or social domains, and must be properly attended to in treatment.

Harris et al. (2008) explored the relationship between religious functioning and trauma. Measures of religious action and behaviors in a community sample of 327 church-going, self-identified trauma survivors participated in the study. The principal components analysis of positive and negative religious coping, religious comforts and strains, and prayer functions identified seeking spiritual support as positively related to posttraumatic growth and religious strain as positively related to posttraumatic symptoms (Harris et al., 2008).

Most participants reported a history of multiple types of trauma. For this study, trauma was defined as “experience with very stressful situations such as being physically or sexually assaulted or abused, being in a war or natural disaster, being in an accident, being diagnosed with a serious illness, or having someone close to you unexpectedly die or develop a serious illness (Harris et al., 2008). Results suggested posttraumatic symptoms were negatively correlated with religious comfort, and positively correlated with alienation from God, fear, and guilt, religious rifts, negative religious coping, and the Defer/Avoid prayer function (Harris, 2008).

Posttraumatic growth was positively correlated with religious comfort, positive religious coping, among other variables.

According to Pargament and Sweeney (2009), individuals considered to be spiritually healthy are expected to be less impacted by a traumatic experience because of their resiliency to accept the reality of a situation, develop creative coping strategies, find meaning in the trauma, maintain an optimistic view of the future, access their social support network, generate the motivation to persevere, and grow from adversity. Further, resolution of cognitive, spiritual struggle is associated with reduction of trauma symptoms (Denney et al., 2010; Linley & Joseph, 2011). A premise drawn from the identified literature is that trauma experiences that are considered through the lens of an individual's R/S beliefs may determine the degree to which the trauma exposure results in trauma symptoms consistent with PTSD.

Measurements

This current study utilizes a bio-psycho-socio-spiritual approach (BPSS) to the assessment of participants as described in the multilevel, multidimensional assessment strategy of trauma survivors indicated by Richards and Bergin (2005) (Figure 2.2). Different domains assessed in the client with this model include: physical, social, behavioral, intellectual, educational-occupational, psychological-emotional, and religious-spiritual (Richards, Hardman, Lea, & Berrett, 2015). The current study conducted a thorough clinical assessment that facilitates both a level 1 global assessment of the client, as well as a more in-depth, level 2 assessment of identified areas of concern.

Incorporating assessments of functional outcomes into treatment of individuals suffering from PTSD has been identified as imperative as studies have shown that the impact of the trauma on domains of psychosocial functioning may be even more meaningful to traumatized individuals than the specific symptoms of PTSD (Galovski, Sobel, Phipps & Resick, 2005; Johnson, Rosenheck, Fontana, & Lubin, 1996). More specifically, for the Christian client,

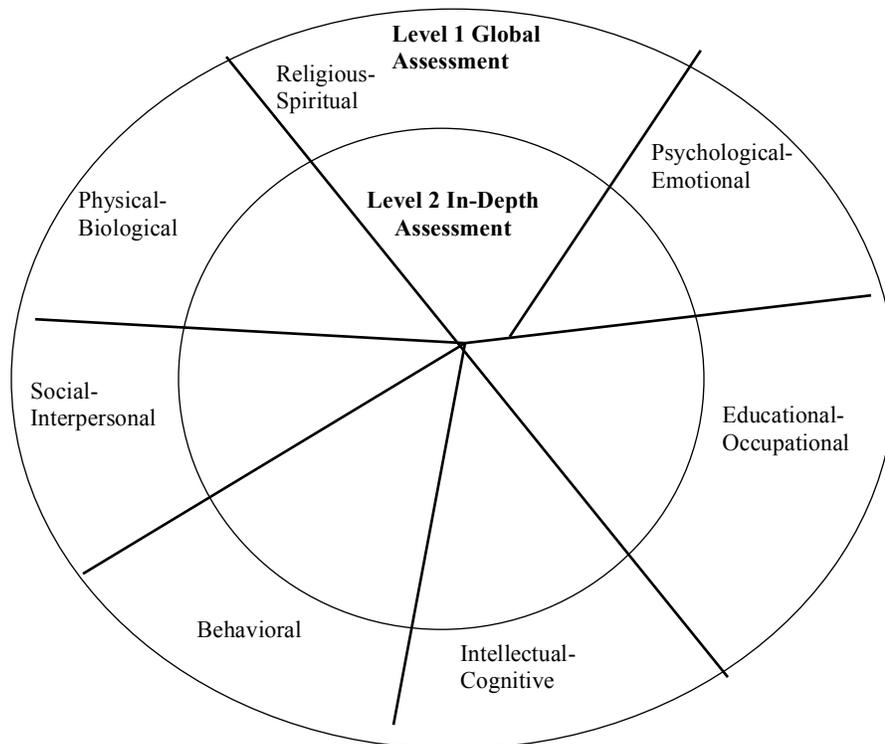


Figure 2.2 A multilevel, multidimensional assessment strategy. Adapted from *A Spiritual Strategy for Counseling and Psychotherapy* (2nd ed., p. 235), by P. S. Richards and A. E. Bergin, 2005, Washington, DC: American Psychological Association.

incorporating assessments on the domain of spiritual functioning may be of significance as identified within the BPSS model which is indicated to increase awareness of the individual's comprehensive experience and its impact within each realm such as cognitive processing (e.g., temperament or personality) or personal spiritual and religious belief systems utilized as an attempt to cope (Bormann, 2011; Prest, 2005; Prest & Robinson, 2006).

Assessment tools and measures utilized in the current study include (1) CAPS, (2) Clinical Assessment, (3) MMSE, (4) PCL-5, (5) Brief RCOPE, and (6) PHQ-9. Variables being measured include PTSD scores, spiritual struggle, and depression scores. Each assessment tool and measure utilized in this current study is further defined and supported by the instrumentation section of Chapter 3.

SCRD Research Method

Nielson (2015) indicates the single-case design is a good option for counselors in clinical practice and program evaluation to utilize to reduce the disparity between research and counseling efficacy. Need for the counseling profession to enhance the validity and efficacy of clinical mental health counseling have taken center stage in more recent years. Nielson (2015) considers a model by Agramovich and Coker (2007) *Accountability Bridge Counseling Program Evaluation Model* (a larger framework for research to display effectiveness) as one of the methods counselors may pursue to bridge the research and practice gap through a measurement system. Nielson (2015) considers research developments within counseling and application of the current literature on SCR D to research by the practicing counselor, with specific applications of feedback-informed treatment (FIT) systems to promote clinical research.

Nielson (2015) points out ‘research chasm’ as counselors doing counseling and counselor educators conducting research ‘separately and unrelated’. Murray (2009) proposes a theory-based method for counselors to begin infusing research findings into their practice and identifies bridging the gap between researcher and counselor is equally important in a clinically based practice (Nielson, 2015).

Counselors lacking confidence or understanding of the role research plays in professional practice or improper training are cited as some reasons counselors lack the desire to conduct research (Kaplan, 2009; Nielson, 2015; Sexton, 2000). Guiffrida and Douthit (2010) proposed changes within the counseling profession to make a place for research, for example, using research methodologies fitting the counselor paradigm, promoting professional presentations of research, and improving doctoral training (Nielson, 2015).

Mental health counselors increasingly recognize their duty to engage in research and the variety of methodologies available within the counseling practice, such as SCRDR (Nielson, 2015). The disparity between experimental designs and evidence-based practice is highlighted within the field of counseling and practice-based evidence research such as case studies, process research, and effectiveness research, is noted as taking place in the environment where counseling occurs, creating a closer relationship between clinical practice and research (Henton, 2012; Nielson, 2015). Lundervold and Belwood (2000), Lenz (2015), and Sharpley (2007) further explore practice-based research paradigm using SCRDR.

Lundervold and Belwood (2000) identified SCRDR as the 'best-kept secret' in counseling. SCRDR offers a scientifically credible means to objectively evaluate practice, and conduct clinically relevant research in practice settings (Lundervold & Belwood, 2000). In Lundervold and Belwood (2000) a 7-component model for establishing the use of SCRDR methods in the counseling practice is presented. It is noted that counseling's historical tradition of equating research methods with group experimental design and statistical analysis is an overly narrow research approach with little direct relevance within practice settings. SCRDR is one method of practice relevant evaluation and research methods that counseling practitioners may utilize in research (Lundervold & Bellwood, 2000). Further, the research methodology of SCRDR is developed for use in practice settings and capable of evaluating counseling process, evaluating counseling intervention outcomes, and demonstrating experimental control (Lundervold & Bellwood, 2000).

The critical features of the SCRDR, according to Lundervold and Belwood (2000), are (1) phases of intervention (baseline and treatment), (2) specifying target(s) of change (dependent variables), (3) quantification, (4) systematic data collection, (5) repeated observation, (6)

specifying the independent variable (counselor actions), and (7) design choices (experimental or evaluation design). The analysis of data within SCRD has traditionally been through visual analysis where visual inspection of graphed data is conducted to determine a pattern in the data (Lundervold & Belwood, 2000). Statistical analysis may be utilized for behavioral data to evaluate counseling effectiveness (Lundervold & Belwood, 2000). Evaluation of treatment outcome should be based on both clinically significant and statistically reliable change (Lundervold & Belwood, 2000).

Lundervold and Belwood (2000) suggest SCRD is an advantage for practitioners in the counseling setting because it is theory-free, requires adherence to basic tenets of scientific methodology regarding construct, internal validity, and measurement, is flexible, evidence-based with methods designed for use in practice settings, provides evidence-based decision-making tools, treatment is data based, bridges the scientist-practitioner gap and statistical methods not necessary.

Lenz (2015) identifies SCRD as a reasonable alternative for counselors in counseling practice for providing measurable outcomes in counseling. Counselors across settings are being required more to use evaluative strategies that meet requirements for reporting outcomes, SCRDs are identified as a practical strategy for making inferences about efficacy of an intervention, establishing evidentiary support for counseling practices, and give voice to counseling activities with smaller populations (Lenz, 2015).

Lenz (2015) points out that criteria for experimental between-groups research designs posit an incredulous disposition regarding the ‘goodness of fit and practicality’ for counseling professionals. Limitations identified with between-groups designs in the counseling setting include sample size, cost, and logistics, types of comparison, data analysis utilizing statistical

procedures, and type of data yielded. Further, SCRDS are identified as a practical alternative for counselors because of its minimal sample size requirements; self is utilized as their control, flexibility and responsiveness within the counseling setting, and ease of data analysis through graphical representation of data (Lenz, 2015).

Lenz (2015) indicates standards for demonstrating evidentiary support when using SCRDS are delineated in the research. Chambless et al. (1996, 1998) indicated SCRDS could be used to classify therapeutic interventions as ‘well-established,’ ‘probably efficacious,’ or not demonstrating efficacy. Chambless and Hollon (1998) established the stable data trend before implementing an intervention and the use of A-B-A-B or multiple baseline designs with at least three clinically relevant outcomes as integral in determining intervention efficacy. Kratochwill et al. (2010, 2013) later established a greater deal of specificity in the description of criteria for standards meeting requirements for the SCRDS design, thus maximizing the internal validity of the SCRDS, and demonstrating efficacy through multiple replications of results with a participant (Lenz, 2015). The guidelines presented by Chambless et al. (1996, 1998) and Kratochwill et al., (2010, 2013) represent tremendous advances for researchers through the operationalization of SCRDS as a benchmark to which principal researchers can refer Lenz (2015).

Ray (2015) identifies SCRDS as offering counseling practitioners and researchers a practical and viable method for evaluating the effectiveness of interventions that target behavior, emotions, personal characteristics, and other counseling-related constructs of interest. SCRDS focuses on manipulation of the independent variable (i.e., counseling intervention) (Ray, 2015). A practical option for the counseling field is the multiple baseline design, across subjects appears better aligned with counseling research (Ray, 2015). Sharpley (2007) indicates the SCRDS is a design that can meet the growing urgency for counseling to be evidence-based. Because of the

lack of direct relevance between the randomized controlled clinical trials (RCCTs) and everyday counseling, research has shown that RCCT-recommended standardized psychotherapeutic treatments do not result in identical outcomes for all clients (Luborsky, McLellan, Diguer, Woody, & Seligman, 1997).

Luborsky et al. (1997) examined the results of counseling offered by 22 therapists who treated seven different samples of patients that were drug-affected and depressed with the same treatment manuals and the same therapy procedures. The range of percentages of improvement for the 22 therapists was from slightly negative change to slightly more than 80% improvement. Counselors suggest they treat each client individually and evidence supporting a particular therapy that is evidence based on data from a large RCCT, may not be as relevant to everyday counseling (Sharpley, 2007).

Other Methodologies Used to Investigate Outcomes of Interest

Other methodologies used to investigate outcomes of interest include quantitative between-group research and qualitative research. Single-case designs usually assess few subjects on many occasions and between-group research usually assesses many subjects on few occasions (Kazdin, 2013). For researching the counseling practice, SCRCD is the more viable option.

Chapter Summary

This chapter described the literature that relates to the variables identified within the current study. Current literature on major themes and perceptions was reviewed, including: trauma and PTSD, concepts of religious/spiritual beliefs, meaning-making, effects of R/S beliefs and spiritual struggle, effects of trauma and PTSD, empirical treatment for PTSD, spiritually-oriented therapy, and interventions and the relationship between R/S beliefs, spiritual struggle trauma and PTSD. An overview of primary trauma theories and research related to the

empirically supported treatment model of CPT-C was put forth. The need for inclusion of direct spiritual interventions within the CPT-C protocol that directly addresses SS, as evidenced by NRCog occurring following a traumatic event and with Christian clients diagnosed with PTSD was proposed. The literature regarding the measurements and research method (SCRD) used in this study were examined.

CHAPTER THREE: METHODS

A multiple baseline, single case research design (SCRD) across participants was used for this study to evaluate the effect of SOCPT-C, a modified version of CPT-C (TAU), on spiritual struggle in four Christian female survivors of sexual assault presenting with PTSD and SS. SCR D examines change at the individual level through continuous assessment, which makes this design desirable for conducting research in the clinical setting and reduces the likelihood of significant exclusion criteria that may impact generalizability (Barlow et al., 2008; Gast, 2010; Horner et al., 2005). The increasing demands for EST and EBP in the counseling setting increases the need for more research in these areas and supports the benefits of SCR D and the need for the type of research found within this current study (Kratowill et al., 2010).

The purpose of the study was to explore the effects of a spiritually modified treatment protocol on female Christian sexual assault survivors experiencing SS and PTSD following the traumatic event. Several studies utilizing participants' spiritual beliefs in psychotherapy have reported results superior to secular treatments or usual care (Worthington, Hook, David, & McDaniel, 2011). Because current research identifies the complex reciprocal relationship between SS and PTSD as a potential interference with the goals and main purpose of psychotherapy in the clinical setting, the role spiritual struggle plays in this interference is of particular interest (Falsetti et al., 2003; Kazdin, 2011).

CPT for Current Study

Four (4) Christian female sexual trauma survivor's ages 18-60 meeting study criteria as set forth in this chapter were randomized to either CPT-C or SOCPT-C. The data collection variables included (1) PS- Pre-Screening Assessment, (2) SA- Standard Assessment and (3) CA- Continuous Assessment. The assessment measures utilized at pre-screening included a

demographic questionnaire, PTSD Checklist for DSM-5 (PCL-5), Brief RCOPE, and exclusionary criteria questionnaire. The standard assessment included the CAPS-Monthly interview for diagnosis, frequency, and severity (pre- and post-treatment), Clinical Assessment, MMSE, self-report scales consisting of the PCL-5 with LEC-5 and Criterion A, Brief RCOPE, PHQ-9, and Exclusionary Criteria review. For continuous assessment, the PCL-5 and Brief RCOPE were administered weekly. The Patient Health Questionnaire (PHQ-9) was administered every two weeks. The study consisted of sixteen (16) 60-minute face-to-face individual psychotherapy sessions delivered over an eight-week period. A licensed doctoral level therapist trained in the delivery of CPT-C protocol and spiritual interventions administered the psychotherapy within the clinical setting. The outline and content of each CPT-C and SOCPT-C were delineated in Chapter Three, as well as the discussion of the remaining treatment phases.

Given the purpose identified within this current study, the principal research questions framing this study were:

RQ1. What is the prevalence of changes, if any, in R/S beliefs for individuals that have experienced a traumatic event of sexual assault?

RQ2. Are the changes in R/S beliefs that lead to SS, as evidenced by NRCog, more likely to be associated with PTSD than changes in R/S beliefs that lead to posttraumatic growth?

RQ3. What are the outcome differences, if any, in SOCPT-C and CPT-C (TAU) treatment as related to spiritual struggle and PTSD?

The need for interventions that specifically address SS is evidenced in the cognitive and behavioral impairment that often results in Christian survivors of sexual trauma. It is suggested that Christians experiencing SS may also be affected in their religious functioning and

experience marked departures in S/R social behavior and prior activities previously identified as protective factors, such as church attendance, prayer, Bible reading, meditation, and religious events. (Donahue, 1985; Kazdin, George, & Siegler, 1988; Pargament et al., 2006).

The first section of this chapter described the history, use, and specific design features of the SCRDR used in this study. The independent and dependent variables were identified and sequence of treatment was defined. The roles of the principal researcher, data analyst, and each participant in the study were then delineated. The second section addressed selection of participants and discussed the qualification process, including inclusionary and exclusionary criteria for participation in the study. The third section, the Instrumentation section, provided a description of each instrument, test, questionnaire, and/or measure used in the study. Reliability, validity, origin, and rationale for inclusion of the instruments in the study were also explained and each instrument is included in the Appendices. Next, the research procedures were described in detail and included (1) human subject considerations, (2) recruitment of participants, (3) initial contact with qualifying participants, (4) instructions and materials used in the study, (5) setting, (6) data gathering and recording procedures, and (7) utilization of web-based survey methods. Lastly, the section on Data Processing and Analysis was presented with explanation of how the data was processed and analyzed. Data analysis, including the visual analysis process, testing implemented for visual analysis, and the role of a data analyst was explained. Examples of graphs utilized in visual analysis and presentation of data were provided.

Research Design

Single Case Research Design (SCRDR) emerged in medical and psychological research in the 1800s by researchers such as Charles Darwin and Ivan Pavlov (Kazdin, 2011). In the 1900s, SCRDR, as currently practiced, appeared in the work of John B. Watson and B. F. Skinner

(Kazdin, 2011; Kennedy, 2005). SCRD is a type of experimental research used to establish experimental control within a single case and is often referred to as $N = 1$, single-subject or small n designs. SCRD focuses on the individual (i.e., case or participant) with each case serving as its own control (Kazdin, 2003; Ray, 2015). Participants are reported both individually and collectively and the typical range of cases is from three to eight in most SCRD studies (Horner et al., 2005). The single case being studied can be an individual person, a family, or a group of individuals (Ray, 2015).

SCRD has continued to grow in popularity and is more widely accepted by researchers today. Still, only 1.02% of articles published in the *Journal of Counseling and Development* between 1982 and 2002 were about SCRD (Sharpley, 2007). SCRD reports are still rare in professional counseling journals (Ray, 2015). Many continue to emphasize the need for more SCRD to demonstrate the effectiveness of interventions within the field of counseling and to meet the growing demand for evidence-based practices (Lenz, 2015; Lundervold, 2000; Ray, 2015; Sharpley, 2007). While the majority of SCRD reports are found in research on applied behavioral analysis, the SCRD design is also appropriate for less overt behavior distinguishing a counseling focus from a purely behavioral focus (Ray, 2015). Further, the SCRD design is suggested to be more practical for counseling research through its design feature of studying individual cases rather than requirements for larger participant samples that often pose a barrier to counselors in the field (Odom et al., 2005; Ray, 2015).

Co-occurrence of maladaptive behaviors and their treatment has also long been an interest to researchers (Kazin & Whitley, 2006; Kendall & Clarkin, 1992). According to Kendall and Clarkin (1992), treatment implications of comorbid psychopathology are “the premier challenge facing mental health professionals (p. 833)”. The SCRD utilizing the multiple baseline

strategy in this study is especially well suited to advance the understanding of how specific treatment variables may influence not only the study target of SS but its influence on PTSD as well (Kazdin, 2011; Ray, 2015).

Three major types of SCRDS incorporate phase repetition (Table 3.1). Of these, the multiple baseline single case research design type was chosen for this study because it best aligned with the goals, purpose, and research questions of the study. Three defining features of the SCRDS include (1) an individual case is the unit of intervention administration and data analysis. A case may be a single participant or a cluster of participants; (2) within the design, the case provides its control for purposes of comparison. For example, the case's series of outcome variables prior to the intervention is compared with the series of outcome variables during (and after) the intervention, and (3) the outcome variable is measured repeatedly within and across different conditions or levels of the independent variable. These different conditions are referred to as phases (e.g., baseline phase, intervention phase) (Kratochwill, 2010).

The four necessary features of SCRDS include (1) continuous assessment that requires repeated observations over time of a participant's behavior, operationally defined and transpires multiple times a week or more frequently; (2) Baseline assessment that establishes the pre-intervention level of performance and takes place prior to the intervention. Baseline assessment typically involves at least three to five data points that continue until relatively stable or a predictable pattern is shown (Horner et al., 2005; Kazdin, 2003; Kennedy, 2005); (3) stability of performance; and (4) use of different treatment phases (Kazdin, 2003).

Table 3.1

Examples of Single-Case Designs and Associated Characteristics

| Representative Example Designs | Characteristics |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Simple phase change designs [e.g., ABAB; BCBC and the changing criterion design].* (In the literature, ABAB designs are sometimes referred to as withdrawal designs, intrasubject replication designs, or reversal designs)</p> <p>Complex phase change [e.g., interaction element: B(B+C)B; C(B+C)]</p> <p>Changing criterion design</p> | <p>In these designs, estimates of level, trend, and variability within a data series are assessed under similar conditions; the manipulated variable is introduced and concomitant changes in the outcome measure(s) are assessed in the level, trend, and variability between phases of the series, with special attention to the degree of overlap, immediacy of effect, and similarity of data patterns in similar phases (e.g., all baseline phases).</p> <p>In these designs, estimates of level, trend, and variability in a data series are assessed on measures within specific conditions and across time.</p> <p>In this design, the researcher examines the outcome measure to determine if it covaries with changing criteria that are scheduled in a series of predetermined steps within the experiment. An A phase is followed by a series of B phases (e.g., B1, B2, B3...BT), with the Bs implemented with criterion levels set for specified changes. Changes/ differences in the outcome measure(s) are assessed by comparing the series associated with the changing criteria.</p> |
| <p>Alternating treatments (In the literature, alternating treatment designs are sometimes referred to as part of a class of multi-element designs)</p> <p>Simultaneous treatments (in the literature simultaneous treatment designs are sometimes referred to as concurrent schedule designs).</p> | <p>In these designs, estimates of level, trend, and variability in a data series are assessed on measures within specific conditions and across time. Changes/differences in the outcome measure(s) are assessed by comparing the series associated with different conditions.</p> <p>In these designs, estimates of level, trend, and variability in a data series are assessed on measures within specific conditions and across time. Changes/differences in the outcome measure(s) are assessed by comparing the series across conditions.</p> |
| <p>Multiple baseline (e.g., across participants, across behaviors, across situations)</p> | <p>In these designs, multiple AB data series are compared and introduction of the intervention is staggered across time. Comparisons are made both between and within a data series. Repetitions of a single simple phase change are scheduled, each with a new series and in which both the length and timing of the phase change differ across replications.</p> |

Source: Adapted from Hayes (1981) and Kratochwill & Levin, 1992).

* “A” represents a baseline series; “B” and “C” represent two different intervention series.

To meet SCRD baseline requirements, the baseline phase in this study was extended, as indicated, for stability of performance to be met (Ray, 2015). To establish stability of performance, the minimal standard for baseline data collection is three data points being cited (Kennedy, 2005), while others recommend five to nine data points are needed for a reliable representation of behavior (Vannest et al., 2013). Overall, the baseline phase needed to continue until the data collected was fairly stable and interpretable (Morgan & Morgan, 2009).

To establish a usable baseline of data, a minimum of five data points for each participant was obtained (Table 3.2). The projected session schedule remained flexible during the baseline phase to establish stable and reliable baselines as indicated within the design standards. Data was graphed as it was collected to best ascertain when all SCRD baseline requirements were satisfied for a participant and stability of performance was met, indicating progression to Phase 2 was appropriate (Kratochwill, 2010; Ray, 2015).

The type of research design utilized in a study contributes to experimental control and rigor of the design (Ray, 2015). Horner et al. (2005) describe ways in which the SCRD provides experimental control for most threats to internal validity based on SCRD Standards. Experimental control is demonstrated through (1) introduction and withdrawal of the independent variable (IV), (2) staggered introductions of the IV at different points in time, also known as a multiple baseline design, and (3) manipulation of the IV across observation periods (Horner et al., 2005; Ray, 2015).

Staggered introduction of the intervention within a multiple baseline design allows the experimental effect to be demonstrated within individual data series and across data series at the staggered times of interventions. Thus, the multiple baseline design is considered a more rigorous design and is recommended in the literature (Foster, Watson, Meeks, & Young, 2002;

Kennedy, 2005; Ray, 2015; Schottelkorb, 2007). Theoretically, only two baselines are needed to derive useful information. However, at least three baselines are recommended if practical and experimental considerations permit (Barlow, Nock, & Hersen, 2008; Kazdin & Kopel, 1975). Ray (2015) further points out that replication is a characteristic feature that lends credibility to SCRD interpretation results and inclusion of three replications (i.e., three participants) is a minimal standard.

For this study, four adult Christian female survivors of sexual assault between the ages of 18-60 were recruited. Following the baseline phase for each individual participant, identified phases (B, B-C) were implemented and data collection occurred twice weekly at each session through utilization of the identified measures (Ray, 2015). Staggered introduction of the independent variable occurred with Participant 1 receiving TAU, Participant 2 receiving the IV beginning in Session 5, Participant 3 receiving the IV beginning in Session 10 and Participant 4 receiving the IV beginning in Session 15 (Table 3.2). Each phase met the minimum of five data collection points for this study and satisfied the SCRD Standards for evidence-based research (Kratochwill et al., 2010), excluding the depression data which was not a focus variable for the study.

SCDR Design and Evidence Standards

The What Works Clearinghouse (WWC) established the SCRD Standards that were needed to expand the pool of scientific evidence through the use of SCRD research (Kratochwill, Hitchcock, Horner, Levin, Odom, Rindskopf, & Shadish, (2010). The Standards are divided into Design Standards and Evidence Standards (Table 3.3) (Kratochwill et al., 2010).

Table 3.2

Multiple Baseline Across Participants Design Intervention and Data Collection Protocol

| PARTICIPANT 1 | | | | | | | | | |
|----------------------|-----------|---------------|----|---------------|-------|---------------|-----|---------------|-------|
| | PS | WEEK 1 | | WEEK 2 | | WEEK 3 | | WEEK 4 | |
| Session | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phase | A | A | A | A | A | B | B | B | B |
| Intervention | RB | RB | RB | RB | RB | TAU | TAU | TAU | TAU |
| Data Collection | PS | SA, D | CA | CA | CA, D | CA | CA | CA | CA, D |

| | | Week 5 | | Week 6 | | Week 7 | | Week 8 | |
|-----------------|--|---------------|-----|---------------|-------|---------------|-----|---------------|-------|
| Session | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Phase | | B | B | B | B | B | B | B | B |
| Intervention | | TAU | TAU | TAU | TAU | TAU | TAU | TAU | TAU |
| Data Collection | | CA | CA | CA | CA, D | CA | CA | CA | CA, D |

| PARTICIPANT 2 | | | | | | | | | |
|----------------------|-----------|---------------|----|---------------|-------|---------------|-------|---------------|-------|
| | PS | WEEK 1 | | WEEK 2 | | WEEK 3 | | WEEK 4 | |
| Session | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phase | A | A | A | A | A | B-C | B-C | B-C | B-C |
| Intervention | RB | RB | RB | RB | RB | TAU/S | TAU/S | TAU/S | TAU/S |
| Data Collection | PS | SA, D | CA | CA | CA, D | CA | CA | CA | CA, D |

| | | Week 5 | | Week 6 | | Week 7 | | Week 8 | |
|-----------------|--|---------------|-------|---------------|-------|---------------|-------|---------------|-------|
| Session | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Phase | | B-C | B-C | B-C | B-C | B-C | B-C | B-C | B-C |
| Intervention | | TAU/S | TAU/S | TAU/S | TAU/S | TAU/S | TAU/S | TAU/S | TAU/S |
| Data Collection | | CA | CA | CA | CA, D | CA | CA | CA | CA, D |

| PARTICIPANT 3 | | | | | | | | | |
|----------------------|-----------|---------------|----|---------------|-------|---------------|-----|---------------|-------|
| | PS | WEEK 1 | | WEEK 2 | | WEEK 3 | | WEEK 4 | |
| Session | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phase | A | A | A | A | A | B | B | B | B |
| Intervention | RB | RB | RB | RB | RB | TAU | TAU | TAU | TAU |
| Data Collection | PS | SA, D | CA | CA | CA, D | CA | CA | CA | CA, D |

| | | Week 5 | | Week 6 | | Week 7 | | Week 8 | |
|-----------------|--|---------------|-------|---------------|-------|---------------|-------|---------------|-------|
| Session | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Phase | | B | B-C | B-C | B-C | B-C | B-C | B-C | B-C |
| Intervention | | TAU | TAU/S | TAU/S | TAU/S | TAU/S | TAU/S | TAU/S | TAU/S |
| Data Collection | | CA | CA | CA | CA, D | CA | CA | CA | CA, D |

| PARTICIPANT 4 | | | | | | | | | |
|----------------------|-----------|---------------|----|---------------|-------|---------------|-----|---------------|-------|
| | PS | WEEK 1 | | WEEK 2 | | WEEK 3 | | WEEK 4 | |
| Session | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phase | A | A | A | A | A | B | B | B | B |
| Intervention | RB | RB | RB | RB | RB | TAU | TAU | TAU | TAU |
| Data Collection | PS | SA, D | CA | CA | CA, D | CA | CA | CA | CA, D |

| | | Week 5 | | Week 6 | | Week 7 | | Week 8 | |
|-----------------|--|---------------|-----|---------------|-------|---------------|-----|---------------|-------|
| Session | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Phase | | B | B | B | B | B | B | B-C | B-C |
| Intervention | | TAU | TAU | TAU | TAU | TAU | TAU | TAU/S | TAU/S |
| Data Collection | | CA | CA | CA | CA, D | CA | CA | CA | CA, D |

Note. Baselines were staggered and extended for each subsequent participant. Projections were based on minimum SCRD requirements with flexible study protocol.

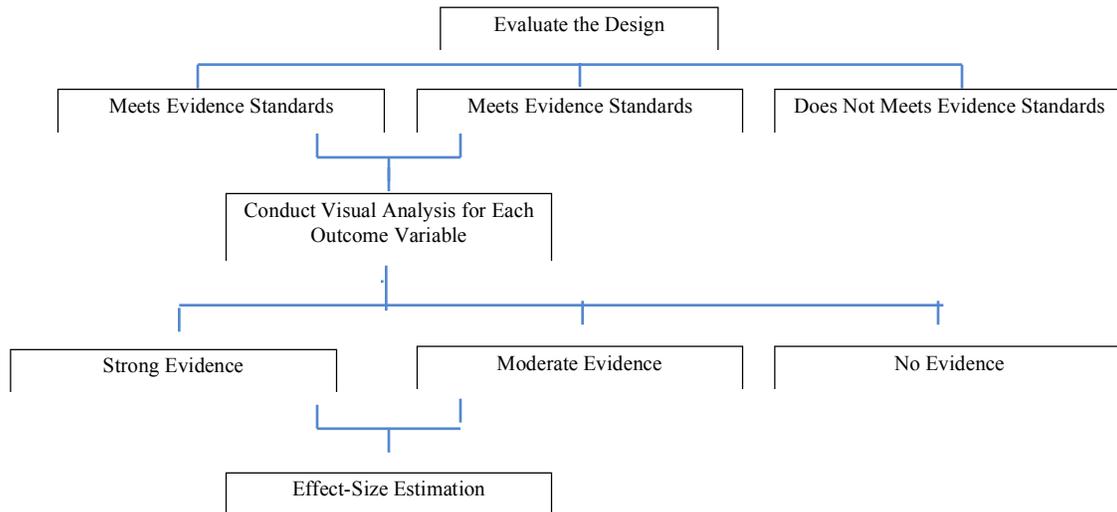
Phases- A=Baseline condition; B= Intervention Phase (CPT-C); C= Intervention Phase (SOCPT-C)

Intervention Variable- **RB**=Relationship Building; **TAU**=Cognitive Processing Therapy-Cognitive (CPT-C); **S**=Spiritual Intervention added (SOCPT-C)

Data Collection Variable(s)- **PS**= Pre-Screening Assessment; **SA**= Standard Assessment; **CA**= Continuous Assessment (**SS**=spiritual struggle measure; **P**=PTSD measure); **D**=depression measure

Table 3.3

Procedure for Applying SCRD Standards: First Evaluate Design, then if applicable, Evaluate Evidence



Design Standards

Design standards of the SCRD evaluate internal validity of the design (Kratochwill et al., 2010). In line with the design standards category of *Meets Evidence Standards* design criteria consistent with a counseling research focus was included within the study design. For this study, the independent variable, SOCPT-C, was systematically manipulated with the principal researcher determining when and how the independent variable condition changed consistent with design standards (Kazdin, 2011; Ray, 2015). While the majority of SCRD reports are found

within behavior analysis research requiring measurement of overt behavior through observational measures, objective raters, and inter-observer/rater agreement by more than one observer over time, observational measure is often outside the focus of counseling research. Rather, reliance on the identified assessment measures was utilized for ongoing assessment through established instruments with reasonable validity and reliability (Kazdin, 2011; Ray, 2015). Consistent with design standards, the identified valid and reliable instruments were used to measure the constructs of interest and to assess tangential effects to the target focus of spiritual struggle (Kazdin, 2011).

This study included at least three attempts to demonstrate an intervention effect at three different points in time or with three different phase repetitions as demonstrated by the multiple baseline design. It also included at least three baseline conditions. Each phase had a minimum of three data points and thus qualified as an attempt to demonstrate an effect. While a phase should typically include a minimum of five data points, to *Meet Standards*, a multiple baseline design study must have a minimum of six phases with at least five data points per phase (Kratowill et al., 2010). Or, it may have at least three data points in any one phase to demonstrate an effect and be deemed *Meets Evidence Standards with Reservations* (Kratowill et al., 2010). The current study was designed to *Meet Standards*.

Criteria for Demonstrating Evidence of a Relation Between the Independent Variable and Outcome Variable

Reviewers trained in visual analysis apply the Evidence Standards to studies to conclude if it meets standards (with or without reservations), resulting in the categorization of each outcome variable as demonstrating *Strong Evidence*, *Moderate Evidence*, or *No Evidence* (Kratowill et al., 2010).

In an effort for the outcome variable(s) in this study to demonstrate *Strong Evidence* as identified within the *Evidence Standards*, the following rules were applied to the study. At least two SCRD reviewers experienced in visual (or graphical) analysis analyzed and documented the data for causal relation. Specifically, this was operationalized with at least three demonstrations of the intervention effect along with no non-effects by (1) documenting the consistency of level, trend, and variability within each phase; (2) documenting the immediacy of the effect, the proportion of overlap, the consistency of the data across phases in order to demonstrate an intervention effect comparing the observed and projected patterns of the outcome variable, and (3) examining external factors and anomalies (e.g., a sudden change of level within a phase) (Kratochwill, 2010 et al).

When examining a multiple baseline design such as used in this current study, one must also consider the extent to which the time in which a basic effect is initially demonstrated with one series (e.g., first five days following introduction of the intervention for Participant #1) is associated with change in the data pattern over the same time frame in the other series of the design (e.g., same five days for Participants #2, #3, #4). If a basic effect is demonstrated within one series and there is a change in the data patterns in other series, the highest possible design rating expected is *Moderate Evidence* (Kratochwill et al., 2010).

SCRD Multiple-Baseline Feature

Incorporating multiple-baseline features allows for (1) different baselines to be measured at differing times and exposure to interventions and (2) the comparing of two treatment interventions (SOCPT-C and CPT-C [TAU]). The inclusion of this design strategy eliminated the possibility of multiple-treatment interference and carry-over effect found within A-B-A-B SCRD strategies, while allowing for continuous assessment necessary with fewer subjects (Kazdin,

2011; Ray, 2015). The continuous observations feature over baseline and treatment met criteria for the multiple-baseline design across participants while optimizing clarity of the intervention effect sometimes challenged in between-group research (Kazdin, 2011; Ray, 2015). The continuous assessment forms utilized within this study included the PCL-5 (Weathers, Litz, Keane, Palmieri, Marx, & Schnurr, 2013) and Brief RCOPE (Pargament, Feuille, & Burdzy, 2011) (Appendix D).

Consistent with most single-case research, internal validity concerns have been addressed through the structure of the design and systematic replication of the effect within the course of the experiment (e.g., Barlow et al., 2008; Horner et al., 2005; Kazdin, 1982; Kratochwill, 1978; Kratochwill & Levin, 1992). Effect replication is important in controlling threats to internal validity and its role is central for the various threats. A fundamental characteristic of SCD research, according to Horner et al. (2005, p. 168), is that experimental control is demonstrated when the design documents three demonstrations of the experimental effect at three different points in time with a single case (within-case replication), or across different cases (inter-case replication). The experimental effect is demonstrated when the predicted changes in the dependent measure(s) covary with manipulation of the independent variable. In accordance with the *Standards for design to Meet Evidence* standards of criterion of three replications, this study included four participants (Kratochwill & Levin, 2010).

SCRD Multiple-Baseline Across Participants Feature

Multiple baseline across participants design increased credibility through incorporating features of the SCRD necessary for use in the counseling setting for applied research and allowed for comparison of effects amongst various study participants, increasing causal inference for interpretation of results (Kazdin, 2011; Ray, 2014). This strategy also allows for

identification of which intervention is most effective and promotes optimum change in the identified study population as it relates to SS and PTSD in an applied setting through baseline and intervention intervals varying from participant to participant.

There were several advantages to utilizing a SCRD multiple baseline across participants strategy within this applied research study including (1) the undesirability of reversing symptom effects was avoided, (2) treatment was not temporarily withheld, (3) interventions were applied at varying baseline intervals and continued throughout investigation, (4) carry-over effect was eliminated, and (5) interventions could be compared in the same phase (Kazdin, 2011; Ray, 2014). These advantages were present as a result of utilizing the SCRD multiple baseline strategy across participants that highlighted differing effects produced by treatment and compares performance associated with the alternating condition (Kazdin, 2011; Ray, 2014).

A unique virtue of this design strategy was its ability to evaluate an empirically supported treatment model (CPT-C) to a spiritually oriented modification of the model (SOCPT-C) within an applied setting and with a minimum number of identified participants. It is suggested that a modified empirically-based treatment model that focuses on the spiritual effects of a trauma may be examined more readily in a design that does not require a between-group study, larger numbers of participants or random assignment that brings important benefits to applied research. The design emphasized and examined the benefits of empirically supported treatment being utilized within psychotherapy and explored its effects with clients in the applied setting of a counseling office, an area currently lacking in the research (Kazdin, 2011). The features of SCRD methods utilized within this design improved the quality of client care and highlight therapeutic change. Overall, SCRD can increase the strength of the experimental demonstration within the applied setting of counseling (Kazdin, 2011).

Independent Variable

Manipulation of the independent variable, the counseling intervention of SOCPT-C, a modification of CPT-C (TAU), was utilized to assess if an effect on spiritual struggle (the DV) would be associated with the manipulation of the IV. An additional purpose was to further evaluate the role SS played on PTSD experienced by Christian female adult survivors of sexual assault.

Spiritually Oriented Cognitive Processing Therapy-Cognitive (SOCPT-C)

The primary format of the SOCPT-C intervention in this study followed the manualized treatment protocol established for CPT-C (See Appendix E) as applied within the CPT-C session protocol (Appendix F; Resick, Monson, & Chard, 2014). Modification of the CPT-C manualized protocol differentiating the SOCPT-C intervention was accomplished through extracting the Negative S/R Struggle Sub-Scale Items from the Brief RCOPE (Table 3.4; Pargament et al., 2011) and specifically applying the 7 Sub-Scales to the general forms and session protocol utilized within CPT-C (TAU). The modified CPT-C forms supporting the spiritual intervention included: (1) SO-Stuck Points, (2) SO-A-B-C Worksheet, (3) SO-Socratic Questioning, (4) SO-Challenging Questions Worksheets, (5) SO-Patterns of Problematic Thinking, and (6) SO-Challenging Beliefs Worksheet (Appendix H).

Resick et al. (2014) identify the goal of Socratic questioning within CPT as bringing clients into their own awareness of the inconsistent and/or dysfunctional thoughts maintaining their PTSD. Spiritual oriented Socratic questioning is an important component of the spiritual intervention in that it intends to increase the client's awareness of R/S thoughts driving spiritual struggle and is utilized to induce change in the R/S beliefs promoting spiritual struggle following a trauma. A goal is to teach clients to question their own R/S thoughts and beliefs following a

trauma and to evaluate the effects changes in R/S beliefs have had on the client’s life post trauma.

Table 3.4

Negative S/R Struggle Subscale Items from Brief RCOPE

| | |
|--------------------------------------------------|-------------------------------------------------|
| 1. Wondered whether God had abandoned me. | 2. Wondered whether my church had abandoned me. |
| 3. Felt punished by God for my lack of devotion. | 4. Decided the devil made this happen. |
| 5. Wondered what I did for God to punish me. | 6. Questioned the power of God. |
| 7. Questioned God’s love for me. | 8. I wondered if I’m unworthy of God’s love. |

Socratic questioning is an important intervention in addressing PTSD and SS through its thoughtful questioning that enables the logical self-examination of ideas and facilitates the determination of the validity of those ideas. As recommended by Resick et al. (2014), Socratic questioning used within this study involved (1) subtle methods by the principal researcher of asking more questions and making fewer interpretive statements, (2) empowering the client to take more credit than the therapist for change that occurs, (3) having a safe environment for the client to fully explore their rationale for their thoughts, and (4) helping clients examine their problematic thinking that has been created or reinforced as a result of the traumatic event(s). Because Resick et al. (2014) suggest disruptions in religious beliefs may be at the heart of a client’s PTSD and should not be avoided in treatment, the direct spiritual intervention of SO-Socratic questioning was considered a valuable component of SOCPT-C as related to the treatment of SS and PTSD. Further, cross-cultural competence regarding issues such as R/S beliefs of the client is directly supported through the spiritual intervention and the method of Socratic questioning.

Socratic questioning consists of six main categories: clarification, probing assumptions, probing reasons and evidence, questioning viewpoints or perspectives, probing implications and consequences, and questions about questions (Resick et al., 2014). While the categories build on one another, the principal researcher shifted from one category to another throughout a session.

CPT-C session protocol was further modified in SOCPT-C Sessions 8-12 that addressed over-accommodation of the trauma in general themes of safety (Session 8), trust (Session 9), power/control (Session 10), esteem (Session 11), and intimacy (Session 12). The Brief RCOPE (Pargament et al., 2011) is a multi-functional instrument that is utilized for other purposes in research that may or may not have a larger spiritual significance, including the search for meaning, intimacy with others, identity, control, comfort/anxiety-reduction, and transformation (Exline & Rose, 2005; Pargament et al., 2011). Thus, the S/R struggle subscales from the Brief RCOPE were directly applied to SOCPT-C protocol in sessions 8-12 to intentionally address these more general trauma themes through the spiritual intervention (Appendix G).

The negative S/R struggle sub-scale of the Brief RCOPE is characterized by signs of spiritual tension, conflict, and struggle with God and others, as manifested by negative reappraisals of God's powers (e.g. feeling abandoned or punished by God), demonic reappraisals (i.e., feeling the devil is involved in the stressor), spiritual questioning and doubting and interpersonal religious discontent (Pargament, Koenig, & Perez, 2000). The spiritual interventions identified within the SOCPT-C session protocol were utilized in this study to identify, evaluate, challenge, and change NRCog experienced by each participant as ascertained from results and continuous assessment with the Brief RCOPE related to the negative struggle sub-scales and as applied within SOCPT-C session protocol. Spiritual struggle resulting from changes in beliefs effected by the index trauma and potentially impacting PTSD symptomology

of the participant were directly targeted with the spiritual intervention through cognitive restructuring in the identified SOCPT-C session protocol.

Although participants were encouraged to explore spiritual struggle and spiritual resources, the intervention did not promote the practice of rituals identified with any particular denomination or religious affiliation or that participants choose not to explore.

Dependent Variables

Spiritual Struggle

To operationalize and explore the latent variable of spiritual struggle (SS) and its complex and reciprocal relationship with PTSD, participants completed the Brief RCOPE (Pargament et al., 2011). Two sub-scales are on the Brief RCOPE: positive religious coping (PRC) and negative religious coping (NRCop). This study focused on the role NRCop, as evidenced by negative religious cognitions (NRCog) played for an individual following a trauma. Spiritual struggle is often identified as negatively effecting a Christians' R/S beliefs as well as their daily functioning. SS has also been linked to the development and maintenance of PTSD (Kazdin, 2011). While what constitutes 'normal' and deviant functioning in the spiritual domain may be more ambiguous in determining when an intervention is necessary, research indicates that many individuals presenting in the outpatient setting with PTSD often reported equal concern with their spiritual domain as a direct result of a trauma. Further, when SS results in negative religious coping (NRCop), it may create spiritual tensions and struggles with oneself, others and the divine (Pargament et al., 2011).

The Brief RCOPE was identified as a useful evaluative tool to the effects of psychological interventions (Pargament et al., 2011). Spiritual struggle was measured utilizing

the Brief RCOPE at pre-screening, standard assessment, and at each session thereafter for the purpose of continuous assessment during treatment.

PTSD

PTSD was not the primary focus of this study; however, the reciprocal relationship identified between SS and PTSD was thought to influence the severity of each domain of functioning. It was suggested that PTSD can influence SS and SS can influence the prevention and maintenance of PTSD (Falsetti, Resick, & Davis, 2003). The data from both variables were deemed informative and important to identify within the study. As a result, PTSD was an outcome of interest within this study and continuously measured to further explore the effect each had on the other as related to functioning (Kazdin, 2011; Ray, 2015). The studied relationship between SS and PTSD may have important treatment implications in the counseling setting.

Depression

Major depressive disorder (MDD) is the most common comorbid disorder with PTSD (Resick et al., 2014). Depression was assessed during the pre-screening stage using the Patient Health Questionnaire-9 (PHQ-9) (Spitzer, Kroenke, & Williams, 1999). Because this measure evaluates the last two weeks of functioning, it was also utilized for continuous assessment but only at Sessions 1, 4, 8, 12, and 16 with all participants.

Sequence of Treatment

This study began by establishing baselines through 5 data collection points. Phases include: (1) Phase A- baseline condition, (2) Phase B- intervention (CPT-C), and (3) Phase C- intervention (SOCPT-C). The intervention variables included (1) RB- relationship building, (2) TAU- Cognitive Processing Therapy-Cognitive (CPT-C), and (3) S- Spiritual Intervention

(SOCPT-C). The data collection variables included (1) PS- Pre-Screening Assessment, (2) SA- Standard Assessment, and (3) CA- Continuous Assessment.

Phase A, the baseline condition, was scheduled to occur for each participant from prescreening through Session 4. The intervention phases, B and B-C were scheduled to begin in Session 5 and were staggered with Participants 2, 3, and 4. Sessions were 60-minutes in length for Phases A, B and B-C, with the projected total of 16 sessions having occurred over 8 weeks. Due to the nature of conducting a clinical assessment, additional time (i.e. up to 30 minutes) was required for Session 1.

Data Analyst Role Regarding Treatment Sequence

A data analyst was utilized in this study to conduct all data analysis tasks and remained blind to which participant was selected for treatment at each designated intervention phase. Data was gathered by the principal researcher and forwarded to the data analyst for plotting the data to determine when data had stabilized and the principal researcher could intervene at the next phase. This method accrued benefits similar to response-guided experimentation, which has been used in SCRDT to avoid the potential pitfalls of summarizing data with a statistic, and allowed the Type I error rate to be controlled (Ferron & Foster-Johnson, 1998; Ferron & Jones, 2006; Mawhinney & Austin, 1999).

Participant 1

Phase A, the baseline phase, occurred from prescreening to Session 4 for Participant 1, and satisfied the baseline requirement for obtaining five data points. Session 5 began Phase B, the intervention phase, and included CPT-C (TAU) throughout the remainder of the study. The CPT-C (Without Written Account) session protocol (Appendix F) was applied during the intervention phase for Participant 1. The standard assessment occurred in Session 1 and

continuous assessment took place from Session 2 throughout the remainder of the study. Other data collection included a depression measure that occurred at sessions 1, 4, 8, 12, and 16.

Participant 2

Phase A, the baseline phase, occurred from prescreening to Session 4 for Participant 2, and satisfied the baseline requirement for obtaining five data points. Session 5 began Phase B-C, the intervention phase, and included the spiritual intervention (S) including the combination of CPT-C (Intervention B), modified, and the spiritual intervention (Intervention C) to establish SOCPT-C throughout the remainder of the study. The SOCPT-C (Without Written Account) session protocol (Appendix G) was applied during the intervention phase for Participant 2. The standard assessment occurred in Session 1 and continuous assessment took place from Session 2 throughout the remainder of the study. Other data collection included a depression measure that occurred during sessions 1, 4, 8, 12, and 16.

Participant 3

Phase A, the baseline phase, occurred from prescreening to Session 4 for Participant 3, and satisfied the baseline requirement for obtaining five data points. Session 5 began Phase B, the intervention phase, and included CPT-C (TAU) from sessions 5-9. Session 10 began Phase B-C (the spiritual intervention), and continued throughout the remainder of the study. The CPT-C session protocol (Appendix F) was applied during intervention Phase B for Participant 3 during sessions 5-9. The SOCPT-C (Without Written Account) session protocol (Appendix G) was applied during intervention Phase B-C for Participant 3 during sessions 10-16. The standard assessment occurred during Session 1 and continuous assessment took place from Session 2 throughout the remainder of the study. Other data collection included a depression measure that occurred at sessions 1, 4, 8, 12, and 16.

Participant 4

Phase A, the baseline phase, occurred from prescreening to Session 4 for Participant 4, and satisfied the baseline requirement for obtaining five data points. Session 5 began Phase B, the intervention phase, and included CPT-C (TAU) from sessions 5-14. Session 15 began Phase B-C (the spiritual intervention), and continued throughout the remainder of the study. The CPT-C (Without Written Account) session protocol (Appendix F) was applied during intervention Phase B for Participant 4 during sessions 5-14. The SOCPT-C (Without Written Account) session protocol (Appendix G) was applied during intervention Phase B-C for Participant 4 during sessions 15-16. The standard assessment occurred during Session 1 and continuous assessment took place during Session 2 throughout the remainder of the study. Other data collection included a depression measure that occurred at sessions 1, 4, 8, 12, and 16.

Selection of Participants

The target population for this study was four Christian adult female survivors of sexual assault similar in presentation who meet criteria for PTSD as defined within the DSM-5 (APA, 2013) and reported SS resulting from the traumatic experience. The women were recruited through a recruitment letter and flyer (Appendix A) regarding the study that was disseminated to local churches, mental health practitioners, public advertising, and the Sexual Assault Center (SAC) in Nashville, TN.

Qualification Process

The principal researcher utilized a two-stage interview process to determine the eligibility of interested participants for this study. Adult females who responded to the study recruitment letter/flyer by contacting the principal researcher by phone or through the hyperlink provided were asked to complete the prescreening as prompted at the first page of the hyperlink.

Participants accessed the prescreening site through an electronic link provided on the recruitment flyer/letter posted at the identified locations. The link took participants to the prescreening site where they were prompted to confirm they are at least 18-years-old to proceed with the prescreening. A Yes/No screening for exclusionary criteria was then presented for the prospective participant to complete (Appendix B). Those not excluded from participating in the study based on this screening were prompted through three additional screens to complete the Demographic Questionnaire, PCL-5 (Weathers et al., 2013) (measure of PTSD symptomology), and Brief RCOPE (Pargament et al., 2011) (measure of spiritual struggle) (Appendix B).

Limited identifying information (age, ethnicity, gender, religion) was gathered at the prescreening stage. Upon completion of the prescreening, the prospective participants were prompted that they had completed the prescreening and would receive notice of their status for the study within five days. Those not meeting inclusionary criteria received a letter of denial and were provided alternative treatment options (Appendix B).

Those meeting initial screening criteria were sent a Letter of Invitation (Appendix B) to participate in the second stage of the qualification process, an in-person 60-90 minutes standard assessment. Upon acceptance by the potential participant, an appointment was scheduled. Potential participants began the assessment by reviewing and signing the informed consent for treatment. A “bio-psycho-social-spiritual perspective” (BPSS) in conceptualizing the client was utilized by the researcher during the semi-structured standard assessment to further assess for (1) active suicidality, (2) psychosis, (3) cognitive impairments that impede the ability to give informed consent or accurate information, (4) active mania, (5) substance use requiring primary intervention, and (6) the presence of an acute psychological crisis that may interfere with their

participation in the study. Additionally, participants were evaluated for (7) current and past psychotherapy status.

Assessment forms utilized at the standard assessment included: the Clinician-Administered PTSD Scale for DSM-5 (CAPS) Past Month (Weathers et al., 2015), Clinical Assessment, Mini-Mental State Exam (MMSE) (Folstein et al., 1975), PTSD Checklist for DSM-5 (PCL-5) with Life Events Checklist-5 (LEC-5), and Criterion A (Weathers et al., 2013), Brief RCOPE (Pargament et al., 2011), and PHQ-9 (Spitzer et al., 1999) (Appendix C).

The inclusionary criteria for the study included (1) female between the ages of 18-70 that reported having experienced a sexual traumatic experience on Life Events Checklist, (2) score within the moderate threshold of the CAPS, indicating symptom criterion of PTSD, a minimum frequency of 2x month or some of the time (20-30%) plus a minimum intensity of *Clearly Present*, (3) a required minimal level for cognitive functioning of 14 or higher which indicates no more than mild cognitive impairment, (4) a score on the PCL-5 with a cut-point of 33, (5) identification of negative religious coping as indicated on the Brief RCOPE with a score in the moderate to severe range, (6) affirmation by the participant that SS resulting from the trauma is interfering with current functioning and negatively effecting prior held religious, and spiritual beliefs, (7) signed Informed Consent, (8) completion of demographic questionnaire, and (9) not currently receiving psychotherapy.

Bradley et al. (2005) suggests exclusion criteria in studies involving a PTSD population is appropriate for psychosis or organic disorders but other exclusions begin limiting generalizability to population of treatment-seeking clients with PTSD. Exclusion criteria for the current study included (1) Significant cognitive impairment or inability to give informed consent; (2) those currently receiving psychotherapy for PTSD, and (3) comorbid psychiatric issues

including significant suicidal ideations, psychotic symptoms, active mania, and alcohol or substance abuse requiring primary intervention.

This study also collected comorbidity data on depression as recommended by Bradley et al. (2005). All participants were selected using the identified inclusionary and exclusionary criteria herein. Participants were notified within one week of their standard assessment for their qualification results.

Instrumentation

Utilization of the Demographic Questionnaire, Exclusionary Criteria Questionnaire, Life Events Checklist (Standard), PHQ-9 (Spitzer et al., 1999), PCL-5 (Weathers et al., 2013), and Brief RCOPE (Pargament et al., 2011) were administered initially in the prescreening phase (Appendix B). Other forms included in Appendix B for use at the conclusion of the prescreening phase included (1) Letter of Invitation for Phase 2-Standard Assessment, and (2) Letter of Denial. The standard assessment phase included administering the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) -Past Month (Weathers, Blake, Schnurr, Kaloupek, Marx, & Keane, 2015), Clinical Assessment, Mini-Mental State Exam (MMSE) (Folstein, Folstein, & McHugh, 1975), PTSD Checklist-5 PCL-5 with Life Events Checklist-5 (LEC-5), and Criterion A, (Weathers et al., 2013) Brief RCOPE (Pargament, Feuille, & Burdzy, 2011), and Patient Health Questionnaire (PHQ-9) (Spitzer et al., 1999) (Attachment C). Continuous assessment of PTSD scores and spiritual struggle occurred through weekly assessment once the study began and utilized the PCL-5 and Brief RCOPE (Appendix D). Continuous assessment of depression scores occurred through bi-weekly assessment once the study began and utilized the PHQ-9. Utilization of these instruments satisfied the SCRD requirement of obtaining full demographic and historical information on each participant, as well as continuous assessment (Kazdin, 2011; Ray, 2015).

The initial baseline data point for spiritual struggle, PTSD scores and depression scores were obtained during the pre-screening phase of this study and continued to Session 4 for ongoing evaluation of performance as indicated within the study design and continuous assessment (Kazdin, 2011; Ray, 2010; Weathers et al., 2013). The instruments utilized to measure the variables of interest included (1) CAPS-Past Month (Weathers et al., 2015), (2) PCL-5, (Weathers et al., 2013), (3) Brief RCOPE (Pargament et al., 2011) and (4) PHQ-9 (Spitzer et al., 1999).

Scores taken from the Brief RCOPE measure operationalized spiritual struggle into three acuity ranges of Low (7-8), Moderate (9) or High (≥ 10). PTSD was operationalized from scores on the PCL-5 with a cut-point of 33. Depression was operationalized from scores taken from the PHQ-9 (Spitzer et al., 1999) with four acuity ranges of Mild (5), Moderate (10), Moderately Severe (15) and Severe (20) depression. The impact of SOCPT-C on spiritual struggle and PTSD in Christian female adult survivors of sexual assault was examined by visually analyzing the continuous scores obtained from the PCL-5 (Weathers et al., 2013) and the Brief RCOPE (Pargament et al., 2011).

Demographic Questionnaire

The demographic questionnaire was administered in the prescreening phase to obtain general background information from each participant and in compliance with the *Standards* for the SCR design (Appendix B). Information about the participant included age, gender, race/ethnicity, current or previous medication for mental health disorders, current or previous counseling, and religious/spiritual beliefs prior to and after the traumatic experience.

PTSD Checklist for DSM-5 (PCL-5)

The PCL-5, (Weather et al., 2013) is a 20-item self-report measure that assesses the 20 *DSM-5* symptoms of PTSD. The PCL-5 has a variety of purposes, including (1) monitoring symptom change during and after treatment, (2) screening individuals for PTSD, and (3) making a provisional PTSD diagnosis. For this study, the structured clinical interview CAPS-5 described above was utilized for diagnosing purposes, while the PCL-5 was utilized and scored for monitoring symptom changes during and after treatment.

For administration and scoring, the PCL-5 is a self-report measure that can be completed by clients in a waiting room prior to a session or by participants as part of a research study. It takes approximately 5-10 minutes to complete. The PCL-5 can be administered in one of three formats (1) without Criterion A (brief instructions and items only), which is appropriate when trauma exposure is measured by some other method, (2) with a brief Criterion A assessment with the revised Life Events Checklist for DSM-5 (LEC-5), and (3) extended Criterion A assessment. Two versions of the PCL-5 were utilized in this study. The PCL-5 without Criterion A was utilized at the prescreening phase. The PCL-5 with LEC-5 and Criterion A was utilized at the standard assessment. Thereafter, for continuous assessment, the PCL-5 without Criterion A was administered and scored.

The PCL-5 (Weathers et al., 2013) can be scored in different ways including (1) a total symptom severity score (range - 0-80) can be obtained by summing the scores for each of the 20 items; (2) *DSM-5* symptom cluster severity scores can be obtained by summing the scores for the items within a given cluster, i.e., cluster B (items 1-5), cluster C (items 6-7), cluster D (items 8-14) and cluster E (items 15-20), (3) a provisional PTSD diagnosis can be made by treating each item rated as 2 = Moderately or higher as a symptom endorsed, then following the *DSM-5*

diagnostic rule which requires at least: 1 B item (questions 1-5), 1 C item (questions 6-7), 2 D items (questions 8-14), 2 E items (questions 15-20) and (4) preliminary validation work is sufficient to make initial cut-point suggestions, but this information may be subject to change.

For the purpose of measuring change, the PCL was utilized to monitor client progress. While the PCL-5 continues to be reviewed, the PCL based on DSM-IV criteria and use has been shown to have very good internal consistency ($\alpha=.94$) and temporal stability (retest $r=.88$, 1-week interval) and it correlates strongly (i.e., $r>.75$) with other measures of PTSD symptomology (Gray, Litz, Hsu, & Lombardo, 2004; Ruggiero, Del Ben, Scotti, & Rabalais, 2003).

Evidence for the PCL described by the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV*; American Psychiatric Association, 2000) suggests that a 5-10 point change represents reliable change (i.e., change not due to chance) and a 10-20 point change represents a clinically significant change. Change scores for PCL-5 were currently being determined; however, it was expected that reliable and clinically meaningful change will be in a similar range to DSM-IV points of change. For the purpose of this study, use of the PCL-5 (with the DSM-IV identified 5 points as a minimum threshold for determining whether an individual has responded to treatment and 10 points as a minimum threshold for determining whether the improvement is clinically meaningful) was utilized with the cut-point of 33, as indicated to be a reasonable value to propose until further psychometric work is available. (Weathers, Litz, Keane, Palmieri, Marx, & Schnurr, 2013).

This revised cut-point now being used in scoring of the PCL-5 and the minimum threshold of 5 points was utilized in this study for determining whether an individual had responded to treatment as indicated through continuous assessment (Weathers et al., 2013).

When interpreting the PCL-5, characteristics of a respondent's setting, the goal of assessment was considered when using PCL severity scores to make a provisional diagnosis. A lower cutoff may be considered when screening or to maximize detection of possible participants. A higher cutoff may be considered when attempting to make a provisional diagnosis or to minimize false positives.

Bovin, Marx, Weathers, Gallagher, Rodriguez, Schnurr, and Keane (2016) examined the psychometric properties of the posttraumatic stress disorder (PTSD) Checklist for Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (PCL-5; Weathers, Litz, et al., 2013) in two independent samples of veterans receiving care at a Veterans Affairs Medical Center (N = 468). The PCL-5 test scores demonstrated good internal consistency ($\alpha = .96$), test-retest reliability ($r = .84$), and convergent and discriminant validity. Consistent with previous studies (Armour et al., 2015; Liu et al., 2014), confirmatory factor analysis revealed that the data were best explained by a 6-factor anhedonia model and a 7-factor hybrid model. Signal detection analyses using the CAPS-5 revealed that PCL-5 scores of 31 to 33 were optimally efficient for diagnosing PTSD ($\kappa(.5) = .58$). Overall, the findings suggest that the PCL-5 is a psychometrically sound instrument that can be used effectively with veterans. Further, by determining a valid cutoff score using the CAPS-5, the PCL-5 can now be used to identify the presence of PTSD (Bovin et al., 2016).

Brief RCOPE

The Brief RCOPE is a 14-item measure of religious coping with major life stressors and has been identified as the most commonly used measure of religious coping in the literature (Pargament et al., 2011). The Brief RCOPE was developed out of Pargament's (1997) program of theory and research on religious coping and has helped contribute to the growth of knowledge about the roles religion serves in the process of dealing with crisis, trauma, and transition

(Pargament et al., 2000). The items themselves were generated through interviews with people experiencing major life stressors. Two overarching forms of religious coping, positive, and negative, were articulated through factor analysis with the full RCOPE and two religious coping subscales predictive of adjustment were identified (Harris, Erbes, Engdahl, Olson, Winkowski, & McMahill, 2008).

Positive religious coping (PRC) methods are identified as reflecting a secure relationship with a transcendent force, a sense of spiritual connectedness with others, and a benevolent worldview (Pargament et al., 2011). Negative religious coping (NRCop) methods reflect underlying spiritual tensions and struggles within oneself, with others, and with the divine (Pargament et al., 2011). Internal consistency is demonstrated in a number of studies with the highest alpha of 0.94 for PRC and a median alpha of 0.81 for the NRC scale (Pargament et al., 2011). Concurrent validity has been demonstrated in studies showing that positive coping predicts fewer psychological symptoms while negative coping predicts more stress-related and other psychological symptoms. Subscale alphas are .90 for positive religious coping and .81 for negative religious coping (Pargament et al., 1998). Normative information indicates mean scores for PRC and NRC can range from a minimum of 7 to a maximum of 28. However, in a panel of studies reviewed the mean scores for PRC and NRC ranged from 17 to 21 for PRC and 8 to 14 for NRC with the standard deviation range between 4 and 6.5 (PRC) and 2.5 and 4.5 (NRC) (Pargament et al., 2011).

Empirical studies document the internal consistency of the positive and negative subscales of the Brief RCOPE and moreover, provide support for the construct validity, predictive validity and incremental validity of the subscales. The Negative Religious Coping (NRCop) subscale, in particular, has emerged as a robust predictor of health-related outcomes.

The Brief RCOPE has been identified as a useful evaluative tool that is sensitive to the effects of psychological interventions (Pargament et al., 2011).

From the Brief RCOPE, each participant's score is calculated as follows: Low Spiritual Struggle (7-8) (All items = 1) or (6 items = 1 and 1 item=2); Moderate Spiritual Struggle (9) (Two items = 2 and remaining items = 1); or, High Spiritual Struggle (≥ 10) (Two or more items = 3 or 4) OR (Three or more items are $>$ or = 2) OR (one item = 2 and one or more items = 3 or 4). The Brief RCOPE is utilized at each data point throughout the study.

The NRCop subscale items (questions 8-14) were used in the focus of this study and assessed the construct of R/S struggles, as evidenced by negative religious cognitions (NRCog). To score the Brief RCOPE, the positive items and the negative items were both summed separately to create two subscale scores (Pargament, 1997, 2011; Pargament, Koenig, & Perez, 2000).

Strengths of the Brief RCOPE include a great deal of research attention as the most commonly used measure for R/S coping, research suggests the Brief RCOPE is reliable and valid measure, and its brevity allows for integration into studies. Empirical studies document the internal consistency, construct validity, predictive validity, and incremental validity of the subscales (Ai, Pargament, Kronfol, Tice, & Appel, 2010; Ai, Seymour, Tice, Kronfol & Bolling, 2009; Bjorck & Kim, 2009; Bradley, Schwartz & Kaslow, 2005; Pargament et al., 2011).

Spiritually Oriented Worksheets

SOCPT-C includes spiritually oriented worksheets adapted from the BriefRCOPE and participant worksheets found within the CPT-C protocol. The spiritually oriented worksheets directly address NRCogs often experienced by Christian survivors following a traumatic event and are specifically intended to target spiritual struggle (identified from the NRCop sub-scale)

following a trauma. For treatment fidelity, the modified forms are *in addition to* the conventional forms utilized within the CPT-C protocol allowing for direct intervention of R/S belief changes following trauma. SOCPT-C may be better suited for Christian clients that are experiencing spiritual struggle and PTSD following a traumatic event.

CAPS-5

The Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) is a structured interview developed at the National Center for PTSD (Blake, Weathers, Nagy et al., 1995; Weathers et al., 2015). PTSD symptoms are rated in both frequency and intensity using a scale ranging from 0 to 4. The moderate threshold of the CAPS indicates the respondent described a clinically significant problem that satisfies the DSM-5 symptom criterion of PTSD and indicates a PTSD diagnosis. The problem(s) identified will be the target(s) for intervention. The moderate threshold rating requires a minimum frequency of 2x month or some of the time (20-30%) plus a minimum intensity of *Clearly Present*. Severity ratings on the CAPS-5 include: *0. Absent, 1; Mild/subthreshold; 2. Moderate/threshold; 3. Severe/markedly elevated; and 4. Extreme/incapacitating* (Weathers et al., 2015).

The CAPS is the gold standard in PTSD assessment (Zayfert, Becker, Unger, & Sherer, 2002) and is a 30-item structured interview that can be used to make current (past month) diagnosis of PTSD, make lifetime diagnosis of PTSD, or assess PTSD symptoms over the past week and corresponds to the DSM-5 criteria for PTSD. As part of the trauma assessment (Criterion A), the Life Events Checklist (LEC) is embedded in the CAPS and also used to identify experience of traumatic stressors experienced (Jorge, 2015; Weathers et al., 2015). Three different versions of the CAPS-5 correspond to different time periods: past week, past month, and worst month (lifetime). For this study, PTSD diagnostic status was evaluated with the

CAPS-5 past month version (Appendix C) at the standard assessment and the final session of the study (Weathers et al., 2015).

In addition to assessing the 20 DSM-5 (APA, 2013) PTSD symptoms, questions target the onset and duration of symptoms, subjective distress, impact of symptoms on social, and occupational functioning, improvement in symptoms since a previous CAPS administration, overall response validity, overall PTSD severity and specifications for the dissociative subtype (depersonalization and derealization). For each symptom, standardized questions, and probes are provided. Administration requires identification of an index traumatic event to serve as the basis for symptom inquiry. The Life Events Checklist for DSM-5 (LEC-5), as recommended for use in addition to the Criterion A inquiry included in the CAPS-5, was utilized in the assessment phase of this study. The full interview takes 45-60 minutes to administer (Weathers et al., 2015).

For scoring the CAPS-5, the assessor combines information about frequency and intensity of an item into a single severity rating (0-4). There are three scoring mechanisms: total severity score, cluster severity score and dichotomy. The CAPS-5 total symptom severity score is then calculated by summing severity scores for the 20 DSM-5 PTSD symptoms. Individual item severity scores for symptoms are calculated to score symptom cluster severity scores (Weathers et al., 2015).

In a series of studies of the psychometric properties of the CAPS, Weathers, and colleagues (Weathers et al., 1999) found that the measure had good internal consistency ($\alpha = 0.94$) and test-retest reliability, with estimates ranging from .90 to .98. Diagnostic accuracy of the CAPS has been evaluated in a number of studies, and results have been consistently excellent (Gray et al., 2004). Several studies have reported strong agreement between the CAPS and various PTSD self-report scales.

Clinical Assessment

A bio-psycho-social-spiritual perspective approach was used to assess for (1) active suicidality, (2) psychosis, (3) cognitive impairments that impede the ability to give informed consent or accurate information, (4) active mania, (5) substance use requiring primary intervention, and (6) the presence of an acute psychological crisis that may interfere with their participation in the study. Participants were evaluated for (7) current and past psychotherapy status. Further assessment included the Summary of Problems, Family/School/Peer History, Protective Factors, Risk Factors, Medical and Psychiatric History, Medications, Safety Plan/Referral needs, Mental Status Exam and Key Players in Treatment.

Life Events Checklist

The Life Events Checklist (LEC) is a self-report measure developed by the National Center for Posttraumatic Stress Disorder (PTSD) concurrently with the CAPS to facilitate diagnosis of PTSD (Gray et al., 2004). The LEC for DSM-5 (LEC-5) was utilized to screen for potentially traumatic events in a respondent's lifetime, and assesses exposure to 16 events known to potentially result in PTSD or distress. It also includes one additional item assessing any other extraordinarily stressful event not captured in the first 16 items (Gray et al., 2004).

Psychometrics are currently not available for the LEC-5; however, given the minimal revisions from the original version of the LEC, few psychometric differences are expected (Weathers et al., 2013). Prior evaluation of the LEC compared to the Traumatic Life Events Questionnaire (TLEQ) suggests with respect to test-retest reliability, the LEC appears reasonably stable over approximately 7 days. In evaluating its reliability as a measure of direct trauma exposure, only one item failed to achieve a kappa of .40, with all other item kappas above .50 ($p < .001$ for all kappa coefficients). Kappa coefficients for seven of the LEC items were above .60.

The mean kappa for all items was .61, and the retest correlation was $r=.82, p<.001$. With inclusion of multiple indirect exposure responses, kappas were lower, however, 12 of the 17 items produced a kappa coefficient of .40 or higher. The average of the kappas for each item was .55, and the total scale correlation between the LEC, and TLEQ was $r = -.55, p < .001$. The LEC and the TLEQ were similarly correlated with PTSD symptom severity (Pearson r coefficients ranging from .34 to .48) (Gray et al., 2004).

The LEC-5 is available in three formats: standard self-report (establishes if an event occurred), extended self-report (to establish worst event if more than one event occurred), and interview (to establish if Criterion A is met) (Weathers et al., 2013). For this study, the standard self-report was utilized at the prescreening phase and the Interview format will be used in conjunction with the CAPS-5- Past Month (Weathers et al., 2015) at the standard assessment.

Mini-Mental State Examination (MMSE)

Folstein et al., (1975) published the MMSE as a practical method of grading cognitive impairment. The MMSE is the most commonly used rapid cognitive screening instrument utilized due to the brevity of the instrument and the belief that it offers broad coverage of cognitive domains (Folstein et al., 1975; Mitchell, 2012).

The MMSE comprises a short battery of 20 individual tests covering 11 domains and totaling 30 points. The typical completion time for cognitively unimpaired individuals is 8 minutes and rising to 15 min in those with cognitive impairment. Internal consistency appears to be moderate and test-retest reliability good. The MMSE was identified as performing adequately in a rule-out (screening) capacity. A higher score on the MMSE would lead to about a 10% false negative rate and a low (positive) score is suggested to require more extensive neuropsychological or clinical evaluation (Mitchell, 2012).

Folstein et al. (1975) established the validity of the MMSE in two different studies by administering the exam to subjects with dementia, depression with cognitive impairment, and affective disorder, depressive type. In the first study, 59 subjects with either dementia or depression with cognitive impairment were compared to 63 'normal' subjects. The results showed that scores for subjects with dementia were significantly different from scores for the normal subjects (Monroe & Carter, 2012).

In the second validity study (Folstein et al., 1975), 137 consecutive admissions to a psychiatric hospital were evaluated and again subjects with dementia were found to have significantly lower scores than subjects with depression with affective disorder, mania, schizophrenia, or personality disorder with drug abuse, and neuroses (Monroe & Carter, 2012). From these studies, it was concluded that the MMSE was a valid measure of cognitive status.

The reliability of the MMSE was measured by using 24-h and 28-day rest with single or multiple users. The correlation was $r = 0.88$ when given by the same testers over 24 h; the correlation using different testers was $r = 0.82$. The 28-day retest with a different set of subjects was $r = 0.98$ (Folstein et al., 1975; Monroe & Carter, 2012). While potential threats to validity have been identified with the MMSE, these are of little concern with its use in this study as a screening device for cognitive impairment (Monroe & Carter, 2012).

Cut-off points are the specific scores on the instrument that suggests mild, moderate, or severe cognitive impairment. As identified by Folstein et al., (1975), the MMSE will be scored in this study from 0 to 30, with a score of 24 or greater as 'normal', and with a score less than 20 'likely dementia.' For the purposes of this study, a score less than 20 was considered 'cognitive impairment' indicating a need for referral for further evaluation.

Patient Health Questionnaire (PHQ)

The Patient Health Questionnaire (PHQ) (Spitzer et al., 1999) (Appendix B) is a self-administered version of the PRIME-MD diagnostic instrument for common mental module, which scores each of the 9 DSM-IV criteria as 0 (not at all) to 3 (nearly every day). In the reported study, 6,000 patients in varying medical clinics completed the PHQ-9. Construct validity was assessed using the 20-item Short-Form General Health Survey, self-reported sick days, and clinic visits and symptom-related difficulty. Criterion validity was assessed against an independent structured mental health professional (MHP) interview in a sample of 580 patients (Kroenke, Spitzer, & Williams, 2001).

The results suggested as PHQ-9 depression severity increased, there was a substantial decrease in functional status on all 6 SF-20 subscales. Also, symptom-related difficulty, sick days, and health care utilization increased. Using the MHP re-interview as the criterion standard, a PHQ-9 score ≥ 10 had a sensitivity of 88%, and a specificity of 88% for major depression. PHQ-9 scores of 5, 10, 15, and 20 represented mild, moderate, moderately severe and severe depression, respectively (Kroenke et al., 2001).

In addition to making criteria-based diagnoses of depressive disorders, the PHQ-9 is also a reliable and valid measure of depression severity. These characteristics plus its brevity make the PHQ-9 a useful clinical and research tool (Kroenke et al., 2001). This tool was used to measure depression scores during the study.

Research Procedures

Human Participants Considerations

Some persons completing qualification stages to participate in this research study were anticipated to meet exclusionary criteria to disqualify them from participation or otherwise

would not be selected for the study. Those not participating were offered the opportunity to participate in psychotherapy independent of the study and appropriate community resources were also made available.

To reduce the possibility of re-victimization of trauma survivors responding to recruitment, great care was taken during the qualification process, and study to protect survivors through keeping personal disclosure at the minimum necessary for the study. Survivors were not asked to disclose details about their abusive experience(s) outside the necessity of the assessment or study protocol. Participants were informed that the study was for evaluating an empirically supported treatment for PTSD with the modification of a direct spiritual intervention for Christian adult female survivors of sexual assault.

Participants were informed that certain risks or discomforts would be associated with treatment, including experiencing upsetting memories, emotions, and thoughts about the trauma. Benefits of treatment were also discussed including effects of participating in empirically supported treatment for PTSD and research that indicates trauma survivors can experience reduction in trauma effects from discussing feelings and struggles resulting from the trauma. Participants were not compensated for participating in the study itself, as the benefit to participate in a “no cost to participant” 16-week therapy intervention was seen as a benefit to participants. The study site was located on a public transportation route. Financial support to enable use of public transportation was made available to participants indicating financial limitations.

Participants in the study currently on prescribed psychotropic drugs were encouraged to continue this treatment course as identified by their medication provider and were asked to report new medications and changes in medications throughout the study. While exclusion criteria

included those in therapy and medication is a form of treatment, an exception was made for this type of treatment based on the likelihood the true outpatient population entering treatment for PTSD will most often be on some type of medication for PTSD symptomology. Coordination of Care during psychotherapy occurred with the medication provider in such circumstances.

The Institutional Review Board (IRB) is required to review all research involving human participants to ensure privacy, confidentiality, and safety of participants. This study sought approval from the Liberty University IRB via email at irb@liberty.edu. The paperwork necessary for submission to the IRB included: researcher acknowledgement of completion of the required CITI training, faculty mentor approval (if applicable), the appropriate IRB application in its entirety completed and submitted, and attest to creation and use of supplemental documents needed for the study (Appendix I). Supplemental documents used for this study included recruitment materials (letter and flyer) (Appendix A), permission request letter (Appendix J), Informed Consent (Appendix K) and Exclusionary Questionnaire (Appendix B). The researcher completed a signed signature page (inclusive of advisor signature). Lastly, the researcher's application as a Word document, the above supplemental documents as a separate Word documents, signature pages, and proof of permission was submitted to the IRB via email at irb@liberty.edu.

Written permission to use the resources (participants) from institutions, organizations, facilities or events (schools, churches, businesses, etc.) not affiliated with Liberty University was sought prior to the study. The permission request letter provided for use by organizations for granting permission to the research is included in Appendix J. Informed consent procedures were adhered to.

Handling and protecting data within this research study to ensure the participants information is kept private and confidential throughout the research process was assured by the investigator and personnel in this study with the agreement to maintain in strict confidence the names, characteristics, questionnaire scores, ratings, incidental comments, and/or other information on all participants, and/or participant's data they encounter. To ensure confidentiality, precautionary practices followed in this study included substituting codes, and/or pseudonyms for participant names, separately storing Informed Consent forms, and face sheets, limiting access, and storing research records in locked cabinets. Due to the sensitive nature of research involving sexual trauma survivors, all data from this study was or will be disposed of through shredding of the paper documentation, and/or permanent deletion of electronic data files once federal regulation requirements are exhausted, excluding the clinical file that may be needed for future continuity of care. Data must be retained for three years upon completion of the study per federal regulations. Each clinical file was stored in accordance with requirements found within the 2014 ACA Code of Ethics, and/or Tennessee Board of Licensed Professional Counselors regulations for the purpose of future continuity of care needs. Outcome coded data utilized in data processing and visual analysis was retained in its coded form for utilization at a later date in future research. Lastly, the identity of participants will not be released except with their expressed permission including times of discussion, presentations or publications of the research.

Recruitment of Participants

After obtaining approval from the IRB for the study, recruitment of participants began as indicated in the Selection of Participants section above. Written permission was sought from local churches, mental health practitioners, and the Sexual Assault Center (SAC) to provide for

their distribution an informative flyer to potential participants regarding the study. Public advertising to solicit responders was pursued by placing the informative flyer in the local newspaper. From the recruitment initiative, prospective participants were invited to complete the prescreening assessment for the study by accessing the assessment through the provided hyperlink or by contacting the principal researcher's office to be screened over the phone.

Responders were screened for study inclusion in the first qualification stage through completion of the online prescreening phase. Those meeting initial screening criteria were asked to participate in the second qualification stage, a standard assessment. At the standard assessment, the informed consent was explained, and any questions were answered prior to completing the second qualifying stage for the study.

Initial Contact with Qualifying Participants

As indicated within the Selection of Participants section above, four participants from those meeting inclusionary criteria (population N) were randomly selected and invited to participate in the study. The sample selection process utilized was a lottery technique, in which each member of population N was assigned a unique number that was written down on a scrap of paper, mixed with the other numbers and selected at random for inclusion into a sample. Up to 10 numbers were drawn from the pool of population N and logged into an Excel worksheet in order from the drawing.

Within one week of completing the standard assessment, the first four responders that were randomly selected for inclusion into the sample and met criteria for the study received an invitation letter providing additional information about the study including the purpose of the study, procedures, benefits, risks, confidentiality, duration, limitations, and researcher contact information (Appendix C). Invited participants were required to accept the invitation into the

study within five days. In the event an invited participant failed to respond within the required timeframe, the Excel worksheet was utilized to invite those qualifying participants in order of the selection process (4., 5., 6., etc.) until four qualified participants had accepted an invitation to take part in the study. Those not invited to participate in the study or that failed to respond to the invitation within the timeframe allotted received a letter of denial and alternative treatment options were provided (Appendix B).

While the sample size required for implementing a SCRCD is one, four participants were utilized within multiple-baseline across participants and provides safeguard against attrition (Lenz, 2015). Pseudo names were utilized throughout the study to protect the identity of each participant and maintain confidentiality. The four identified participants were again randomized to either CPT-C or SOCPT-C through the lottery technique.

Instructions and Materials Used in the Study

Identified participants were sent a letter to their address of file with individualized session information including: time, location, and duration of treatment (Appendix L). Materials used in the course of treatment included the previously identified instruments, *Cognitive Processing Therapy (CPT) Therapist and Patient Material Manual* (Appendix E) (Resick et al., 2014), and the SOCPT-C intervention forms (Appendix H). The fidelity checklist was utilized throughout the study to ensure treatment fidelity of the CPT-C protocol (Appendix M) (Chambless & Hollon, 1998; Ray, 2015).

As identified within Appendix E, the CPT-C (without the Written Account) manualized treatment format was utilized as the session protocol for the study (Appendix F). Participants randomized to SOCPT-C received the modified CPT-C (without the Written Account) session protocol (Appendix G), which included the spiritual intervention (See Appendix H).

Each session was 60 minutes in duration, an average of two times a week, for 8 weeks (Appendices F and H). Once the study began, continuous assessment occurred through weekly use of the PCL-5 (Weathers et al., 2013) and Brief RCOPE (Pargament et al., 2011) and bi-weekly use of the PHQ-9 (Spitzer et al., 1999) (Appendix D). A letter of termination was sent to each participant at the conclusion of the study indicating post-care options (Appendix N).

Setting

All sessions took place in the private practice of the researcher. Sessions were scheduled during the workday Monday-Friday between 8:30-2:00pm. Care in scheduling was taken due to the amount of sessions each week to minimize disruption to work and personal obligations of the participants. Participants were scheduled for one morning and one afternoon therapy session each week.

Data Gathering and Recording Procedures

Upon IRB approval, data collection commenced through prospective participants' completing the online pre-screening for the study. This online format was utilized to collect responses to a series of self-report measures via a hyperlink that contained the completed prescreening assessments and was recorded to an Excel spreadsheet. Data collected, including results from all administered measures from both qualifying stages, were recorded within the Excel spreadsheet.

The standard assessment phase included the principal researcher administering the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5)-Past Month (Weathers et al., 2015), Mini-Mental State Exam (MMSE) (Folstein et al., 1975), PTSD Checklist-5 with LEC-5 and Criterion A, (Weathers et al., 2013), Brief RCOPE (Pargament et al., 2011) and Patient Health Questionnaire (PHQ-9) (Spitzer et al., 1999) (Attachment C) to each participant. The principal

researcher was trained at the doctoral level and has received extended training in the CPT treatment model. A data analyst was also included in this study for the purpose of conducting all data analysis tasks and was blind to which participant was selected for treatment at each designated intervention phase. The data analyst had no contact with participants. The data analyst duties are detailed in the Data Processing and Analysis section of this chapter.

Continuous assessment on the identified variables of PTSD scores and spiritual struggle occurred at each session through administering the PCL-5 (Weathers et al., 2013) and Brief RCOPE (Pargament et al., 2011) (Appendix D). Data was also collected bi-weekly to measure depression using the PHQ-9 (Spitzer et al., 1999) (Appendix D). Each participant served as their own comparison through contrasting scores associated with the dependent variable (spiritual struggle) during and after an intervention with those collected prior to the manipulation of the independent variable (SOCPT-C) (Lenz, 2015).

All test measures from the standard assessment to continuous assessment were administered utilizing the paper and pencil method. The researcher administered the identified measures during the initial standard assessment. Participants completed the continuous assessments in the lobby prior to each future session. All data was initially recorded within an Excel Spreadsheet and later transferred to graphs for data processing and visual analysis.

Utilization of Web-based Survey Methods

Research suggests a high degree of correlation between the results obtained through web-based research and laboratory research (Birnbaum, 2004; Gosling, Vazire, Srivastava, & John, 2004). In a study by Lewis, Watson, and White (2009), it was concluded through advanced statistical measures that the collection of data through an Internet method versus traditional paper-and-pencil administration are significantly equivalent. The benefits of utilizing web-based

research include improved access to a broader population, ease of access to pre-screening, reduced time for data collection and entry, reduced error and expense in data entry and collection, and increased convenience (Birnbaum, 2004). A prior limitation known as ‘the digital divide’ suggested web access differs across race, age, and gender is less indicated in recent research that finds increased Internet usage across all demographic variables (Birnbaum, 2004).

Methodological liabilities include multiple submissions, incomplete submissions, response bias from survey design (e.g., Yes/No questions) and experimenter bias in the wording of instructions (Birnbaum, 2004).

Data Processing and Analysis

As identified by Parsonson and Baer (1978) and Kratochwill et al. (2010), this study utilized four steps and six variable features for conducting visual analysis of the study (Table 3.5) (Kratochwill, 2010). The first step is documentation of a predictable baseline pattern of data (e.g., a minimum of five data points will be collected to establish the baseline pattern of PTSD scores and spiritual struggle for each participant). After documenting a convincing baseline pattern, the second step consists of data being examined within each phase of the study to assess the within-phase pattern(s). Assessing whether there are sufficient data with sufficient consistency to demonstrate a predictable pattern of responding is key in the second step.

In the third step of visual analysis, this study compared the data from each phase with the data in the adjacent (or similar) phase to assess whether manipulation of the independent variable was associated with an ‘effect.’ An effect is demonstrated if manipulation of the independent variable is associated with predicted change in the pattern of the dependent variable. In the fourth step of visual analysis, all the information was integrated from all phases of the study to

TABLE 3.5

Four steps and six variable features for conducting visual analysis with SCRD

| Four Steps in Analysis | Six Variable for Consideration |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ▶ Do Baseline data document a predictable pattern? ▶ Do data within each phase allow documentation of a predictable pattern? ▶ Do data between phases document basic effects? ▶ Do data across phases document experimental control? | <ul style="list-style-type: none"> ▶ Level ▶ Trend ▶ Variability ▶ Overlap ▶ Immediacy of effect ▶ Consistency across similar phases |

| **Multiple Baseline Design – 7TH Consideration | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> - Level - Variability - Immediacy of Effect - Stability in non-intervened series when effect demonstrated in one series | <ul style="list-style-type: none"> - Trend - Overlap - Consistency across similar phases |

Kratochwill, 2010

determine whether there are at least three demonstrations of an effect at different points in time (i.e., documentation of a causal or functional relation) (Horner et al., 2005; Kratochwill, 2010; Ray, 2015).

Visual analysis on the effects were further evaluated through *six features* examining within- and between- phase data patterns (1) level, (2) trend, (3) variability, (4) immediacy of the effect, (5) overlap, and (6) consistency of data patterns across similar phases (Fisher, Kelley, & Lomas, 2003; Barlow et al., 2008; Kazdin, 1982; Kennedy, 2005; Kratochwill, 2010; Morgan & Morgan, 2009; Parsonson & Baer, 1978; Ray, 2015). Each of the six features were assessed individually and collectively to evaluate whether the data demonstrates a causal relation through at least three indications of an effect at different points in time as represented in the “Criteria for Demonstrating Evidence of a Relation between an Independent Variable and Outcome Variable” in the Standards (Kratochwill, 2010).

For a causal relation to be inferred, changes in the outcome measure that resulted from manipulation of the independent variable must be present. A causal relation is demonstrated when data across all phases of the study document at least three demonstrations of an effect at a minimum of three different points in time (Kratochwill, 2010). An effect is documented when the data pattern in one phase (e.g., an intervention phase) differs more than would be expected from the data pattern observed or extrapolated from the previous phase (e.g., a baseline phase) (Horner et al., 2005; Kratochwill, 2010).

When a causal relation is identified, an inference may be made that change in the outcome variable is causally related to manipulation of the independent variable (Kratochwill, 2010). The rationale underlying visual analysis in this study and all SCRDS was that predicted and replicated changes in a dependent variable are associated with active manipulation of an independent variable.

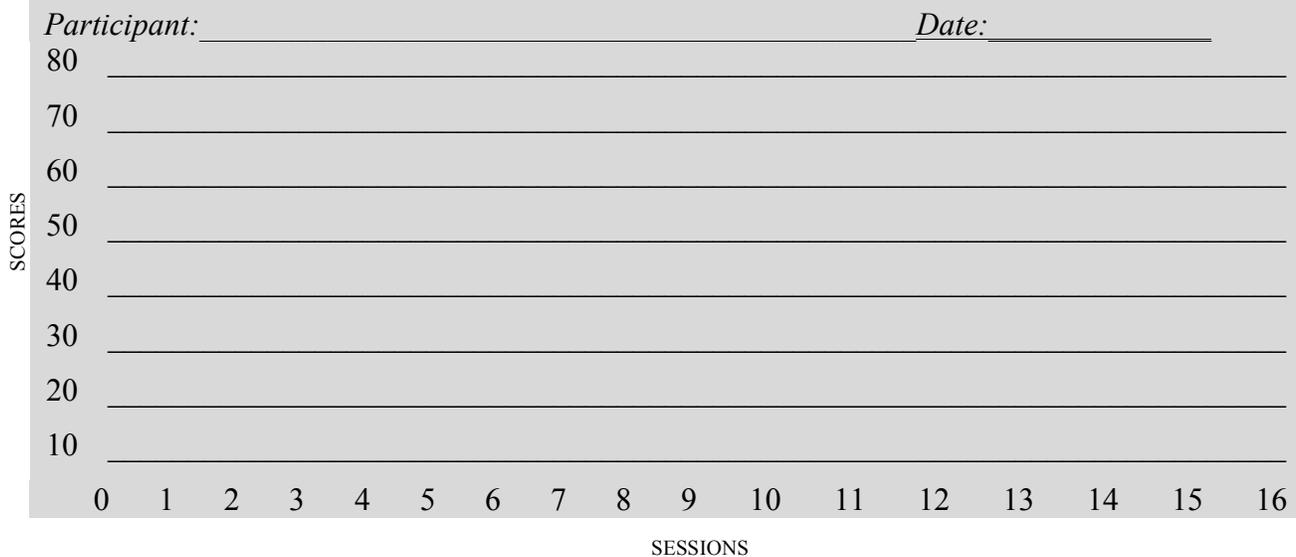
The visual analysis from the six features were used to compare the observed and projected patterns for each phase with the actual pattern observed after manipulation of the independent variable (Furlong & Wampold, 1981; Kratochwill, 2010). This comparison of observed and projected patterns was conducted across all phases of the design (Kratochwill, 2010). In addition, data patterns across phases were examined to consider the immediacy of the effect, overlap, and consistency of data in similar phases (Kratochwill, 2010). The greater the consistency, the more likely the data represent a causal relation (Kratochwill, 2010).

According to Kratochwill et al. (2010), single-case researchers traditionally have relied on visual analysis of the data to determine (a) whether evidence of a relation between an independent variable and an outcome variable exists; and (b) the strength or magnitude of that relation (Barlow et al., 2008; Kazdin, 1982; Kennedy, 2005; Kratochwill, 1978; Kratochwill &

Levin, 1992; McReynolds & Kearns, 1983; Richards, Taylor, Ramasamy, & Richards, 1999; Tawney & Gast, 1984; White & Haring, 1980). Visual analysis in this study was conducted through graphing all data points collected during the study on the variables of interest, including PTSD scores (Table 3.6), SS (Table 3.7), and depression scores (Table 3.8).

Visual analysis and group-design research are similar in that the goal is to document changes that are causally related to introduction of the independent variable (Kratochwill, 2010). While group-design utilizes inferential statistical analysis (a statistically significant effect is claimed when the observed outcomes are sufficiently different from the expected outcomes deemed unlikely to have occurred by change), single-case research indicates a claimed effect is made when three demonstrations of an effect are documented at different points in time (Kratochwill, 2010).

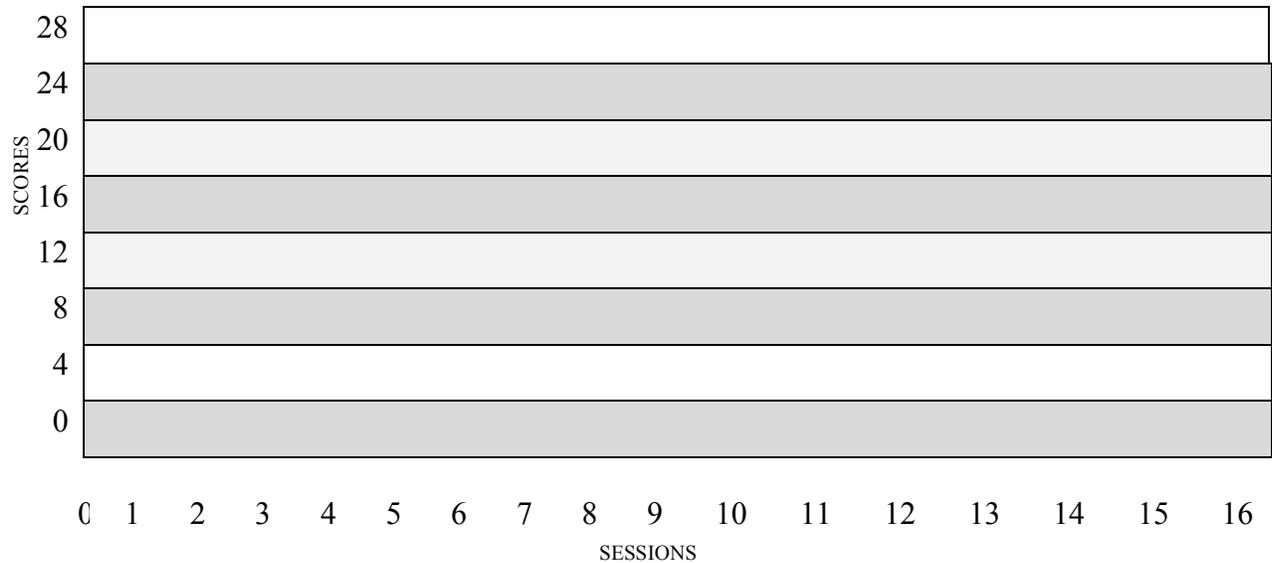
Table 3.6 - *Graphing for PCL-5 Visual Analysis*



*PTSD operationalized at a cut-point of 33 on the PCL-5

Table 3.7 - Graphing for Brief RCOPE Visual Analysis

Participant: _____ Date: _____



Scoring and Algorithm:

For each assessment, there is a scoring algorithm leading to one of three acuity ranges. Low, Moderate, or High. Each of the 7 items of the subscales are scored on a 1-to-4 four-point Likert and mean scores can range from a minimum of 7 to a maximum of 28 (Pargament et al., 2011).

Algorithm for Severity of Spiritual Struggle:

High (≥ 10) (Two or more items = 3 or 4) OR (Three or more items are $>$ or $= 2$) OR (one item = 2 and one or more items = 3 or 4.); **Moderate** (9) (Two items = 2 and remaining items = 1); **Low** (7-8) (All items = 1) or (6 items = 1 and 1 item = 2).

Scoring Sub-scales:

Sum the positive (questions 1-7) and negative items (questions 8-14) separate to create independent subscale scores. DO NOT sum the positive and negative subscale scores together since the two subscales are generally uncorrelated. Treat each subscale score separately in your analyses.

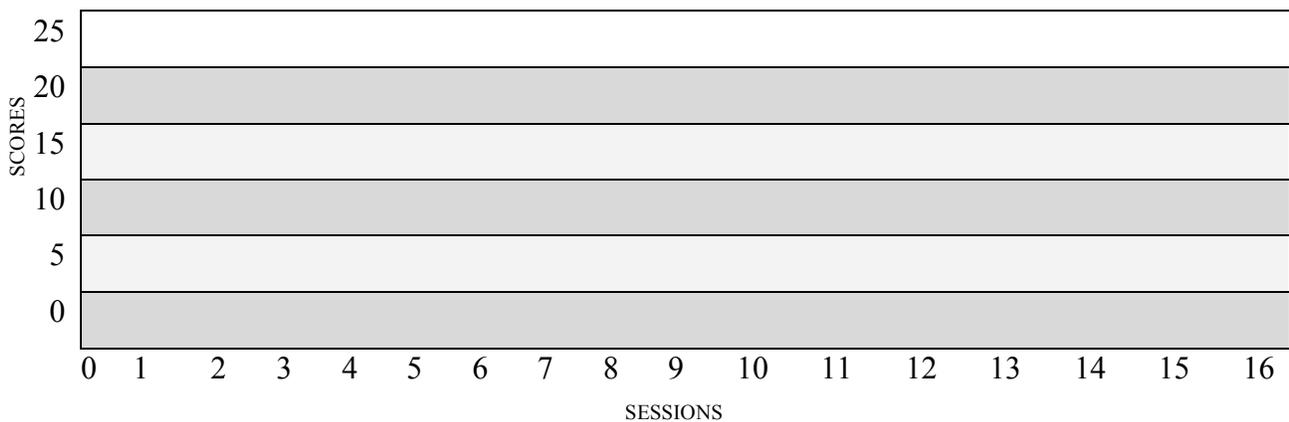
Tests for Visual Analysts

The visual analysis method utilized in this study further separated the data analysis tasks from the other tasks involved in conducting this multiple-baseline study. A data analyst was responsible for all data analysis activities. An interventionist, the principal researcher, was responsible for all other tasks. As described within the study design and procedures, the principal researcher identified participants, planned and carried out the interventions and made

observations through the administration of the identified measures during baseline, and treatment phases. Differing in two ways from the traditional role of interventionist and principal researcher, in this study each time a treatment phase began, the principal researcher randomly selected which participant would be treated based on the lottery technique identified. Also, the principal researcher enlisted the help of a data analyst who was responsible for analyzing the data.

Table 3.8 - Graphing for PHQ-9 Visual Analysis

Participant: _____ *Date:* _____



Note. *Depression operationalized from scores as Minimal (0-4), Mild (5-9), Moderate (10-14), Moderate Severe (15-19), and Severe (20-27)

The data analyst conducted all data analysis tasks and was blind to which participant was selected for treatment at each designated intervention phase. The data analyst made no observations and had no direct contact with the participants at any point of the study. All data was administered and gathered by the principal researcher and the data was sent to the data analyst. The component of a blind visual analyst extended to this study design was supported in other literature and studies (Ferron & Foster-Johnson, 1998; Mawhinney & Austin, 1999). Visual

inspection has several advantages 1) it is intuitive and economical, 2) it provides ongoing information regarding changes in the pattern of performance, and 3) it is focused on patient-level treatments and responses (Zhan & Ottenbacher, 2001). The disadvantage of visual inspection is the lack of standardized criteria and the potential for disagreement between or bias of raters (Harbst, Ottenbacher, & Harris, 1991).

Several issues are involved in creating effect size estimates for SCRDS because the field is less developed than in-group comparisons and meta-analyses research (Kratochwill, 2010; Ray 2015). Quantifying the size of an effect based on standard error, constructing confidence intervals, and testing hypotheses is problematic in accuracy. Comparability of effect size estimates are also problematic. (Kratochwill, 2010; Ray, 2015; Wolery, Busick, Reichow, & Barton, 2010). As a result, most researchers utilizing SCRDS continue to base their inferences on visual analysis (Ray, 2015), as was done in the visual analysis for this study.

Chapter Summary

The SCRDS was explained and applied in detail within this chapter based on the needs of this study. Procedures to carry out the study and enable replication by others were outlined thoroughly. The options within the SCRDS design for analyzing and reporting the data were delineated and examples were provided.

SCRDS offers a research design highly advantageous for practitioners in the counseling setting. SCRDS is theory free, requires adherence to basic tenets of scientific methodology regarding construct, internal validity, and measurement, is flexible and is evidence-based with methods designed for use in practice settings. It is a viable option for counseling practitioners to satisfy a growing need for evidence based treatment because it (1) provides evidence-based

decision-making tools, (2) establishes treatment that is data based, (3) bridges the scientist-practitioner gap, and (4) omits statistical methods that are strenuous to private practice.

SCRD is developed for use in practice settings and capable of evaluating counseling process, evaluating counseling intervention outcomes, and demonstrating experimental control. It offers a scientifically credible means to objectively evaluate practice and conduct clinically relevant research in practice settings.

CHAPTER FOUR: RESULTS

Restatement of the Purpose

This study evaluated if spiritually oriented treatment (i.e., SOCPT-C) was an effective intervention to treat PTSD and decrease spiritual struggle. Two subscales of spiritual struggle, positive religious coping (PRC), and negative religious coping (NRCop) were examined, with the study focus on the NRCop sub-scale. The effect SOCPT-C had on depression was also evaluated. The Single Case Research Design (SCRD) with multiple baselines across participants was utilized to measure three dependent variables: spiritual struggle (subscales included PRC and NRCop), PTSD scores, and depression. Basic effect and experimental control were established by examining data within each phase of the study for within- and between- phase patterns and evaluating data in similar phases to assess whether manipulation of the independent variable was associated with an effect.

To determine whether a causal relation (i.e., functional relation) existed between the introduction of the independent variables (i.e., CPT-C or SOCPT-C) and change in a dependent variables (i.e., spiritual struggle scores, PTSD score, or depression score), data for Participants 1-3 was integrated from all phases to determine if a minimum of three demonstrations of an effect at differing points in time during the study were present (Horner & Spaulding, in press; Levin, O'Donnell, & Kratochwill, 2003). For a phase to qualify as an attempt it must have three data points; thus, data from Participant 4 and the depression variable data were not evaluated for causal and functional relation.

Further visual analysis was conducted through examining within- and between- phase data patterns related to (1) level, (2) trend, (3) variability, (4) immediacy of the effect, (5) overlap, and (6) consistency of data patterns across similar phases (Fisher et al., 2003;

Kratochwill, 2010). Means of all data points within a phase were compared from baseline to intervention phase to examine data patterns related to level. A trend was examined by reviewing the slope of the data points and examination of trend lines. Variability is represented by the reported standard deviations as well as the deviation scores around the trend line.

Examination of the immediacy of change was examined via the mean change between the last 3 data points of the baseline and the first 3 of each intervention phase. The change was often gradual in the data as is expected with no rapid shift. In general, there was not a lot of change in these data patterns. Overlap can refer to an examination of effect size; however, traditionally this visual examination referred to the proportion of data points in phase 2 or the intervention that overlap with phase 1- baseline. The overlap in this studies data would indicate that the introduction of the independent variable was not associated with a change in the pattern of the dependent variable(s). Visual analysis of the study data was conducted by graphing all data points of collection on the variables of interest, including SS, PTSD scores, and depression scores.

Each dependent variable was measured with continuous assessment utilizing valid and reliable measures identified in Chapter Three: the Brief RCOPE (SS), PCL-5 (PTSD scores), and PHQ-9 (depression scores), respectively. Spiritual struggle was operationalized from scores taken from two distinct subscales present within the measure: positive religious coping (PRC) (questions 1-7), and negative religious coping (NRCop) (questions 8-14). Three acuity ranges of Low (7-8), Moderate (9), or High (≥ 10) are represented on the Brief RCOPE for the independent scoring of each subscale. PTSD was operationalized from scores on the PCL-5 with a cut-point of 33. Depression was operationalized from scores taken from the PHQ-9 (Spitzer et al., 1999) with four acuity ranges of Minimal (0-4), Mild (5-9), Moderate (10-14), Moderately Severe (15-

19), and Severe (20-27) depression. The effects of SOCPT-C on SS and PTSD in Christian female adult survivors of sexual assault were examined through the visual analysis of the continuous scores obtained from the PCL-5, (Weathers et al., 2013), and the Brief RCOPE (Pargament et al., 2011). Both the PCL-5 and Brief RCOPE are self-report measures rather than observation instruments; thus, self-report biases could account for the results.

This chapter presents the results of this study, including (a) visual analysis of SS, PTSD scores, and depression scores (b) within- and between- phase data patterns, (c) research questions, and (d) summary.

Overall Results

The population for this study was four Christian adult female survivors of sexual assault diagnosed with PTSD and experiencing SS resulting from the traumatic experience. All four participants completed the study. Results signified the amount of variability within- and between-phase data patterns were not consistent between participants or variables measured. Change in the data was gradual with no rapid shift in the data points. Overall, change was not prevalent within the data patterns of the variables. The introduction of the independent variable was not associated with pattern changes in the dependent variables, and mixed treatment effects were present. Treatment effects are demonstrated with individual graphs and summary descriptive statistics based on scores obtained from each participant and visual analysis. A summary of visual inspection steps and variable features consistent with the SCRD and external factors potentially affecting treatment outcomes were analyzed.

Visual Inspection Steps and Variable Features

Overall results for visual analysis consistent with SCRD steps and variable features were assessed and compared for the four study participants. Level is identified as the mean score

within a phase. The trend is the slope of the line of best-fit straight line for the data points within a phase. The trend was calculated using the least squares regression (Homer et al., 2005).

Variability is the range or standard deviation of data around the best-fitting straight line. The standard deviation from the mean score was also considered to analyze variability. The amount of variability was not consistent between participants for each scale (SS, PTSD scores, depression scores). Examining individual data for SS, PTSD scores, and depression scores indicated areas of mixed treatment effect.

Spiritual Struggle (Brief RCOPE)

Positive and negative patterns of religious coping have been identified in samples of people coping with life stressors such as trauma. Positive religious coping (PRC) consists of religious forgiveness, seeking spiritual support, collaborative religious coping, spiritual connection, religious purification, and benevolent religious appraisal (Pargament, Smith, Koenig & Perez, 1998). PRC represents a sense of spirituality, a secure relationship with God, a belief that there is meaning to be found in life, and a sense of spiritual connectedness with others.

Negative religious coping (NRCop) is represented by spiritual discontent, punishing God reappraisals, interpersonal religious discontent, demonic reappraisal, and reappraisal of God's powers as evidenced by negative religious cognitions (NRCog). NRCop represents a less secure relationship with God, a tenuous and ominous view of the world, and a religious struggle in search for significance as evidenced by negative religious cognitions (NRCog) (Pargament, Zinnbauer, Scott, Butter, Zerwin, and Stanik 1998).

The Brief RCOPE has been identified as an efficient and theoretically meaningful way to integrate the religious domain into studies of life stressors and coping (Pargament et al., 1998).

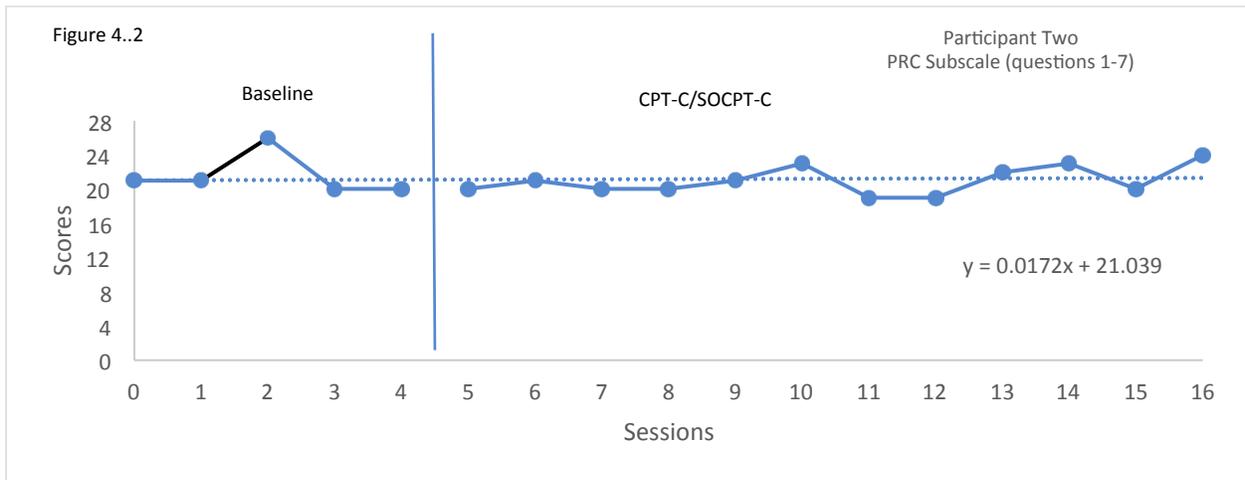
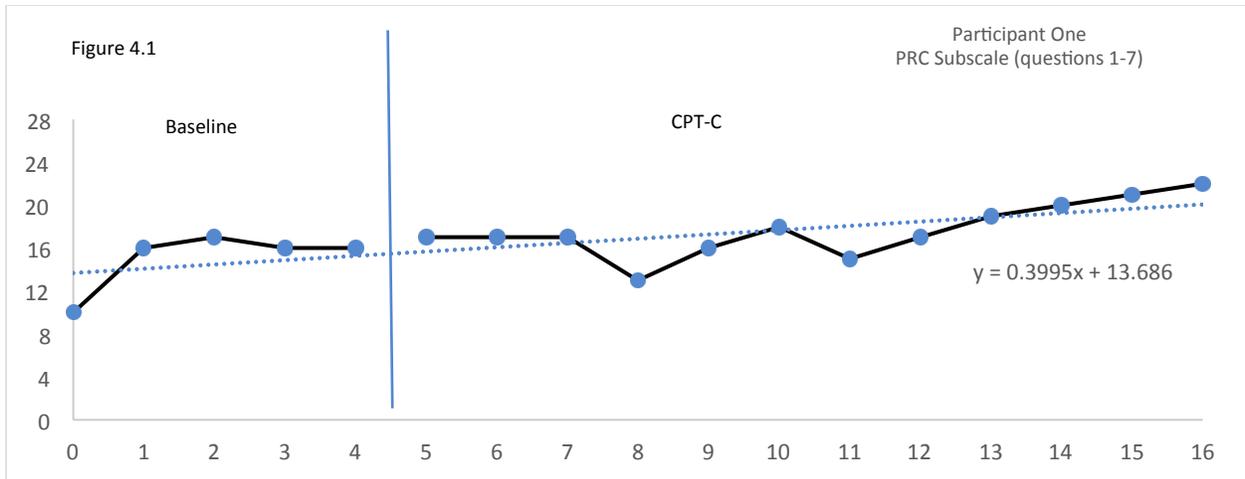
While data from both sub-scales is presented in this Chapter, the NRCop sub-scale is of primary interest for the study.

Positive Religious Coping (PRC)

Findings from the data collected on the PRC subscale (Questions 1-7) of the Brief RCOPE are reported for consideration. Table 4.1 presents a summary of sample means and standard deviations for Participants 1-4 on the Brief RCOPE (PRC Subscales, Questions 1-7). Visual analysis of the data across variables and participants is also presented.

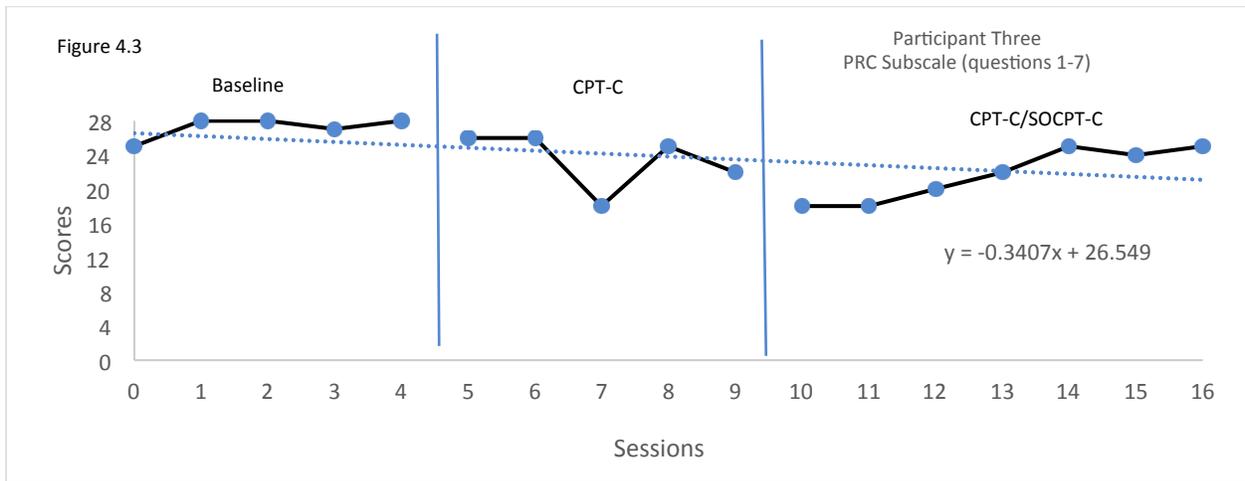
Participant 1 had an average PRC subscale score of 15 ($SD = 2.83$, range 10-17) during the baseline phase. After 12 sessions of the CPT-C intervention, Participant 1's average on the PRC subscale increased to 17.67 ($SD = 2.53$, range 13-22, a 17.8% increase). These results indicated the CPT-C intervention was a beneficial intervention for increasing positive religious coping for Participant 1. Figure 4.1 presents a visual representation of Participant 1's PRC subscale scores from the Brief RCOPE. 1234

Participant 2 during the baseline phase had an average score on the baseline of 21.6 ($SD = 2.51$, range 20-26). After 12 sessions of the CPT-C/SOCPT-C intervention, Participant 2's average on the PRC subscale (Questions 1-7) decreased slightly to 21 ($SD = 1.65$, range 19-24, a 2.7% decrease). These results indicated the CPT-C/SOCPT-C was not a beneficial intervention as positive religious coping deteriorated during the intervention phase for Participant 2. Figure 4.2 presents a visual representation of Participant 2's PRC subscale scores from the Brief RCOPE.

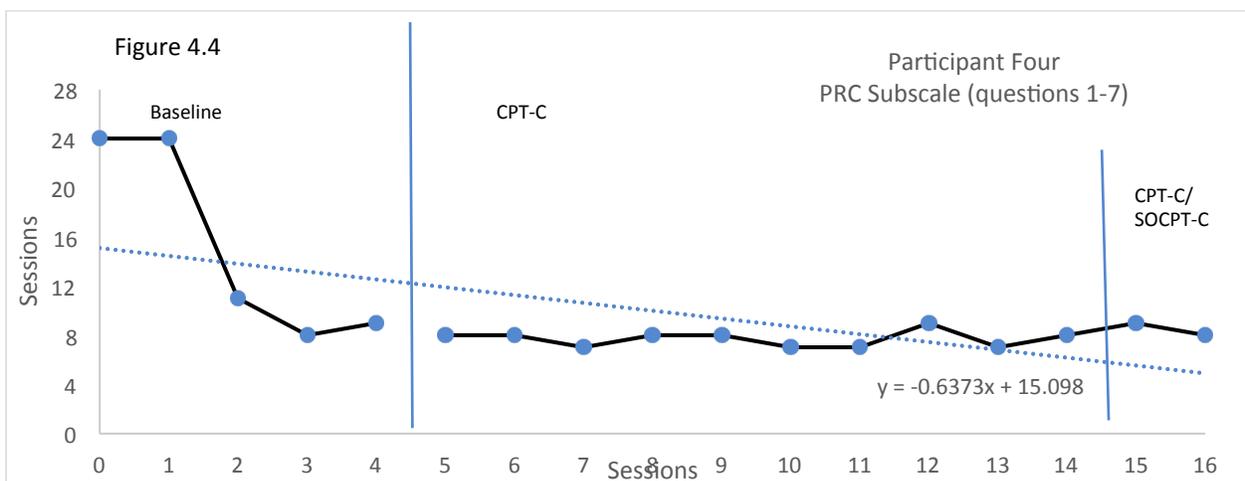


Participant 3 had an average baseline of 27.2 ($SD = 1.31$, range 25-28). After five sessions with the CPT-C intervention, Participant 3's average on the PRC subscale (Questions 1-7) decreased to 23.4 ($SD = 3.43$, range 18-26; a 13.97% decrease). After seven sessions of CPT-C/SOCPT-C, Participant 3's average score on the PRC subscale (Questions 1-7) decreased to 21.71 ($SD = 3.09$, range 18-25, a 7.2% decrease). These results indicated the CPT-C alone, and CPT-C/SOCPT-C were not beneficial interventions as positive religious coping deteriorated

during the intervention phase for Participant 3. Figure 4.3. presents a visual representation of Participant 3's PRC subscale scores from the Brief RCOPE.



Participant 4 had an average score on the PRC subscale (Questions 1-7) of 15.2 ($SD = 8.11$, range of 8-24) during the baseline. After 10 sessions of CPT-C, Participant 4's average on the PRC subscale (Questions 1-7) decreased to 7.7 ($SD = .67$, range 7-9). After two sessions of CPT-C/SOCPT-C, Participant 4's average on the PRC subscale (Questions 1-7) increased to 8.5 ($SD = .71$, range 8-9, a 10.4% increase after receiving CPT-C alone; however, a 44% decrease from baseline phase). These results indicated the CPT-alone is not a beneficial intervention as positive religious coping deteriorated during this intervention phase for Participant 4.



However, the addition of the CPT-C/SOCPT-C intervention resulted in Participant 4’s positive religious coping improving a little from the CPT-C intervention phase; the average score was still lower than the baseline. Figure 4.4 presents a visual representation of Participant 4’s PRC subscale scores from the Brief RCOPE.

Examining the descriptive statistics (Table 4.1) and graphs of all participants in this study, the results of the three participants (1, 3, 4) participating in the CPT-C intervention were mixed. While the average PRC subscale (Questions 1-7) score for Participant 1 increased during the intervention, the average PRC subscale (Questions 1-7) scores for Participants 3 and Four decreased during the intervention. The results for the three participants (2, 3 & 4) receiving the additional SOCPT-C intervention were similar in that all participants’ scores decreased from the baseline. However, the addition of the CPT-C/SOCPT-C intervention resulted in Participant 4’s improvement in positive religious coping from the CPT-C intervention phase. The opposite was true for Participant 3. These results indicated CPT-C/SOCPT-C might not be a beneficial intervention to improve positive religious coping. However, results were mixed as they were for the CPT-C intervention.

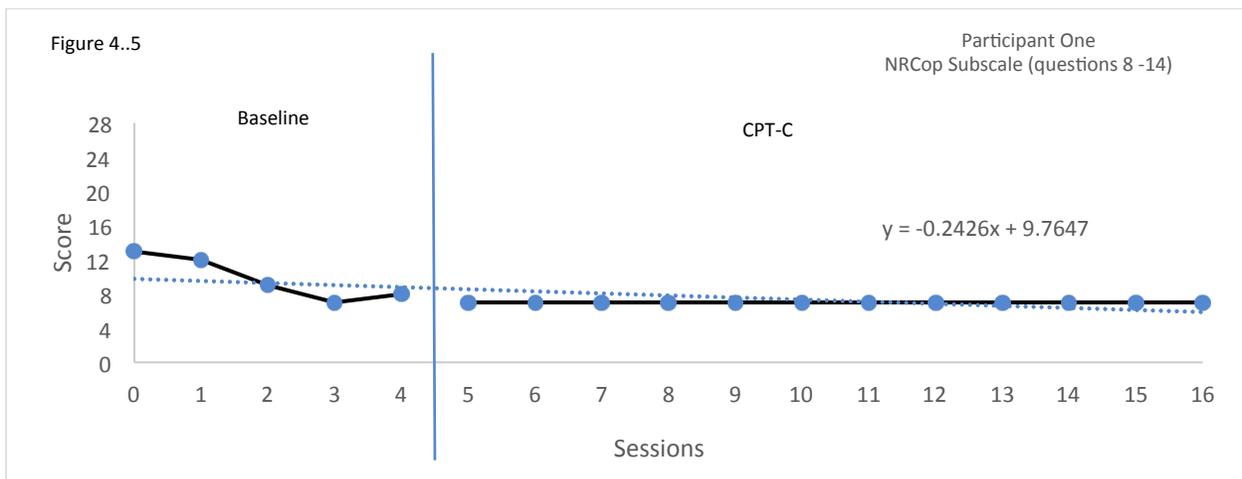
Table 4.1. Means and Standard Deviations from the Brief RCOPE – PRC Subscale (Questions 1-7)

| Phase | Participant 1 | | Participant 2 | | Participant 3 | | Participant 4 | |
|----------|---------------|-----------------------------|---------------|------------------------|---------------|-------------------------|---------------|------------------------------------------------------------------------------------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Baseline | 15 | 2.83 | 21.6 | .51 | 27.2 | .31 | 15.2 | 8.11 |
| CPT-C | 17.67 | 2.53 (17.8% increase) | | | 23.4 | .43 (13.97 decrease) | 7.7 | .67 (decrease) |
| SOCPT-C | - | - | 21 | .65 (2.7% decrease) | 21.71 | .09 (7.2% decrease) | 8.5 | .71 (10.4% increase following CPT-C; 44% decrease from baseline) |

Negative Religious Coping (NRCop)

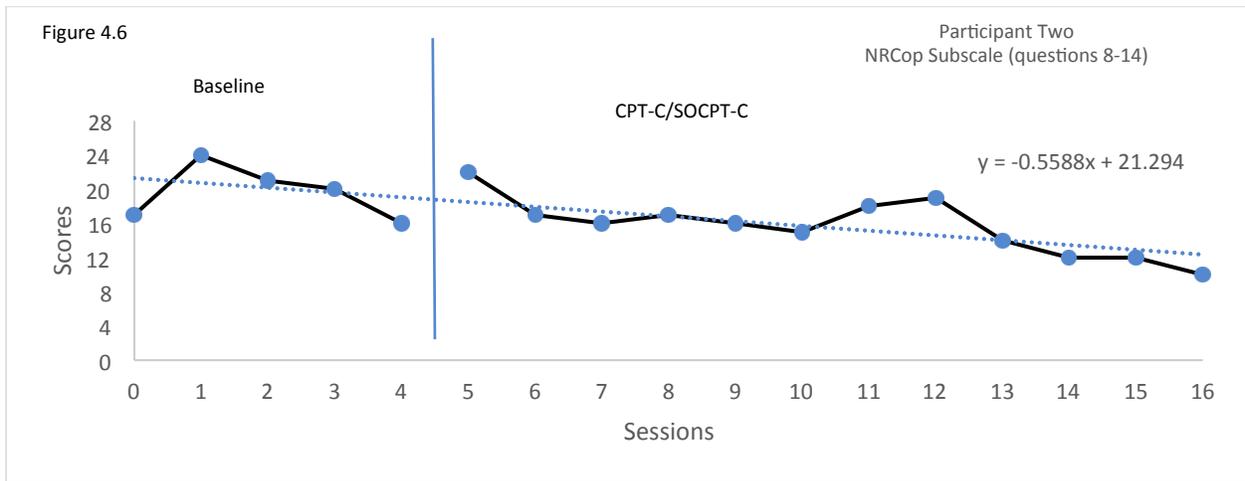
Table 4.2 indicates a summary of sample means and standard deviations for Participants 1-4 on the Brief RCOPE (NRCop Subscale, Questions 8-14). Visual analysis of the data across variables and participants is also presented.

Participant 1 during the baseline phase had an average score on the NRCop subscale (Questions 8-14) of 9.8 ($SD = 2.59$, range 7-13). After 12 sessions of CPT-C intervention, Participant 1's average on the NRCop subscale (Questions 8-14) decreased to 7 (a 28.57% decrease). These results indicated the CPT-C intervention was a beneficial intervention for decreasing spiritual struggle for Participant 1. Figure 4.5 presents a visual representation of Participant 1's NRCop subscale scores from the Brief RCOPE.

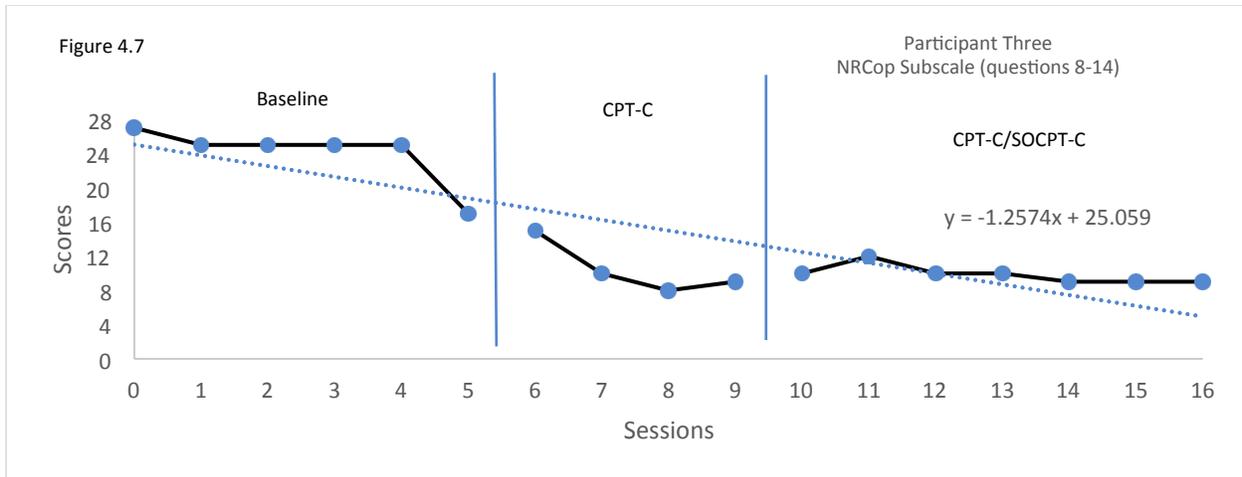


Participant 2 had an average score of 19.6 ($SD = 3.21$, range 16-24) during the baseline phase. After 12 sessions of CPT-C/SOCPT-C intervention, Participant 2's average on the NRC subscale (Questions 8-14) decreased to 15.67 ($SD = 3.34$, range 10-22, a 20.05% decrease). These results indicated the CPT-C/SOCPT-C was a beneficial intervention for decreasing

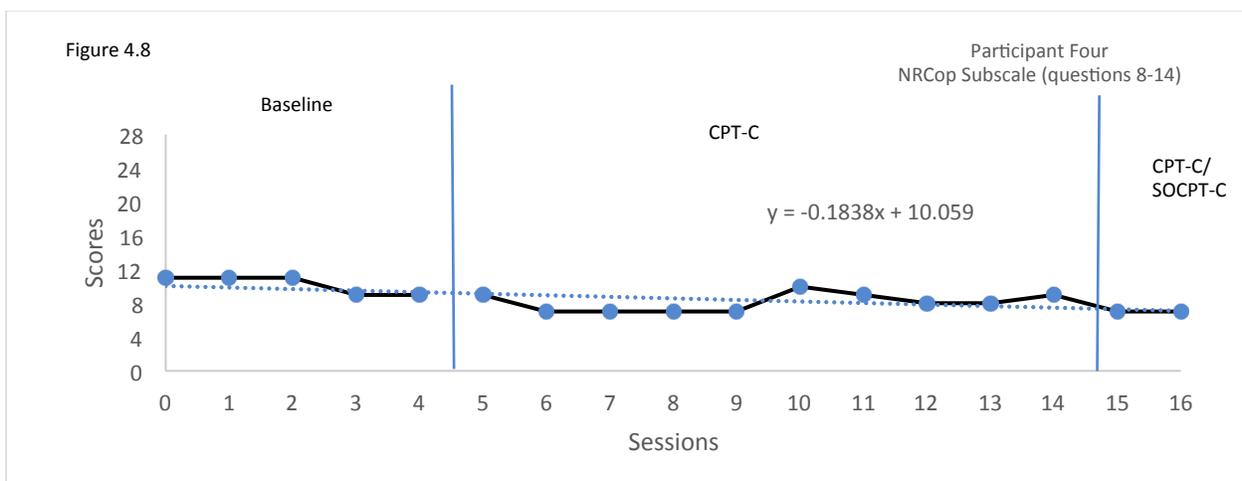
spiritual struggle for Participant 2. Figure 4.6 presents a visual representation of Participant 2's NRCop subscale scores from the Brief RCOPE.



During the baseline phase, Participant 3 had an average of 25.4 ($SD = .89$, range 25-27). After five sessions of CPT-C intervention, Participant 3's average on the NRC subscale (Questions 8-14) decreased to 11.8 ($SD = 3.96$, range 9-17, a 53.54% decrease). After seven sessions of the CPT-C/SOCPT-C intervention, Participant 3's average on the NRCop subscale (Questions 8-14) decreased to 9.86 ($SD = 1.07$, range 9-12, a 16.44% decrease from the CPT-C intervention phase and 61.2% decrease from the baseline phase). These results indicated the CPT-C and CPT-C/SOCPT-C were beneficial interventions for decreasing spiritual struggle for Participant 3. Figure 4.7 presents a visual representation of Participant 3's NRCop subscale scores from the Brief RCOPE.



During the baseline, Participant 4 had an average of 10.2 ($SD = 1.09$, range 9-11). After 10 sessions of CPT-C intervention, Participant 4's average on the NRCop subscale (Questions 8-14) decreased to 8.1 ($SD = 1.10$, range 9-10, a 20.5% decrease). With the introduction of CPT-C/SOCPT-C for two sessions, Participant 4's average NRCop subscale (Questions 8-14) score decreased to 7.0 ($SD = 0$, 13.6% decrease from the CPT-C intervention phase, and a 31.4% decrease from the baseline phase). These results indicated the CPT-C and CPT-C/SOCPT-C was a beneficial intervention for decreasing spiritual struggle for Participant 4. Figure 4.8 presents a visual representation of Participant 4's NRCop subscale scores from the Brief RCOPE.



Examining the descriptive statistics (Table 4.2) and graphs of all participants in this study, it was concluded that three participants (1, 3, & 4), receiving the intervention, demonstrated results that indicated CPT-C was a beneficial intervention for decreasing spiritual struggle. The results for the three participants (2, 3, & 4), receiving the intervention, also demonstrated that receiving the additional SOCPT-C intervention is beneficial. With the SOCPT-C intervention, participants showed a moderate decrease in the spiritual struggle. Mean scores for the NRCop subscale (Questions 8-14) decreased for all participants during the intervention phase.

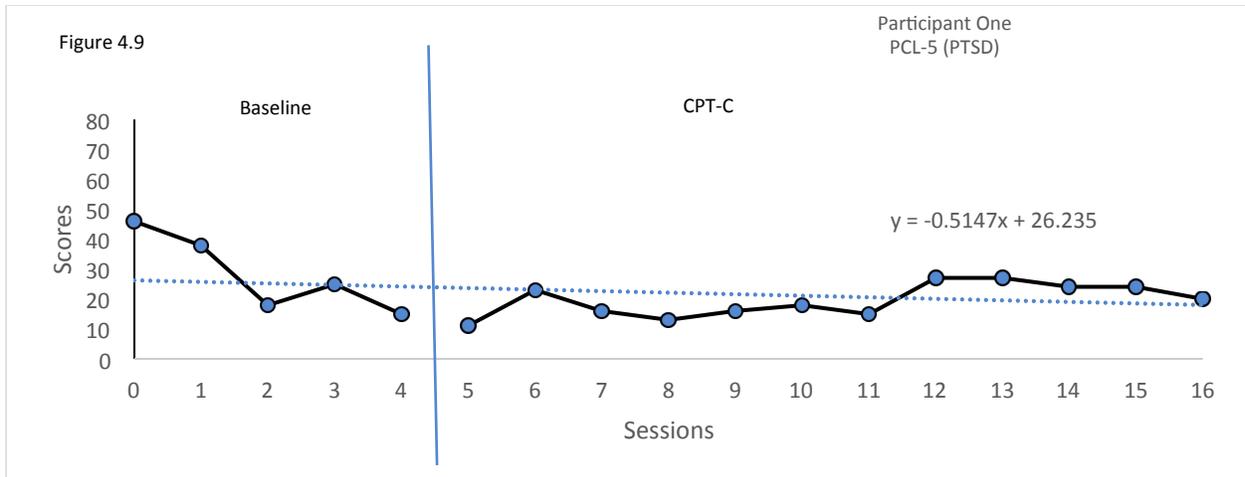
Table 4.2. Means and Standard Deviations from the Brief RCOPE - NRCop Subscale (Questions 8-14)

| Phase | Participant 1 | | Participant 2 | | Participant 3 | | Participant 4 | |
|----------|--------------------|-----------|-----------------|-----------|--------------------|-----------|-------------------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Baseline | 9.80 (mod-high) | 2.59 | 19.6 (high) | 3.21 | 25.40 (high) | .89 | 10.20 (high) | 1.09 |
| CPT-C | 7.00 (low) | 0 | - | - | 11.80 (high) | 3.96 | 8.10 (low-mod) | 1.10 |
| SOCPT-C | - | - | 15.67 (high) | 3.34 | 9.86 (mod-high) | 1.07 | 7.00 (low) | 0 |

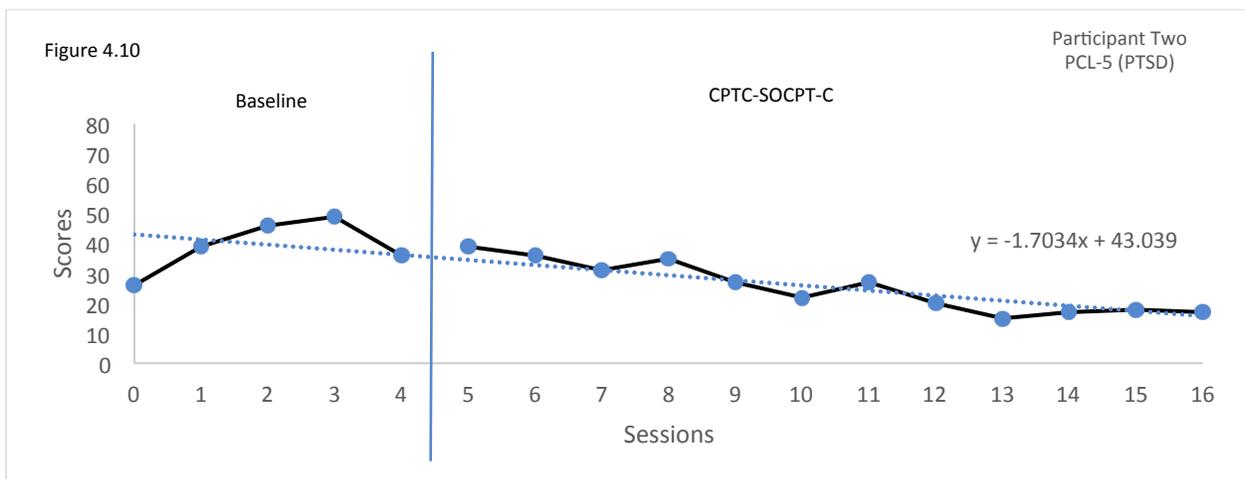
Note. Spiritual Struggle consistent with NRCop was operationalized from scores on the BriefRCOPE of 7-8 (low spiritual struggle), 9 (moderate-high spiritual struggle), and ≥ 10 (high spiritual struggle).

PTSD Scores (PCL-5)

Participant 1 had an average PCL-5 score of 28.4 (*SD* = 13.24, range 15-46) during the baseline phase. After 12 sessions of CPT-C intervention, Participant 1's average on the PCL-5 decreased to 19.5 (*SD* = 5.45, range 11-27; a 31.34% decrease). Intervention data indicated a mild decreasing trend during the CPT-C intervention (slope = - 0.5147; Figure B1). These results indicated the CPT-C was a beneficial intervention for decreasing PTSD symptoms for Participant 1. Figure 4.9 presents a visual representation of Participant 1's PTSD scores from the PCL-5.

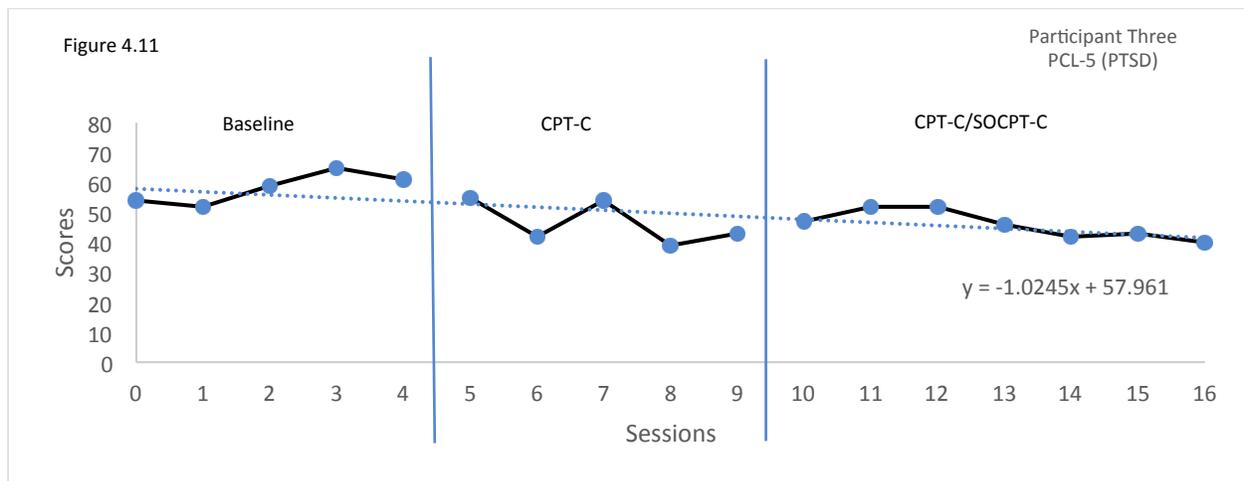


During the baseline phase, Participant 2 had an average PCL-5 score of 39.2 ($SD = 9.04$, range 26-49). After 12 sessions of the CPT-C/SOCPT-C intervention, Participant 2's average on the PCL-5 decreased to 10.5 ($SD = 8.37$, range 15-39, a 73.21% decrease). Intervention data indicated a mild decreasing trend (slope = - 1.70). These results indicated the CPT-C/SOCPT-C intervention was a beneficial intervention for decreasing PTSD symptoms for Participant 2. Figure 4.10 presents a visual representation of Participant 2's PTSD scores from the PCL-5.



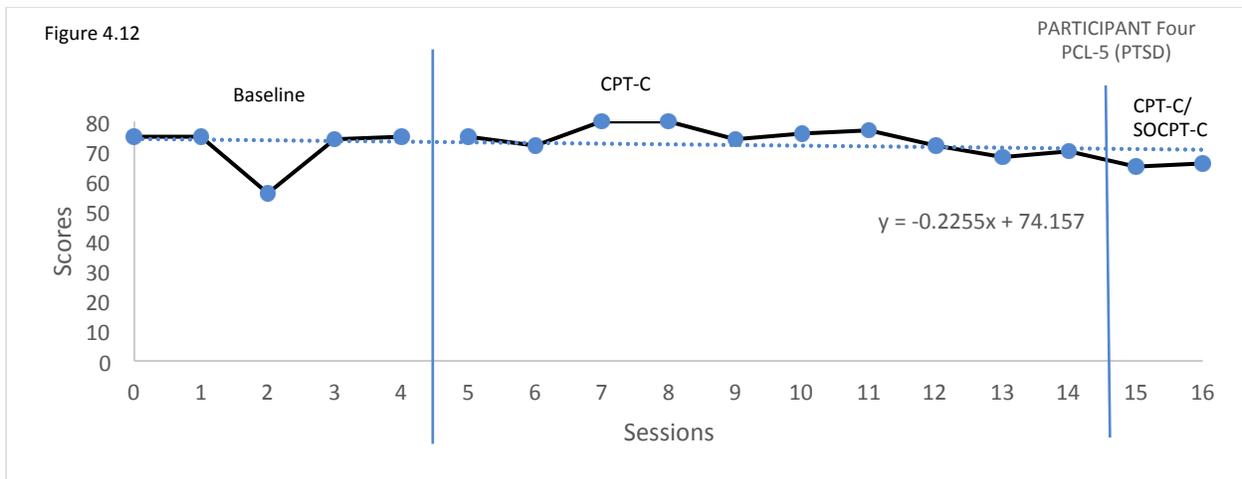
Participant 3 had an average baseline phase score on the PCL-5 of 58.2 ($SD = 5.26$, range 52-65). After five sessions of CPT-C, Participant 3's average on the PCL-5 decreased to 46.6 (SD

= 7.37, range 39-55, a 19.93% decrease). Intervention data indicated a moderate decreasing trend after the CPT-C sessions (slope = -2.7).



After seven sessions of CPT-C/SOCPT-C, Participant 3's average on the PCL-5 decreased to 46 ($SD = 4.72$, range 40-52; a 1.2% decrease from the CPT-C intervention phase and 20.9% decrease from the baseline phase). These results indicated the CPT-C was a beneficial intervention for decreasing PTSD symptoms for Participant 3, while the SOCPT-C intervention had a little additional effect on PTSD symptoms for Participant 3. Figure 4.11 presents a visual representation of Participant 3's PTSD scores from the PCL-5.

Participant 4 had an average PCL-5 score of 71 ($SD=8.40$, mode = 75, range 56-75) during the baseline phase. In considering this mean, it is important to note that it was highly influenced by one PCL-5 score of 56; this was an extreme outlier as for all other sessions Participant 4 had a PCL-5 score of 74 or 75. After 10 sessions of CPT-C, Participant 4's average on the PCL-5 increased to 74.4 ($SD = 4.01$, range 68-80, a 4.23% increase). After two sessions of CPT-C/SOCPT-C, Participant 4's average on the PCL-5 decreased to 65.5 ($SD = .71$, range 65-66; a 7.75% decrease from the baseline, and an 11.9% decrease from the CPT-C intervention phase).



These results indicated the CPT-C might not a beneficial intervention for decreasing PTSD symptoms for Participant 4, while the SOCPT-C intervention had a positive effect and resulted in decreased PTSD symptoms for Participant 4. Figure 4.12 presents a visual representation of Participant 4's PTSD scores from the PCL-5.

Examining the descriptive statistics (Table 4.3), graphs, and trend lines of all participants in this study, two participants' results (1 & 3) indicated CPT-C was a beneficial intervention for decreasing PTSD symptoms. This was not the case for Participant 4; thus, results for the CPT-C intervention were mixed. The results for the three participants (2, 3, & 4) receiving the additional SOCPT-C intervention, however, demonstrated that the intervention is beneficial. Participant 2, who received only the SOCPT-C intervention, showed a moderate decrease in the PCL-5. Participant 4 showed similar results. When the SOCPT-C intervention was introduced for Participant 3, a mild improvement in PTSD symptoms was made. Mean scores for the PCL-5 decreased for all participants during the SOCPT-C intervention phase. Table 4.3 indicates a summary of descriptive statistics for Participants 1-4 on the PCL-5.

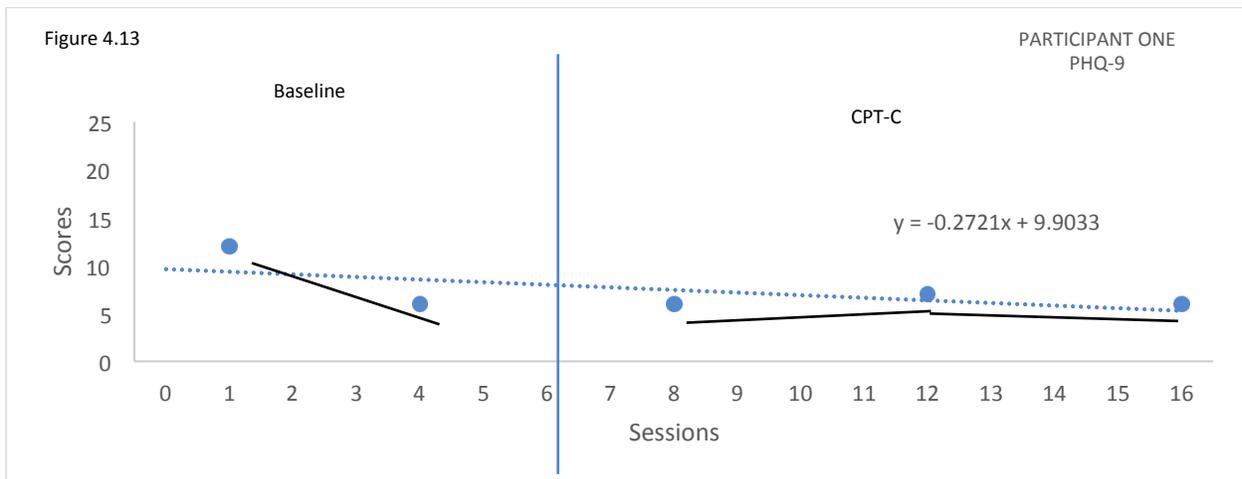
Table 4.3. Means and Standard Deviations from the PCL-5

| Phase | Participant 1 | | Participant 2 | | Participant 3 | | Participant 4 | |
|----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Baseline | 28.40 | 13.24 | 39.2* | 9.04 | 58.20* | 5.26 | 71* | 8.40 |
| CPT-C | 19.50 | 5.45 | - | - | 46.6* | 7.37 | 74.4* | 4.01 |
| SOCPT-C | - | - | 10.5 | 8.37 | 46* | 4.72 | 65.5* | .71 |

*PTSD was operationalized from scores on the PCL-5 with a cut-point of 33.

Depression Scores (PHQ-9)

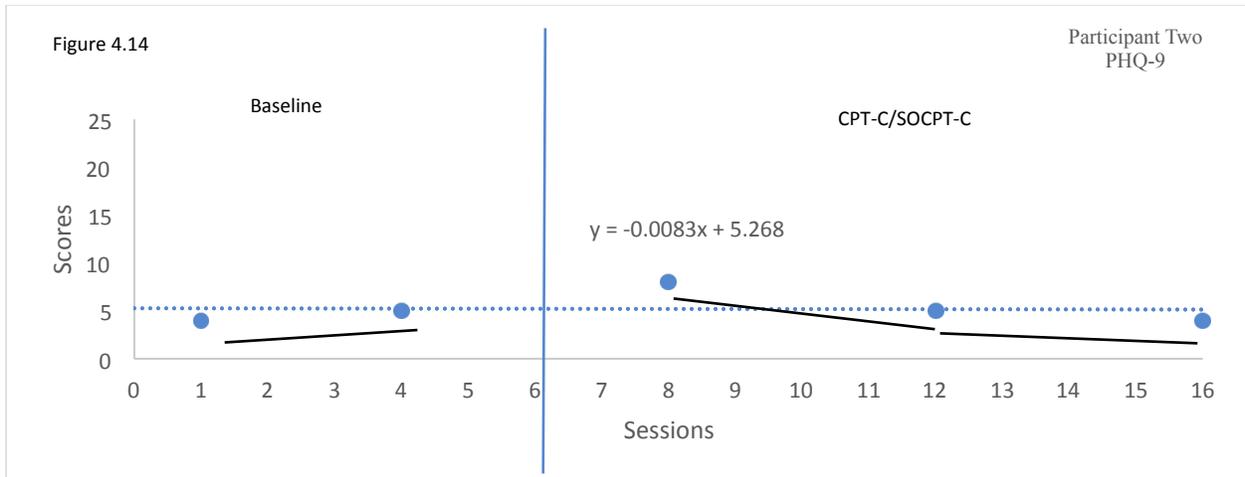
Participant 1, in the baseline phase, had an average PHQ-9 score of 9 (*SD* = 4.24, range 6-12). After 12 sessions of the CPT-C intervention, Participant 1’s average on the PHQ9 decreased to 6.33 (*SD* = .58, range 6-7, a 29.66% decreased). These results indicated the CPT-C was a beneficial intervention for decreasing depression for Participant 1. Figure 4.13 presents a visual representation of Participant 1’s depression scores from the PHQ-9.



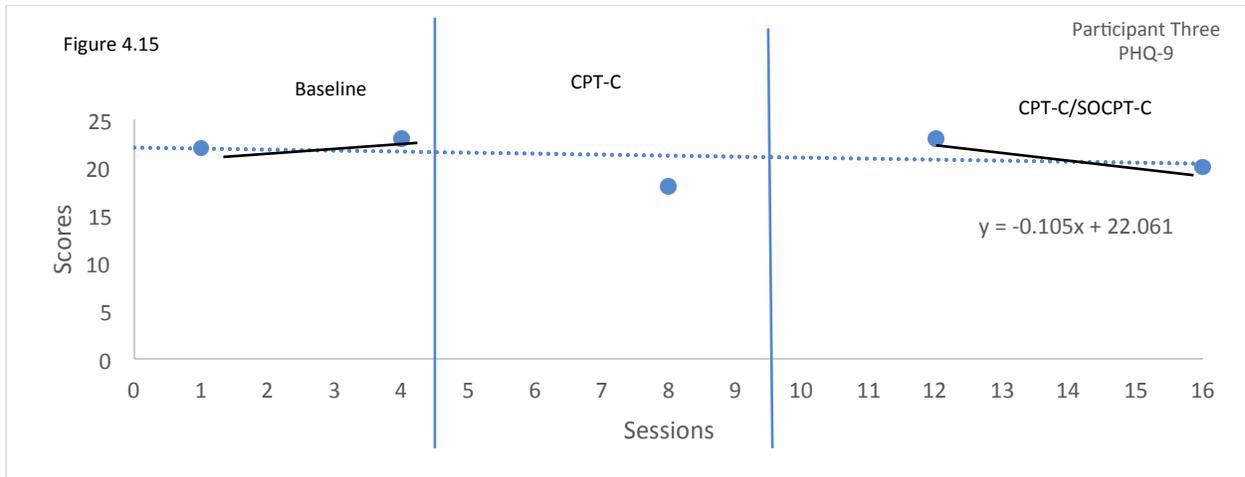
Participant 2 had an average PHQ-9 score of 4.5 (*SD* = .71, range 4-5) in the baseline phase. After 12 sessions of CPT-C/SOCPT-C, Participant 2’s average on the PHQ-9 increased to

5.67 ($SD = 2.08$, range 4-8, a 26% increase). However, it is noteworthy that while this participant's mean score increased during the intervention, the participant began treatment during the baseline period with a score of 4 and concluded the intervention phase with a score of 4.

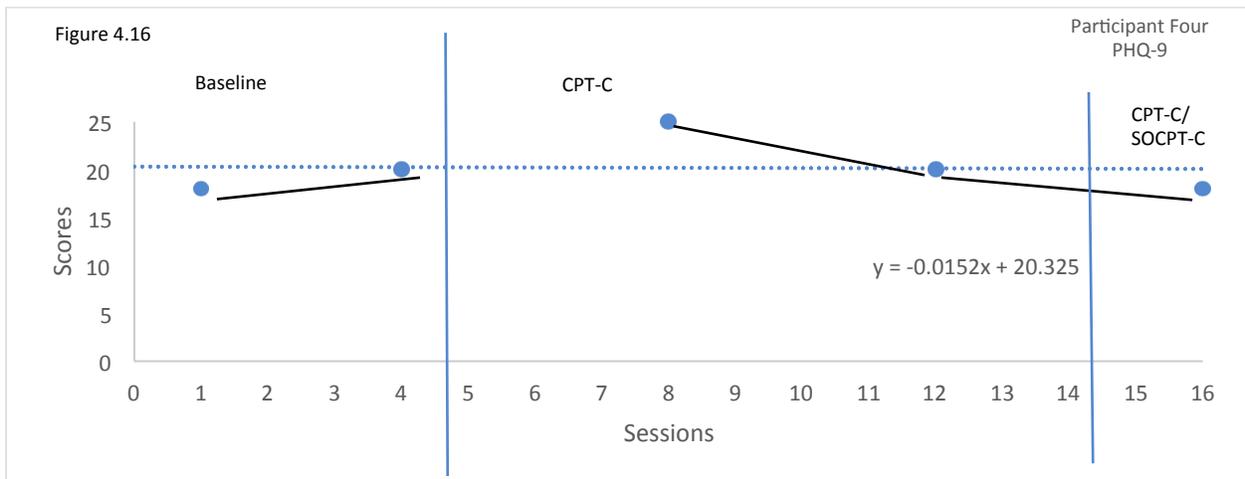
Figure 4.14 presents a visual representation of Participant 2's depression scores from the PHQ-9.



Participant 3 had an average baseline PHQ9 score of 22.5 ($SD = .71$, range 22-23). After five sessions of CPT-C, Participant 3's average on the PHQ9 decreased to 18 ($SD = 0$, a 20% decrease). After an additional seven sessions with the introduction of CPT-C/SOCPT-C, Participant 3's average on the PHQ9 increased to 21.5 ($SD = .71$, range 23-20, a 19.4% increase after receiving CPT-C alone; however, a 4.4% decrease from the baseline phase). These results indicated the CPT-C was a beneficial intervention for decreasing depression for Participant 3; however, CPT-C/SOCPT-C may not be beneficial for Participant 3 as depression increased with the additional intervention. Figure 4.15 presents a visual representation of Participant 3's depression scores from the PHQ-9.



Participant 4 had an average baseline score of 19 ($SD = 1.41$, range of 18-20). After 10 sessions of CPT-C, Participant 4's average on the PHQ9 increased to 22.5 ($SD = 3.53$, range 20-25, an increase of 15.5%).



After two sessions of CPT-C/SOCPT-C, Participant 4's score on the PHQ9 decreased to 18 (a 20% decrease after receiving CPT-C and a 5.26% decrease from the baseline). In contrast to Participant 3, CPT-C was not a beneficial intervention for decreasing depression for Participant 4. However, CPT-C/SOCPT-C may be beneficial for Participant 4 as depression decreased with the additional intervention. Figure 4.16 presents a visual representation of Participant 4's depression scores from the PHQ-9.

Examining the descriptive statistics (Table 4.4) and graphs of all participants in this study, it was concluded that there were mixed results for the CPT-C intervention. Two participants (1 & 3) demonstrated results that indicated CPT-C was a beneficial intervention for decreasing depression. Participant 4's average PHQ-9 score; however, increased during the CPT-C intervention. The results for the three participants (2, 3, & 4) receiving the SOCPT-C intervention were also mixed. Participant 2 who received only the SOCPT-C intervention showed a moderate increase in the PHQ-9. When the SOCPT-C intervention was introduced for Participant 3, a mild increase in depression also was seen. In contrast, Participant 4's score on the depression inventory decreased with the introduction of SOCPT-C. Results are mixed and inconclusive for both interventions and their influence on depression.

Table 4.4. Means and Standard Deviations from the PHQ-9

| Phase | Participant 1 | | Participant 2 | | Participant 3 | | Participant 4 | |
|----------|---------------|--------------------------|---------------|---------------------|---------------|-----------------------------------------------------------------|---------------|-----------------------------------------------------------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Baseline | 9 | 4.24 | 4.5 | .71 | 22.5* | .71 | 19* | 1.41 |
| CPT-C | 6.33 | .58 (29.66% decrease) | - | - | 18* | 0 (20% decrease) | 22.5* | 3.53 (15.5% increase) |
| SOCPT-C | - | - | 5.67 | 2.08 (26% increase) | 21.5* | .71% (19.4% increase from CPT-C); (4.4% decrease from baseline) | 18* | (20% decrease from CPT-C); (5.25% decrease from baseline) |

*Depression was operationalized from scores on the PHQ-9 as Minimal (0-4), Mild (5-9), Moderate (10-14), Moderate Severe (15-19), and Severe (20-27).

External Factors Potentially Affecting Treatment Outcomes

Within and between data evaluated from each phase had varying external factors unique to individual participants that may have affected treatment and/or continuous assessment.

Participant 1 was high in observed dissociative symptoms during Phase One and until week 8 of

the study that reasonably influenced continuous assessment scores reported on the PCL-5. Participant 3 was experiencing a family crisis from Sessions 11-16, failed to complete homework assignments from most of those sessions, and reported increased depression resulting from the family crisis that impeded her ability to participate in treatment during that portion of the study fully. The variable scores reported by these participants were further analyzed in light of these external factors and patterns within the data reported for any associated effect on Tables 4.1 – 4.4. These external factors may have contributed to participant differences identified in the findings from the study. Because this study was conducted in the applied setting "real world," consistent with a major theme of the SCRD, such external factors are not uncommon within this setting and are necessary to anticipate by the counselor when administering EST or manualized treatment within the counseling setting and adhering to treatment fidelity. Despite the identified external factors, CPT-C treatment fidelity was adhered to as indicated within the CPT-C Therapist Manual with all sessions.

Summary of Results

In this chapter, the effects of SOCPT-C on PTSD and spiritual struggle for Christian female adult sexual assault survivors diagnosed with PTSD and experiencing spiritual struggle following the trauma were analyzed. Two subscales of spiritual struggle, positive religious coping (PRC) and negative religious coping (NRCop), were independently considered. While not a focus of the study, the effects of SOCPT-C on depression for this population were also examined. The variables were analyzed using visual inspection and measures associated with PTSD scores (PCL-5), spiritual struggle (Brief RCOPE), and depression (PHQ-9). Results from this study were mixed. Some participants experienced a reduction of PTSD, spiritual struggle, and/or depression, while others remained relatively unchanged or increased.

Overall, results signified the amount of variability within- and between-phase data patterns were not consistent between participants or variables measured. Change in the data was gradual, as expected, with no rapid shift in the data points. Overall, there was not a lot of change within the data patterns of the variables, the introduction of the independent variable was not associated with change in the pattern of the dependent variables, and mixed treatment effects were identified as delineated in this chapter.

CHAPTER FIVE: SUMMARY, CONCLUSIONS & RECOMMENDATIONS

This chapter discusses the findings presented in Chapter Four. In consideration of current research on spiritual struggle, PTSD, and spiritual interventions, the results from this study are further examined. Limitations of this study are presented, clinical implications of the findings are put forth, and suggestions for future research are made.

Summary

Chapter One identified the problem to be addressed in the study as it relates to the effect spiritual struggle may have on the development and maintenance of PTSD, as well as the lack of empirically supported treatment that directly targets spiritual struggle. PTSD is one of the most prevalent disorders treated in psychotherapy (Bradley et al., 2005) and is demonstrated by debilitating symptoms that persist in response to a traumatic event (APA, 2015). Survivors diagnosed with PTSD have historically experienced symptoms psychologically, physically, socially, and spiritually following a trauma (Kusner & Pargament, 2012; van der Kolk, McFarlane, & Weisaeth 2012). Individuals developing PTSD following a traumatic event are likely to report reduced spiritual well-being and weakened religious beliefs (Bormann, Liu, Thorp, & Lang, 2011; Falsetti et al., 2003; Fontana & Rosenheck, 2004). Spiritual struggle (SS) as evidenced by negative religious cognitions (NRCog) has been identified as a potential mechanism influencing the development of PTSD (Anderson-Mooney et al, 2015; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999; Janoff-Bulman, 1989; Park, 2005; Wortman, Park & Edmondson, 2011). While NRCog may interfere with the main purpose of psychotherapy (Falsetti et al., 2003; Kazdin, 2011; Park & Mills, 2010), the spiritual domain often remains untreated in the clinical setting from a lack of spiritual interventions within empirically supported treatment

(EST) protocols (Donahue, 1985; Falsetti, et al., 2003; Kazdin, 2011; Kazdin, George, & Siegler, 1988; Pargament et al., 2006; Worthington, Hook, David, & McDaniel, 2011).

Christian survivors of trauma utilize religion as a coping behavior during life challenges of uncertainty, fear, pain, loss of control, and loss of hope (Koenig, 2016). Spiritual struggle (SS) may disrupt prior spiritual functioning, produce adverse responses to spiritual supports, and mediate the relationship of posttraumatic adjustment (Galovski, Sobel, Phipps & Resick, 2005; Johnson, Rosenheck, Fontana, & Lubin, 1996). The trauma impact to psychosocial domains of functioning is as meaningful as specific symptoms of PTSD (Galovski et al., 2005; Johnson et al., 1996) and treatment targeting these domains is supported in the literature. More specifically, addressing SS and NRCogs during psychotherapy with a specific goal of reestablishing positive R/S beliefs post-trauma (Janoff-Bulman, 2005; Park & Bluberg, 2002) may promote relief from various PTSD symptoms, such as guilt, shame, and intense emotions of rage (Bohnlein, 2007), and cognitive processing (Bormann, 2011; Cumella, 2002; Gunderson, 2000; Prest, 2005; Prest & Robinson, 2006). CPT-C is a well-researched and proven effective EST for the treatment of PTSD (Resick et al., 2014), although direct spiritual interventions are not among the CPT-C protocol. Identified through gaps in the literature and need in the applied setting, the purpose of this study was to examine the effects of SOCPT-C, a modified version of CPT-C, on SS, as evidenced by NRCog, and PTSD in Christian female survivors of sexual assault diagnosed with PTSD and reporting SS. The study also examined the impact SOCPT-C had on symptoms of depression.

Chapter Two presented a literature review of the history and theories behind spiritual change identified in Chapter One, how these changes may influence PTSD in trauma survivors, and current research regarding spiritual struggle, treatment for PTSD, and CPT. Supporting

research for incorporating spiritual interventions into trauma therapy to target NRCogs was put forth.

Chapter Three identified the methods used in this study. The sample population was identified as four Christian adult females diagnosed with PTSD and reporting spiritual struggle following the trauma. Instrumentation utilized during the study included a demographic questionnaire, exclusionary criteria questionnaire, PCL-5, Brief RCOPE, standard clinical assessment, CAPS-Past Month, MMSE, LEC-5, and PHQ-9. The research design consistent with the requirements for a multiple baseline SCRC across multiple participants was detailed. With this design, multiple AB data series were compared, and the introduction of the intervention was staggered across time. The design was especially well suited to advance the understanding of how specific treatment variables can influence not only a study target such as SS but other variables like PTSD and depression (Kazdin, 2011; Ray, 2015). Kratochwill and Levin (2010) identify the randomized multiple baseline design across participants as one of the strongest designs for SCRD. Three primary measures were used for continuous assessment including the Brief RCOPE, PCL-5, and PHQ-9. The Brief RCOPE consisted of 14 questions, and each subscale was made up of seven questions. The PRC subscale included Questions 1-7 and the NRCop subscale Questions 8-14. While both subscales are presented and discussed, the NRCop subscale was of primary interest in this study. The PCL-5 includes 20 questions that evaluated for the level of PTSD symptoms each participant was experiencing. Lastly, the PHQ-9 included nine questions and evaluated the level of depression symptoms reported by each participant. PTSD scores and SS scores were obtained at each session, and depression scores were obtained every two weeks.

The methods for visual analysis as recommended within the guidelines for the SCRD were identified, and the use of graphs, tables, and descriptive statistics summaries to satisfy visual analysis requirements within the study was set forth. The six variables for consideration in data analysis consistent with the SCRD were utilized to evaluate and report the data, including level, trend, variability, immediacy of the effect, overlap, and consistency of data patterns across phases. Ethical and multicultural considerations were presented.

Chapter Four was a review of the collected data as it relates to the three research questions set forth by the researcher in Chapter One. The findings were applied to both the research questions and SCRD objectives of the study. Findings and analyses of the data related to spiritual struggle, PTSD, and depression are put forth. The positive religious coping and negative religious coping subscales of spiritual struggle were also evaluated. The results through visual analyses were reported through a summary of the data and displayed in summary tables, graphs, and descriptive analysis consistent with SCRD visual analysis recommendations identified in Chapter Three. The descriptive statistics summarize key parts of the data.

In Chapter Five, a summary of the findings is applied to the original problem, current literature, and directions for future research. Results presented in Chapter Four are offered in this chapter within the following subtopics (a) Summary, (b) Conclusions, (c) Implications for Practice, (d) Implications for Research, (e) Recommendations, (f) Limitations of the Study, and (g) Summary.

Conclusions

Three research questions designed for the current study were put forth to consider the SCRD objectives and causal questions of this study. The first research question evaluated whether significant differences were reported in pre-trauma R/S beliefs of individuals that had

experienced a traumatic event of sexual assault. The second research question addressed significant differences identified between PTSD and spiritual struggle, evidenced by NRCog, and positive religious coping (PTG) following a traumatic event. The third research question explored the outcome differences in SOCPT-C and CPT-C (TAU) treatment as related to spiritual struggle, as evidenced by NRCog, positive religious coping (PTG) and PTSD.

Discussion of Findings on Research Question 1

The SCRD goal of the first research question was to examine the prevalence of changes in R/S beliefs for individuals that have experienced a traumatic event of sexual assault. Prevalence of changes was evaluated at pre-screening and standard assessment by administering the Demographic and Exclusionary Criteria Questionnaires, and the initial Brief RCOPE. The following response items during assessment addressed this research question (1) "Religion:" (Demographic Questionnaire), (2) "Have you experienced changes in your religious/spiritual beliefs following this trauma?" (Exclusionary Criteria Questionnaire), and semi-structured instruction on the Brief RCOPE (3) "As you think of the sexual assault you have faced, how much have you used each of the following things to cope with the sexual assault since the trauma" and (4) "Does this represent a change in your R/S beliefs". For (1) "Religion," all four participants identified as Protestant Christian. For (2) "Have you experienced changes in your religious/spiritual beliefs following this trauma," all four participants indicated "YES" they have experienced changes in R/S beliefs following the trauma. For (4) "Does this represent a change in your R/S beliefs", a follow-up question corresponding to 14 questions on the Brief RCOPE (3) related to positive religious coping (Questions 1-7) and negative religious coping (Questions 8-14), all four participants answered "YES" to the majority of questions on the initial measure. Responses on each measure for these individuals indicated the prevalence that experienced

changes in R/S beliefs following the traumatic event of sexual assault to be 100% of individuals as related to R/S coping following the trauma. Thus, significant differences were reported in pre-trauma R/S beliefs of individuals that had experienced a traumatic event of sexual assault.

These findings indicated that participants continued to identify as Protestant Christians despite changes reported in R/S beliefs following the sexual assault. This is consistent with research that indicates challenges to R/S beliefs occurring in the aftermath of trauma may stabilize with the passing of time (Park, 2006). Current literature also supports that Christians often continue to question fundamental R/S beliefs during the process of making meaning of a traumatic event (Anderson-Mooney et al, 2015; Boehnlein, 2007; Exline & Rose, 2005; Falsetti et al, 2003; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999; Janoff-Bulman, 1989; Pargament, 1996; Park, 2005; Park, 2005; Wortmann, Park & Edmondson, 2011), and experience reduced spiritual well-being and weakened religious beliefs (Bormann et al. 2011; Falsetti et al., 2003; Fontana & Rosenheck, 2004). Wortmann et al. (2011) identified that as negative post-trauma cognitions are associated with PTSD symptoms, negative religious responses to trauma may be predictive as well. Spiritual struggle is said to relate to PTSD symptoms in complex ways and evaluating causal direction is recommended (Wortmann et al., 2011). Results from this study as related to research question one substantiates the need for both evaluation of and treatment for spiritual struggle, as evidenced by NRCogs, in Christian individuals presenting for treatment following a traumatic experience.

Discussion of Findings on Research Question 2

The SCRD goal of the second research question was to perform visual observations of the data to evaluate scores related to spiritual struggle on both the negative religious coping (NRCop) and positive religious coping (PRC) sub-scales and PTSD scores. Visual observation of

differences reflected in the scores for spiritual struggle on the Brief RCOPE sub-scales and the scores for PTSD on the PCL-5 were further examined through descriptive analyses and represented in Tables 4.1, 4.2, and 4.3.

Consistent patterns of variation between the positive religious coping sub-scale and PTSD scores are not represented within the data or the descriptive statistics. With the exception of Participant 4, in which the trend in the desired direction during the baseline phase was not as expected, there is a decrease in PTSD scores and a decrease in negative religious coping scores as treatment progressed for Participants 1, 2, and 3; however, these do not appear to be proportionate with one another. Because the SCR and visual inspection focus on the effect an independent variable has on the dependent variable, additional conclusions or assertions about the data regarding this research question were not postulated. Overall, in analyzing the means of each variable, some decrease was observed; however, visual inspection overall demonstrates little to non-effect in many ways given the highly variable data with overlap between baseline and intervention phases.

These findings support literature that postulates complex and multi-dimensional domains of an individual should be considered in the conceptualization and treatment of PTSD (Jakovljević et al., 2012; Southwick et al., 2011). Trauma vulnerabilities, individual strengths, and resilience suggest perspectives of the explanation and treatment outcomes for PTSD (Jakovljević et al., 2012; Southwick et al., 2011). Further, the presence or absence of risk or protective factors may influence treatment outcomes of PTSD in an individual (Jakovljević et al., 2012; Southwick et al., 2011).

Fairbrother and Rachman (2006) suggest the negative appraisal of a sexual assault experienced by female survivors promotes PTSD symptoms when exploring the survivors' views

of others, the world, and their futures. Research by Janoff-Bulman (2004) on meaning-making also indicates that negative appraisals regarding the impact of the traumatic event strongly correlate to posttraumatic stress (Fairbrother & Rachman, 2006). Pargament (2004) indicated engagement in negative reappraisals is more likely to support spiritual struggle, and religious and spiritual cognitions are identified as a part of a victims' maladaptive cognitions and emotions surrounding the traumatic event that altar or shatter the meaning system of the individual (Wortmann, Park, & Edmondson, 2011). The findings from this study can be placed within the literature in that a decrease in negative religious cognitions compared with a decrease in PTSD symptoms, including negative appraisal of the event for study participants. However, consistent patterns of variation between the positive religious coping sub-scale and PTSD scores were not represented within the data or the descriptive statistics. Findings from the PRC subscale can be considered within the literature by Moon (2002, 2010) that suggests the interacting elements of spirit, mind, body, social, and soul care may require pathology be addressed prior to processing beliefs about God (spiritual pathology), and Hasanovic and Pajevic (2010) that suggests spirituality may have a negative effect on spiritually sensitive individuals who question why a loving God would permit trauma.

Discussion of Findings on Research Question 3

The SCRDR goal of the third research question was to evaluate the outcome differences, if any, in SOCPT-C and CPT-C (TAU) treatment as related to SS and PTSD. Visual observation of outcome differences related to SS or PTSD with each treatment was further examined through descriptive analyses and represented in Tables 4.1, 4.2, and 4.3. The multiple-baseline across participants feature used in the SCRDR and responses from the Brief RCOPE and PCL-5 in continuous assessment during the study addressed this SCRDR goal. Examining within- and

between- phase data patterns for SS and PTSD as related to SOCPT-C and CPT-C (TAU) indicated areas of mixed treatment effect.

Outcomes related to SS (PRC Sub-Scale). Outcomes taken from the SS data collected on the PRC subscale varied with participants. Participants 1, 3, and 4 had mixed outcomes from the CPT-C intervention. The average PRC subscale score increased for Participant 1, and the average PRC subscale score decreased for Participants 3 and 4. Participants 2, 3, and 4 received the additional SOCPT-C intervention during staggered treatment. Similar outcomes were noted in that the PRC subscale scores decreased from baseline; however, mixed outcomes were indicated with the introduction of the SOCPT-C intervention. PRC subscale scores for Participant's 2 and 3 decreased with the introduction of the SOCPT-C intervention. Participant 4's PRC subscale score increased.

R/S interventions excluded from the CPT-C protocol but included in the SOCPT-C are described in the literature and include (1) any secular techniques used to strengthen the faith of a religious/spiritual client, (2) secular techniques modified to include explicitly religious content (e.g., Christian cognitive therapy), or (3) religious/spiritual interventions as an action or behavior derived from religious practice such as blessings, reference to sacred texts, or audible prayer (Worthington, 1986).

An unexpected side-effect of this study may be that the participant's view of God as explored within the PRC subscale may be reduced during the treatment of trauma, a theory referenced by Gary Moon (2002, 2010) that postulates collectively addressing pathology and processing beliefs about God (spiritual pathology) may be challenged as interacting elements such as spirit, mind, body, social, and soul may require pathology be addressed first (Moon, 2002, 2010).

Similarly, Hasanovic and Pajevic (2010) suggest spirituality may have a negative effect on spiritually sensitive individuals who question why a loving God would permit trauma. These findings indicate there were no significant outcome differences in SOCPT-C and CPT-C as related to the PRC subscale of SS as outcome results were mixed for both CPT-C and SOCPT-C. Consistent patterns of variation between the positive religious coping sub-scale and PTSD scores were not represented within the data or the descriptive statistics.

Outcomes related to SS (NRCop Sub-Scale). Outcomes taken from the data collected on the NRCop subscale of SS demonstrated a decrease in SS for the NRCop subscale with all participants. Participants 1, 3, and 4 had outcomes from the CPT-C intervention that indicated CPT-C was a beneficial intervention for decreasing NRCop. Participants 2, 3, and 4 received the additional SOCPT-C intervention during staggered treatment and outcomes from the SOCPT-C intervention indicated it was a beneficial intervention for decreasing NRCop. Further, participant outcomes with the SOCPT-C intervention showed a moderate decrease in SS during the intervention while mean scores for the NRCop subscale overall decreased for all participants during the intervention phases. These findings indicate there was a moderate outcome difference in SOCPT-C from CPT-C as related to the NRCop subscale of SS as outcome results reflected a moderate decrease in SS with the introduction of SOCPT-C.

Outcomes related to PTSD. Outcomes identified from the data collected on PTSD scores varied with participants. Results from Participants 1 and 3 indicated CPT-C was a beneficial intervention for decreasing PTSD symptoms. Results from Participants 4, however, indicated CPT-C was not a beneficial intervention for decreasing PTSD symptoms; thus, outcomes for the CPT-C intervention were mixed. Participants 2, 3, and 4 received the additional SOCPT-C intervention during staggered treatment and outcomes from the SOCPT-C

intervention indicated it was a beneficial intervention for decreasing PTSD symptoms. Further, the outcome data for Participant's 2 and 4 showed a moderate decrease in PTSD symptoms based on scores taken from the PCL-5 with the introduction of the SOCPT-C intervention. Outcome data for Participant 3 also showed a mild improvement in PTSD symptoms with the introduction of the SOCPT-C intervention. These findings indicate there was an outcome difference in SOCPT-C from CPT-C as related to PTSD in that mean scores for the PCL-5 measuring PTSD symptoms decreased for all participants during the SOCPT-C intervention phase. Only two participants' mean scores for the PCL-5 measuring PTSD symptoms decreased during the CPT-C, indicating a beneficial intervention while one participant's results indicated CPT-C was not beneficial.

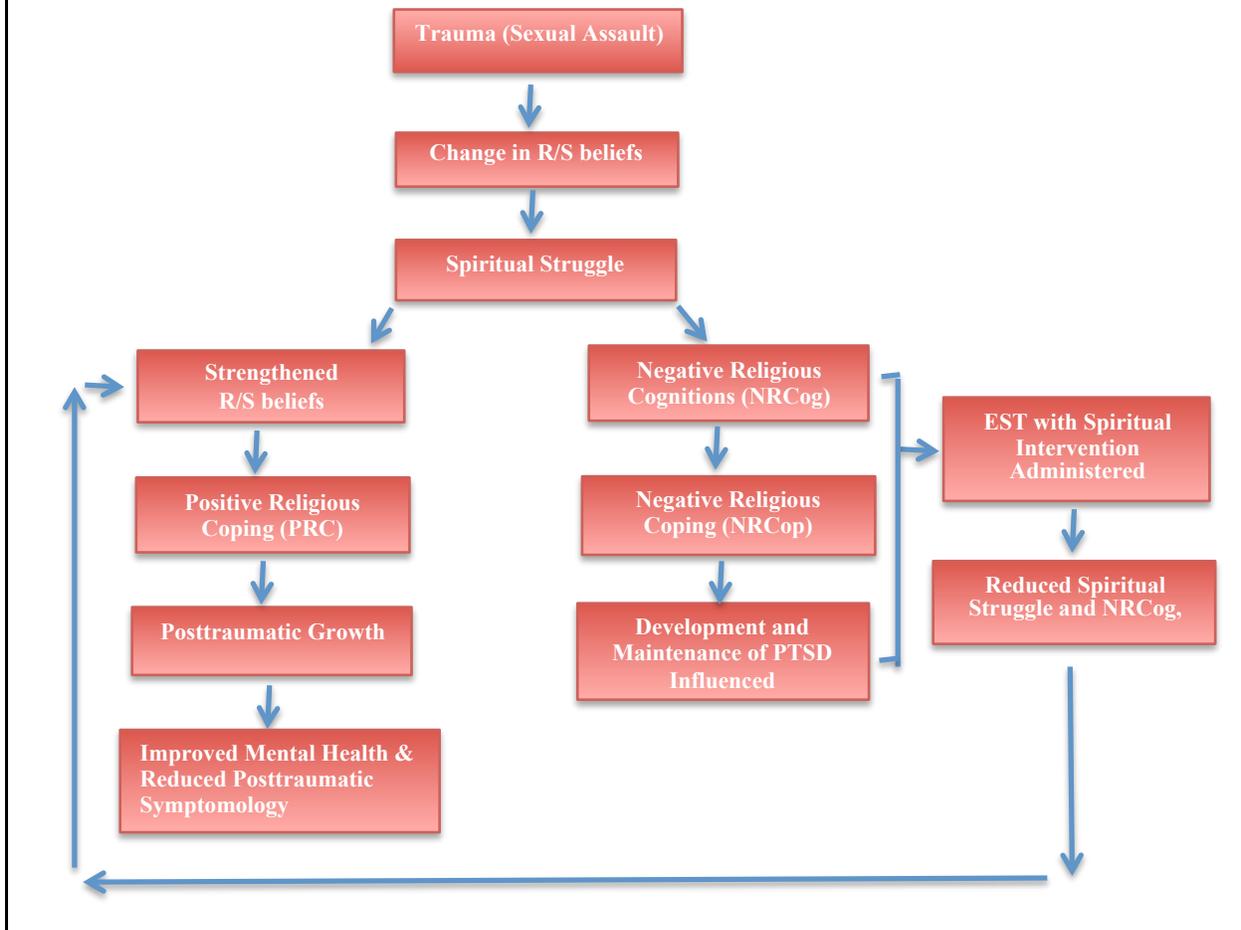
It is noted that outcome differences are represented in the visual analysis of results for SS on the NRCop (negative religious coping) subscale and PTSD. However, the PRC (positive religious coping) subscale and PTSD had mixed results that may be accounted for by possible side effects of treatment discussed in that section. Literature suggests the prevalence of trauma experiences, PTSD, SS, NRCog, and the possibility for diminished protective factors of spiritual well-being and R/S beliefs indicate a need for spiritual interventions to be directly considered within EST protocol for PTSD (Barlow, 2008; Chard et al, 2012; Fontana & Rosenheck, 2004; Galovski et al., 2012; Peteet, Lu, & Narrow, 2011; Resick & Schnicke, 1992, 1993; Wachen et al., 2014). Findings from this study for Participants 1, 2, and 3 reflected a decrease in both spiritual struggle scores and PTSD scores at varying degrees. Participant 1 received CPT-C (TAU) throughout the intervention phases of the study, with no spiritual intervention received. Participant 2 received SOCPT-C throughout the intervention phases of the study. Participant 3

received CPT-C (TAU) in phase two and SOCPT-C in phase three of the intervention phases of the study. Each of the participants experienced a moderate decrease in SS and PTSD scores.

The findings from this study suggest addressing negative appraisals about the traumatic event through identified protocol within EST, such as CPT-C, may result in a reduction of negative R/S cognitions and result in a decrease in spiritual struggle. This is supported within the study findings in that while Participant 1 did not receive treatment that included a direct spiritual intervention within the treatment protocol, a decrease in spiritual struggle was observed in the data at the conclusion of the study.

Figure 5.1 represents patterns that appear to have emerged within the analysis and interpretation of the data and include (a) experiencing a traumatic event of sexual assault results in a change in R/S beliefs for individuals that identify as being Christian (Kusner & Pargament, 2012; van der Kolk et al., 2012), (b) changes in R/S beliefs may lead to increased negative religious cognitions that result in spiritual struggle (Bormann et al., 2011; Falsetti et al., 2003; Fontana & Rosenheck, 2004), (c) spiritual struggle, as evidenced by an increase in negative religious cognitions, may influence the development, and maintenance of PTSD (Anderson-Mooney et al., 2015; Foa et al., 1999; Janoff-Bulman, 1989; Park, 2005; Wortmann et al., 2011), and (d) treatment that includes a spiritual intervention that intentionally and specifically targets negative religious cognitions following a traumatic event may be beneficial in reducing SS and PTSD symptoms (Koenig, 2016; Janoff-Bulman, 2005; Park & Blueberg, 2002; Bohnlein, 2007). However, these patterns must be interpreted carefully due to the complex relationship identified between SS and PTSD, as well as several factors delineated within the next section.

Figure 5.1
Emerged Patterns on the Effects of Trauma to R/S Beliefs of Christian Survivors of Sexual Assault



Implications for Practice

This study has specific implications for the applied setting. The study showed that an EST inclusive of a direct spiritual intervention could be administered effectively in the counseling setting to meet more comprehensively the biological, psychological, social, and spiritual (BPSS model) needs of the client. While research indicates spiritual interventions are often absent from EST, this study and the literature provides support that Christian clients often

desire, and benefit, from inclusion of spiritual interventions (Bormann, 2011; Cumella, 2002; Gunderson, 2000; Hodge, 2013; Prest, 2005; Prest & Robinson, 2006).

Several implications can be drawn for counselors working in the clinical setting with Christian trauma survivors specifically and Christian clients in general. First, the results indicated SOCPT-C could be beneficial for reducing spiritual struggle and PTSD symptoms. While not all participants showed the same outcome effect, individual participants did report negative changes in their R/S beliefs following the trauma and showed a decrease in spiritual struggle and PTSD when a spiritual intervention was introduced. This finding underscores the idea put forth in the literature that spiritual needs of clients are essential to address in treatment (Bormann, 2011; Cumella, 2002; Galovski et al., 2005; Gunderson, 2000; Kusner & Pargament, 2012; Prest, 2005; Prest & Robinson, 2006; Richards & Bergin, 2005). Exploring R/S beliefs related to negative religious cognitions of non-Christian clients may also prove beneficial when considering a client's comprehensive clinical presentation from a BPSS model as it remains unclear how such beliefs may be influencing other clinical areas of concern for a client.

Researchers and counseling practitioners alike would benefit from further exploring the impact the spiritual domain overall may be playing in the clinical presentation of a client. Providers educating themselves to use spiritual interventions with EST is necessary to address the spiritual domain ethically and effectively. Counselors and researchers can advocate for the profession of counseling as well as trauma survivors that are in need of treatment inclusive of spiritual interventions.

The SCRDR has implications for the utility of its use in the applied setting. As the counseling profession continues to move more toward evidenced-based practices (ACA, 2014), the need for quality research in the applied setting supporting the effectiveness of counseling

continues to grow. SCRD has gained popularity in the counseling setting, but the body of research is still lacking. Features of the SCRD that make it an optimum choice for the counselor/researcher includes (1) individual case is the unit of intervention, (2) the case provides its control, (3) reduced cost, and (4) research can be conducted within the applied setting with ease. Researchers and counselors are encouraged to consider utilizing the SCRD within their applied settings to continue growing the literature in support of EBP within the applied setting.

Implications for Research

The findings from this study support a need for ongoing research into the role R/S beliefs and spiritual struggle play in the development and maintenance of PTSD. Research that further explores changes experienced in R/S beliefs by Christian clients following trauma that may negatively impact psychotherapy is indicated. Further, research that evaluates the effectiveness of spiritual interventions to treat identified spiritual changes of R/S clients is indicated in the findings of this study and identified as essential in current literature (Bormann, 2011; Cumella, 2002; Galovski et al., 2005; Gunderson, 2000; Kusner & Pargament, 2012; Prest, 2005; Prest & Robinson, 2006; Richards & Bergin, 2005). Consideration of the impact the variable ‘time since the trauma’ may have on the complex reciprocal relationship is indicated in the literature. Also, exploring changes experienced in R/S beliefs from a non-sexual assault trauma would add to the literature. Lastly, evaluating spiritual struggle following a trauma in the absence of a PTSD diagnosis and with non-Christian participants may add to the literature.

Recommendations

This study indicates promising findings for the benefits of inclusion of a spiritual intervention in treatment to target spiritual struggle and other mental health needs. Replication studies should be done to strengthen validity and reliability of the results of this study. Research

of rigorous design is needed to further explore the effects of SOCPT-C on spiritual struggle and PTSD. Several recommendations can be made from the findings of this study.

Continuing the pursuit to increase awareness of the relationship that may exist between R/S beliefs and PTSD symptoms in Christian clients is indicated by the results of this study. Awareness can be accomplished practically by counseling practitioners engaging and evaluating clients on the spiritual domain during assessment and treatment. From a research perspective, the body of research is slowly growing that utilizes SCRD or that focuses on the benefits of inclusion of a spiritual intervention. Additional research that focuses on the inclusion of spiritual interventions to empirically based treatment for trauma survivors and other mental health needs is supported (NCPTSD, 2017). Understanding through ongoing research of how the experience of trauma may result in changes in R/S beliefs and contribute to increased negative religious cognitions, spiritual struggle, and the development and maintenance of PTSD remains indicated. The current study supports prior literature that indicates a reciprocal relationship exists between trauma, spiritual struggle, and the development and maintenance of PTSD. Treatments should be further studied that include a spiritual intervention to explore this reciprocal relationship further, and that specifically targets negative religious cognitions and PTSD symptoms following a traumatic event. Findings suggest that spirituality may allow for a hypersensitivity on the positive religious coping subscale following a trauma and result in increased difficulty in treatment for trauma. Research that includes a spiritual intervention targeting the PRC sub-scale may increase understanding for treatment around those experiencing spiritual struggle on the PRC subscale and presenting with PTSD.

This study has provided additional information to consider with previous research that explores the unique and reciprocal relationship that exists between trauma, spiritual struggle, and

the development and maintenance of PTSD. A research study of this nature that examines more specifically individual questions and themes within each spiritual struggle subscale on the Brief RCOPE in relation to PTSD and the effectiveness of a spiritual intervention to the same would be of interest. Several methodological issues might be better controlled in future research around this topic. For example, research of various religious/spiritual populations representative of non-Christians, other gender or cultural/ethnic groups will increase exploration of relationships and correlation between paired data as found in the current study. It is recommended that a similar study limit time of occurrence of the trauma to better account for changes in R/S beliefs that may more naturally occur with the passing of time from the traumatic event.

Limitations of the Study

There may be limitations associated with the validity and reliability of the current study. First, the infrequency of attention given to SS in the literature and its subjective nature creates difficulty in objectively measuring the variable. Second, while four participants within an SCRDC are within standards, it represents only a small part of the population of female sexual assault survivors with PTSD and does not support generalizability. Lastly, the dual roles served by the researcher may have an unrealized impact on the study.

Other variables may have influenced the study. There is a retroactive aspect of the data collected in this study. Participants reported experiencing the index trauma of sexual assault between the ages of 18-70; however, time that had lapsed from the index trauma and the study varied with participants. Participants were asked to recollect their R/S beliefs prior to the sexual assault as well as changes they recognized post-trauma in their R/S beliefs. Additionally, participants were randomized into the study based on their report of being Christian. It is undetermined if participants that align with an alternative R/S belief set would have similar

results. Several participants reported multiple trauma experiences on the LEC, and it is undetermined how other traumatic experiences impacted the variables of interest. And, lastly, while this study was designed with a "real life" counseling setting in mind, the role medication treatment may have played in the outcomes for those participants taking prescription medication for mental health needs is undetermined.

More generally, it is assumed that both PTSD and SS were measured with reference to an identified specific event and changes reported at each assessment were a result of the treatment administered. Application of EST inclusive of spiritual interventions for Christian clients presenting with PTSD in the clinical setting is assumed to be a higher standard of treatment because (1) many clients have spiritual needs that influence client satisfaction, treatment course, and prognosis (Fontana & Rosenheck, 2004; Koenig, 2016; NCPTSD, 2017; Pargament, 2007; Pargament et al., 2006; Peteet et al., 2011), (2) R/S beliefs influence coping with trauma and the development and maintenance of PTSD (Koenig, 2016; Pargament, 2007), (3) R/S beliefs influence compliance with treatments (Fontana & Rosenheck, 2004; Peteet, Lu, & Narrow, 2011; Ripamonti, Borreani, Maruelli, Proserpio, Pessi & Miccinesi, 2010), and (4) standards of care require respect for clients' cultural and spiritual beliefs (Boehnlein, 2007; Creamer, 1995; Kirmayer, 2004; NCPTSD, 2017).

Study Summary

This SCRD study evaluated if spiritually oriented treatment was an effective intervention to treat PTSD and decrease spiritual struggle. It further explored the relationship between spiritual struggle and PTSD by examining changes in R/S beliefs on the NRCop subscale consistent with negative religious cognitions and the development and maintenance of PTSD following a trauma of sexual assault. The findings indicated SOCPT-C (a spiritually-modified

version of CPT-C) was an effective intervention to treat PTSD and decrease spiritual struggle. Overall, changes and data patterns were not consistent between participants and variables, mixed treatment effects were observed, and the introduction of the independent variable was not associated with significant change in the pattern of the dependent variables.

While participants continued to identify as Christian following a traumatic event of sexual assault, each participant experienced changes in R/S beliefs on the NRCop subscale as related to R/S coping following the trauma. Also, the participants more often experienced a decrease in positive religious coping during treatment. The findings on changes that may occur in R/S beliefs following a traumatic experience support current literature that suggests SS may mediate the relationship of posttraumatic adjustment (Bohnelein, 2007; Bormann et al., 2012; Galovski et al., 2005; Loenig, 2016; Park, 2005) and supports an ongoing need for future research and treatment to evaluate the complex reciprocal relationship between spiritual struggle and PTSD (Ai & Park, 2005; Falsetti et al., 2003; Jakovljević et al., 2012; Kazdin, 2011; Pargament et al., 2011; Park, 2005; Parks, 2006; Southwick et al., 2011; Wortmann et al., 2011).

This current study has added to the body of knowledge through evaluating (1) R/S belief changes that may occur following a trauma, (2) the role SS may play in the development and maintenance of PTSD, (3) the benefits of incorporating a spiritual intervention into empirically based treatment, and through providing (4) recommendations for future research.

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RECRUITMENT LETTER

[Date]

[Recipient]

[Title]

[Company]

[Address 1]

[Address 2]

[Address 3]

Dear [Recipient]:

As a graduate student in the Department of Counselor Education and Family Studies, School of Behavioral Sciences at Liberty University, I am conducting research as part of the requirements for a PhD degree in Counselor Education and Supervision. The purpose of my research is to explore if the addition of a spiritual intervention to a “treatment-as-usual” condition is more effective in population of Christian female survivors of sexual assault and, (2) to increase understanding of the individual responses of each participant to the identified spiritual intervention under psychotherapy conditions as related to spiritual struggle and the development and maintenance of PTSD. I am writing to invite interested candidates to participate in my study.

Participant Criteria: If you are an 18 years of age or older female that has experienced spiritual struggle and PTSD symptomology as a result of a sexual trauma, and are willing to participate, you will be asked to: (1) complete a brief screening for advancement to the standard assessment required for inclusion into the study, (2) complete all forms required for the study (various measures, demographic form, Informed Consent) prior to and during the treatment phases, and (3) participate in individual psychotherapy treatment targeting PTSD and spiritual struggle. It should take approximately 20-30 minutes for you to complete the pre-screening measures.

Upon entry into the study, treatment will include sixteen (16), 60-minute individual psychotherapy sessions, an average of two times a week, for 6 weeks. Your participation will be confidential and no personal, identifying information will be required. Demographic information and trauma history necessary for study inclusion will be requested as part of your participation, but all information provided will remain confidential and pseudonyms and coding of data will be utilized in data gathering, recording procedures, data processing, and analysis.

How to Participate: To participate, go to [Prescreening for CPT/SOCPT Research Study] and follow the instructions at the hyperlink provided to complete the pre-screening assessment. Or,

type the following URL into your browser to begin the pre-screening assessment
[https://www.cognitoforms.com/\[REDACTED\]](https://www.cognitoforms.com/[REDACTED])
Lastly, you may call me at [REDACTED] to schedule a phone interview to complete the pre-screening assessment by phone.

Informed Consent Required: Participants that continue to the Clinical Assessment will be required to sign a consent document. The consent document contains additional information about my research. If completing Pre-screening online, the Informed Consent will appear upon initial entry to the site. You will be prompted to read the consent information, sign at the end of page via *DocuSign* to indicate that you have read the consent information click and would like to continue on to take part in the survey. The survey link will then appear at the end of the consent signature to proceed to the pre-screening assessment. You may also return the completed paper Consent Form to me at [REDACTED] and call to schedule the pre-screening assessment by phone.

Incentive to Participate: Participants will received evidenced based treatment for PTSD by a licensed mental health provider at no expense to you.

Sincerely,

Deborah A. Driggs, LPC/MHSP
Researcher/Clinician

Research Participants Needed

Spiritually Oriented Psychotherapy for Spiritual Struggle and PTSD

- Are you between the ages of 18 and 60?
- Have you experienced spiritual struggle and PTSD as a result of a sexual assault occurring in adulthood?
- Do you want to change your current functioning resulting from spiritual struggle and PTSD?

If you answered **yes** to any of these questions, you may be eligible to participate in a treatment research study addressing spiritual struggle and PTSD in Christian female survivors of sexual assault.

The purpose of this research study is to explore the effects of adding a spiritual intervention to treatment-as-usual on spiritual struggle, and subsequently PTSD scores, for Christian participants. Benefits include a comprehensive clinical evaluation and evidenced-based individual psychotherapy treatment for PTSD by a licensed mental health provider at no expense to you. No medications will be given.

Adult females (18 years of age and older) are eligible.

The study is being conducted at the private practice of the Researcher/Clinician located at:

Deborah A. Driggs, LPC/MHSP
[REDACTED]

How to Participate: To participate, go to [[Prescreening for CPT/SOCPT Research Study](#)] and follow the instructions at the hyperlink provided to complete the pre-screening assessment. Or, type the following URL into your browser to begin the pre-screening assessment <https://www.cognitofrms.com/LeeCompany/PrescreeningForCPTSOCPTResearchStudy>. Lastly, you may contact Deborah Driggs, LPC/MHSP, the principal researcher, at [REDACTED] to schedule a phone interview to complete the pre-screening assessment or to receive more information about the study.

Appendix B: Pre-Screening Assessment Forms

DEMOGRAPHIC QUESTIONNAIRE

Please fill out the following information about yourself.

Name: _____

Age: _____ Gender: Male Female

Race/ethnicity: _____

Education level: 1st-12th grade Graduated high school Some college/2-year college
 4-year college Some/completed graduate school

Religion: Protestant Christian Christian/Catholic Jewish Muslim Other:

Have you ever *previously* taken medication for a mental health issue? Yes No

If yes, for what: _____

Are you *currently* taking medication for a mental health issue? Yes No

If yes, for what: _____

Have you *previously* attended psychotherapy? Yes No

If yes, please describe (when, for what, type of therapy): _____

Are you *currently* attending psychotherapy? Yes No

If yes, please describe (when, for what, type of therapy): _____

Preferred method of contacted by phone for your Pre-Screening results? phone email snail mail

Please provide number/email/or address: _____

EXCLUSIONARY CRITERIA CONSIDERED AT PRESCREENING

Please answer the following questions:

YES / NO Do you require assistance with activities of daily living (such as dressing, bathing, paying bills, shopping)?

YES / NO Are you currently receiving psychotherapy for PTSD or other psychiatric issues?

YES / NO In the last 30 days, have you experienced suicidal thoughts?

Please select any diagnosis you have been diagnosed as having:

Depression

Anxiety/Panic Attacks

Schizophrenia

PTSD

List other psychiatric/behavioral conditions: _____

YES / NO Have you required alcohol or substance abuse treatment in the last 2 years?

YES / NO Have you been exposed to an actual or threatened death, serious injury, or sexual violence. Please *circle* the type of trauma exposed to.

YES / NO Have you experienced changes in your religious/spiritual beliefs following this trauma?

_____ Prospective participant meets exclusionary criteria for this study.

PCL-5

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

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

BRIEF RCOPE

Pargament, K., Feuille, M., & Burdzy, D. (2011). The Brief RCOPE: Current psychometric status of a short measure of religious coping. *Religions*. 2, 51-76. doi:10.3390/

Letter of Invitation to Phase 2-Standard Assessment

[Date]

[Participant]
Address
City, State Zip

RE: Prescreening Results for Study Participation

Dear [Participant],

Thank you for your interest in participating in the above study. Based on the prescreening information, I invite you to move to Phase 2, a standard assessment, for entrance into the study.

Please contact my office at [REDACTED] within 5 days of receipt of this invitation letter to schedule the standard assessment session.

I look forward to hearing from you.

Warmest regards,

Deborah Driggs, LPC/MHSP, NCC

Letter of Denial

[Date]

[Participant]
Address
City, State Zip

RE: Prescreening for Study

Dear [Participant],

Thank you for your interest in participating in the above study. Based on the prescreening information, you currently do not qualify for participation in the study. Alternatively, you may consider entering therapy with a local mental health provider in your area.

You may identify providers available close to you by going to www.psychologytoday.com and entering your zip code in the “Find a Therapist” search bar. You may also call the Department of Mental Health and Substance Abuse Services hotline at (800) 560-5767 for information about additional mental health resources in your area.

I appreciate your interest in this study and wish you much success!

Warmest regards,

Deborah Driggs, LPC/MHSP, NCC

Appendix C: Standard Assessment Forms

Clinician-Administered PTSD Scale for DSM-5 (CAPS) Past Month Version

Version date: 01 May 2015

Reference: Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2015). The Clinician-Administered PTSD Scale for DSM-5 (*CAPS-5*) – *Past Month* [Measurement instrument]. Available from <http://www.ptsd.va.gov/>

Name: _____

Interviewer: _____

Study: _____

ID#: _____

Date: _____

CAPS-5 Past Month

Instructions:

Standard administration and scoring of the CAPS-5 are essential for producing reliable and valid scores and diagnostic decisions. The CAPS-5 should be administered only by qualified interviewers who have formal training in structured clinical interviewing and differential diagnosis, a thorough understanding of the conceptual basis of PTSD and its various symptoms, and detailed knowledge of the features and conventions of the CAPS-5 itself.

Administration

1. Identify an index traumatic event to serve as the basis for symptom inquiry. Administer the Life Events Checklist and Criterion A inquiry provided on p. 5, or use some other structured, evidence-based method. The index event may involve either a single incident (e.g., “the accident”) or multiple, closely related incidents (e.g., “the worst parts of your combat experiences”).
2. Read prompts verbatim, one at a time, and in the order presented, EXCEPT:
 - a. Use the respondent’s own words for labeling the index event or describing specific symptoms.
 - b. Rephrase standard prompts to acknowledge previously reported information, but return to verbatim phrasing as soon as possible. For example, inquiry for item 20 might begin: “You already mentioned having problem sleeping. What kinds of problems?”
 - c. If you don’t have sufficient information after exhausting all standard prompts, follow up ad lib. In this situation, repeating the initial prompt often helps refocus the respondent.
 - d. As needed, ask for specific examples or direct the respondent to elaborate even when such prompts are not provided explicitly.
3. In general, DO NOT suggest responses. If a respondent has pronounced difficulty understanding a prompt it may be necessary to offer a brief example to clarify and illustrate. However, this should be done rarely and only after the respondent has been given ample opportunity to answer spontaneously.
4. DO NOT read rating scale anchors to the respondent. They are intended only for you, the interviewer, because appropriate use requires clinical judgment and a thorough understanding of CAPS-5 scoring conventions.
5. Move through the interview as efficiently as possible to minimize respondent burden. Some useful strategies:

- a. Be thoroughly familiar with the CAPS-5 so that prompts flow smoothly.
- b. Ask the fewest number of prompts needed to obtain sufficient information to support a valid rating.
- c. Minimize note-taking and write while the respondent is talking to avoid long pauses.
- d. Take charge of the interview. Be respectful but firm in keeping the respondent on task, transitioning between questions, pressing for examples, or pointing out contradictions.

Scoring

1. As with previous versions of the CAPS, CAPS-5 symptom severity ratings are based on symptom frequency and intensity, except for items 8 (amnesia) and 12 (diminished interest), which are based on amount and intensity. However, CAPS-5 items are rated with a single severity score, in contrast to previous versions of the CAPS which required separate frequency and intensity scores for each item that were either summed to create a symptom severity score or combined in various scoring rules to create a dichotomous (present/absent) symptom score. Thus, on the CAPS-5 the clinician combines information about frequency and intensity before making a single severity rating. Depending on the item, frequency is rated as either the number of occurrences (how often in the past month) or percent of time (how much of the time in the past month). Intensity is rated on a four-point ordinal scale with ratings of *Minimal*, *Clearly Present*, *Pronounced*, and *Extreme*. Intensity and severity are related but distinct. Intensity refers to the strength of a typical occurrence of a symptom. Severity refers to the total symptom load over a given time period, and is a combination of intensity and frequency. This is similar to the quantity/frequency assessment approach to alcohol consumption. In general, intensity rating anchors correspond to severity scale anchors described below and should be interpreted and used in the same way, except that severity ratings require joint consideration of intensity and frequency. Thus, before taking frequency into account, an intensity rating of *Minimal* corresponds to a severity rating of *Mild / subthreshold*, *Clearly Present* corresponds with *Moderate / threshold*, *Pronounced* corresponds with *Severe / markedly elevated*, and *Extreme* corresponds with *Extreme / incapacitating*.
2. The five-point CAPS-5 symptom severity rating scale is used for all symptoms. Rating scale anchors should be interpreted and used as follows:
 - 0 Absent** The respondent denied the problem or the respondent's report doesn't fit the *DSM-5* symptom criterion.
 - 1 Mild / subthreshold** The respondent described a problem that is consistent with the symptom criterion but isn't severe enough to be considered clinically significant. The problem doesn't satisfy the *DSM-5* symptom criterion and thus doesn't count toward a PTSD diagnosis.
 - 2 Moderate / threshold** The respondent described a clinically significant problem. The problem satisfies the *DSM-5* symptom criterion and thus counts toward a PTSD diagnosis. The problem would be a target for intervention. This rating requires a minimum frequency of *2 X month* or *some of the time (20-30%)* PLUS a minimum intensity of *Clearly Present*.
 - 3 Severe / markedly elevated** The respondent described a problem that is well above

threshold. The problem is difficult to manage and at times overwhelming, and would be a prominent target for intervention. This rating requires a minimum frequency of 2 X week or much of the time (50-60%) PLUS a minimum intensity of *Pronounced*.

4 Extreme / incapacitating The respondent described a dramatic symptom, far above threshold. The problem is pervasive, unmanageable, and overwhelming, and would be a high-priority target for intervention.

3. In general, make a given severity rating only if the minimum frequency and intensity for that rating are both met. However, you may exercise clinical judgment in making a given severity rating if the reported frequency is somewhat lower than required, but the intensity is higher. For example, you may make a severity rating of *Moderate / threshold* if a symptom occurs 1 X month (instead of the required 2 X month) as long as intensity is rated *Pronounced or Extreme* (instead of the required *Clearly Present*). Similarly, you may make a severity rating of *Severe / markedly elevated* if a symptom occurs 1 X week (instead of the required 2 X week) as long as the intensity is rated *Extreme* (instead of the required *Pronounced*). If you are unable to decide between two severity ratings, make the lower rating.
4. You need to establish that a symptom not only meets the *DSM-5* criterion phenomenologically, but is also functionally related to the index traumatic event, i.e., started or got worse as a result of the event. CAPS-5 items 1-8 and 10 (reexperiencing, effortful avoidance, amnesia, and blame) are inherently linked to the event. Evaluate the remaining items for trauma-relatedness (TR) using the TR inquiry and rating scale. The three TR ratings are:
 - a. **Definite** = the symptom can clearly be attributed to the index trauma, because (1) there is an obvious change from the pre-trauma level of functioning and/or (2) the respondent makes the attribution to the index trauma with confidence.
 - b. **Probable** = the symptom is likely related to the index trauma, but an unequivocal connection can't be made. Situations in which this rating would be given include the following: (1) there seems to be a change from the pre-trauma level of functioning, but it isn't as clear and explicit as it would be for a *Definite*; (2) the respondent attributes a causal link between the symptom and the index trauma, but with less confidence than for a rating of *Definite*; (3) there appears to be a functional relationship between the symptom and inherently trauma-linked symptoms such as reexperiencing symptoms (e.g., numbing or withdrawal increases when reexperiencing increases).
 - c. **Unlikely** = the symptom can be attributed to a cause other than the index trauma because (1) there is an obvious functional link with this other cause and/or (2) the respondent makes a confident attribution to this other cause and denies a link to the index trauma. Because it can be difficult to rule out a functional link between a symptom and the index trauma, a rating of *Unlikely* should be used only when the available evidence strongly points to a cause other than the index trauma. NOTE: Symptoms with a TR rating of *Unlikely* should not be counted toward a PTSD diagnosis or included in the total CAPS-5 symptom severity score.
5. **CAPS-5 total symptom severity score** is calculated by summing severity scores for items 1-20. NOTE: Severity scores for the two dissociation items (29 and 30) should NOT be included in the calculation of the total CAPS-5 severity score.

6. **CAPS-5 symptom cluster severity scores** are calculated by summing the individual item severity scores for symptoms contained in a given *DSM-5* cluster. Thus, the Criterion B (reexperiencing) severity score is the sum of the individual severity scores for items 1-5; the Criterion C (avoidance) severity score is the sum of items 6 and 7; the Criterion D (negative alterations in cognitions and mood) severity score is the sum of items 8-14; and the Criterion E (hyperarousal) severity score is the sum of items 15-20. A symptom cluster score may also be calculated for dissociation by summing items 29 and 30.

7. **PTSD diagnostic status** is determined by first dichotomizing individual symptoms as *Present* or *Absent*, then following the *DSM-5* diagnostic rule. A symptom is considered present only if the corresponding item severity score is rated 2=*Moderate* / *threshold* or higher. Items 9 and 11-20 have the additional requirement of a trauma-relatedness rating of *Definite* or *Probable*. Otherwise a symptom is considered absent. The *DSM-5* diagnostic rule requires the presence of least one Criterion B symptom, one Criterion C symptom, two Criterion D symptoms, and two Criterion E symptoms. In addition, Criteria F and G must be met. Criterion F requires that the disturbance has lasted at least one month. Criterion G requires that the disturbance cause either clinically significant distress or functional impairment, as indicated by a rating of 2=*Moderate* or higher on items 23-25.

Criterion A:

Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s).
2. Witnessing, in person, the event(s) as it occurred to others.
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse).
Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.

[Administer Life Events Checklist or other structured trauma screen]

I'm going to ask you about the stressful experiences questionnaire you filled out. First I'll ask you to tell me a little bit about the event you said was the worst for you. Then I'll ask how that event may have affected you over the past month. In general I don't need a lot of information- Just enough so I can understand any problems you may have had. Please let me know if you find yourself becoming upset as we go through the questions so we can slow down and talk about it. Also, let me know if you have any questions or don't understand something. Do you have any questions before we start?

The event you said was the worst was [EVENT]. What I'd like for you to do is briefly describe what happened.

Index event (specify): _____

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>What happened? How old were you? How were you involved? Who else was involved? Was anyone seriously injured or killed? Was anyone's life in danger? How many times did this happen?</p> | <p>Exposure type:</p> <p><input type="checkbox"/> Experienced <input type="checkbox"/> Witnessed <input type="checkbox"/> Learned about <input type="checkbox"/> Exposed to aversive details</p> <p>Life threat? NO YES (self ___ other ___)</p> <p>Serious injury? NO YES (self ___ other ___)</p> <p>Sexual violence? NO YES (self ___ other ___)</p> <p>Criterion A met? NO PROBABLE YES</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

For the rest of the interview, I want you to keep [EVENT] in mind as I ask you about different problems it may have caused you. You may have had some of these problems before, but for this interview we're going to focus just on the past month. For each problem I'll ask if you've had it in the past month, and if so, how often and how much it bothered you.

Criterion B:

Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

Item 1 (B1): Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). Note: In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>In the past month, have you had any unwanted memories of (EVENT) while you were awake, so not counting dreams? (Rate 0=Absent if only during dreams)</p> <p>How does it happen that you start remembering (EVENT)?</p> <p>[If not clear:] (Are these unwanted memories, or are you thinking about (EVENT) on purpose?) (Rate 0=Absent unless perceived as involuntary and intrusive)</p> <p>How much do these memories bother you?</p> <p>Are you able to put them out of your mind and think about something else?</p> <p>[If not clear:] (Overall, how much of a problem is this for you? How</p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p><i>Key rating dimensions = frequency / intensity of distress</i></p> <p>Moderate = at least 2 X month</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>so?)</p> <hr/> <p>—</p> <p>Circle: Distress = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often have you had these memories in the past month? # of times _____</p> | <p>/ distress clearly present, some difficulty dismissing memories</p> <p>Severe = at least 2 X week / pronounced distress, considerable difficulty dismissing memories</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Item 2 (B2): Recurrent distressing dreams in which the content and/or affect of the dream are related to the event(s). Note: In children, there may be frightening dreams without recognizable content.

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>In the past month, have you had any <u>unpleasant dreams</u> about (EVENT)</p> <p>Describe a typical dream. (What happens?)</p> <p>[If not clear:] (Do they wake you up?)</p> <p>[If yes:] What do you experience when you wake up? How long does it take you to get back to sleep?</p> <p>(If reports not returning to sleep:)</p> <p>How much do these memories bother you?</p> <p>How much do these dreams bother you?</p> <p>[If not clear:] (Overall, how much of a problem is this for you? How so?)</p> <hr/> <p>_____</p> <p>Circle: Distress = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often have you had these dreams in the past month? # of times _____</p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / intensity of distress</p> <p>Moderate = at least 2 X month / distress clearly present, less than 1 hour sleep loss</p> <p>Severe = at least 2 X week / pronounced distress, more than 1 hour sleep loss</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Item 3 (B3): Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) Note: In children, trauma-specific reenactment may occur in play.

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <p>In the past month, have there been times when you <u>suddenly acted or felt as if the (EVENT) were actually happening</u> again?</p> <p>[If not clear:] (Do they wake you up?)</p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|

aspect of the traumatic event(s).

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| <p>In the past month, have you had any <u>physical reactions</u> when <u>something reminds you of (EVENT)?</u></p> <p>Can you give me some examples? <i>[Does your heart race or your breathing change? What about sweating or feeling really tense or shaky?]</i></p> <p>What kinds of reminders trigger these reactions?</p> <p>How long does it take for you to recovery?</p> <p>[If not clear:] (Overall, how much of a problem is this for you? How so?)</p> <hr/> <hr/> <p>Circle: Physiological reactivity = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often has this happened in the past month? # of times _____</p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / intensity of physiological arousal</p> <p>Moderate = at least 2 X month / reactivity clearly present, some difficulty recovering</p> <p>Severe = at least 2 X week / pronounced reactivity, sustained arousal, considerable difficulty recovering</p> |
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Criterion C:

Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

Item 6 (C1): Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

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| <p>In the past month, have you tried to <u>avoid thoughts</u> or <u>feelings</u> about (EVENT)?</p> <p>What kinds of thoughts or feelings do you avoid?</p> <p>How hard do you try to avoid these thoughts or feelings? <i>(What kinds of things do you do?)</i></p> <p>[If not clear:] (Overall, how much of a problem is this for you? How would things be different if you didn't have to avoid these thoughts or feelings?)</p> <hr/> <hr/> <p>Circle: Avoidance = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / intensity of avoidance</p> <p>Moderate = at least 2 X month /</p> |
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| How often in the past month? # of times _____ | avoidance clearly present Severe = at least 2 X week / pronounced avoidance |
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Item 7 (C2): Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

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| <p>In the past month, have you tried to avoid things that remind you of (EVENT), like certain people, places, or situations?</p> <p>What kinds of things do you avoid?</p> <p>How much effort do you make to avoid these reminders? (<i>Do you have to make a plan or change your activities to avoid them?</i>)</p> <p>[If not clear:] (Overall, how much of a problem is this for you? How would things be different if you didn't have to avoid these reminders?)</p> <p>_____</p> <p>_____</p> <p>Circle: Avoidance = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often in the past month? # of times _____</p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / intensity of avoidance</p> <p>Moderate = at least 2 X month / avoidance clearly present</p> <p>Severe = at least 2 X week / pronounced avoidance</p> |
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Criterion D:

Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

Item 8 (D1): Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).

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| <p>In the past month, have you had difficulty remembering some important parts of (EVENT)? (<i>Do you feel there are gaps in your memory of (EVENT)?</i>)</p> <p>What parts have you had difficulty remembering?</p> <p>Do you feel you should be able to remember these things?</p> <p>[If not clear:] (Why do you think you can't? Did you have a head injury during (EVENT)? Were you knocked unconscious? Were you intoxicated from alcohol or drugs?) (Rate 0=Absent if due to head injury or</p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> |
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| <p>loss of consciousness or intoxication during event)</p> <p>[If still not clear:] (Is this just normal forgetting? Or do you think you may have blocked it out because it would be too painful to remember?) (Rate 0=Absent if due only to normal forgetting)</p> <p>_____</p> <p>_____</p> <p>Circle: Difficulty remembering = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>In the past month, how many of the important parts of (EVENT) have you had difficulty remembering? (What parts do you still remember?) # of important aspects _____</p> <p>Would you be able to recall these things if you tried?</p> | <p>Key rating dimensions = amount of event not recalled / intensity of inability to recall</p> <p>Moderate = at least one important aspect / difficulty remembering clearly present, some recall possible with effort</p> <p>Severe = several important aspects / pronounced difficulty remembering, little recall even with effort</p> |
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Item 9 (D2): Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., “I am bad,” “No one can be trusted,” “The world is completely dangerous,” “My whole nervous system is permanently ruined”).

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| <p>In the past month, have you had <u>strong negative beliefs</u> about yourself, other people, or the world?</p> <p>Can you give me some examples? (What about believing things like “I am bad,” “there is something seriously wrong with me,” “no one can be trusted,” “the world is completely dangerous”?)</p> <p>How strong are these beliefs? (How convinced are you that these beliefs are actually true? Can you see other ways of thinking about it?)</p> <p>_____</p> <p>_____</p> <p>Circle: Conviction = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How much of the time in the past month have you felt that way, as a percentage? % of time _____</p> <p>Did these beliefs start or get worse after (EVENT)? (Do you think they’re related to (EVENT)? How so?)</p> <p>Circle: Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / intensity of beliefs</p> <p>Moderate = some of the time (20-30%) / exaggerated negative expectations clearly present, some difficulty considering more realistic beliefs</p> <p>Severe = much of the time (50-60%) / pronounced exaggerated negative expectations, considerable difficulty considering more realistic beliefs</p> |
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Item 10 (D3): Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.

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| <p>percentage? % of time _____</p> <p>Did these negative feelings start or get worse after (EVENT)? (Do you think they're related to (EVENT)? How so?)</p> <p>Circle: Trauma-relatedness = <i>Definite Probable Unlikely</i></p> | <p>present, some difficulty managing</p> <p>Severe = much of the time (50-60%) / pronounced negative emotions, considerable difficulty managing</p> |
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Item 12 (D5): Markedly diminished interest or participation in significant activities.

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| <p>In the past month, have you been less interested in activities that you used to enjoy?</p> <p>What kinds of things have you lost interest in or don't do as much as you used to? (Anything else?)</p> <p>Why is that? (Rate 0=Absent if diminished participation is due to lack of opportunity, physical inability, or developmentally appropriate change in preferred activities)</p> <p>How strong is your loss of interest? (Would you still enjoy (ACTIVITIES) once you got started?)</p> <p>_____</p> <p>_____</p> <p>Circle: Loss of interest = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>Overall, in the past month, how many of your usual activities have you been less interested in, as a percentage? % of activities _____</p> <p>What kinds of things do you still enjoy doing?</p> <p>Did this loss of interest start or get worse after (EVENT)? (Do you think it's related to (EVENT)? How so?)</p> <p>Circle: Trauma-relatedness = <i>Definite Probable Unlikely</i></p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = percent of activities affected / intensity of loss of interest</p> <p>Moderate = some activities (20-30%) / loss of interest clearly present but still has some enjoyment of activities</p> <p>Severe = many activities (50-60%) / pronounced loss of interest, little interest or participation in activities</p> |
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Item 13 (D6): Feelings of detachment or estrangement from others.

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| <p>In the past month, have you felt distant or cut off from other people?</p> <p>Tell me more about that.</p> <p>How strong are your feelings of being distant or cut off from others? (Who do you feel closest to? How many people do you feel comfortable talking with about personal things?)</p> <p>_____</p> <p>_____</p> <p>Circle: Detachment or estrangement = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>How much of the time in the past month have you felt that way, as a percentage? % of time _____</p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / intensity of detachment or</p> |
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| <p>Did this feeling of being distant or cut off start or get worse after (EVENT)? <i>(Do you think it's related to [EVENT]? How so?)</i> <u>Circle:</u> Trauma-relatedness = <i>Definite Probable Unlikely</i></p> | <p>estrangement</p> <p>Moderate = some of the time (20-30%) / feelings of detachment clearly present but still feels some interpersonal connection</p> <p>Severe = much of the time (50-60%) / pronounced feelings of detachment or estrangement from most people, may feel close to only one or two people</p> |
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Item 14 (D7): Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

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| <p>In the past month, have there been times when you had difficulty experiencing positive feelings like love or happiness?</p> <p>Tell me more about that. <i>(What feelings are difficult to experience?)</i></p> <p>How much difficulty do you have experiencing positive feelings? <i>(Are you still able to experience any positive feelings?)</i></p> <hr/> <p><u>Circle:</u> Reduction of positive emotions = <i>Minimal Clearly Present Pronounced Extreme _</i></p> <p>How much of the time in the past month have you felt that way, as a percentage? % of time _____</p> <p>Did this trouble experiencing positive feelings start or get worse after (EVENT)? <i>(Do you think it's related to [EVENT]? How so?)</i> <u>Circle:</u> Trauma-relatedness = <i>Definite Probable Unlikely</i></p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / intensity of reduction in positive emotions</p> <p>Moderate = some of the time (20-30%) / reduction of positive emotional experience clearly present but still able to experience some positive emotions</p> <p>Severe = much of the time (50-60%) / pronounced reduction of experience across range of positive emotions</p> |
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Criterion E:

Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

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| <p>In the past month, have there been times when you felt especially irritable or angry and showed it in your behavior?</p> <p>Can you give me some examples? (<i>How do you show it? Do you raise your voice or yell? Throw or hit things? Push or hit other people?</i>)</p> <p>_____</p> <p>_____</p> <p>Circle: Aggression = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>How often in the past month? # of times _____</p> <p>Did this behavior start or get worse after (EVENT)? (<i>Do you think it's related to [EVENT]? How so?</i>)</p> <p>Circle: Trauma-relatedness = <i>Definite Probable Unlikely</i></p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / intensity of aggressive behavior</p> <p>Moderate = at least 2 X month / aggression clearly present, primarily verbal</p> <p>Severe = at least 2 X week / pronounced aggression, at least some physical aggression</p> |
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Item 16 (E2): Reckless or self-destructive behavior.

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| <p>In the past month, have there been times when you were taking more risks or doing things that might have caused you harm?</p> <p>Can you give me some examples?</p> <p>How much of a risk do you take? (<i>How dangerous are these behaviors? Were you injured or harmed in some way?</i>)</p> <p>_____</p> <p>_____</p> <p>Circle: Risk = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>How often have you taken these kinds of risks in the past month? # of times _____</p> <p>Did this behavior start or get worse after (EVENT)? (<i>Do you think it's related to [EVENT]? How so?</i>)</p> <p>Circle: Trauma-relatedness = <i>Definite Probable Unlikely</i></p> | <p>0 Absent</p> <p>1 <i>Mild/subthreshold</i></p> <p>2 <i>Moderate/threshold</i></p> <p>3 <i>Severe/markedly elevated</i></p> <p>4 <i>Extreme/incapacitating</i></p> <p>Key rating dimensions = frequency / degree of risk</p> <p>Moderate = at least 2 X month / risk clearly present, may have been harmed</p> <p>Severe = at least 2 X week / pronounced risk, actual harm or high probability of harm</p> |
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Item 17 (E3): Hypervigilance.

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| <p>In the past month, have you been especially alert or watchful, even</p> | <p>0 Absent</p> |
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Item 19 (E5): Problems with concentration.

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| <p>In the past month, have you had any <u>problems with concentration</u>?</p> <p>Can you give me some examples?</p> <p>Are you able to concentrate if you really try?</p> <p>If not clear: (Overall, how much of a problem is this for you? How would things be different if you didn't have problems with concentration?)</p> <p>_____</p> <p>_____</p> <p>Circle: Problem concentrating = Minimal Clearly Present Pronounced Extreme</p> <p>How much of the time in the past month have you had problems with concentration, as a percentage? % of time _____</p> <p>Did these problems with concentration start or get worse after (EVENT)? (Do you think it's related to (EVENT)? How so?) Circle: Trauma-relatedness = Definite Probable Unlikely</p> | <p>0 Absent</p> <p>1 Mild/subthreshold</p> <p>2 Moderate/threshold</p> <p>3 Severe/markedly elevated</p> <p>4 Extreme/incapacitating</p> <p>Key rating dimensions = frequency / intensity of concentration problems</p> <p>Moderate = some of the time (20-30%) / problem concentrating clearly present, some difficulty but can concentrate with effort</p> <p>Severe = much of the time (50-60%) / pronounced problem concentrating, considerable difficulty even with effort</p> |
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Item 20 (E6): Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

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| <p>In the past month, have you had any <u>problems falling or staying asleep</u>?</p> <p>What kinds of problems? (How long does it take you to fall asleep? How often do you wake up in the night? Do you wake up earlier than you want to?)</p> <p>How many total hours do you sleep each night?</p> <p>How many hours do you think you should be sleeping?</p> <p>_____</p> <p>_____</p> <p>Circle: Problem sleeping = Minimal Clearly Present Pronounced Extreme</p> <p>How often in the past month have you had these sleep problems? # of times _____</p> <p>Did these sleep problems start or get worse after (EVENT)? (Do you think it's related to (EVENT)? (How so?) Circle: Trauma-relatedness = Definite Probable Unlikely</p> | <p>0 Absent</p> <p>1 Mild/subthreshold</p> <p>2 Moderate/threshold</p> <p>3 Severe/markedly elevated</p> <p>4 Extreme/incapacitating</p> <p>Key rating dimensions = frequency / intensity of sleep problems</p> <p>Moderate = at least 2 X month / sleep disturbance clearly present, clearly longer latency or clear difficulty staying asleep, 30-90 minutes loss of sleep</p> <p>Severe = at least 2 X week / pronounced sleep disturbance,</p> |
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| | considerably longer latency or marked difficulty staying asleep, 90 min to 3 hrs loss of sleep |
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Criterion F:

Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.

Item 21: Onset of symptoms.

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| [If not clear:] When did you first start having (PTSD SYMPTOMS) you've told me about? (<i>How long after the trauma did they start? More than six months?</i>) | <i>Total # months delay in onset</i> _____ <i>With delayed onset (> 6 months)?</i> NO YES |
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Item 22: Duration of symptoms.

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| [If not clear:] How long have these (PTSD SYMPTOMS) lasted altogether? | <i>Total # months duration</i> _____ <i>Duration more than 1 month?</i> NO YES |
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Criterion G:

The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Item 23: Subjective distress.

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| Overall, in the past month, how much have you been bothered by these (PTSD SYMPTOMS) you've told me about? [Consider distress reported on earlier items] | 0 None 1 <i>Mild, minimal distress</i> 2 <i>Moderate, distress clearly present but still manageable</i> 3 <i>Severe, considerable distress</i> 4 <i>Extreme/incapacitating distress</i> |
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Item 24: Impairment in social functioning.

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| In the past month, have these (PTSD SYMPTOMS) affected your relationships with other people? How so? [Consider impairment in | 0 No adverse impact 1 <i>Mild impact, minimal</i> |
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| social functioning reported on earlier items] | <p><i>impairment in social functioning</i></p> <p>2 <i>Moderate impact, definite impairment but many aspects of social functioning still intact</i></p> <p>3 <i>Severe impact, marked impairment, few aspects of social functioning still intact</i></p> <p>4 <i>Extreme impact, little or no social functioning</i></p> |
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Item 25: Impairment in occupational or other important area of functioning.

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| <p>[If not clear:] Are you working now?</p> <p>[If yes:] In the past month, have these (PTSD SYMPTOMS) affected your work or your ability to work? How so?</p> <p>[If no:] Why is that? (<i>Do you feel that your (PTSD SYMPTOMS) are related to you not working now? How so?</i>)</p> <p>[If unable to work because of PTSD symptoms, rate at least 3=Severe. If unemployment is not due to PTSD symptoms, or if the link is not clear, base rating only on impairment in other important areas of functioning]</p> <p>Have these (PTSD SYMPTOMS) affected any other important part of your life? [As appropriate, suggest examples such as parenting, housework, schoolwork, volunteer work, etc.] How so?</p> | <p>0 <i>No adverse impact</i></p> <p>1 <i>Mild impact, minimal impairment in occupational/other important functioning</i></p> <p>2 <i>Moderate impact, definite impairment but many aspects of occupational/other important functioning still intact</i></p> <p>3 <i>Severe impact, marked impairment, few aspects of occupational/other important functioning still intact</i></p> <p>4 <i>Extreme impact, little or no occupational/other important functioning</i></p> |
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Global Ratings

Item 26: Global validity.

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| <p>Estimate the overall validity of responses. Consider factors such as compliance with the interview, mental status (e.g., problems with concentration, comprehension of items, dissociation), and evidence of efforts to exaggerate or minimize symptoms.</p> | <p>0 <i>Excellent, no reason to suspect invalid responses</i></p> <p>1 <i>Good, factors present that may adversely affect validity</i></p> <p>2 <i>Fair, factors present that definitely reduce validity</i></p> <p>3 <i>Poor, substantially reduced validity</i></p> <p>4 <i>Invalid responses, severely</i></p> |
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| | <i>impaired mental status or possible deliberate “faking bad” or “faking good “</i> |
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Item 27: Global severity.

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| Estimate the overall severity of PTSD symptoms. Consider degree of subjective distress, degree of functional impairment, observations of behaviors in interview, and judgment regarding reporting style. | <p>0 <i>No clinically significant symptoms, no distress and no functional impairment</i></p> <p>1 <i>Mild, minimal distress or functional impairment</i></p> <p>2 <i>Moderate, definite distress or functional impairment but functions satisfactorily with effort</i></p> <p>3 <i>Severe, considerable distress or functional impairment, limited functioning even with effort</i></p> <p>4 <i>Extreme, marked distress or marked impairment in two or more major areas of functioning</i></p> |
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Item 28: Global improvement.

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| Rate total overall improvement since the previous rating. Rate the degree of change, whether or not, in your judgment, it is due to treatment. | <p>0 <i>Asymptomatic</i></p> <p>1 <i>Considerable improvement</i></p> <p>2 <i>Moderate improvement</i></p> <p>3 <i>Slight improvement</i></p> <p>4 <i>No improvement</i></p> <p>5 <i>Insufficient information</i></p> |
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Specify whether with dissociative symptoms: The individual’s symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

Item 29 (1): Depersonalization: Persistent or recurrent experiences of feeling detached from and as if one were an outside observer of one’s mental processes or body (e. g., feeling as though one were in a dream feeling a sense of unreality of self or body or of time moving slowly).

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| In the past month, have there been times when you felt as if you were separated from yourself, like you were watching yourself from the outside or observing your thoughts and feelings as if you were | <p>0 <i>Absent</i></p> <p>1 <i>Mild/subthreshold</i></p> |
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| <p>another person?</p> <p>[If no:] (What about feeling as if you were in a dream, even though you were awake? Feeling as if something about you wasn't real? Feeling as if time was moving more slowly?)</p> <p>Tell me more about that.</p> <p>How strong is this feeling? (Do you lose track of where you actually are or what's actually going on?)</p> <p>What do you do while this is happening? (Do other people notice your behavior? What do they say?)</p> <p>How long does it last?</p> <hr/> <p>Circle: Dissociation = Minimal Clearly Present Pronounced Extreme</p> <p>[If not clear:] (Was this due to the effects of alcohol or drugs? What about a medical condition like seizures?) [Rate 0=Absent if due to the effects of a substance or another medical condition]</p> <p>How often has this happened in the past month? # of times _____</p> <p>Did this feeling start or get worse after (EVENT)? (Do you think it's related to (EVENT)? (How so?)) Circle: Trauma-relatedness = Definite Probable Unlikely</p> | <p>2 Moderate/threshold</p> <p>3 Severe/markedly elevated</p> <p>4 Extreme/incapacitating</p> <p>Key rating dimensions = frequency / intensity of dissociation</p> <p>Moderate = at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of self and awareness of environment</p> <p>Severe = at least 2 X week / pronounced dissociative quality, marked sense of detachment and unreality</p> |
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Item 30 (2): Derealization: Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>In the past month, have there been times when things going on around you seemed unreal or very strange and unfamiliar?</p> <p>[If no:] (Do things going on around you seem like a dream or like a scene from a movie? Do they seem distant or distorted?)</p> <p>Tell me more about that.</p> <p>How strong is this feeling? (Do you lose track of where you actually are or what's actually going on?)</p> <p>What do you do while this is happening? (Do other people notice your behavior? What do they say?)</p> <p>How long does it last?</p> <hr/> <p>Circle: Dissociation = Minimal Clearly Present</p> | <p>0 Absent</p> <p>1 Mild/subthreshold</p> <p>2 Moderate/threshold</p> <p>3 Severe/markedly elevated</p> <p>4 Extreme/incapacitating</p> <p>Key rating dimensions = frequency / intensity of dissociation</p> <p>Moderate = at least 2 X month / dissociative quality clearly present but transient, retains some realistic</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <i>Pronounced Extreme</i> | sense of environment |
| [If not clear:] (Was this due to the effects of alcohol or drugs? What about a medical condition like seizures?) [Rate 0=Absent if due to the effects of a substance or another medical condition] | Severe = at least 2 X week / pronounced dissociative quality, marked sense of unreality |
| How often has this happened in the past month? # of times _____ | |
| Did this feeling start or get worse after (EVENT)? (Do you think it's related to (EVENT)? (How so?)) Circle: Trauma-relatedness = <i>Definite Probable Unlikely</i> | |

CAPS-5 SUMMARY SHEET

Name: _____ ID# _____ Interviewer: _____
 _____ Study: _____ Date: _____

| A. Exposure to actual or threatened death, serious injury, or sexual violence | |
|-------------------------------------------------------------------------------|-----------------|
| Criterion A met? | 0 = NO 1=YES |

| B. Intrusion symptoms (need 1 for diagnosis) | Past Month | |
|----------------------------------------------|---------------|---------------|
| Symptom | Sev | Sx (Sev ≥ 2)? |
| (1) B1- Intrusive memories | | 0=NO 1=YES |
| (2) B2- Distressing dreams | | 0=NO 1=YES |
| (3) B3- Dissociative reactions | | 0=NO 1=YES |
| (4) B4- Cued psychological distress | | 0=NO 1=YES |
| (5) B5- Cued physiological reactions | | 0=NO 1=YES |
| B subtotals | <i>B Sev=</i> | <i>#B Sx=</i> |

| C. Avoidance symptoms (need 1 for diagnosis) | Past Month | |
|---------------------------------------------------|---------------|---------------|
| Symptom | Sev | Sx (Sev ≥ 2)? |
| (6) C1- Avoidance of memories, thoughts, feelings | | 0=NO 1=YES |
| (7) C2- Avoidance of external reminders | | 0=NO 1=YES |
| C subtotals | <i>C Sev=</i> | <i>#C Sx=</i> |

| D. Cognitions and mood symptoms (need 2 for diagnosis) | Past Month | |
|--------------------------------------------------------|------------|---------------|
| Symptom | Sev | Sx (Sev ≥ 2)? |
| (8) D1- Inability to recall important aspect of | | 0=NO 1=YES |

| | | |
|---------------------------------------------------------------|---------------|---------------|
| event | | |
| (9) D2- Exaggerated negative beliefs or expectations | | 0=NO 1=YES |
| (10) D3- Distorted cognitions leading to blame | | 0=NO 1=YES |
| (11) D4- Persistent negative emotional state | | 0=NO 1=YES |
| (12) D5- Diminished interest or participation in activities | | 0=NO 1=YES |
| (13) D6- Detachment or estrangement from others | | 0=NO 1=YES |
| (14) D7- Persistent inability to experience positive emotions | | 0=NO 1=YES |
| D subtotals | <i>D Sev=</i> | <i>#D Sx=</i> |

| E. Arousal and reactivity symptoms (need 2 for diagnosis) | Past Month | |
|------------------------------------------------------------------|-------------------|----------------------|
| Symptom | <i>Sev</i> | <i>Sx (Sev ≥ 2)?</i> |
| (15) E1- Irritable behavior and angry outbursts | | 0=NO 1=YES |
| (16) E2- Reckless or self-destructive behavior | | 0=NO 1=YES |
| (17) E3- Hypervigilance | | 0=NO 1=YES |
| (18) E4- Exaggerated startle response | | 0=NO 1=YES |
| (19) E5- Problems with concentration | | 0=NO 1=YES |
| (20) E6- Sleep disturbance | | 0=NO 1=YES |
| E subtotals | <i>E Sev=</i> | <i>#E Sx=</i> |

| PTSD totals | Past Month | |
|-----------------------------------|-------------------|-------------------|
| Totals | <i>Total Sev</i> | <i>Total # Sx</i> |
| Sum of subtotals (B+C+D+E) | | |

| F. Duration of disturbance | Current | |
|-----------------------------------------|----------------|------------|
| (22) Duration of disturbance ≥ 1 month? | | 0=NO 1=YES |

| G. Distress or impairment (need 1 for diagnosis) | Past Month | |
|---------------------------------------------------------|-------------------|----------------------|
| Criterion | <i>Sev</i> | <i>Cx (Sev ≥ 2)?</i> |
| (23) Subjective distress | | 0=NO 1=YES |
| (24) Impairment in social functioning | | 0=NO 1=YES |
| (25) Impairment in occupational functioning | | 0=NO 1=YES |

| | | |
|--------------------|---------------|---------------|
| G subtotals | <i>G Sev=</i> | <i>#G Cx=</i> |
|--------------------|---------------|---------------|

| Global ratings | Past Month |
|-------------------------|-------------------|
| (26) Global validity | |
| (27) Global severity | |
| (28) Global Improvement | |

| Dissociative symptoms (need 1 for subtype) | Past Month | |
|---------------------------------------------------|-------------------|----------------------|
| Symptom | <i>Sev</i> | <i>Sx (Sev ≥ 2)?</i> |
| (29) 1 – Depersonalization | | 0=NO 1=YES |
| (30) 2 – Derealization | | 0=NO 1=YES |
| Dissociative subtotals | <i>Diss Sev=</i> | <i>Diss Sx=</i> |

| PTSD diagnosis | Past Month | |
|----------------------------------------|-------------------|-------|
| PTSD PRESENT – ALL CRITERIA (A-G) MET? | 0=NO | 1=YES |
| With dissociative symptoms | 0=NO | 1=YES |
| (21) With delayed onset (≥ 6 months) | 0=NO | 1=YES |

Mini-Mental State Exam (MMSE)
(materials needed: two page instrument, one blank page)

Folstein M. F., Folstein, S. E., & McHugh, P. R. (1975). Mini-Mental State: A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*. 12: 189-198.

PCL-5 with LEC-5 and Criterion A

Part 1

Instructions: Listed below are a number of difficult or stressful things that sometimes happen to people. For each event check one or more of the boxes to the right to indicate that: (a) it happened to you personally; (b) you witnessed it happen to someone else; (c) you learned about it happening to a close family member or close friend; (d) you were exposed to it as part of your job (for example, paramedic, police, military, or other first responder); (e) you're not sure if it fits; or (f) it doesn't apply to you.

Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.

| Event | Happened to me | Witnessed It | Learned about it | Part of my job | Not sure | Doesn't apply |
|------------------------------------------------------------------------------------------------------------------|----------------|--------------|------------------|----------------|----------|---------------|
| 1. Natural disaster (for example, flood, hurricane, tornado, earthquake) | | | | | | |
| 2. Fire or explosion | | | | | | |
| 3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash) | | | | | | |
| 4. Serious accident at work, home, or during recreational activity | | | | | | |
| 5. Exposure to toxic substance (for example, dangerous chemicals, radiation) | | | | | | |
| 6. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up) | | | | | | |
| 7. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb) | | | | | | |
| 8. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm) | | | | | | |
| 9. Other unwanted or uncomfortable sexual experience | | | | | | |
| 10. Combat or exposure to a | | | | | | |

_____ I was repeatedly exposed to details about it as part of my job (for example, paramedic, police, military, or other first responder)

_____ Other, please describe _____

Was someone's life in danger?

_____ Yes, my life

_____ Yes, someone else's life

_____ No

Was someone seriously injured or killed?

_____ Yes, I was seriously injured

_____ Yes, someone else was seriously injured or killed

_____ No

Did it involve sexual violence? _____ Yes _____ No

If the event involved the death of a close family member or close friend, was it due to some kind of accident or violence, or was it due to natural causes?

_____ Accident or violence

_____ Natural causes

_____ Not applicable (The event did not involve the death of a close family member or close friend)

How many times altogether have you experienced a similar event as stressful or nearly as stressful as the worst event?

_____ Just once

_____ More than once (please specify or estimate the total number of times you have had this experience _____)

Part 3

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

| In the past month, how much were you bothered by: | Not at All | A little bit | Moderately | Quite a bit | Extremely |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------|-------------------|--------------------|------------------|
| 21. Repeated, disturbing, and unwanted memories of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 22. Repeated, disturbing dreams of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 23. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)? | 0 | 1 | 2 | 3 | 4 |
| 24. Feeling very upset when something reminded you of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 25. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)? | 0 | 1 | 2 | 3 | 4 |
| 26. Avoiding memories, thoughts, or feelings related to the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 27. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)? | 0 | 1 | 2 | 3 | 4 |
| 28. Trouble remembering important parts of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 29. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)? | 0 | 1 | 2 | 3 | 4 |
| 30. Blaming yourself or someone else for the stressful experience or what happened after it? | 0 | 1 | 2 | 3 | 4 |

| | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
| 31. Having strong negative feelings such as fear, horror, anger, guilt, or shame? | 0 | 1 | 2 | 3 | 4 |
| 32. Loss of interest in activities that you used to enjoy? | 0 | 1 | 2 | 3 | 4 |
| 33. Feeling distant or cut off from other people? | 0 | 1 | 2 | 3 | 4 |
| 34. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)? | 0 | 1 | 2 | 3 | 4 |
| 35. Irritable behavior, angry outbursts, or acting aggressively? | 0 | 1 | 2 | 3 | 4 |
| 36. Taking too many risks or doing things that could cause you harm? | 0 | 1 | 2 | 3 | 4 |
| 37. Being “superalert” or watchful or on guard? | 0 | 1 | 2 | 3 | 4 |
| 38. Feeling jumpy or easily startled? | 0 | 1 | 2 | 3 | 4 |
| 39. Having difficulty concentrating? | 0 | 1 | 2 | 3 | 4 |
| 40. Trouble falling or staying asleep? | 0 | 1 | 2 | 3 | 4 |

BRIEF RCOPE

Pargament, K., Feuille, M., & Burdzy, D. (2011). The Brief RCOPE: Current psychometric status of a short measure of religious coping. *Religions*, 2, 51-76. doi:10.3390/

PHQ-9

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

| Over the last 2 weeks, how often have you been bothered by any of the following problems? (Use "✓" to indicate your answer) | Not at all | Several days | More than half the days | Nearly every day |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|-------------------------|------------------|
| Little interest or pleasure in doing things | 0 | 1 | 2 | 3 |
| Feeling down, depressed, or hopeless | 0 | 1 | 2 | 3 |
| Trouble falling or staying asleep, or sleeping too much | 0 | 1 | 2 | 3 |
| Feeling tired or having little energy | 0 | 1 | 2 | 3 |
| Poor appetite or overeating | 0 | 1 | 2 | 3 |
| Feeling bad about yourself – or that you are a failure or have let yourself or your family down | 0 | 1 | 2 | 3 |
| Trouble concentrating on things, such as reading the newspaper or watching television | 0 | 1 | 2 | 3 |
| Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual | 0 | 1 | 2 | 3 |
| Thoughts that you would be better off dead or of hurting yourself in some way | 0 | 1 | 2 | 3 |
| FOR OFFICE CODING | | | | |
| | _0_ + | ___+ | ___+ | ___ |
| | | | = Total Score | ___ |

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

| Not difficult at all | Somewhat difficult | Very difficult | Extremely difficult |
|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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

EXCLUSIONARY CRITERIA CONSIDERED AT STANDARD ASSESSMENT

Check any of the following criteria identified at the standard assessment:

_____ Significant cognitive impairment (MMSE)

_____ Inability to give informed consent

_____ Currently receiving psychotherapy for PTSD or other comorbid psychiatric issues

_____ Significant suicidal ideations

_____ Psychotic symptoms

_____ Active mania

_____ Alcohol or substance abuse requiring primary intervention

_____ Prospective participant does not meet any of the exclusionary criteria for this study.

Letter of Invitation to Participate in Study

[Date]

[Participant]
Address
City, State Zip

RE: Standard Assessment Results for Study Participation

Dear [Participant],

Thank you for your interest in participating in the above study. Based on the standard assessment results, I invite you to participate in the study. Please contact my office at [REDACTED] within 5 days of receipt of this invitation letter to secure your spot as a participant in this study.

The following information is provided for your consideration prior to accepting this invitation:

The purpose of the study is to explore the effects of a spiritually modified treatment protocol on female Christian sexual assault survivors experiencing spiritual struggle and PTSD following the traumatic event. Benefits of participating in this study include receiving an empirically supported treatment for PTSD at no personal expense to you with the potential of reducing PTSD symptoms and other effects resulting from the traumatic event. Risks include being exposed to some degree to the details of the traumatic event which may result in temporary increase of the negative symptoms and/or create a level of distress overall. This study is confidential and all personal information as outlined through HIPAA laws and RBI regulations will be maintained at all times during and after the study. The study will last for 16 week and include two 60-minute sessions weekly, one on Monday and the other on Friday. A participant can withdraw from the study at any time but it is requested that you consult with the principal researcher prior to leaving the study to debrief and discuss post-study resources. The principal researchers contact information and the location of the study throughout the research process will be:

Deborah Driggs, LPC-MHSP,
[REDACTED]

I look forward to hearing from you.

Deborah Driggs, LPC/MHSP, NCC

Appendix D: Continuous Assessment Forms

(PCL-5 and Brief RCOPE)

PCL-5

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

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

BRIEF RCOPE

Pargament, K., Feuille, M., & Burdzy, D. (2011). The Brief RCOPE: Current psychometric status of a short measure of religious coping. *Religions*, 2, 51-76. doi:10.3390/

Appendix E

Cognitive Processing Therapy (CPT) Therapist and Patient Material Manual

CPT-C treatment resources can be obtained through the authors website at: <https://cptforptsd.com/>

Appendix F

Cognitive Processing Therapy-Cognitive (CPT-C) (without the Written Account) Session Protocol

Phase B - (Intervention TAU)

Session 1- Introduction and Education: Symptoms of PTSD; explanation of symptoms (cognitive theory); description of therapy.

Practice assignment: Write Impact Statement.

Session 2- The Meaning of the Event *: Client reads Impact Statement. Therapist and Client discuss meaning of trauma. Begin to identify stuck points and problematic areas, and add to Stuck Point Log. Review symptoms of PTSD and theory. Introduce A-B-C Worksheets with explanation of relationship between thoughts, feelings, and behavior.

Practice assignment: Complete one (1) A-B-C sheet each day including at least one on the worst trauma.

Session 3- Identification of Thoughts and Feelings: Review A-B-C practice assignment. Discuss stuck points with a focus on assimilation. Review the event with regard to any acceptance or self-blame issues. Begin Socratic questioning regarding stuck points.

Practice assignment: Reassign A-B-C Worksheets.

Session 4- Identification of Stuck Points: Review A-B-C practice assignment and begin to challenge assimilation with Socratic questions. Introduce Challenging Questions Worksheet to challenge specific assimilate beliefs regarding the trauma.

Practice assignment: Challenge one stuck point per day using the Challenging Questions Worksheets (focus on assimilation/blame).

Session 5- Challenging Questions: Review Challenging Questions Worksheets. Introduce Patterns of Problematic Thinking Worksheet.

Practice assignment: Complete Patterns of Problematic Thinking Worksheets on a daily basis. Continue to use Challenging Questions as needed. Make sure Client understands the importance of balance in beliefs rather than extreme, either/or thinking.

Session 6- Patterns of Problematic Thinking: Review practice assignment. Determine patterns of problematic thinking. Introduce Challenging Beliefs Worksheet. Teach Client to use the new worksheet to challenge cognitions regarding the trauma(s).

Practice assignment: Complete Challenging Beliefs Worksheets daily on the trauma, as well as everyday events.

Session 7- Challenging Beliefs: Review Challenging Beliefs Worksheets. Introduce Safety Module. Discuss how previous beliefs regarding safety might have been disrupted or seemingly confirmed by the index event. Use Challenging Beliefs Worksheet to challenge safety beliefs.

Practice assignment: Read Safety Module and complete Challenging Beliefs Worksheets on safety.

Session 8- Safety Issues: Review Challenging Beliefs Worksheets and help Client to challenge problematic beliefs they were unable to complete successfully on their own. Introduce Trust Module. Pick out any stuck points on self-trust or other-trust.

Practice assignment: Read Trust Module and complete at least one Challenging Beliefs Worksheet on trust. Continue to challenge stuck points on a daily basis using Challenging Beliefs Worksheets.

Session 9- Trust Issues: Review Challenging Beliefs Worksheets. Introduce module on Power/Control. Discuss how prior beliefs were affected by the trauma.

Practice assignment: Read Power/Control Module and complete at least one Challenging Beliefs Worksheet on Power/Control issues. Continue to challenge other stuck points on a daily basis using Challenging Beliefs Worksheets.

Session 10- Power/Control Issues: Review Challenging Beliefs Worksheets. Introduce module on Esteem (self- esteem and regard for others).

Practice assignment: Read module and complete Challenging Beliefs Worksheets on esteem, as well as assignments regarding giving and receiving compliments and doing nice things for self. Continue to challenge stuck points on a daily basis using Challenging Beliefs Worksheets.

Session 11- Esteem Issues: Review Challenging Beliefs Worksheets. Discuss reactions to two behavioral assignments– giving and receiving compliments and engaging in a pleasant activity. Introduce final module on Intimacy.

Practice assignment: Continue giving and receiving compliments, read Intimacy Module and complete Challenging Beliefs Worksheets on stuck points regarding intimacy.

Final assignment: Write final Impact Statement.

Session 12- Intimacy Issues and Meaning of the Event: Go over the Challenging Beliefs Worksheets. Have Client read the final Impact Statement. Therapist reads the first Impact Statement and then compares the differences. Discuss any intimacy stuck points. Review the entire therapy and identify any remaining issues the Client may need to continue to work on. Encourage the client to continue with behavioral assignments regarding compliments and doing nice things for self. Remind client that he is taking over as therapist now and should continue to use skills he has learned.

Appendix G

Spiritually Oriented Cognitive Processing Therapy-Cognitive (SOCPT-C) Session Protocol **Phase B-C Session Protocol includes: Phase B - (Intervention TAU/CPT-C) and** **Phase C - (Spiritual Intervention) (SI)**

Session 1 (S1)- Introduction and Education: Symptoms of PTSD; explanation of symptoms (cognitive theory); description of therapy.

Practice assignment: Write Impact Statement.

Session 2 (S2)- The Meaning of the Event *: Client reads Impact Statement. Therapist and client discuss meaning of trauma. Begin to identify stuck points and problematic areas, and add to Stuck Point Log. Review symptoms of PTSD and theory. Introduce A-B-C Worksheets with explanation of relationship between thoughts, feelings, and behavior.

Practice assignment: Complete one (1) A-B-C sheet each day including at least one on the worst trauma.

Session 3 (S3)- Identification of Thoughts and Feelings: Review A-B-C practice assignment. Discuss stuck points with a focus on assimilation. Review the event with regard to any acceptance or self-blame issues. Begin Socratic questioning regarding stuck points.

Practice assignment: Reassign A-B-C Worksheets.

Session 4 (S4)- Identification of Stuck Points: Review A-B-C practice assignment and begin to challenge assimilation with Socratic questions. Introduce Challenging Questions Worksheet to challenge specific assimilate beliefs regarding the trauma.

Practice assignment: Challenge one stuck point per day using the Challenging Questions Worksheets (focus on assimilation/blame).

Session 5 (S5)- Challenging Questions: Review Challenging Questions Worksheets. Introduce Patterns of Problematic Thinking Worksheet.

Practice assignment: Complete Patterns of Problematic Thinking Worksheets on a daily basis. Continue to use Challenging Questions as needed. Make sure client understands the importance of balance in beliefs rather than extreme, either/or thinking.

SI-1- Education of Spiritual Struggle; Spiritual Meaning Making: (S5)

- *Spiritual intervention:* Therapist and client discuss (1) symptoms of SS, (2) explanation of symptoms (Just World Theory, concept of *free will*), and (3) R/S meaning of trauma as it relates to SS. Begin to identify spiritual stuck points and problematic areas. [Explore *Function #1: S/R Coping to Find Meaning on Brief RCOPE*]. Introduce SO-A-B-C Worksheet and discuss relationship between R/S thoughts, feelings, and behavior. Begin SO-Stuck Point Log.

- *SO-Practice assignment:* Complete one (1) SO-A-B-C Worksheet each day including at least one on R/S beliefs or stuck points identified.

Session 6 (S6)- Patterns of Problematic Thinking: Review practice assignment. Determine patterns of problematic thinking. Introduce Challenging Beliefs Worksheet. Teach client to use the new worksheet to challenge cognitions regarding the trauma(s).

Practice assignment: Complete Challenging Beliefs Worksheets daily on the trauma, as well as everyday events.

SI-2- Identification of Spiritual Thoughts and Feelings: (S6)

- *Spiritual intervention:* Review SO-A-B-C Worksheet practice assignment. Discuss spiritual stuck points with a focus on assimilation. [Explore *Function #5: S/R Coping to Achieve a Life Transformation (Brief RCOPE)*. Review the R/S beliefs with regard to any acceptance or self-blame issues. Begin SO-Socratic questioning regarding spiritual stuck points.
- *SO-Practice assignment:* Reassign SO-A-B-C Worksheet to continue addressing R/S beliefs or stuck points identified.

Session 7 (S7)- Challenging Beliefs: Review Challenging Beliefs Worksheets. Introduce Safety Module. Discuss how previous beliefs regarding safety might have been disrupted or seemingly confirmed by the index event. Use Challenging Beliefs Worksheet to challenge safety beliefs.

Practice assignment: Read Safety Module and complete Challenging Beliefs Worksheets on safety.

SI-3- Identifying Spiritual Stuck Points: (S7)

- *Spiritual intervention:* Review SO-A-B-C Worksheet practice assignment and begin to challenge assimilation with SO-Socratic questioning. Introduce SO-Challenging Questions Worksheet to challenge specific assimilate R/S beliefs regarding the trauma.
- *SO-Practice assignment:* Challenge one spiritual stuck point per day using the SO-Challenging Questions Worksheets (focus on assimilation/blame).

Session 8 (S8)- Safety Issues: Review Challenging Beliefs Worksheets and help client to challenge problematic beliefs they were unable to complete successfully on their own. Introduce Trust Module. Pick out any stuck points on self-trust or other-trust.

Practice assignment: Read Trust Module and complete at least one Challenging Beliefs Worksheet on trust. Continue to challenge stuck points on a daily basis using Challenging Beliefs Worksheets.

SI-4- SO-Challenging Questions & Challenging Beliefs: (S8)

- *Spiritual intervention:* Review SO-Challenging Questions Worksheets. Introduce SO-Patterns of Problematic Thinking Worksheet. Therapist and client discuss SS as it relates to safety beliefs. Use SO-Challenging Beliefs Worksheet to challenge SS related to the identified safety beliefs.

- *SO-Practice assignment:* Complete SO-Patterns of Problematic Thinking Worksheets on a daily basis. Continue to use SO-Challenging Questions as needed. Make sure client understands the importance of balance in R/S beliefs rather than extreme, either/or thinking.

Session 9 (S9)- Trust Issues: Review Challenging Beliefs Worksheets. Introduce module on Power/Control. Discuss how prior beliefs were affected by the trauma.

Practice assignment: Read Power/Control Module and complete at least one Challenging Beliefs Worksheet on Power/Control issues. Continue to challenge other stuck points on a daily basis using Challenging Beliefs Worksheets.

SI-5- SO-Patterns of Problematic Thinking; SO Issues of Safety: (S9)

- *Spiritual intervention:* Review SO-Patterns of Problematic Thinking Worksheet. Determine SO-Patterns of Problematic Thinking. Use SO-Challenging Beliefs Worksheet to begin challenging negative religious cognitions (NRC) regarding the trauma. Therapist and client discuss SS as it relates to spiritual trust issues and self- or other forgiveness. Identify any spiritual stuck points on self-trust or other-trust, self- or other forgiveness. [Explore Function #3: S/R Coping to Gain Comfort and Closeness to God (Brief RCOPE). Use SO-Challenging Beliefs Worksheet to challenge SS related to the identified spiritual trust or forgiveness issues.
- *SO-Practice assignment:* Complete SO-Challenging Beliefs Worksheets on a daily basis on identified negative religious cognitions (NRC) and stuck points. Complete at least one SO-Challenging Beliefs Worksheets around spiritual stuck points identified involving trust.

Session 10 (S10)- Power/Control Issues: Review Challenging Beliefs Worksheets. Introduce module on Esteem (self- esteem and regard for others).

Practice assignment: Read module and complete Challenging Beliefs Worksheets on esteem, as well as assignments regarding giving and receiving compliments and doing nice things for self. Continue to challenge stuck points on a daily basis using Challenging Beliefs Worksheets.

SI-6- SO-Challenging Beliefs; SO Issues of Trust; Self- or Other-Forgiveness: (S10)

- *Spiritual intervention:* Review SO-Challenging Beliefs Worksheets. Therapist and client discuss SS as it relates to Power/Control issues. [Explore *Function #2: S/R Coping to Gain Control* (Brief RCOPE). Discuss how previous R/S beliefs regarding Power/Control might have been disrupted or seemingly confirmed by the index event. Use SO-Challenging Beliefs Worksheet to challenge SS related to the identified power/control issues.
- *SO-Practice assignment:* Complete SO-Challenging Beliefs Worksheets on a daily basis on identified R/S beliefs and stuck points.

Session 11 (S11)- Esteem Issues: Review Challenging Beliefs Worksheets. Discuss reactions to two behavioral assignments— giving and receiving compliments and engaging in a pleasant activity. Introduce final module on Intimacy.

Practice assignment: Continue giving and receiving compliments, read Intimacy Module and complete Challenging Beliefs Worksheets on stuck points regarding intimacy.

Final assignment: Write final Impact Statement.

SI-7- SO Issues of Safety and Power/Control: (S11)

- *Spiritual intervention:* Review SO-Challenging Beliefs Worksheets and help client to challenge R/S problematic beliefs they were unable to complete successfully on their own. Therapist and client discuss SS as it relates to Esteem issues. Discuss how previous R/S beliefs regarding Esteem might have been disrupted or seemingly confirmed by the index event. Use SO-Challenging Beliefs Worksheet to challenge SS related to the identified esteem issues.
- *SO-Practice assignment:* Continue to challenge spiritual stuck points on a daily basis using SO-Challenging Beliefs Worksheets.

Session 12 (S12)- Intimacy Issues and Meaning of the Event: Go over the Challenging Beliefs Worksheets. Have client read the final Impact Statement. Therapist reads the first Impact Statement and then compares the differences. Discuss any intimacy stuck points. Review the entire therapy and identify any remaining issues the client may need to continue to work on. Encourage the client to continue with behavioral assignments regarding compliments and doing nice things for self. Remind client that he is taking over as therapist now and should continue to use skills he has learned.

SI-8 – SO Issues of Esteem, & Intimacy; Spiritual Meaning of the Event: (S12)

- *Spiritual intervention:* Review SO-Challenging Beliefs Worksheets. Therapist and client discuss SS as it relates to Intimacy issues and stuck points. Explore *Function #4: S/R Coping to Gain Intimacy with Others and Closeness to God (Brief RCOPE)*. Discuss how previous R/S beliefs regarding intimacy were affected by the trauma. Use SO-Challenging Beliefs Worksheet to challenge SS related to intimacy issues and stuck points. Review the spiritual intervention in its entirety over treatment and identify any remaining spiritual issues the client may need to continue to work on.
- *SO-Practice assignment:* Continue to challenge R/S beliefs and spiritual stuck points on a daily basis using SO-Challenging Beliefs Worksheets.

Phase C - *Spiritual Intervention (SI) Protocol

SI-1- Education of Spiritual Struggle; Spiritual Meaning Making: (S5)

- *Spiritual intervention*: Therapist and client discuss (1) symptoms of SS, (2) explanation of symptoms (Just World Theory, concept of *free will*), and (3) R/S meaning of trauma as it relates to SS. Begin to identify spiritual stuck points and problematic areas. [Explore *Function #1*: S/R Coping to Find Meaning on Brief RCOPE]. Introduce SO-A-B-C Worksheet and discuss relationship between R/S thoughts, feelings, and behavior. Begin SO-Stuck Point Log.
- *SO-Practice assignment*: Complete one (1) SO-A-B-C Worksheet each day including at least one on R/S beliefs or stuck points identified.

SI-2- Identification of Spiritual Thoughts and Feelings: (S6)

- *Spiritual intervention*: Review SO-A-B-C Worksheet practice assignment. Discuss spiritual stuck points with a focus on assimilation. [Explore *Function #5*: S/R Coping to Achieve a Life Transformation (Brief RCOPE)]. Review the R/S beliefs with regard to any acceptance or self-blame issues. Begin SO-Socratic questioning regarding spiritual stuck points.
- *SO-Practice assignment*: Reassign SO-A-B-C Worksheet to continue addressing R/S beliefs or stuck points identified.

SI-3- Identifying Spiritual Stuck Points: (S7)

- *Spiritual intervention*: Review SO-A-B-C Worksheet practice assignment and begin to challenge assimilation with SO-Socratic questioning. Introduce SO-Challenging Questions Worksheet to challenge specific assimilate R/S beliefs regarding the trauma.
- *SO-Practice assignment*: Challenge one spiritual stuck point per day using the SO-Challenging Questions Worksheets (focus on assimilation/blame).

SI-4- SO-Challenging Questions & Challenging Beliefs: (S8)

- *Spiritual intervention*: Review SO-Challenging Questions Worksheets. Introduce SO-Patterns of Problematic Thinking Worksheet. Therapist and client discuss SS as it relates to safety beliefs. Use SO-Challenging Beliefs Worksheet to challenge SS related to the identified safety beliefs.
- *SO-Practice assignment*: Complete SO-Patterns of Problematic Thinking Worksheets on a daily basis. Continue to use SO-Challenging Questions as needed. Make sure client understands the importance of balance in R/S beliefs rather than extreme, either/or thinking.

SI-5- SO-Patterns of Problematic Thinking; SO Issues of Safety: (S9)

- *Spiritual intervention*: Review SO-Patterns of Problematic Thinking Worksheet. Determine SO-Patterns of Problematic Thinking. Use SO-Challenging Beliefs Worksheet to begin challenging negative religious cognitions (NRC) regarding the trauma. Therapist and client discuss SS as it relates to spiritual trust issues and self- or

other forgiveness. Identify any spiritual stuck points on self-trust or other-trust, self- or other forgiveness. [Explore Function #3: S/R Coping to Gain Comfort and Closeness to God (Brief RCOPE). Use SO-Challenging Beliefs Worksheet to challenge SS related to the identified spiritual trust or forgiveness issues.

- *SO-Practice assignment*: Complete SO-Challenging Beliefs Worksheets on a daily basis on identified negative religious cognitions (NRC) and stuck points. Complete at least one SO-Challenging Beliefs Worksheets around spiritual stuck points identified involving trust.

SI-6- SO-Challenging Beliefs; SO Issues of Trust; Self- or Other-Forgiveness: (S10)

- *Spiritual intervention*: Review SO-Challenging Beliefs Worksheets. Therapist and client discuss SS as it relates to Power/Control issues. [Explore *Function #2*: S/R Coping to Gain Control (Brief RCOPE). Discuss how previous R/S beliefs regarding Power/Control might have been disrupted or seemingly confirmed by the index event. Use SO-Challenging Beliefs Worksheet to challenge SS related to the identified power/control issues.
- *SO-Practice assignment*: Complete SO-Challenging Beliefs Worksheets on a daily basis on identified R/S beliefs and stuck points.

SI-7- SO Issues of Safety and Power/Control: (S11)

- *Spiritual intervention*: Review SO-Challenging Beliefs Worksheets and help client to challenge R/S problematic beliefs they were unable to complete successfully on their own. Therapist and client discuss SS as it relates to Esteem issues. Discuss how previous R/S beliefs regarding Esteem might have been disrupted or seemingly confirmed by the index event. Use SO-Challenging Beliefs Worksheet to challenge SS related to the identified esteem issues.
- *SO-Practice assignment*: Continue to challenge spiritual stuck points on a daily basis using SO-Challenging Beliefs Worksheets.

SI-8 – SO Issues of Esteem, & Intimacy; Spiritual Meaning of the Event (S12)

- *Spiritual intervention*: Review SO-Challenging Beliefs Worksheets. Therapist and client discuss SS as it relates to Intimacy issues and stuck points. Explore *Function #4*: S/R Coping to Gain Intimacy with Others and Closeness to God (Brief RCOPE). Discuss how previous R/S beliefs regarding intimacy were affected by the trauma. Use SO-Challenging Beliefs Worksheet to challenge SS related to intimacy issues and stuck points. Review the spiritual intervention in its entirety over treatment and identify any remaining spiritual issues the client may need to continue to work on.
- *SO-Practice assignment*: Continue to challenge R/S beliefs and spiritual stuck points on a daily basis using SO-Challenging Beliefs Worksheets.

SO-A-B-C Worksheet

Date _____ Client: _____

| ACTIVATING EVENT A “Something happens.” | R/S BELIEF/STUCK POINT B “I tell myself something.” | R/S CONSEQUENCE C “I feel something.” |
|-------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------|
| | | |

Are my thoughts above in “B” *realistic*?

What can you tell yourself on such occasions in the future?

Negative S/R Struggle Subscale Items

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 1. Wondered whether God had abandoned me. | 2. Wondered whether my church had abandoned me. |
| 3. Felt punished by God for my lack of devotion. | 4. Decided the devil made this happen. |
| 5. Wondered what I did for God to punish me. | 6. Questioned the power of God. |
| 7. Questioned God’s love for me. | 8. Wondered if I am worthy of God’s love. |
| General Themes Often Associated with S/R Struggle Subscale: __Search for Meaning __Intimacy with Others __Identity __Control __Comfort/Anxiety-Reduction __Transformation | |

SO Socratic Questioning

| Six Methods of Socratic Questioning | Examples of Methods |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Clarification- Clients often accept their automatic thought about an event as the only option. Clarification questions help patients examine their beliefs or assumptions at a deeper level, which can help to elicit more possible reactions from which to choose. These questions often fall into the “tell me more” category and are typified by the following:</p> | <ul style="list-style-type: none"> - <i>What do you mean when you say...?</i> - <i>How do you understand this?</i> - <i>Why do you say that?</i> - <i>What exactly does this mean?</i> - <i>What do we already know about this?</i> - <i>Can you give me an example?</i> - <i>Are you saying...or...?</i> - <i>Can you say that another way?</i> |
| <p>2. Probing Assumptions- Probing questions challenge the client’s presuppositions and unquestioned beliefs on which her argument is founded. Often clients have never questioned the “why” or “how” of their beliefs, and once the beliefs are held up to further inspection, the client can see the tenuous bedrock that the beliefs are built on.</p> | <ul style="list-style-type: none"> - <i>How did you come to this conclusion?</i> - <i>What else could we assume?</i> - <i>Is this thought based on certain assumptions?</i> - <i>How did you choose those assumptions?</i> - <i>How did you come up with these assumptions that...?</i> - <i>How can you verify or disprove that assumption?</i> - <i>What would happen if...?</i> - <i>Do you agree or disagree with...?</i> - <i>If this happened to a friend/sibling, would you have the same thoughts about them?</i> |
| <p>3. Probing Reasons and Evidence- Probing reasons and evidence is a similar process to probing assumptions. When the therapist helps clients look at the actual evidence behind their beliefs, they often find that the rationale in support of their arguments is rudimentary at best.</p> | <ul style="list-style-type: none"> - <i>How do you know this?</i> - <i>Show me...?</i> - <i>Can you give me an example of that?</i> - <i>What do you think causes...?</i> - <i>Are these the only explanations?</i> - <i>Are these reasons good enough?</i> - <i>How might it be refuted in court?</i> - <i>Would these reasons stand up in a reputable newspaper?</i> - <i>Why is...happening?</i> - <i>Why?</i> - <i>What evidence is there to support what you are saying?</i> - <i>Has anyone in your life expressed a different opinion?</i> - <i>Would _____ stand up in a court of law as evidence?</i> |
| <p>4. Questioning Viewpoints and Perspectives- Often the client has never considered other viewpoints but instead adopted a perspective that fits his needs for safety and control most readily. By questioning alternative viewpoints or perspectives, the therapist is in effect “challenging” the position. This will help the client see that that there are other, equally valid, viewpoints that still allow the client to feel appropriately safe and in control.</p> | <ul style="list-style-type: none"> - <i>What alternative ways of looking at this are there?</i> - <i>What does it do for you to continue to think this way?</i> - <i>Who benefits from this?</i> - <i>What is the difference between...and...?</i> - <i>Why is it better than...?</i> - <i>What are the strengths and weaknesses of...?</i> - <i>How are...and...similar?</i> - <i>What would...say about it?</i> - <i>What if you compared...and...?</i> - <i>How could you look at this another way?</i> |
| <p>5. Analyzing Implications and Consequences- Often</p> | <ul style="list-style-type: none"> - <i>Then what would happen?</i> |

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>clients are not aware that the beliefs that they hold lead to predictable and often unpleasant logical implications. When therapists help clients examine the potential outcomes to see if they make sense, or are even desirable, clients may realize that their entrenched beliefs are creating a large part of their distress.</p> | <ul style="list-style-type: none"> - What are the consequences of that assumption? - How could...be used to...? - What are the implications of...? - How does...affect...? - How does...fit with what we learned in session before? - Why is...important? - What can we assume will happen? - What would it mean if you gave up that belief? |
| <p>6. Questions About the Question- Clients may sometimes “challenge the therapist” or push therapist-client boundaries by directly inquiring whether the therapist has experienced a specific traumatic event. In this difficult situation, therapists may inquire why the client might be interested in this information. It is up to each therapist’s discretion about how much information s/he is willing to disclose. It is also important to consider the effect that any disclosure would have on the client.</p> <p>It might be most useful in therapy to gently question the question. Putting the focus back on the client and his intentions may enable the client to more thoroughly examine his reasons for asking these types of questions.</p> | <ul style="list-style-type: none"> - Are you wondering whether I will be able to handle hearing about your experience? - Why is this information important to you? What would it mean to you if I did or did not share your experience? - What would my answer either way mean to you? - Are you concerned that I don’t understand? Please tell me what you think I am missing. I would like to understand what the experience was like for you. |

(Resick et al., 2014)

Negative S/R Struggle Subscale Items

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 1. Wondered whether God had abandoned me. | 2. Wondered whether my church had abandoned me. |
| 3. Felt punished by God for my lack of devotion. | 4. Decided the devil made this happen. |
| 5. Wondered what I did for God to punish me. | 6. Questioned the power of God. |
| 7. Questioned God’s love for me. | 8. Wondered if I am worthy of God’s love. |
| <p>General Themes Often Associated with S/R Struggle Subscale: __Search for Meaning __Intimacy with Others __Identity __Control __Comfort/Anxiety-Reduction __Transformation</p> | |

R/S Belief/Stuck Point: _____

SO-Challenging Questions Worksheets

Below is a list of questions to be used in helping you challenge your R/S maladaptive or problematic beliefs/stuck points. Not all questions will be appropriate for the belief/stuck point you choose to challenge. Answer as many questions as you can for the belief/stuck point you have chosen to challenge below.

Negative S/R Struggle Subscale Items

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 1. Wondered whether God had abandoned me. | 2. Wondered whether my church had abandoned me. |
| 3. Felt punished by God for my lack of devotion. | 4. Decided the devil made this happen. |
| 5. Wondered what I did for God to punish me. | 6. Questioned the power of God. |
| 7. Questioned God's love for me. | 8. Wondered if I am worthy of God's love. |
| General Themes Often Associated with S/R Struggle Subscale: __Search for Meaning __Intimacy with Others __Identity __Control __Comfort/Anxiety-Reduction __Transformation | |

R/S Belief/Stuck Point: _____

1. What is the evidence for and against this stuck point?

FOR:

AGAINST:

2. Is your stuck point a habit or based on facts?

3. In what ways is your stuck point not including all of the information?

4. Does your stuck point include all-or-none terms?

5. Does the stuck point include words or phrases that are extreme or exaggerated (i.e. always, forever, never, need, should, must, can't, and every time)?

6. In what way is your stuck point focused on just one piece of the story?

7. Where did this stuck point come from? Is this a dependable source of information on this stuck point?
8. How is your stuck point confusing something that is possible with something that is likely?
9. In what ways is your stuck point based on feelings rather than facts?
10. In what ways is this stuck point focused on unrelated parts of the story?

SO-Patterns of Problematic Thinking Worksheet

Listed below are several types of patterns of problematic thinking that people use in different life situations. These patterns often become automatic, habitual thoughts that cause us to engage in self-defeating behavior. Considering your own stuck points, find examples for each of these patterns. Write in the stuck point under the appropriate pattern and describe how it fits that pattern. Think about how that pattern affects you.

Negative S/R Struggle Subscale Items

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 1. Wondered whether God had abandoned me. | 2. Wondered whether my church had abandoned me. |
| 3. Felt punished by God for my lack of devotion. | 4. Decided the devil made this happen. |
| 5. Wondered what I did for God to punish me. | 6. Questioned the power of God. |
| 7. Questioned God's love for me. | 8. Wondered if I am worthy of God's love. |
| General Themes Often Associated with S/R Struggle Subscale: __Search for Meaning __Intimacy with Others __Identity __Control __Comfort/Anxiety-Reduction __Transformation | |

1. **Jumping to conclusions** or predicting the future?

2. **Exaggerating or minimizing** a situation (blowing things way out of proportion or shrinking their importance inappropriately).

3. **Ignoring important parts** of a situation.

4. **Oversimplifying** things as good/bad or right/wrong.

5. **Over-generalizing** from a single incident (a negative event is seen as a never-ending pattern).

6. **Mind reading** (you assume people are thinking negatively of you when there is no definite evidence for this).

7. **Emotional reasoning** (using your emotions as proof, e.g. "I felt fear so I must be in danger").

Appendix I

PERMISSION REQUEST LETTER

[Please provide this document on official letterhead or copy and paste into an email. The letter/email may be returned to the researcher requesting permission or directly to the Liberty University IRB by email, irb@liberty.edu or fax, 434-522-0506.]

January 15, 2017

Deborah Driggs
Researcher/Clinician



Dear Deborah Driggs,

After careful review of your research proposal entitled *Spiritually Oriented Cognitive Processing Therapy for Spiritual Struggle in Christian Sexual Assault Survivors with PTSD*, we have decided to grant you permission to access our member list for mailing of the study Recruitment Letter or Recruitment Flyer.

Check the following boxes, as applicable:

- Data will be provided to the researcher stripped of any identifying information.
- I/We are requesting a copy of the results upon study completion and/or publication.

Sincerely,

[insert name]
[insert address]

Appendix J

CONSENT FORM

Spiritually Oriented Cognitive Processing Therapy for Spiritual Struggle in Christian Sexual Assault Survivors with PTSD

Deborah A. Driggs

Liberty University

Department of Counselor Education and Family Studies, School of Behavioral Sciences

You are invited to be in a research study that explores the effects of adding a spiritual intervention (Intervention B-C) to CPT-C (Intervention B “TAU”) on Spiritual Struggle, and subsequently PTSD scores, for a sample of Christian participants having experienced sexual assault.

The need for interventions that specifically address the spiritual needs of clients within empirically based research is supported in the literature but lacking in application. You were selected as a possible participant because you have been identified as potentially meeting inclusion criteria of being an adult female Christian survivor of sexual assault experiencing spiritual struggle and PTSD symptomology. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

Deborah A. Driggs, a doctoral candidate in the Department of Counselor Education and Family Studies, School of Behavioral Sciences at Liberty University, is conducting this study.

Background Information: The purpose of this study is to add to the research regarding the treatment of PTSD and its association with R/S beliefs that result in spiritual struggle in Christian female adult survivors of sexual assault that experience PTSD and spiritual struggle following the sexual trauma. This study will explore if adding a spiritual intervention to CPT-C (TAU) further reduces spiritual struggle, and subsequently PTSD scores, for the Christian participants.

Procedures: If you agree to be in this study, I would ask you to do the following things:

1. Login to Survey Monkey to complete prescreening assessment for the study or contact the principal researcher’s office to be screened over the phone. The prescreening assessment will take approximately 20-30 minutes to complete and is not recorded. The prescreening is anonymous and confidential with a coding system implemented to identify individual assessments.
2. Those meeting initial pre-screening criteria will be asked to participate in the second qualification stage, a standard assessment. At the standard assessment, the principal researcher will explain informed consent and answer questions participants may have regarding the study prior to completing this second qualifying stage for the study. The

standard assessment will be scheduled to occur at the principal researcher's office and will take approximately 50-60 minutes to complete and is not recorded. The standard assessment is confidential and only the study coding system will be utilized for identification of individual data.

3. An invitation letter will be sent within 5 days of the standard assessment to those individuals selected to participate in the study. If you are selected, you will have 5 days from receiving the invitation letter to email or call my office to accept the invitation into the study. Responding to the invitation letter for acceptance into the study will take approximately 1 minute to complete. This step is confidential and only the study coding system will be utilized for identification of individual data.
4. Upon acceptance into the study, each participant will receive a letter with specific information regarding the dates/times of the study sessions the participant is scheduled to attend. Each session will be 60 minutes in duration, an average of two times a week, for 8 weeks. This step is confidential and only the study coding system will be utilized for identification of individual data.

Risks and Benefits of being in the Study: This study involves the participant entering into individual counseling. While therapy is very safe, risks are involved in this study and include: (1) the biggest risk is the result of change. Change can have an undetermined impact on your life and in significant relationships, (2) another risk is emotional pain or anxiety but should be alleviated with continued treatment. While these risks exist, they are minimal in consideration to the symptoms individuals with similar experiences report are encountered in everyday life.

Federal and/or State law and regulations protect the confidentiality of client records maintained by the principal researcher. Mandatory reporting requirements require mental health providers to disclose your protected health information, as required by law, in the following situations without your authorization: (1) child abuse/neglect, elder abuse, or intent to harm self or others.

A participant may be terminated from the study non-voluntarily, if: A) the participant exhibits physical violence, verbal abuse, carries weapons, or engages in illegal acts at the study location, and/or B) the participant refuses to comply with stipulated program rules, refuses to comply with treatment/study recommendations, or does not attend sessions as identified and scheduled within the study protocol. The participant will be notified of the non-voluntary discharge by letter and appropriate treatment options will be provided.

There are benefits to participating in this study. Change is also the most significant benefit of therapy. You will learn new way of interacting, thinking, and behaving. Often changes will result in the reduction of problems and reported symptoms prior to therapy.

Injury or Illness: Liberty University will not provide medical treatment or financial compensation if you are injured or become ill as a result of participating in this research project. This does not waive any of your legal rights nor release any claim you might have based on negligence.

Compensation: Participants will be compensated for participating in this study. The primary benefits include a comprehensive clinical evaluation and evidenced-based individual psychotherapy treatment. Conditions of benefits include the participant completing the study requirements. Incentive benefits will not be prorated in the event the participant does not complete treatment within the study.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records. We may share the data we collect from you for use in future research studies or with other researchers; if we share the data that we collect about you, we will remove any information that could identify you before we share it.

To protect the privacy and confidentiality of the participant the following policies are in place for this study:

- A coding system will be utilized from the initial contact at pre-screening assessment to establish and maintain privacy and confidentiality of the participant. All data will substitute codes and/or pseudo names for participant names and/or identifying information.
- Data collected during the study will be stored separately from the Informed Consent forms and face sheets. Access to all data and documents will be limited through storing all records in locked cabinets.
- All data from this study will be disposed of through shredding of the documentation and permanent deletion of electronic data files once federal regulation requirements are exhausted. Note: Data must be retained for three years upon completion of the study per federal regulations. Outcome coded data utilized in data processing and visual analysis may be retained in its coded form and utilized at a later date in future research.
- Recording of sessions will occur by the principal researcher by recording sessions on a laptop utilizing the Quicktime Player recorder. Each electronic file will be password protected and stored in a password-protected folder on the principal researcher's laptop. The purpose of the recordings is for review by the principal researcher and to document treatment fidelity. Two reviewers certified in visual (or graphical) analysis may have access to these recordings to verify that a causal relation was documented. Recordings will not be used for educational purposes and will be erased, excluding coded data, once any federal regulation requirements are exhausted.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting the identified relationships.

[How to Withdraw from the Study: If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you

choose to withdraw, data collected from you through individual assessment and treatment sessions will be destroyed immediately and will not be included in this study.

Contacts and Questions: The researcher conducting this study is Deborah A. Driggs. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [REDACTED]. You may also contact the researcher's faculty advisor, Dr. John Thomas, Ph.D., Ph.D., at [REDACTED].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Green Hall 1887, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

The researcher has my permission to audio-record and video-record me as part of my participation in this study.

Signature of Participant Date

Signature of Investigator Date

Appendix K

Information Letter to Participants

[Date]

[Participant]
Address
City, State Zip

RE: Spiritually Oriented Cognitive Processing Therapy for Spiritual Struggle in Christian Sexual Assault Survivors with PTSD

Dear [Participant],

Thank you for your interest in participating in the above study. This study will begin on [Monday, July 15, 2017] and continue until [September 17, 2017]. Sixteen (16) sessions will occur during these dates on Mondays and Fridays with each session being 60 minutes in length.

Your specific session information is:

Monday Sessions: 1st session: Monday, [July 15, 2017] at 9:00am and each Monday thereafter at 9:00am until September 17, 2017.

Friday Sessions: Friday, [July 19, 2017] at 1:00pm and each Friday thereafter until September 17, 2017.

The office location for the study is [REDACTED]. If you have any questions about the study or session schedule, please contact me, Deborah A.

Driggs, at [REDACTED].

Warmest regards,

Deborah Driggs, LPC/MHSP, NCC

Appendix L

Cognitive Processing Therapy (CPT) Fidelity Checklist

Instructions: For each case you submit as evidence of proficiency in CPT please...

- Submit one (1) Fidelity Checklist.
• Create a case identifier number for each case. This number will distinguish one case from another, while preserving each client's identity as confidential and known only to you, the therapist.
• Indicate the version of CPT that you conducted (i.e., CPT or CPT-C), whether this was provided as group, individual or combination treatment, and how many sessions of CPT you conducted.
• Indicate the elements of CPT you delivered by placing an 'X' on the line next to each CPT element delivered for the particular case identified on the form.

Case identifying number: _____

Version of CPT (CPT or CPT-C): _____

CPT format (group or individual): _____

Number of CPT sessions: _____

CPT elements provided in this case:

- _____ 1. Assigned an initial Impact Statement.
_____ 2. Taught client to use ABC worksheets
_____ 3. Had client write an account of the worst traumatic event (N/A if delivered CPT-C)
_____ 4. Taught and had client practice using Challenging Questions worksheets
_____ 5. Taught and had client practice using Patterns of Problematic Thinking worksheets
_____ 6. Taught and had client practice using Challenging Beliefs Worksheets (CBW)
_____ 7. Provided psycho-education about modules: Safety, Trust, Power/Control, Esteem, Intimacy

Please indicate which modules delivered:

- _____ 8. Assigned daily pleasant activities
_____ 9. Assigned giving and receiving of compliments
_____ 10. Assigned final Impact Statement

If you did not complete 12 sessions of CPT, and/or if you excluded any CPT elements, including exclusion of any modules (element #7), please give a brief explanation of your reasons for modifying the CPT protocol in this case (use back of form if you need more space):

CLINICIAN PRINTED NAME

Clinician Signature

DATE

Appendix M

Study Termination Letter

[Date]

[Participant]

Address

City, State Zip

RE: Spiritually Oriented Cognitive Processing Therapy for Spiritual Struggle in Christian Sexual Assault Survivors with PTSD

Dear [Participant],

Thank you for participating in this study about the effects of spiritual struggle on Christian females that have experienced sexual assault and PTSD. Your contribution to this important research is invaluable for helping inform quality treatment in the future for the Christian population and others experiencing similar life issues.

One goal of this research was to explore the effect of adding a direct spiritual intervention to an empirically supported treatment model for PTSD. This is an important research area as many empirically supported treatment models currently lack inclusion of direct interventions for the spiritual domain of the client. We hope that this study will inform researchers and clinicians of the great importance of inclusion of spiritual interventions within empirical models and the counseling office.

We are particularly hopeful that this research will also encourage other counselors and mental health providers “in the field” to participate in Single-case study research within the counseling setting to increase evidence based treatment within the counseling office.

I would also like to point out post-care options and resources that are available. If you would like to continue in treatment post-study, please call me for referral options. You may also benefit from any of the following resources:

www.pandys.org - Pandora's Project is a 501(c)(3) nonprofit organization dedicated to providing information, support, and resources to survivors of rape and sexual abuse and their friends and family.

Self-Care After Trauma- Whether it happened recently or years ago, self-care can help you cope with the short- and long-term effects of a trauma like sexual assault. Go to:
<https://www.rainn.org/articles/self-care-after-trauma>.
Tennessee Coalition to end Domestic & Sexual Violence. Go to:
<http://www.tncoalition.org/>

PTSD Support Group: <https://ptsd.supportgroups.com/>

Thank you again for participating in this important research.

Warmest regards,
Deborah Driggs, LPC/MHSP, NCC