SECONDARY TRAUMATIC STRESS AND COUNTERTRANSFERENCE IN SURVIVOR THERAPISTS: THE ROLE OF EMPATHY AND DIFFERENTIATION OF SELF

A DISSERTATION IN
Counseling Psychology

Presented to the Faculty of the University
of Missouri-Kansas City in partial fulfillment of
the requirements for the degree

DOCTOR OF PHILOSOPHY

by
LESLIE STAPLEY TAYLOR

M.A., University of Missouri-Kansas City, 2018
B.S., University of Georgia, 2015

Kansas City, Missouri
2021

SECONDARY TRAUMATIC STRESS AND COUNTERTRANSFERENCE IN SURVIVOR THERAPISTS: THE ROLE OF EMPATHY AND DIFFERENTIATION OF SELF

Leslie Stapley Taylor, Candidate for the Doctor of Philosophy Degree
University of Missouri-Kansas City, 2021

ABSTRACT

The purpose of this study was to expand the present base of knowledge regarding two potentially destructive therapist reactions, secondary traumatic stress (STS) and countertransference, in a sample of mental health professionals currently treating traumatized clients who have also experienced a personal trauma themselves (i.e., survivor therapists). First, I examined the theoretical link between empathy, conceptualized through both cognitive and affective components, STS, and two types of countertransference (overinvolved and underinvolved). Next, the possible interaction between cognitive empathy and affective empathy was explored as a predictor of STS and countertransference. Finally, the Bowen Family Systems Theory construct differentiation of self, a salient factor for individuals in the helping professions, was examined as a moderator of these relationships. 245 survivor therapists from multiple professional backgrounds (e.g., social workers, psychologists, counselors, etc.) participated in the survey. STS and both types of countertransference were positively related and analyzed together. Although cognitive empathy and differentiation of self did not act as two-way moderators of the relationship between affective empathy and therapist reactions, a three-way interaction between affective

empathy, cognitive empathy, and differentiation of self emerged. Survivor therapists with high empathy and low differentiation of self had increased risk of STS, and survivor therapists with low empathy and low differentiation of self reported increased risk of underinvolved countertransference. Therapists with high differentiation of self appeared to tolerate high cognitive and affective empathy without increased risk of therapist reactions, reporting the lowest levels of both STS and underinvolved countertransference. Clinical and theoretical indications are discussed. These findings have implications for trauma therapy training, supervision, and the management of inevitable STS and countertransference reactions.

APPROVAL PAGE

The faculty listed below, appointed by the Dean of the School of Education, have examined a dissertation titled "Secondary Traumatic Stress and Countertransference in Survivor Therapists: The Role of Empathy and Differentiation of Self" presented by Leslie Stapley Taylor, candidate for the Doctor of Philosophy degree, and certify that in their opinion it is worthy of acceptance.

Supervisory Committee
Nancy Murdock, Ph.D., Committee Chair
Division of Counseling and Educational Psychology

Kimberly Langrehr, Ph.D.
Division of Counseling and Educational Psychology

Jacob Marszalek, Ph.D.
Department of Psychology

Laurel Watson, Ph.D.
Division of Counseling and Educational Psychology

CONTENTS

ABSTRACT iii

LIST OF TABLES viii

LIST OF ILLUSTRATIONS ix

ACKNOWLEDGMENTS x

Chapter

1. INTRODUCTION AND REVIEW OF THE LITERATURE 1

Secondary Traumatic Stress and Related Constructs 6

Countertransference 12

Empathy 18

Differentiation of Self 27

Therapists with Personal Trauma 35

Purpose Statement 37

2. MANUSCRIPT 42

Introduction and Review of the Literature 42

Present Study 54

Method 56

Results 74

Discussion 99

REFERENCES 129

APPENDIX

A. Demographics Form 174

B. PTSD Measures 176
C. Empathy Measures 180
D. Differentiation of Self Inventory-Short Form 187
E. Secondary Traumatic Stress Scale 188
F. Therapist Response Questionnaire 189
VITA 190

LIST OF TABLES

Table Page
1. Traumatic Experiences in the Present Sample 154
2. Variable Descriptive Statistics 156
3. Correlations Between Study Variables 157
4. Model 1: Multivariate Effects on Outcome Variables 158
4a. Univariate Effects on Secondary Traumatic Stress 159
4b. Univariate Effects on Countertransference 160
5a. Model 2A: Multivariate Effects of Affective Empathy x Cognitive Empathy-PT 161
5b. Model 2B: Multivariate Effects of Affective Empathy x Cognitive Empathy-OS 162
6. Model 3: Multivariate Effects of Affective Empathy x Differentiation of Self 163
7. Model 4A: Multivariate Effects of Three-Way Interaction with Cognitive Empathy-PT 164
8. Model 4B: Multivariate Effects of Three-Way Interaction with Cognitive Empathy-OS 165
8a. Univariate Effects of Three-Way Interaction on Secondary Traumatic Stress 166
8b. Univariate Effects of Three-Way Interaction on Countertransference 167

LIST OF ILLUSTRATIONS

Figure Page
1. Conceptual Diagram of Three-Way Interaction 168

2. Steps of Multivariate Multiple Linear Regression.....169

3. Conditional Effects of the Cognitive empathy-OS x Affective Empathy Interaction on Secondary Traumatic Stress.....170

4. Conditional Effects of the Cognitive empathy-OS x Affective Empathy Interaction on Secondary Traumatic Stress, Condensed.....171

5. Conditional Effects of the Cognitive empathy-OS x Affective Empathy Interaction on Underinvolved Countertransference 172

6. Conditional Effects of the Cognitive empathy-OS x Affective Empathy Interaction on Underinvolved Countertransference, Condensed 173

ACKNOWLEDGMENTS

This dissertation is truly a labor of love, and as with all such labors, I am indebted to many individuals for making this work possible. Dr. Murdock has been an invaluable mentor during my time at the University of Missouri-Kansas City. I do not envy your job in having to curtail my verbosity! Your guidance has made be a better and more confident writer, and I continue to benefit from your faith in my abilities. I would also like to thank Drs. Langrehr, Marszalek, and Watson for their assistance as my committee members, and for contributing to my growth as a psychologist trainee. I am a more competent researcher and clinician because of you all.

On a personal note, I would like to thank my parents, Ginger and Cecil Stapley, whose love, support, and genetics made it possible for me to pursue my doctorate. Mom and Dad, my persistence and dedication to this field is a reflection of your values and guidance. Thank you, too, for the weekly Skype calls—I continue to appreciate them more than you know. Christine Serpe and Keara Sherman, my two main stalwarts within the program, thank you so much for your encouragement and friendship. Kayla Vercande, my Maid of Honor and best friend, your many trips to Kansas City were such acts of kindness. Thank you for keeping me tethered to our posse in Georgia despite my distance. To my loving husband, Jake Robert Taylor, you made life so much easier and more bearable throughout this strenuous process. You partnered with me in my graduate journey, and I am forever thankful for your patience; you are my greatest ally. Finally, I would like to thank the many professionals who participated in this study. Your determination to care for others despite

facing personal adversity is a testament to your resilience, and you continue to inspire me in my own clinical work

.

CHAPTER 1

INTRODUCTION AND REVIEW OF THE LITERATURE

Mental healthcare is a demanding profession, which draws a substantial amount of emotional and physical energy from those who provide this service. National surveys of mental healthcare workers, including social workers, counselors, psychologists, and mental health nurses demonstrate that psychological distress is a common problem within this professional community. For example, Kleespies and colleagues (2011) found that 18-29% of mental health therapists sampled reported struggling with suicidal ideation and the British Psychological Society (2017) reported that in a national survey of psychology practitioners, 46% of psychologists and therapists suffered from depression and 70% reported high levels of work-related stress.

Mental health practitioners such as psychologists, social workers, and therapists who work with traumatized individuals in particular are often subjected to repeated, detailed accounts of clients' trauma. Trauma in this case refers to the Diagnostic and Statistical Manual of Mental Disorders-5 definition, "Exposure to actual or threatened death, serious injury, or sexual violence in one or more of the following ways: directly experiencing the traumatic event, witnessing in person the event as it occurred to others, learning that the traumatic event occurred to a close family member or close friend [in this case, the event must have been violent or accidental], or experiencing repeated or extreme exposure to aversive details of the traumatic events" (American Psychiatric Association, 2013, p. 271). Previous research has found that individuals who work with highly traumatized clients experience difficulty with trust, intimacy, and self-esteem (Way et al., 2004), intrusion and avoidance symptoms (Bober & Regehr, 2006), difficulty with interpersonal relationships

(Robinson-Keilig, 2014), worse health perceptions (Lee et al., 2018), and negative countertransference towards traumatized clients (Cavanagh et al., 2015; Follette, et al., 1994). Clearly, professionals providing trauma care may experience a personal cost. It is no surprise, then, that mental healthcare workers, particularly those who work closely with victims of trauma, suffer professional costs like job-related burnout and turnover as well (Garcia et al., 2014).

Empirical findings suggest that therapists who work with trauma survivors may run the risk of experiencing specific psychological, emotional, and cognitive effects as a result of continued exposure to traumatic material, helping to explain the significant levels of negative personal consequences in trauma treatment providers (Bercier & Maynard, 2015; Figley, 1995, Pearlman & Saakvitne, 1995). Several researchers have coined the term Secondary Traumatic Stress (STS; Figley, 1995), which is often used interchangeably with Compassion Fatigue (Figley, 1995) and Vicarious Traumatization (Pearlman & Mac Ian, 1995), to describe these negative changes. STS is defined as a natural reaction that takes place after learning about a traumatizing event experienced by a significant other, such that the traumatized individual in this case is not directly experiencing the trauma, but rather experiences stress related to the indirect exposure to a traumatic event (Figley, 1995). The indirect exposure to trauma, combined with the individual's empathic desire to help the traumatized, leads to a stress reaction that includes emotional disruption and similar symptom emergence as posttraumatic stress disorder (Bride et al., 2004).

Additionally, all therapists are subject to countertransference feelings, or the therapist's reaction to the client due in part to the therapist's own unresolved psychological conflicts (Gelso & Hayes, 2007). Countertransference is also seen as a very natural

therapeutic phenomenon, but without appropriate management, unchecked countertransference can lead to negative outcomes for clients and therapists alike (Hayes et al., 2011). Unmanaged countertransference feelings have been related to therapist anxiety (Gelso, Latts, Gomez, & Fassinger, 2002), and counter-therapeutic behavior like avoidance and withdrawal from the client or overinvolvement and enmeshment in client difficulties (Connery & Murdock, 2019; Fauth & Hayes, 2006).

Although STS has been defined as a phenomenon distinct from countertransference, there have been few attempts to examine these outcomes together to understand their possible relationship, despite conceptual overlap (Kanter, 2007). Examining STS and countertransference together may shed light on the connections between the two phenomena, which can help provide well needed clarity regarding effective ways to manage both experiences (Kanter, 2007). One important link between the two concepts is the importance of empathy in the emergence of these reactions. Within both STS and countertransference literature, empathy is seen as an essential ingredient for mental health treatment, especially for survivors of trauma (Figley, 1995; Peabody & Gelso, 1982). However, both conditions have been considered a "pathology of empathy," whereby a therapist's openness to client suffering, as is necessary to form a therapeutic relationship, can lead to personal distress if improperly managed (Van Wagoner et al., 1991; Lucick & Figley, 2016). Scholars in these respective areas of research (i.e., STS and countertransference) assert that well-managed empathy can protect therapists and mental health professionals from the deleterious effects of countertransference and STS alike (Hayes et al., 2011; Ludick & Figley, 2016; Van Wagoner et al., 1991). Social neuroscientific research offers a deeper understanding of empathic processing through both cognitive and affective dimensions, as well as directions regarding

the regulation of empathy (Batson, 2009; Blair, 2005); however, many studies examining STS and countertransference fail to include the different dimensions of empathy (e.g., affective and cognitive; Ludick & Figley, 2016), and far fewer attempt to explore what factors may help to regulate the empathic connection between therapist and client.

It is likely that empathic regulation mechanisms are increasingly important for mental health professionals who have experienced traumas themselves, whom some have called *survivor therapists* (Pearlman & Mac Ian, 1995). Researchers studying the effects of trauma work on mental health therapists have found that many helping professionals are survivors of trauma themselves. For example, Adams and Riggs (2008) found that about 39% of their sample of 129 doctoral-level clinical and counseling students reported histories of personal trauma. In addition, Butler et al. (2017) found that within their sample of 195 graduate social work students, about 42% reported some experience with retraumatization as a result of their clinical field work. The prevalence of trauma in the therapeutic field is not surprising, considering the high likelihood that any individual will experience a traumatic event in their lifetime (Courtois & Gold, 2009). Personal experiences with trauma often lead individuals to pursue helping others with trauma-related concerns, but these personal traumatic experiences may increase the risk of STS and negative countertransference feelings (Butler et al., 2017; Brady, 2017; Hensel et al., 2015; Pearlman & Mac Ian, 1995; Wilson & Lindy, 1991).

It is thought that by empathically engaging in work with a client's trauma, the therapist's own traumatic difficulties may be triggered (Pearlman & Saakvitine, 1995). However, in most studies examining reactions to working with traumatized clients, personal trauma history has been captured only as an ancillary demographic variable. Furthermore, some studies fail to find a link between therapists' personal trauma history and STS

symptoms, suggesting that there is variation in the degree to which personal trauma affect therapists' reactions (Bober & Regher, 2006; Kadambi & Truscott, 2004). There is likely variation amongst these survivor therapists regarding how they manage the empathic relationship with their survivor clients, which has implications for the emergence of STS symptoms and countertransference reactions. One construct that may help characterize the therapist's ability to manage their empathic response and the accompanying stress is the Bowen family systems theory concept of differentiation of self (Bowen, 1978). Differentiation of self has been defined as one's ability to behave in emotionally mature and self-aware ways in stressful situations, and characterizes one's ability to manage appropriate emotional connection without enmeshment or avoidance (MacKay, 2017). Although studied extensively within romantic or familial dyads, triads, and other relationship configurations, differentiation of self is under-examined as a desirable therapist quality and skill.

In sum, there is a gap in the STS and countertransference literature exploring the complex relationship between aspects of therapist empathy and trauma therapist outcomes. Although personal trauma history is suspected to be a risk factor for STS and countertransference, few studies have specifically explored the population of survivor therapists and of the existing research, studies have only focused on graduate-level trainees (Adams & Riggs, 2008; Butler et al., 2017; Shannon et al., 2014). More research is needed to better understand how STS and countertransference might be related, how empathy plays a role in their development or mitigation, and what factors play a role in the management of empathy so that it does not lead to deleterious outcomes. The following literature review explores these concepts, and makes the case for potential modifiers of the proposed relationship between empathy and therapist reactivity.

Secondary Traumatic Stress and Related Constructs

Secondary Traumatic Stress (STS) is a relatively new construct that has gained interest among researchers within the field of mental health service. It is a concept born out of systems theory detailing the impact of trauma survivor stress on family members (Figley, 1983). Charles Figley first coined the terms secondary victimization and "secondary catastrophic stress reactions," (Figley, 1995, p. 6) which shortly thereafter evolved into the concept of STS (Ludick & Figley, 2016). Figley and colleagues define STS as a natural reaction to the indirect exposure to trauma, often a function of the "dosage" of contact an individual has with the trauma survivor (i.e., direct conversation versus videotaped interview; Ludick & Figley, 2016, p. 2). Those who come into repeated contact with trauma survivors, including family members, medical personnel, mental health practitioners, and friends, can experience physical and emotional disturbances that resemble the posttraumatic stress disorder symptoms in the trauma survivor (Bride, 2007). Secondary traumatization has been hypothesized to include symptoms similar to PTSD, including intrusion of distressing client material, increased physiological arousal, avoidance, distressing emotions, and functional impairment (Chrestman, 1999; Elwood et al., 2011; Follett et al., 1994; Figley, 1995). This phenomenon has been researched across multiple human service professions, including forensic interviewers (Perron & Hiltz, 2006), law enforcement (Bourke & Craun, 2014; Perez et al., 2010), nursing (Raunik et al., 2015), and child protective services (Bride et al., 2007).

Several other terms have arisen to describe similar experiences in clinicians, including Compassion Fatigue (Figley, 1995) and Vicarious Traumatization (Pearlman & Mac Ian, 1995). Compassion fatigue and STS are most often used interchangeably, but when used as different constructs, compassion fatigue refers to the empathic strain the helping

professionals experience when working with any distressed population, whereas STS refers specifically to work or experience with traumatized individuals and is not limited to the helping professions (Elwood et al., 2011; Ludick & Figley, 2016). Compassion fatigue is conceptualized as a broader condition that occurs when both STS and occupational burnout are present over a period of time; ergo, STS and burnout can lead to compassion fatigue if not intervened upon and treated (Figley, 1995).

Vicarious trauma refers to the cumulative effects within the therapist as a result of their empathic engagement with clients' traumatic experiences (Pearlman & Mac Ian, 1995). Although the terms vicarious trauma and STS are often used interchangeably as well, there are subtle differences in their conceptualization. Vicarious trauma focuses primarily on the cognitive and worldview changes involved with repeated exposure to secondary trauma *over time,* meaning that vicarious traumatization is usually not conceptualized as a phenomenon that can occur after one encounter (Pearlman & Mac Ian, 1995). These cognitive changes refer to distortions of one's ways in experiencing self, others, and the world, usually measured through one's beliefs about personal safety, intimacy with others, trust in others, power, and self-esteem (Pearlman & Mac Ian, 1995). Figley (1995), on the other hand, posits that STS can be a quick and often unexpected reaction to one or more instances of exposure to indirect traumatic material. STS encompasses the DSM-IV symptoms of post-traumatic stress disorder, including intrusion of trauma related material (i.e., nightmares), arousal (i.e., easily startled), and avoidance of trauma-related material (Bride et al., 2004). Though they are defined differently, there is little empirical evidence to support that vicarious trauma and STS are in fact different constructs (Bercier & Maynard, 2015; Craig & Sprang, 2010). It could be that the two concepts are different clusters of symptoms pertaining to the same

phenomenon, which would be suggested considering that DSM-5 diagnostic criteria for Post-traumatic stress disorder changed to include cognitive distortions as represented by vicarious trauma measures (American Psychiatric Association, 2013). However, there is more compelling evidence for elevations of intrusion, avoidance, and arousal symptoms in mental health professionals as a result of trauma work than there is for cognitive distortions (Makadia et al., 2017; Robinson-Keilig, 2014). Therefore, in an effort to capture the experience of working with traumatized clients specifically, this study will utilize the construct of STS, but will be informed by literature related to compassion fatigue and vicarious trauma as well.

Paths to Secondary Traumatic Stress

Exposure and related variables. Although interest in STS has risen within psychotherapy research, there are mixed findings regarding when and how severely STS manifests for mental health professionals. Figley's (1995) theory of trauma transmission hypothesizes that it is exposure to traumatic client material, in conjunction with the therapist's empathic connection with the traumatized client, that produces STS reactions. Most studies examining STS focus on exposure to traumatic client material, with far fewer incorporating the therapist's empathic connection as a predictor of STS (Ludick & Figley, 2016). To measure exposure to secondary trauma, most studies focus on organizational or work-related factors like caseload, years of experience, and percentage of trauma cases.

Findings regarding caseload are mixed, with some studies identifying a positive relationship between STS and caseload, and others finding no relationship. For example, in a meta-analysis of 17 potential risk factors for STS collected from 38 studies, Hensel and colleagues (2015) established that the traumatized caseload frequency (how often the

professional meets with traumatized clients in a specific period of time), volume (the number of traumatized clients encountered), and especially ratio (percentage of traumatized clients in total caseload) appeared to predict STS with small but significant average effect sizes (mean *r*s = .12-.19; Hensel et al., 2015). Other studies have not found a relationship between trauma caseload variables and STS (Adams et al., 2008; Devilly et al., 2009; MacRitchie & Leibowitz, 2010; Perron & Hiltz, 2006). With small effect sizes and inconsistent findings, it appears that exposure to traumatic client material may not be the only route through which STS emerges in helping professionals. Indeed, STS theory posits that both exposure and empathy are necessary for STS symptoms to occur (Figley, 1995; Ludick & Figley, 2016).

The helper as a determinant of secondary traumatic stress. Dutton and Rubinstein (1995) proposed an Ecological Framework model detailing the emergence of STS reactions, hypothesizing that both personal and environmental factors may contribute to STS reactions. Whereas environmental factors refer to work load and work intensity, among personal factors include the therapist's inner strengths and resources, personal and professional vulnerabilities, management of countertransference, and general satisfaction or dissatisfaction with their professional and personal lives. Recent meta analyses suggest that demographic variables tend not to account for greater STS risk, however (Hensel et al., 2015). Earlier studies suggested that women experience STS at higher rates than men, but this may be distorted by higher percentages in women in the helping professions (Sabin-Farrell & Turpin, 2003). Some studies have found a relationship between age and STS risk, such that younger therapists are at a greater risk (Adams & Riggs, 2008; Elwood et al., 2011; Pearlman & Mac Ian, 1995; Robinson-Keilig, 2014); however, this relationship may be better explained by years of experience or some other variable entirely. This pattern is difficult to

clarify, as it could be that STS abates with experience or that those with higher STS drop out of the profession. Regardless, it is likely that within any analysis of STS, age, level of experience, and gender should likely be examined as covariates.

One therapist factor hypothesized to relate positively with STS is personal trauma history, identified as a personal vulnerability by Dutton and Rubinstein (1995), particularly if the helper's own trauma bears a resemblance to that of the client's (Baird & Kracen, 2006). It is thought that by empathically engaging in work with a client's trauma, the therapist's own traumatic difficulties may be triggered (Pearlman & Saakvitine, 1995). In a sample of 187 child protective services workers, Bride and colleagues (2007) found a significant relationship between personal trauma history and STS. In a sample of 433 Internet Crimes Against Children personnel, Brady (2017) found a small but significant relationship between personal trauma and STS ($r = .14$, $p < .05$). In a sample of 99 sexual assault and domestic violence counselors, those with interpersonal trauma histories demonstrated significantly higher STS scores compared to those without such histories, but did not demonstrate significantly greater burnout or vicarious trauma scores (Jenkins & Baird, 2002). However, it appears that many other studies have found no such relationship. Kadambi and Truscott (2004), in a mixed sample of clinicians treating clients affected by cancer (N = 64), clinicians treating sexual violence survivors (N = 86), and general practitioners (N = 71) found no relationships between personal trauma history and a measure or STS symptoms nor a measure of clinician burnout. Likewise, among a sample of 129 psychology graduate students, Adams and Riggs (2008) found that personal trauma histories did not make a difference in trauma symptoms for helping professionals. These mixed findings suggest that a history of personal trauma is not necessarily sufficient to incite STS in mental health care

givers, and although a history of personal trauma may indeed heighten STS symptoms in some individuals, others do not experience the same effects.

Perhaps another quality of the therapist, how they manage the stress related to trauma work and proximity to a traumatized individual, can better explain the emergence of STS. Several recent studies suggest that secondary stress reactions are not as much the result of amount of exposure to client traumatic material, but rather how the clinician connects with and reacts to that material (Devilly, et al., 2009; Geoffrion et al., 2016; Kadambi & Truscott, 2004; Ortlepp & Friedman, 2002; Rzeszutek et al., 2015; Thomas & Otis, 2010). Because STS and vicarious trauma are theoretically induced when mental health professionals are exposed to clients' traumatic material, Khadambi and Truscott (2004) predicted that providers treating sexual abuse would demonstrate more evidence of STS and burnout than professionals treating other populations (i.e., general population, psycho-oncology). Contrary to their hypothesis, providers did not differ significantly on self-report measures of distress captured in PTSD-like symptoms, vicarious trauma, and burnout. Proviers did differ, however, in their reports of how potentially traumatizing they perceived their work to be. For example, 83% of sexual abuse therapists rated their work as potentially traumatizing, compared to 50% and 36% of psycho-oncology and general practice clinicians, respectively (Khadambi & Truscott, 2004).

Several possible explanations may exist for these findings. For one, professionals in psycho-oncology and general practice may indeed be seeing clients with significant trauma symptoms, given the likelihood that individuals will experience a trauma within their lifetime. It could also be that mental health providers self-select their specialty given their expertise, such that trauma-specific therapists may have a higher threshold for traumatic

reactions to client material. Alternatively, it could be that the theoretical explanations of STS, vicarious trauma, and compassion fatigue as a result of the amount of exposure to traumatic client material need to be reevaluated. The authors conclude that personal characteristics of the mental health provider may be the most important determinant of how he or she will be affected by their work with clients (Khadambi & Truscott, 2004). Therapist differences could instead be captured through the other necessary path to STS, the therapist's empathic response; however few studies have examined the relationship between therapist empathy and STS symptom emergence in great detail. If STS is indeed a result of the empathic relationship developed between therapist and traumatized client, as Figley (1995) hypothesized, then a therapist's ability to manage the therapeutic relationship (and the respective difficult emotional experiences) may be an important condition for STS to emerge.

Countertransference

Many definitions of countertransference have been proposed in psychotherapy research. Freud's (1910) classical view defined countertransference as an unconscious reaction to the client's transference which hinders treatment, and should be eliminated by the therapist's own participation in psychoanalysis. Emerging in the 1950s, the totalistic view identified all therapist reactions to the client as countertransference (Kernberg, 1965). Many practitioners adhering to the totalistic view believe that countertransference is inevitable and essential for meaningful therapeutic change to occur, as it can be used as a tool to understand the client's reality (Berzoff & Kita, 2010). The third view of countertransference, deemed the complementary view, defines countertransference as a function of the client's style of relating (Hayes et al., 2018). Professionals within the complementary camp assert that the client pulls the therapist in ways that replicate the client's typical relational patterns. It is thus

the therapist's responsibility not to react to these pulls but rather use them to understand the client.

This study will utilize the widely accepted integrated conception of countertransference, which attempts to integrate aspects of the above three definitions into one pan-theoretical concept of countertransference (Hayes et al., 2018). The integrated view identifies countertransference as a result of the therapist's unresolved conflicts, whether conscious or unconscious, and the client presentation (Gelso & Hayes, 2002). The integrated view emphasizes that the origins of the countertransference relate back to the therapist's conflicts and does not include all reactions a therapist may have to a client. For example, a therapist experiencing frustration in response to a client continuously arriving late to sessions may not be considered countertransference, because this is likely a frustration any therapist would experience. However, a therapist becoming frustrated with a client's way of speaking about their partner due to the therapist's dynamic with their own partner would be considered countertransference, as this reaction is therapist-specific. Additionally, this view conceptualizes countertransference as inevitable, as all people have unresolved conflicts. The ability to manage these reactions is an important skill for maintaining any kind of therapeutic relationship, and it is the therapist's responsibility to understand and manage these reactions (Hayes, 2004).

Countertransference Reactions

In general, countertransference reactions have largely been operationalized on a polarity between therapist avoidance and therapist enmeshment, and can be observed through therapist behaviors, cognitions, and emotional reactions. The most commonly used behaviors signaling countertransference are the therapist's avoidance or withdrawal from threatening

client material, and therapist overinvolvement with the client and having their own needs met somehow within the therapeutic space (Hayes et al., 2018). Cognitively, countertransference is often detected via distorted appraisals of clients, for example perceiving a client to be hostile or "difficult" when they may not be, or inaccurate recall of session content (Fauth & Hayes, 2006; Hayes et al., 2018). The most commonly used affective indicator of countertransference is anxiety occurring in-session (Hayes & Gelso, 1991; Shamoon et al., 2017; Yulis & Kiesler, 1968). In sum, countertransference can be characterized as the therapist's avoidance of threatening client material or overidentification and overinvolvement with the client and their difficulties, as well as session-induced anxiety and distorted cognitions related to the client or the therapeutic work.

Wilson et al. (1994) classified two different forms of countertransference responses that are particularly common in trauma work. Type I countertransference responses include avoidant disengagement, and detachment responses. The authors hypothesize that this particular set of countertransference responses is an attempt to protect the helper from the anxiety that comes with facing difficult client emotional content. The mental health professional may experience empathic distress in response to the client's distress over having been victimized; as a result, the mental health professional may experience doubt about their own therapeutic efficacy to relieve the client's (and subsequently their own) distress, which creates anxiety (Wilson et al., 1994, p. 43). The authors go on to say that the emergent anxiety then leads to defensive attempts to control the distressing affect through avoidance and reduce feelings of uncertainty. The result is a detachment of the therapist from an empathic stance with the client, which can look like denial of symptoms, minimization of

difficulties, avoidance of traumatic content, and forms of withdrawing from the therapeutic situation.

The second form of typical countertransference reactions in trauma work, Type II, includes overidentification, enmeshment, and rescuer responses; these responses represent misguided attempts to maintain empathic engagement with the client, which can ultimately lead to a rupture of empathy and the diminishment of the therapist's effectiveness (Wilson et al., 1994). This set of countertransference reactions may be especially prevalent for helpers who have unmet needs or unresolved difficulty, thus using their client's treatment as a surrogate for their own needed growth. Wilson et. al (1994) indicate that these two forms of therapist reactions can occur concurrently in the same therapist, and are not mutually exclusive. Throughout the course of trauma therapy, it is likely that the therapist will experience a range of reactions and though they may have a tendency to experience either Type I or II reactions, may experience both. The primary difference between Type I and II countertransference reactions is that in Type I, the therapist is overwhelmed by the client's pain and avoids empathic connection as a means of protecting themselves, whereas in Type II, the therapist actively seeks to help the client but loses the necessary role boundaries for maintaining the therapeutic relationship.

To provide an example, imagine Therapist A working with a traumatized client. Therapist A has an unresolved trauma themselves, and when the client expresses heightened affect related to their traumatic experience, Therapist A begins to experience heightened anxiety. To relieve this anxiety, Therapist A watches the clock, and changes the subject in the session. Therapist A may also allow their mind to wander as the client speaks, effectively distancing themselves from the anxiety that has been triggered by their own unresolved

conflict. This can be described as underinvolved or avoidant countertransference, Type I as Wilson and colleagues (1994) define. Conversely, imagine Therapist B who also has an unresolved trauma. Therapist B also experiences anxiety when their traumatized client reflects on their own traumatic experience. Therapist B, however, begins to relate themselves to the client, fusing their experiences with the client's. As a result, they self-disclose more often with this client, and may give this client more personalized attention, getting caught up with the client's experience and going overtime with the session. Therapist B is experiencing overinvolved or enmeshment countertransference, Type II countertransference. As a result of Therapist B's over-identification with the client, they overextend themselves, unconsciously attempting to therapize two parties for the price of one: their client, and themselves. Both reactions, if left unchecked, can result in a reduction in appropriate care for clients, and a fast track to burnout for the therapist.

Countertransference and Secondary Traumatic Stress

At first glance, there appears to be significant overlap between countertransference and STS, including anxious reactions to client exposure, avoidance of or overinvolvement with client traumatic material, and resulting cognitive distortions as well. Figley (1995) attempted to differentiate STS from countertransference reactions by stating that countertransference is merely a reaction to the client's transference, which only occurs in the therapeutic space. In contrast, secondary trauma is a reaction specifically to the client's trauma, and which affects the therapist beyond the therapy room. At the same time, however, Figley suggested that STS may include but is not limited to some countertransference reactions; Dutton and Rubinstein (1995), however, within the same text asserted that countertransference and secondary stress reactions are separate phenomena. Additionally,

Figley (1995) stated that countertransference is an unwanted, negative phenomenon, which must be eliminated from therapy, whereas secondary trauma is a natural reaction, a normal byproduct of caring for someone with severe trauma. Kanter (2007), in a critical commentary on Figley's conceptualization, proposed that there was a lack of conceptual clarity distinguishing compassion fatigue or STS reactions from countertransference reactions, and proposed that secondary traumatization was in fact a product of countertransference, rather than distinct from it. On the other hand, Berzoff and Kita (2010) responded to Kanter's (2007) commentary by distinguishing conceptual differences between countertransference and compassion fatigue/STS, namely by asserting that countertransference theoretically occurs in every therapeutic relationship whereas STS does not.

Despite this back and forth, there is a lack of empirical research supporting the separation of STS and countertransference as distinct constructs in relation to therapist reactions to client difficulty. To make matters worse, differing definitions of countertransference and misuse of the terms STS, vicarious trauma, and compassion fatigue further obscure conceptual clarity. It is not entirely clear whether STS is in fact a separate construct, or if it is a countertransference-like reaction that occurs as a result of the therapist's inability to recognize and manage countertransference. Regardless, if countertransference refers to therapist reactions in the therapeutic space, and STS refers to therapist reactions that bleed beyond the therapeutic space, management of those initial client reactions may have implications for the development of therapist stress and counter-therapeutic actions. To my knowledge, however, no published studies examine aspects of countertransference in relation to STS symptoms.

Empathy

A major similarity between STS and countertransference is that they both share a theoretical connection with therapist empathy. Empathy is broadly defined as the ability to correctly interpret the emotions and perspectives of others and respond appropriately (Chrysikou & Thompson, 2016). Carl Rogers largely popularized the use and importance of empathy as a central component of effective therapy and described it as "the therapist's sensitive ability and willingness to understand the client's thoughts, feelings and struggles from the client's point of view. [It is] this ability to see completely through the client's eyes, to adopt his [sic] frame of reference…" (1980, p. 85, as cited in Elliott et al., 2011). Rogers' definition hints that there are both cognitive and affective, understanding and feeling, components to empathy, which has been elaborated upon by more studies using neuroimaging and experimental methods (Decety & Jackson, 2004; Eisenberg & Eggum, 2009; Lamothe et al., 2014).

Most researchers of empathy agree that to empathize with an individual, three components are necessary: an affective component in which a person shares in the emotional experience of another, a cognitive component in which a person can conceptualize and understand another's experience, and a regulatory mechanism by which self- and other-feelings are kept distinct (Decety & Jackson, 2004; Eisenberg, 2000). Affective empathy is defined as the ability to feel as another individual feels, often involving an emotional reaction and regarded as "bottom-up" neurological processing (Batson, 2009; Lamonthe et al., 2014). Affective empathy is often referred to as emotional contagion, such that emotion spreads from one individual to another (Doherty, 1997; Hatfield et al., 1994). This "spreading" appears to be facilitated by the primitive, automatic process of emotional mimicry, which has

often been demonstrated via automatic facial mimicry in response to viewing another person expressing emotion. Imagine how a baby will begin to cry when seeing another infant cry, just by forming a similar face (Balconi & Canavesio, 2013; Balconi & Lucciari, 2007; Sonnby-Borgström et al., 2008).

Cognitive empathy, on the other hand, is "top-down," and involves taking on the perspective of the other and understanding their internal state (Batson, 2009; Blair, 2005; Elliott et al., 2011). This process requires more sophisticated imaginal processing by which an individual comes to understand and account for the perspective of another (Doherty, 1997). Eisenberg and Eggum (2009) suggest that the total empathic response can evolve into either prosocial behaviors (i.e., empathic concern, the desire to help others), or personal distress, a "self-focused, aversive affective reaction to the apprehension of another's emotion," which often appears as anxiety or discomfort (Eisenberg & Eggum, 2009, p. 72). The regulatory mechanism determines whether or not empathy erupts into personal distress or is managed and channeled into pro-social concern and behavior. Within this study, I will examine STS and countertransference as aspects of personal distress that may occur from strained or unmanaged empathy.

Secondary Traumatic Stress and Empathy

According to STS theory, the more empathic a clinician, the more susceptible they are to STS (Figley, 1995; Ludick & Figley, 2016). However, as Ludick and Figley (2016) noted, there is a lack of thorough empirical exploration concerning the role of empathy in the process of secondary traumatization. Thomas and Otis (2010) investigated the connection between compassion fatigue and aspects of empathy, mindfulness, and emotional separation in a sample of 171 clinical social workers. Using the Interpersonal Reactivity Index (IRI;

Davis, 1983), they found that two proposed empathy factors positively predicted compassion fatigue; however, no aspects of empathy were associated with compassion fatigue when mindfulness skills and emotional separation were entered into the regression model, suggesting that emotion regulation skills may better account for variance shared between empathy and compassion fatigue (Thomas & Otis, 2010). In a national sample of 7,584 practicing physicians, Gleichgerrcht and Decety (2013) found a positive and significant relationship between STS and the Emotional Concern and Personal Distress subscales of the IRI, considered by the authors to represent affective empathy, but a non-significant negative relationship between STS and the Perspective Taking subscale of IRI, considered a measure of cognitive empathy. These results suggest that affective and cognitive empathy may have differing effects on STS, and that perhaps alone cognitive empathy may not have a significant relationship to STS.

One study in particular, cited heavily by Ludick and Figley (2016) in their reconceptualization of secondary trauma induction and resilience, attempted to distinguish between cognitive and affective components of empathy in their relationship to general practitioner burnout. Although the authors did not examine STS, burnout is a component of the more broadly defined concept of compassion fatigue and is both theoretically and empirically related to STS symptoms (Cieslak et al., 2014). Lamothe and colleagues (2014) performed a cross sectional survey of 294 French general practitioners and examined their perceptions of burnout as a factor of cognitive empathy, measured by the IRI subscale perspective taking, and affective empathy, implied from IRI subscale empathic concern. Expecting to find higher burnout in clinicians with higher affective empathy and lower cognitive empathy, the authors instead found that both cognitive empathy and affective

empathy were associated with less burnout, though cognitive empathy demonstrated a stronger relationship (*r*s -.24 and -.17, respectively, *p*s < .01). Another surprising finding was the interaction between empathic concern and perspective taking. For providers with low perspective taking, affective empathy did not predict burnout, but when perspective taking was high, affective empathy was negatively predictive of burnout. The physicians that were the least likely to report burnout had high cognitive *and* high affective empathy (Lamothe et al., 2014). These findings suggest that for general practitioners, a degree of affective empathy and cognitive empathy is helpful in protecting against burnout symptoms, however affective empathy seems to only benefit when cognitive empathy is high. The authors proposed that cognitive empathy (i.e., perspective taking) assisted with affective empathy regulation, and that at a certain point, affective empathy is likely to harm clinicians. This makes sense as affective empathic responses are more automatic, whereas cognitive perspective taking requires higher order theory of mind processing. Consistent with Lamothe and colleagues' (2014) findings, several researchers have suggested that the recruitment of cognitive processing in the affective empathic experience can modulate the affective response (Heberleine & Saxe, 2005; Lamm et al., 2007).

Whereas Lamothe et al. (2014) were the first to examine different aspects of empathy in combination with burnout in a sample of general practitioners, STS is a distinct reaction that occurs in helping professionals working with trauma specifically. For trauma care providers who have experienced trauma themselves, it may be difficult to differentiate one's own experience from the client's experience, even while engaging in more cognitively empathic skills. To date, the relationship between cognitive and affective empathy and STS remains unexamined. More research is needed in order to understand the relationship

between components of empathy and STS in professionals treating mental health difficulties as emotionally laden as trauma.

Additionally, in each of the previous studies reviewed within this section, the IRI was used as a means of measuring cognitive and affective empathy. The IRI is by far the most widely used self-report measure of empathy and validated for use in multiple cultures and ages, for example with Chilean adults (Fernandez et al., 2011), Chinese students (Siu & Shek, 2005), and with Swiss prisoners (Lauterbach & Hosser, 2007); however, despite its prolific use, the IRI has been criticized for its lack of coherent factor structure and inclusion of subscales that may not be a valid representation of the empathy construct (Chrysikou & Thompson, 2016; Hojat et al., 2005; Pulos et al., 2004). Although many researchers use the IRI subscales as representations of cognitive and affective empathy, factor structure analyses of the scale do not support this interpretation, and the measure has been criticized for poorly capturing affective empathy in particular (Chrysikou & Thompson, 2016). Consequently, the validity of findings from studies claiming to use the IRI as a measure of both cognitive and affective empathy are subject to question.

Countertransference and Empathy

Countertransference and empathy, although theoretically related, appear to have a complex and poorly understood relationship (Peabody & Gelso, 1982). According to psychoanalytic theory, empathy and countertransference are related in that they both involve the therapist (to some degree) identifying with the client (Reik, 1964, as cited in Peabody & Gelso, 1982). The process of identification allows the therapist to better understand what the client is experiencing, feeling, and thinking. However, countertransference reactions seemingly occur when something goes awry within the process of identification (Peabody &

Gelso, 1982). The theoretical relationships between empathic ability and countertransference would seem to assume that the more empathic the counselor is, the more likely they are to be reactive to the client's emotional experience. However, theory and empirical findings also suggest that the more empathic the individual, the more attuned they are to their own feelings as well, providing an opportunity for the self-reflection and emotional understanding necessary to address their own countertransference reactions (Fish, 1970; Peabody & Gelso, 1982).

In their exploratory study of countertransference feelings and behavior in relation to counselor empathy, Peabody and Gelso (1982) hypothesized that empathy may leave a therapist more open to countertransference *feelings*, but helps therapists manage their countertransference *behavior*. The distinction here is that countertransference feelings include the affective response to the client that occurs as a result of the therapist's unresolved conflicts, like anger, criticism, anxiety, or love. Countertransference behavior is how the therapist inappropriately acts on these feelings. For example, if they feel anxiety, a countertransference behavior would involve avoiding heightened affect or threatening subjects in therapy. In this case, Peabody and Gelso (1982) believed that openness and awareness to one's countertransference feelings would allow for protection against unchecked countertransference behaviors, and that empathy assists therapists in this awareness. Openness to countertransference behaviors was measured via whether the counselor believed countertransference feelings can be helpful, the percentage of clients with whom they experience countertransference, and whether or not countertransference is experienced more within as opposed to outside the session (Peabody & Gelso, 1982). Within their sample of 20 male counselors, Peabody and Gelso found that higher self-reported

empathic understanding scores related positively and significantly with openness to countertransference feelings, and negatively but not significantly with countertransference behaviors. These findings suggest that empathy may play a role in the development of countertransference feelings but not countertransference behavior. It is worth considering what qualities or skills may allow a therapist to become aware and appreciative of their countertransference feelings so that they may be properly managed.

In their model of countertransference management, Hayes et al. (2018) stated that therapist empathy is in part necessary for proper countertransference reaction management. However, therapist empathy within this model is defined as "the ability to *partially* identify with and put one's self in the other's shoes," (Hayes et al., 2018, p. 498, emphasis added). Thus, in describing countertransference management, Hayes and colleagues assert that the therapist's empathy itself must be managed, such that there is a partial identification with the client as opposed to an over-identification or under-identification with a client. This perspective on empathy is consistent with Decety and Jackson's (2004) and Eisenberg's (2000) conceptualizations of empathy whereby empathy requires an ability to step in and step out of the emotional identification with another. Effectively doing so will prevent the empathizer from losing sight of their own sense of self or distancing completely from the other individual. A weakening of this ability to remain involved but separate from the client results in what some refer to as empathic strain (Slakter, 1987). Slakter (1987) and Wilson and Lindy (1991), in their reviews of empathy and countertransference, indicate that empathic strain within the therapeutic relationship often results in affective reactions within the therapist, and intense affective reactions can subsequently cause negative countertransference reactions. In this way, mismanaged or strained empathy can result in a

vulnerability to negative countertransference reactions. One can expect, then, that properly regulated empathy, which includes a knowledge of one's partial identification with the client, would result in less vulnerability to negative countertransference reactions. It is important to keep in mind, however, that countertransference reactions have never been examined in relation to cognitive and affective measures of empathy; thus, it is difficult to predict how these related but distinct empathic processes may relate to countertransference reactions. Examining the relationship between countertransference reactions and both cognitive and affective empathy may help to clarify the link between empathy and countertransference.

Empathy Regulation

It is hypothesized that the empathizing individual's level of emotional self-regulation, as well as their ability to distinguish their own feelings from another's, determines whether empathy evolves into a manageable, sympathetic response or a personally distressed response (Eisenberg & Eggum, 2009; Decety and Lamm, 2009; Decety & Jackson, 2004). Regarding self-regulation, high scores on adults' self-reported effortful control, otherwise known as one's ability to use executive attention to control temperament and action, were positively related to reports of sympathy and negatively related to self-reported personal distress (Okun et al., 2000; Eisenberg & Okun, 1996). Relatedly, emotion regulation appears to allow physicians to down-regulate their pain response, effectively mitigating their distress in response to seeing pain in others (Decety et al., 2010). Decety and colleagues (2010) concluded that this ability to down regulate the emotional pain response frees up the cognitive resources necessary to complete their work.

Explorations of self-other differentiation in empathic processing suggest that cognitive empathic processes can temper the affective response (Heberlein & Saxe, 2005;

Lamm, et al., 2007; Lamothe et al., 2014; Strayer & Eisenberg, 1987). For example, in an early study examining the effect of different types of perspective taking on participants' psychological responses, Batson, Early, and Salvarani (1997) presented participants with a vignette of a girl named Katie who was struggling to cope with college after the death of her parents, but varied the instructions to understand Katie's experience. One group of participants was asked to focus on Katie's feelings and imagine her experience, which produced greater empathic concern and sympathy responses. However, the other group was asked to imagine themselves in Katie's place to simulate a blurring of self-other differentiation, and they showed stronger signs of distress in comparison (Batson et al., 1997).

Similar results were found with regard to imagining physical pain in others. Lamm, et al. (2007) found that while watching a video of others experiencing pain, asking participants to imagine how they would feel in the same situation induced more personal distress than asking them to imagine what the individual in the video was experiencing. Although both conditions stimulated pain centers in the brain, those able to cognitively take the other-oriented perspective experienced less distress while watching the pain response compared to those taking a self-oriented perspective (Lamm et al., 2007). It also appears that priming self-other differentiation can facilitate cognitive empathic processes that help distance individuals from others' pain (i.e., imagine how *they* feel versus imagine how *you* would feel in this situation). Given these findings, it seems important to consider regulatory mechanisms that allow an individual to feel for another and cognitively understand their perspective without becoming emotionally distressed or losing the distinction between themselves and others. It is likely that one's inherent ability to down-regulate their emotional experience and clearly

differentiate themselves from another allows for increased recruitment of cognitive empathy responses as opposed to responding only with emotion (Decety et al., 2010). One variable that accounts for both supposed necessities for empathy management, emotion regulation and self-other distinction, is differentiation of self, a construct from Bowen Family Systems Theory (BFST).

Differentiation of Self

BFST is widely recognized as one of the most comprehensive explanations of how family-of-origin processes affect individuals in their future relationships (Charles, 2001; Murdock, 2017). The foundation of BFST rests on an individual's ability to distinguish their sense of self in relation to their family-of-origin, as well as to distinguish thought from feeling, known as differentiation of self (Kerr & Bowen, 1988). Thus, differentiation of self has two components: the intrapersonal, distinguishing between thinking and feeling systems and regulating emotional responses, and the interpersonal, maintaining an autonomous sense of self in the context of emotional connection with others (Kerr & Bowen, 1988; Titelman, 2015). According to Bowen, an individual's level of differentiation of self is established within the family-of-origin and carried into that individual's future relationships, making one's level of differentiation a stable and persistent trait (Kerr & Bowen, 1988). Thus, one's relationship with their caregivers and the family emotional system determines one's ability to differentiate from others—healthy family functioning begets healthier levels of child differentiation, whereas abusive family dynamics often predicts dysfunction in the child's future relationships (MacKay, 2012). Indeed, mothers with lower levels of differentiation of self are at higher risk for child maltreatment (Skowron, Kozlowski, & Pincus, 2010). Pertinent to the present study, although experiencing adverse childhood events can have a

negative impact on the child's development of differentiation of self, negative family emotional processes (predicted by parental differentiation of self) appear to compound the effects of childhood trauma to predict lower levels of differentiation of self in adulthood (Swanberg-Hejelm, 2020). As a trait associated with interpersonal and intrapersonal functioning, differentiation of self has also been examined in a variety of contexts outside of the family of origin, including romantic relationships (Stapley & Murdock, 2020), stress management in college students (Murdock & Gore, 2012), and countertransference management in mental health therapists (Connery & Murdock, 2019) .

Differentiation of self is broken down even further into four factors that measure the interpersonal (i.e., Emotional Cutoff and Fusion) and the intrapersonal (i.e., I-Position and Emotional Reactivity) dimensions (Skowron & Friedlander, 1998). Intrapersonal differentiation of self refers to one's ability to distinguish emotional experiences from intellectual thought. Higher levels of differentiation of self, in this case, are characterized by less emotional reactivity, better stress management, and a stronger capacity to maintain one's own sense of autonomy within stressful situations (i.e., I-position; Kerr & Bowen, 1988). Interpersonally, higher levels of differentiation are characterized by a greater comfort with intimacy while still being able to maintain personal independence; therefore, those with higher levels of differentiation of self are able to maintain appropriate boundaries with others especially during times of duress, without keeping too much distance and without enmeshing entirely with others (Kerr & Bowen, 1988; Skowron & Schmitt, 2003; Stapley & Murdock, 2020). Thus, those with lower levels of differentiation of self have difficulty distinguishing between thinking and feeling systems, and are likely to become overwhelmed under stress. Without emotional control and a firm sense of self, they become prone to anxiety, which

leads them to cope with either overinvolvement with important others (i.e., fusion) or increased tendencies to emotionally cut-off in order to manage their anxiety (Bowen, 1978; Timm & Keiley, 2011).

Capturing one's ability to engage in intellectual and rational facilities versus emotional disarray, it is expected that greater differentiation of self would predict better self-control, emotion regulation, and general stress management. Although the functioning of even highly differentiated individuals is reduced when under acute stress, functioning can be viewed along a differentiation of self-continuum. Those who can interpersonally and intrapersonally differentiate operate effectively on one end of the continuum, whereas those less able to differentiate function poorly at the other end and may see severe symptomatology as a result (MacKay, 2012). Indeed, a broad base of literature has formed using differentiation of self as an explanation for or modifier of self-regulation, including perceptions of distress, stress management, effortful control, and coping (Krycak et al., 2012; Peleg-Popko, 2002; Skowron & Dendy, 2004; Skowron et al., 2004; Wright, 2009). Studies differ on their interpretation of stress, and whether or not one overarching component of differentiation of self is used as opposed to the four subcomponents (i.e., I-position, Fusion, Emotional Reactivity, and Cutoff). Using full scale differentiation of self scores, Murdock and Gore (2004) found that differentiation moderated the relationship between perceived stress and psychological distress, such that less differentiated individuals with high perceived stress reported significantly more psychological distress compared to well differentiated individuals with similar levels of perceived stress. Additionally, although differentiation of self was predictive of more adaptive coping styles, coping itself was not found to predict psychological distress over and above differentiation of self, suggesting that coping style

may be subsumed in the more conceptually broader construct of differentiation of self. The authors suggest that perhaps differences in coping are merely manifestations in individuals' inherent differences in levels of differentiation of self (Murdock & Gore, 2004).

Skowron and Dendy (2004) examined the links between adult attachment styles and the various subscale components of differentiation, and found that higher levels of differentiation of self were related to more secure attachment styles, and was a better predictor of effortful control (i.e., self-regulation) than attachment style. Specifically, attachment anxiety was most closely related with emotional reactivity, and attachment avoidance with emotional cutoff. Over and above attachment styles, greater ability to take the I-position in relationships and less emotional reactivity both uniquely predicted greater effortful control, or the ability to focus and shift attention, inhibit undesirable behaviors, and engage with an activity despite the desire to avoid. Similarly, Skowron, Wester, and Azen (2004) found that differentiation of self mediated the relationship between college stress and psychological adjustment in a sample of 126 undergraduate students, and after examining the subcomponents, found that emotional reactivity and emotional cutoff specifically mediated this relationship. Krycak et al. (2012) found that all components of differentiation of self significantly predicted lower college stress, perceived stress, and psychological distress, but found that only I-position and emotional reactivity partially mediated the relationship between varying aspects of college stress and perceived stress.

Differentiation of Self, STS, and Countertransference

Differentiation of self captures qualities that would likely aid mental health professionals in the formation and maintenance of an effective therapeutic relationship, especially in relation to countertransference reactions and STS. As discussed above, healthy

differentiation of self is related to effective anxiety and stress management in adults. Theoretically, an individual who is more highly differentiated should be able to distinguish their own experience from another's, properly manage interpersonal boundaries so as not to become cutoff or fused with another, and more effectively manage affective reactions as they occur in relationships, qualities that likely could protect individuals from harmful secondary stress reactions, and would contribute to the proper management of countertransference.

Connery and Murdock (2019), using an analog experimental design, examined the interactive effect between client presentation (a demanding client versus a submissive client) and therapist differentiation of self on countertransference feelings and behaviors. In this case, behavior was measured by the therapist's chosen verbal response to client videotape segments. Higher differentiation of self significantly predicted less overinvolved and underinvolved countertransference feelings and less overinvolved countertransference behaviors (Connery & Murdock, 2019). Additionally, higher self-reported differentiation of self also predicted more appropriate therapist responses, over and above client condition. These findings were consistent with previous research conducted by Fatter and Hayes (2013), who found that I-positioning was related to fewer countertransference responses as measured by an observing supervisor. Together, these findings support differentiation of self as a possible protectant against harmful countertransference reactions, including both feelings and behaviors. To this end, therapists better equipped to manage closeness and distance pulls and affective intensity in the therapeutic relationship may be less likely to experience distressing countertransference reactions.

Halevi and Idisis (2018) explored the related construct, vicarious trauma, and differentiation of self in a sample of 134 therapists. Both interpersonal and intrapersonal

components of differentiation of self significantly predicted lower evidence of vicarious trauma (-.29 and -.44 respectively, $p < .01$). Although examined within children of ex-prisoners of war (ex-POWs) instead of therapists, Zerach (2015) hypothesized that differentiation of self mediated the relationship between ex-POW children's exposure to their fathers' stressful behaviors and symptoms of STS. Sampling both children of ex-POWs and children of veterans who were not POWs, Zerach (2015) found that the children of ex-POWs experienced more secondary trauma symptoms, and the relationship between group membership (ex-POW fathers versus non-POW veteran fathers) and secondary trauma was fully explained by the four differentiation of self components, with the majority of the shared variance attributed to emotional cutoff. Additionally, the relationship between exposure to father's stressful behaviors and secondary trauma symptoms was partially mediated by emotional reactivity and emotional cutoff (Zerach, 2015). In both of these analyses, exposure to negative life events was controlled for, providing a picture of STS in adult children (mean age of 35.21) of ex-POWs unencumbered by general life stress and direct trauma. These results suggest that both intrapersonal dimensions of differentiation of self, especially emotional reactivity, and interpersonal dimensions of differentiation of self, namely emotional cutoff, help to explain the relationship between exposure to indirect trauma and STS.

Zerach's (2015) interpretation of these findings point to emotional cutoff as a protective coping mechanism for the child from the intensity of the ex-POW father's trauma; however, with emotional cutoff comes greater isolation, and the potential for avoidance of others and avoidance of painful emotions, particularly if the child has higher levels of emotional reactivity. The lack of effective emotional differentiation may lead to the

expression of avoidant and intrusive secondary traumatic symptoms. I return now to Thomas and Otis' (2010) survey of licensed clinical social workers, in which 171 social workers reported on compassion fatigue, burnout, compassion satisfaction, and various potential correlates. Although this study did not focus on differentiation of self per se, the authors found that the strongest predictor of the STS component of compassion fatigue (burnout removed as a separate scale), over and above social workers' personal trauma, their years of work experience, their level of trait empathy, and mindfulness, was emotional separation, defined as one's ability to differentiate others' emotional experiences from their own (Corcoran, 1983). The relationship between emotional separation and compassion fatigue was strong ($r = -.499$, $p < .001$), and suggests that social workers' ability to emotionally separate from their clients may protect them from STS symptoms.

Differentiation of Self and Empathy Regulation

There is enough evidence to suggest that differentiation of self contributes to the emergence of countertransference reactions and STS on its own; however, this study focuses on the regulation of empathy as it pertains to STS and countertransference reactions, and the role differentiation of self may play in the path between empathy and STS and countertransference. Empathy researchers have suggested that aspects of interpersonal self-other differentiation, emotional regulation, and effortful control are necessary for the regulation of empathy so that empathic reactions can facilitate prosocial attitudes and behaviors as opposed to personal distress (Decety & Jackson, 2004; Eisenberg & Eggum, 2009). Relatedly, Bowen (1978) predicted that managing the needs of others within emotional contexts necessarily increases anxiety. This increase in anxiety, as Ferrera (2014) described, produces predictable relationship patterns in accordance with Bowenian theory:

distancing from the individual whose relationship induces anxiety as a means to avoid the distress, or over-involvement with the relationship in an effort to "fix" the problem and eradicate the tension. These reactions are similar to clinician countertransference feelings and STS reactions (Bride, 2007; Hayes et al., 2018). If differentiation of self in relation to the family of origin allows an individual to effectively manage the interpersonal and intrapersonal anxiety associated with managing the needs of others, it is likely that the path between the empathic connection to STS and countertransference reactions may be altered by one's level of differentiation of self.

Several studies have provided evidence that cognitive empathy can moderate the effects of emotional concern and sensitivity (Lamm et al., 2007; Batson et al., 1997). Going further, it is worth considering what allows a person to engage in cognitively-focused empathic processing when they are in emotionally intense situations where emotional contagion is more likely. The previously reviewed studies provide evidence that differentiation of self may help to facilitate de Waal's suggested "shift in perspective" that is needed to effectively empathize with another individual without losing sense of one's self (de Waal, 2008; Ferrera, 2014). The concept of differentiation of self includes balancing interpersonal autonomy and togetherness, emotional and intellectual balance and regulation, and is predictive of greater effortful control in adults (Skowron & Dendy, 2004). The connection between differentiation of self and effortful control in particular establishes that individuals who are better differentiated are also more likely to engage in self-regulation and rational thinking as opposed to emotional reactivity. Differentiation of self may allow for a prioritizing of cognitive empathy responses, which may promote more effective management of affective empathy (Lamm et al., 2007; Lamothe et al., 2014). Put another way,

differentiation of self may enhance the moderating effects of cognitive empathic processing, protecting mental health professionals from overreactive affective empathy responses. To date, however, no studies have explicitly examined differentiation of self as a component of empathy regulation.

Therapists with Personal Trauma

Within the STS literature particularly, there exists empirical support for the assumption that personal trauma increases one's vulnerability to indirect traumatic reactions (Hensel et al., 2015; Pearlman & Mac Ian, 1995). This pattern has been expanded in several recent studies examining the indirectly traumatizing effects of trauma-specific training in counseling and clinical graduate clinicians (Adams & Riggs, 2008) as well as social work graduate programs (Butler et al., 2017; Shannon et al., 2014a; Shannon et al., 2014b). Of particular importance in each of these studies is the surprising rate of personal trauma in the trainee samples. For example, Butler et al., (2017), in a sample of 195 social work graduate trainees, found that 41.7% endorsed experiencing retraumatization effects from graduate training. Shannon et al. (2014a), although in a much smaller sample, found that in their consensual qualitative examination of 17 social work trainees' reactions in a trauma-treatment course, 47% of this sample reported having a trauma in their background. Relatedly, 38.7% of Adams and Riggs' (2008) 129 doctoral and master's-level clinical and counseling student sample reported a personal history of trauma, suggesting that these rates may be roughly equal across mental health related graduate programs. In a sample of professional therapists, including social workers, master's-level clinicians, psychologists, and nurses, 60% reported having a personal trauma history (Pearlman & Mac Ian, 1995).

Shannon et al. (2014a) and (2014b) discovered that survivor therapist trainees appeared to be more likely to experience negative emotional reactions, avoidance, hyper-arousal, and reexperiencing symptoms (e.g., nightmares, etc.) in response to course work content like reading traumatic case studies and books written by traumatized authors. Butler et al. (2017) found that participants' report of retraumatization experiences significantly accounted for training-related STS, such that students experiencing more retraumatization were more likely also to endorse STS reactions to both coursework and fieldwork ($r = .44$, $p < .001$). These findings suggest that a significant proportion of social work trainees involved in trauma work may be experiencing retraumatization due to trauma-related training, and as a result may experience higher levels of STS. This pattern has been established in some professional groups outside of graduate-level training; for example Dworkin, Sorell, and Allen (2016) found rape crisis center workers with a history of sexual abuse or assault experienced significantly higher STS symptoms than workers who did not have a history of sexual trauma.

Although these findings support the theoretical assumption that personal trauma history is a risk factor for STS reactions, they also raise the question of whether STS is distinct from post-traumatic stress disorder in those with personal trauma histories (Elwood et al., 2011). Few studies partial out or control for PTSD symptoms related specifically to one's personal trauma when examining secondary stress in response to client trauma, but instead merely control for a history of personal trauma. This is problematic, as a history of personal trauma does not guarantee the presence of PTSD in relation to that trauma. Thus, reactions to one's personal trauma may be a better predictor of future reactions to client trauma (Elwood et al., 2011; Creamer & Liddle, 2005). Creamer and Liddle (2005), for

example, found that although having a personal trauma history was not predictive of current stress reactions, participant report of having previously received personal therapy for their trauma was, such that mental health professionals who sought personal therapy for their own trauma predicted greater current trauma symptoms. Additionally, several studies have failed to find a significant relationship between personal trauma and adverse clinician reactions, suggesting variability in the degree to which personal trauma contributes to reactions like STS and countertransference (Adams et al., 2008; Khadambi & Truscott, 2004; Ortlepp & Friedman, 2002). Because few studies seek to exclusively recruit survivor therapists, the connection between personal trauma reactions and reactions to clients remains murky. In fact, in their review of STS in clinicians, Elwood and colleagues (2011) found no studies that attempted to examine reactions to both direct traumatic experiences (one's own personal trauma) and indirect traumatic experiences (client trauma exposure). There is far less in the literature regarding countertransference with therapists with personal trauma, despite a longstanding call for studies examining the "wounded healer," (Hayes 2002, 2004). Although it seems clear that clinicians with personal trauma histories are more vulnerable to distress in reaction to client trauma work, the route of these reactions are unclear due to a lack of focus on survivor therapists specifically.

Purpose Statement

Although most professionals are aware of the damage that STS and unchecked countertransference can cause, little movement has been made regarding how best to prevent or manage these experiences, outside of the typical "self-care and supervision" platitudes (Kanter, 2007). With the likelihood that professionals in the trauma psychology field have experienced trauma themselves, and the significant rates of burnout and psychological

distress in helping professionals treating trauma (Hector et al., 2014), it is of paramount importance that we understand therapists' reactions to their work. This being said, little empirical evidence has sought to understand the relationship, if any, between countertransference reactions and STS. It is likely that these two reactions relate positively, such that the more countertransference one feels towards a client, the more affected and potentially secondarily stressed they are as a result of that client's trauma. However, countertransference comes in many forms, and in relation to treating trauma, there tends to be a pull towards either overinvolved or underinvolved reactions (Wilson et al., 1994). Because overinvolved reactions result in a preoccupation with one's client beyond what is expected of the typical therapeutic relationship, it may be that those experiencing greater overinvolvement will also experience more STS, due to their preoccupation with the client. On the other hand, avoidance as is the case with underinvolved countertransference, may lead to further psychological distress. Understanding the relationship between these constructs can help to clarify our understanding of how they emerge in clinicians.

Without understanding the distinct paths leading to STS and countertransference, clearer interventions cannot be proposed. Figley himself notes the confusion surrounding the theoretical path between empathy and STS, and makes a call for more research relating the two (Ludick & Figley, 2016). Specifically, he calls for research examining STS and both affective and cognitive dimensions of empathy. Furthermore, it is not enough to simply assess cognitive and affective empathy as distinct constructs. Rather, to best understand the consequences of one's empathic ability, it is necessary to consider how the cognitive and affective components may interact (Cuff et al., 2016). Given the previous findings that cognitive empathy components can alter the effect of emotional responses on personal

distress, it is reasonable to expect that cognitive empathy can mitigate the effect of affective empathy, or emotional contagion, on therapist responses to trauma therapy.

Researchers have also posited broader regulatory mechanisms that can affect empathic processing, including self-other differentiation and emotional regulation (Eisenberg & Eggum, 2009). Differentiation of self may be a helpful trait in facilitating the connection between empathy and mental health professionals' negative reactions to trauma care, because healthy differentiation of self in relation to the family of origin results in more effective management of interpersonal and intrapersonal anxiety (Krycak et al., 2012; Lampis et al., 2017). Through a firm sense of self as separate from the client, maintenance of a balanced distance from the client (i.e., neither fused nor cut off), and effective regulation of their own emotional responses, the intensity of STS and countertransference pulls may be reduced. In this way, mental health professionals' greater ability to differentiate may allow them to more effectively manage their empathic connection within an emotionally charged, traumatized therapeutic space. Therefore, it is also likely that differentiation of self may moderate the path between empathy, particularly affective empathy, and therapist reactions. That being said, the effect of differentiation of self on empathic processing is likely more complex. It could be that one's sense of differentiation moderates not only affective empathy, but one's engagement in cognitive processing during emotional situations. Previous studies have found that priming an individual to self-differentiate allows for a type of perspective taking that leads to less psychological distress (Batson et al., 1997; Lamm et al., 2007). It could be that one's inherent level of differentiation of self allows for greater recruitment of cognitively-focused empathic processing during times of emotional intensity, as may occur within trauma therapy. This possibility would be in line with Bowenian theory (Bowen, 1978). Therefore, it

is important to examine the ways in which clinician differentiation of self interacts with both cognitive and affective empathy to either produce or mitigate therapist reactions like countertransference and STS.

Finally, there is evidence to suggest that therapists with personal trauma may be more vulnerable to STS symptoms than those without personal trauma (Bride et al., 2007; Hensel et al., 2015). Relatedly, it is assumed that unresolved personal trauma can lead to overinvolved or detached countertransference reactions, which can result in countertherapeutic work (Slatker, 1987; Wilson & Lindy, 1991). However, few studies have sought to examine specifically mental health professionals with personal trauma, and to my knowledge, none within the STS and countertransference literature. This neglect creates a gap in our understanding of the emergence of secondary trauma and potential countertransference. By failing to specifically sample mental health professionals with personal trauma, most researchers do not have reason to collect a measure of distress due to one's own PTSD. This practice obfuscates the potential overlap between the therapist's STS from relating to their client work and potential lingering post-traumatic stress from their direct trauma. Thus, previous studies fail to demonstrate that the assumed vulnerability of therapists with personal trauma is unique to STS, and not instead due to lingering PTSD symptoms unrelated to one's clinical work. One of the aims of this study is to examine the emergence of STS and countertransference over and above the presence of one's PTSD in relation to a personal trauma.

Therefore, the purpose of this study was to expand the present base of knowledge regarding STS and countertransference in a sample of mental health professionals currently treating traumatized clients, who have also experienced a Criterion A trauma themselves as

defined by the DSM-V, specifically those with "Exposure to actual or threatened death, serious injury, or sexual violence in one or more of the following ways: directly experiencing the traumatic event, witnessing in person the event as it occurred to others, [and] learning that the traumatic event occurred to a close family member or close friend," (American Psychiatric Association, 2013, p. 271) referred to as *survivor therapists*. Adding to the current literature, I examined the relationship between STS and countertransference reactions, which has yet to be done. Additionally, this study utilized more complete definition of empathy with both cognitive and affective mechanisms, as well as their possible interaction, thereby helping to clarify the complex relationship between empathy and problematic reactions in the trauma therapist. Particularly important is the addition of the Bowen Family Systems construct differentiation of self as a potential regulatory mechanism for empathic processes, which is believed to bridge the gap between one's empathic capabilities and the potential consequences of empathic strain. Furthermore, by sampling survivor therapists specifically, this study sheds light on a portion of the professional community that is understudied and neglected in the present literature. The findings from this proposed study have important implications for how we understand empathy in the trauma therapy relationship, and expands the utility of differentiation of self as a protective therapist quality. Ultimately, these findings have implications for trauma therapy training, and the prevention and/or management of STS and countertransference reactions.

CHAPTER 2

MANUSCRIPT

Introduction and Review of the Literature

Mental healthcare is a demanding profession, which draws a substantial amount of emotional and physical energy from those who provide it. National surveys of mental healthcare workers, including social workers, counselors, psychologists, and mental health nurses demonstrate that psychological distress is a common problem in this professional community, finding high rates of suicidal ideation, depression, and anxiety related to mental health care workers' practice (British Psychological Society, 2017; Kleespies et al., 2011). Mental health practitioners who work with traumatized individuals in particular are often subjected to repeated, detailed accounts of clients' trauma. Previous research has dmonstrated that that individuals who work with highly traumatized clients may experience difficulty with trust, intimacy, and self-esteem (Way et al., 2004), intrusion and avoidance symptoms (Bober & Regehr, 2006), difficulty with interpersonal relationships (Robinson-Keilig, 2014), worse health perceptions (Lee et al., 2017), and negative countertransference towards traumatized clients (Cavanagh et al., 2015; Follette et al., 1994). Furthermore, researchers studying the effects of trauma work on mental health professionals have found that many helping professionals are survivors of trauma themselves (Adams & Riggs, 2008; Butler et al., 2017; Khadambi & Truscott, 2004; Pearlman & Mac Ian, 1995). In much of this research, however, personal trauma history has been captured only as an ancillary demographic variable, and the handful of studies that have specifically examined retraumatization in trauma work have only done so with samples of graduate-level trainees (Adams & Riggs, 2008; Butler et al., 2017; Shannon et al., 2014). Thus, little is known about

the experiences of mental health professionals with personal trauma histories who work with traumatized clients, hereafter referred to as *survivor therapists*.

Several researchers have coined the term Secondary Traumatic Stress (STS) to describe certain negative changes in professionals treating trauma (Figley, 1995). STS is defined as a natural reaction that takes place after learning about a traumatizing event experienced by a significant other, such that the traumatized individual in this case is not directly experiencing the trauma, but rather experiences stress related to the indirect exposure to a traumatic event and the desire to help the traumatized person (Figley, 1995). The indirect exposure to trauma, combined with the individual's empathic desire to help, leads to a stress reaction that includes symptoms similar to those of posttraumatic stress disorder like intrusive thoughts related to clients' trauma, avoidance, and hyperarousal (Bride et al., 2004; Figley, 1995). This phenomenon has been observed in multiple human service professions, including forensic interviewers (Perron, 2006), law enforcement (Bourke & Craun, 2014; Perez, 2010), nurses (Raunik et al., 2015), and child protective service workers (Bride et al., 2007). In the current study, I focused on the impact of STS in mental health professionals. Other terms have arisen to describe experiences similar to STS in clinicians, including Compassion Fatigue (Figley, 1995) and Vicarious Traumatization (Pearlman & Mac Ian, 1995). Compassion fatigue is conceptualized as a broader condition that occurs when both STS and occupational burnout are present over a period of time, and is not specific to those who treat traumatized clients (Figley, 1995). Vicarious trauma focuses primarily on the cognitive and worldview changes involved with repeated exposure to secondary trauma over time (Pearlman & Mac Ian, 1995). Though they are defined differently, there is little empirical evidence to support that vicarious trauma and STS are in fact different constructs,

and many within the field consider the two terms to be different descriptors of the same phenomenon (Bercier & Maynard, 2015; Craig & Sprang, 2010; Stamm, 2009). In an effort to capture the experience of working with traumatized clients specifically, this study used the construct of STS, but also summarizes literature related to compassion fatigue and vicarious trauma as overlapping constructs.

Additionally, all therapists are subject to countertransference, or the therapist's reaction to the client due in part to the therapist's unresolved psychological conflicts (Gelso & Hayes, 2007). Without management, countertransference can lead to negative outcomes for clients and therapists alike (Hayes et al., 2011). Unmanaged countertransference has been related to therapist anxiety (Gelso et al., 2002), and counter-therapeutic behavior such as avoidance and withdrawal from the client or overinvolvement and enmeshment in client difficulties (Connery & Murdock, 2019; Fauth & Hayes, 2006). Wilson and colleagues (1994) classify two different forms of countertransference responses that are particularly common in trauma work: Type I countertransference responses, which is categorized by avoidant and detachment responses, and Type II, which comprises overidentification, enmeshment, and rescuing responses. Wilson and colleagues (1994) hypothesized that Type I countertransference responses are an attempt to protect the helper from the anxiety that comes with facing difficult client emotional content. Conversely, Type II countertransference represents misguided attempts to maintain empathic engagement with the client, and may be especially prevalent for helpers who have unmet needs or unresolved personal difficulties (Wilson et al., 1994). Although STS has been defined as a phenomenon distinct from countertransference, it is still a reaction to client material, yet there have been few attempts to examine these outcomes together to understand their possible relationship. (Kanter, 2007).

Examining STS and countertransference together in a sample of survivor trauma therapists may shed light on the connections between the two phenomena, which can lead to clarity regarding the management of both experiences (Kanter, 2007).

One important link between STS and countertransference is the role of empathy in the emergence of these reactions. Within both STS and countertransference literature, empathy is seen as an essential ingredient for mental health treatment, especially for survivors of trauma (Peabody & Gelso, 1982; Figley, 1995). Both countertransference and STS have been considered a "pathology of empathy," whereby a therapist's openness to client suffering that is necessary to form a therapeutic relationship, can lead to personal distress if improperly managed (Van Wagoner et al., 1991; Lucick & Figley, 2016). Scholars in these respective areas of research (STS and countertransference) assert that well-managed empathy can actually protect therapists and mental health professionals from the deleterious effects of countertransference and STS alike (Hayes et al., 2011; Ludick & Figley, 2016; Van Wagoner et al., 1991). However, many studies examining STS and countertransference fail to include a comprehensive examination of the different dimensions of empathy, cognitive and affective, as informed by social neuroscientific research (Ludick & Figley, 2016), and far fewer attempt to explore what factors may help to regulate the empathic connection between therapist and client.

It is likely that empathic regulation mechanisms are particularly salient for survivor therapists. It is thought that by empathically engaging in work with a client's trauma, the therapist's own traumatic difficulties may be triggered, leaving survivor therapists more vulnerable to STS and countertransference reactions (Pearlman & Saakvitine, 1995). However, some studies fail to find a link between personal trauma history and STS

symptoms, suggesting that there is variation in the degree to which personal trauma affects therapists' reactions (Bober & Regher, 2006; Khadambi & Truscott, 2004). There is likely variation amongst survivor therapists regarding how they manage the empathic relationship with their survivor clients, which has implications for the emergence of STS symptoms and countertransference feelings.

One construct that may help characterize the therapist's ability to manage their empathic response and the accompanying stress is the Bowen family systems theory concept differentiation of self (Bowen, 1978). Differentiation of self has been defined as one's ability to behave in emotionally mature and self-aware ways in stressful situations, and characterizes one's ability to manage appropriate emotional connection without enmeshment or avoidance (MacKay, 2017). Although studied extensively within romantic or familial dyads, triads, and other relationship configurations, differentiation of self is under-examined as a desirable therapist quality and skill.

In sum, there is a gap in the STS and countertransference literature exploring the complex relationship between aspects of therapist empathy and the effects of trauma work on the survivor therapist. Although personal trauma history is thought to be a risk factor for these phenomena, few studies have explored the population of survivor-clinicians specifically and the handful of studies that have examined personal trauma and retraumatization in mental health professions did so only with samples of graduate-level trainees (Adams & Riggs, 2008; Butler et al., 2017; Shannon, et al. , 2014). More research is needed to better understand how STS and countertransference might be related, how empathy plays a role in the emergence of these therapist reactions, and what therapist factors influence

the management of empathy so that it does not lead to deleterious outcomes for both survivor therapists and clients.

Empathy

Empathy is broadly defined as the ability to correctly interpret the emotions and perspectives of others and respond appropriately, and is universally seen as an essential component of therapy (Chrysikou & Thompson, 2016; Elliott et al., 2011). Modern conceptualizations of empathy typically include three components: an affective component in which a person shares in the emotional experience of another, a cognitive component in which a person can conceptualize and understand another's experience, and a regulatory mechanism by which self- and other-feelings are kept distinct (Decety & Jackson, 2004; Eisenberg, 2000; Ickes, 2003). Affective empathy is defined as the ability to feel as another individual feels, involving an emotional reaction and regarded as "bottom-up" neurological processing (Batson, 2009; Lamonthe et al., 2014). Affective empathy is often referred to as emotional contagion, emotion that spreads from one individual to another (Doherty, 1997; Hatfield et al., 1994). Cognitive empathy, on the other hand, is "top-down," and involves taking on the perspective of the other and understanding their internal state (Batson, 2009; Blair, 2005; Elliott et al., 2011). This process requires more sophisticated imaginal processing by which an individual comes to understand and account for the perspective of another (Doherty, 1997). Eisenberg and Eggum (2009) suggest that the quality of an individual's self-regulation determines whether the overall empathic response leads to prosocial behaviors (i.e., empathic concern, the desire to help others), or personal distress, which often appears as anxiety or discomfort (Eisenberg & Eggum, 2009; Batson, 1991).

Secondary Traumatic Stress and Empathy

According to STS theory, the more empathic a clinician is, the more susceptible they are to STS (Figley, 1995; Ludick & Figley, 2016). However, as Ludick and Figley (2016, p. 4) noted, there is a lack of empirical exploration concerning the role of empathy in the process of secondary traumatization. Of the studies that do exist, it appears that empathy may have mixed effects on the emergence of STS or compassion fatigue. For example, Thomas and Otis (2010) found that aspects of trait empathy positively predicted compassion fatigue. When therapist ability to practice mindfulness and emotional separation was entered into the predictive model, empathy was no longer a significant predictor, suggesting that emotion regulation skills may better account for variance shared between empathy and compassion fatigue (Thomas & Otis, 2010). Gleigerrcht and Decety (2013) found a positive and significant relationship between STS and a measure of affective empathy, but a non-significant negative relationship between STS and a measure of cognitive empathy. These results suggest that affective and cognitive empathy may have different effects on STS.

Conversely, Lamothe and colleagues (2014) found a surprising interaction when examining empathy and physician burnout; high cognitive and high affective empathy interacted to predict lower burnout symptoms. They concluded affective empathy, when regulated by high cognitive empathy, could result in positive outcomes for the clinicians; thus, it is important to consider the ways in which cognitive and affective empathy may interact. Whereas Lamothe et al. (2014) were the first to examine different aspects of empathy in combination with burnout in a sample of general practitioners, STS is a distinct reaction that occurs in helping professionals working with trauma specifically. For survivor therapists especially, it may be difficult to differentiate one's own experience from the client's experience, even while engaging in more cognitively empathic skills.

Countertransference and Empathy

Countertransference and empathy, although theoretically related, appear to have a complex and poorly understood relationship (Peabody & Gelso, 1982). According to psychoanalytic theory, empathy and countertransference are related in that they both involve an identification with the client (Reik, 1964, as cited in Peabody & Gelso, 1982). This identification allows the mental health professional to better understand what the client is experiencing, feeling, and thinking. However, countertransference reactions seemingly occur when something goes awry within this identification process (Peabody & Gelso, 1982). It would thus be reasonable to expect that the more empathic the professional is, the more likely they are to be reactive to the client's emotional experience. However, findings also suggest that the more empathic the individual, the more attuned they are to their own feelings as well, providing an opportunity for the self-reflection and emotional understanding necessary to address their own countertransference reactions (Fish, 1970; Peabody & Gelso, 1982). Although less focused upon in the countertransference literature, there is evidence to suggest that empathy is indeed involved in the development of countertransference feelings, but also may be helpful in the regulation of therapist behavior in response to these feelings (Peabody & Gelso, 1982).

Hayes et al. (2018) stated that therapist empathy is in part necessary for proper countertransference management. However, therapist empathy within this model is defined as "the ability to *partially* identify with and put one's self in the other's shoes," (Hayes et al., 2018, p. 498, emphasis added). Thus, in describing countertransference management, Hayes and colleagues are asserting that the therapist's empathy itself must be managed, such that there is a partial identification with the client instead of an over- or under-identification with

a client. This perspective on empathy is consistent with Decety and Jackson's (2004) and Eisenberg's (2000) conceptualizations, whereby empathy requires an ability to step in and out of the emotional identification with another so that the empathizer does not lose sight of their sense of self. A weakening of this ability to remain involved but separate from the client results in what some refer to as empathic strain (Slatker, 1987). Empathic strain within the therapeutic relationship often results in affective reactions within the therapist, and intense affective reactions can subsequently cause negative countertransference reactions (Slatker, 1987; Wilson & Lindy, 1991). In this way, mismanaged or strained empathy can result in a vulnerability to negative countertransference reactions. One can expect, then, that properly managed empathy, which includes an awareness of one's partial identification with the client, would result in less vulnerability to negative countertransference reactions.

The Regulation of Empathy

Several theorists have hypothesized that the empathizing individual's level of emotional self-regulation, as well as their ability to distinguish their own feelings from another's, determines whether empathy evolves into a manageable, sympathetic response or a personally distressed response (Decety & Jackson, 2004; Decety & Lamm, 2009; Eisenberg & Eggum, 2009). Considering emotional self-regulation as an empathy regulator, high scores on adults' self-reported effortful control positively related to reports of sympathy and negatively related to self-reported personal distress (Eisenberg & Okun, 1996; Okun et al., 2000). Relatedly, emotion regulation appears to allow physicians to down-regulate their pain response, effectively mitigating their distress in response to seeing pain in others (Decety, et al., 2010). Additionally, it appears that priming self-other differentiation can facilitate cognitive empathic processes that help distance individuals from others' pain (i.e., imagine

how *they* feel versus imagine how *you* would feel in this situation), and also results in reduced personal distress when interacting with or witnessing others in pain (Batson et al., 1997; Heberlein & Saxe, 2005; Lamm et al., 2007). Given these findings, it seems important to consider regulatory mechanisms that allow an individual to feel for another and cognitively understand their perspective without losing the distinction between themselves and others and becoming emotionally distressed. Given previous findings that cognitive and affective empathy can interact to produce different outcomes, it may be that one's inherent ability to down-regulate their emotional experience and clearly differentiate themselves from another allows for increased recruitment and integration of cognitive empathy responses as opposed to responding only with emotion (Decety et al., 2010; Lamothe et al., 2014). One variable that accounts for both supposed necessities for empathy management, emotion regulation and self-other distinction, is differentiation of self, a construct from Bowen Family Systems Theory (BFST).

Differentiation of Self as a Facilitator of Empathy

Differentiation of self refers to an individual's ability to differentiate one's self in relation to their family-of-origin, as well as to distinguish thought from feeling (Kerr & Bowen, 1988). Differentiation of self is broken down even further into four factors that measure interpersonal (i.e., Emotional Cutoff and Fusion) and intrapersonal (i.e., I-Position and Emotional Reactivity) dimensions (Skowron & Friedlander, 1998). Intrapersonal differentiation of self refers to one's ability to distinguish emotional experiences from intellectual thought. Higher levels of differentiation of self, in this case, are characterized by less emotional reactivity, better stress management, and a stronger capacity to maintain one's own sense of autonomy in stressful situations (i.e., I-position; Kerr & Bowen, 1988).

Interpersonally, higher levels of differentiation are characterized by a greater comfort with intimacy while still being able to maintain personal independence; therefore, those with higher levels of differentiation of self are able to maintain appropriate boundaries with others especially during times of duress, without keeping too much distance and without fusing entirely with others when stress and anxiety occur (Kerr, 1984; Kerr & Bowen, 1988; Skowron & Schmitt, 2003).

According to Bowen, an individual's level of differentiation of self is established within the family-of-origin and carried into that individual's future relationships, making one's level of differentiation a stable and persistent trait (Kerr & Bowen, 1988). Thus, one's relationship with their caregivers and the family emotional system determines one's ability to differentiate from others—healthy family functioning begets healthier levels of child differentiation, whereas abusive family dynamics often predicts dysfunction in the child's future relationships (MacKay, 2012). Indeed, mothers with lower levels of differentiation of self are at higher risk for child maltreatment (Skowron, Kozlowski, & Pincus, 2010). Pertinent to the present study, although experiencing adverse childhood events can have a negative impact on the child's development of differentiation of self, negative family emotional processes (predicted by parental differentiation of self) appear to compound the effects of childhood trauma to predict lower levels of differentiation of self in adulthood (Swanberg-Hejelm, 2020). As a trait associated with interpersonal and intrapersonal functioning, differentiation of self has been examined in a variety of contexts outside of the family of origin, including romantic relationships (Stapley & Murdock, 2020), stress management in college students (Murdock & Gore, 2012), and countertransference management in mental health therapists (Connery & Murdock, 2019). Indeed, a broad base of

literature has formed using differentiation of self as an explanation for or modifier of self-regulation, including perceptions of distress, stress management, effortful control, and coping (Krycak et al., 2012; Peleg-Popko, 2002; Skowron & Dendy, 2004; Skowron et al., 2004; Wright, 2009). Notably, differentiation of self has been found as a protective factor against vicarious trauma (Halevi & Idisis, 2018; Zerach, 2014) and countertransference feelings (Connery & Murdock, 2019).

To better understand the relationship between therapist differentiation of self and therapist reactions, this study focused on the regulation of empathy as it pertains to STS and countertransference reactions in survivor therapists, and the role that differentiation of self in the path between empathy and these reactions. Bowen (1978) predicted that managing the needs of others within emotional contexts necessarily increases anxiety. Once this anxiety reaches intolerable levels, Ferrera (2014) contended, predictable relationship patterns in accordance with Bowenian theory emerge: distancing from the individual whose relationship induces anxiety as a means to avoid the distress, or over-involvement with the relationship in an effort to "fix" the problem and eradicate the tension. These reactions are similar to clinician countertransference and STS reactions (Bride, 2007; Hayes et al., 2018). If differentiation of self in relation to the family of origin allows an individual to more effectively tolerate interpersonal and intrapersonal anxiety and maintain healthy relational boundaries, it is likely that the effect of empathy on STS and countertransference reactions may be altered by one's level of differentiation of self—particularly if emotion regulation and self-other differentiation are needed for the recruitment of cognitive processing to temper the affective empathic response, as suggested by Decety and colleagues (2010). Put another way, differentiation of self may enhance the moderating effects of cognitive empathic

processing, protecting mental health professionals from overreactive affective responses. To date, however, no studies have explicitly examined differentiation of self as a component of empathy regulation.

Present Study

The purpose of this study was to expand the base of knowledge regarding STS and countertransference in a sample of mental health professionals currently treating traumatized clients, who have also experienced a trauma themselves, referred to as survivor therapists. Trauma in this case is defined by the Diagnostic and Statistical Manual of Mental Disorder-V's Posttraumatic Stress Disorder criteria [i.e., "Exposure to actual or threatened death, serious injury, or sexual violence in one or more of the following ways: directly experiencing the traumatic event, witnessing in person the event as it occurred to others, [and] learning that the traumatic event occurred to a close family member or close friend," (American Psychiatric Association, 2013, p. 271)]. This study contributes to the gap in the literature in a number of ways. First, by sampling survivor therapists specifically, this study sheds light on a portion of the professional community that is understudied and neglected in the present literature. This is a notable limitation considering the ubiquity of trauma and the deleterious effects traumatic experiences can have on survivors psychologically, physiologically, and professionally. Second, I sought to examine the relationship between STS and common countertransference reactions to traumatized clients, which has yet to be done. Third, I examined cognitive and affective empathy as predictors of both countertransference and STS; although there is some empirical evidence regarding the link between empathy and STS, there are few empirical findings that test the relationship between empathy and countertransference reactions. To help clarify the complex relationship between empathy and

reactions in the trauma therapist, this study utilized a comprehensive definition of empathy with both cognitive and affective mechanisms, as well as their possible interaction. Lastly and particularly important is the addition of the Bowen Family Systems construct differentiation of self as a potential regulatory mechanism for empathic processes. The following research questions and hypotheses guided this study:

Hypotheses

1. STS will be positively related to overinvolved and underinvolved countertransference reactions.
2. Affective empathy will be positively related to STS. Empirical findings regarding cognitive empathy and STS are mixed, with some researchers finding negligible relationships between the two (Gleichgerrcht & Decety, 2013). Therefore, no hypothesis was made regarding the relationship between cognitive empathy and STS.
3. Differentiation of self will be positively related to cognitive empathy. Findings regarding affective empathy and differentiation of self are mixed; therefore no hypothesis was made regarding the relationships between affective empathy and differentiation of self.
4. Differentiation of self will be negatively related to both STS and both types of countertransference reactions.
5. Cognitive empathy, affective empathy, and differentiation of self will predict STS and countertransference reactions over and above relevant covariates (i.e., personal trauma PTSD levels, level of experience, trauma caseload exposure, age, and gender).

6. Cognitive empathy will moderate the positive relationship between affective empathy and STS and countertransference reactions in such a way that greater cognitive empathy will mitigate the effect of affective empathy on the outcome variables.
7. Differentiation of self will moderate the positive relationship between affective empathy and STS and countertransference reactions in such a way that greater differentiation of self will mitigate the effect of affective empathy on the outcome variables.

Research Questions

1. Does STS relate more strongly to Type II (overinvolved) countertransference reactions than to Type I (underinvolved) countertransference reactions?
2. Do cognitive and affective empathy relate to countertransference reactions? Are there differential relationships between cognitive and affective empathy and the two countertransference reaction measures.
3. Does differentiation of self influence the degree to which cognitive empathy moderates the effect of affective empathy on survivor therapist reactions to trauma therapy (i.e., STS and countertransference reactions)? Please see Figure 1 for a conceptual diagram of this research question.

Method

Participants

The obtained sample consisted of 245 participants that met the following eligibility criteria: (a) the participant has practiced independently (i.e., not a trainee) for at least one year, (b) the participant self-identifies as being exposed to a Criterion A direct trauma as

defined by the DSM-V (definition provided, limited to directly experiencing a traumatic event, witnessing in person a traumatic event as it happened to others, or learning about a traumatic event happening to a close family member or friend), and (c) the participant is currently treating at least one client with trauma as their presenting concern. G*Power analysis was used to estimate that a sample of 244 participants was needed to detect a small effect size (.05) with statistical power of $\beta = .80$ with 4 tested predictors and 8 total predictors (Faul et al., 2009). I succeeded in collecting the required minimum sample size.

Participants ranged in age from 23 to 71, with an average age of 38.31 (*SD* = 10.40). They were able to write in their gender identity and sexual orientation; Two-hundred and twenty-four participants identified as female/woman (91.4%), twelve identified as male/man (4.9%), eight identified as non-binary, gender queer, or gender fluid (3.3%), and one participant did not respond (0.4%). One-hundred and eighty participants identified as heterosexual/straight (73.5%), thirteen identified as gay or lesbian (5.3%), twenty-seven identified as bisexual (11%), twelve identified as queer (4.9%), eight identified as pansexual (3.3%), two identified as asexual (0.8%), and three did not respond (1.2%). Regarding racial identity, two-hundred and twelve identified as Non-Hispanic White (86.5%), thirteen identified as Hispanic/Latinx (5.3%), twelve identified as multiracial/multiethnic (4.9%), four identified as Black/African American (1.6%), two identified as Middle Eastern (0.8%), and two identified as Native American, American Indian, or Indigenous (0.8%).

Participants were asked how many years and months they had been practicing in the field professionally (i.e., outside of training) and for how many years and months they had been working with traumatized clients. Their answers were then calculated in relation to years (e.g., 7 years and 4 months = 7.33 years). The amount of time practicing in the mental

health field ranged from 1 year to 45.67 years, with an average length of 7.93 years (*SD* = 7.23). The amount of time participants had been working with traumatized clients ranged from .08 years (approximately one month) to 45.42 years, with an average length of 7.55 years (*SD* = 6.85). The majority of the sample (*n* = 239, 97.6%) practiced within the United States. Regarding professional affiliation, one-hundred and twenty responded that they were mental health counselors or therapists (included marriage and family therapists; 49%), seventy-nine participants identified that they were clinical social workers (32.2%), forty five responded that they were psychologists (18.4%), and one individual responded that they were a psychiatrist (0.4%). Psychologists and the psychiatrist were included together in demographic analyses to allow for comparison between professional groups. Regarding the timeframe of their own personal trauma, one-hundred and thirty-six indicated that they experienced traumatic events in both childhood and adulthood (55.5%), sixty-three participants indicated that their personal traumatic event happened in childhood only (before age 18; 25.7%), and forty-six indicated that the event happened in adulthood only (18.8%).

Ninety-one participants reported that they were currently receiving therapy for their own personal trauma (37.1%), and two-hundred and ten participants reported that they received therapy for their personal trauma in the past (85.7%). One-hundred and fifty participants responded that they were currently receiving supervision (61.2%), sixty-six reported that they were currently attending a professional consultation group specific to trauma treatment (26.9%), and seventy-one participants reported that they currently provide supervision to other clinicians in training who treated clients with trauma (29%). Participants were asked to estimate the percentage of time that they have spent working with trauma during their regular practice within the past six months. Responses ranged from 5% to 100%,

with an average percentage of 65.38% (*SD* = 27.06). Participants were also asked to estimate the percentage of clients they currently treat with a DSM-5 defined Criterion A trauma as their presenting concern. Responses ranged from 5% to 100%, with an average percentage of 28.42% (*SD* = 59.38).

Participants were also asked to identify what kind of traumatic events they experienced, through use of the Life Events Checklist-5. Participants were able to choose as many events as applicable and were also able to select whether they experienced the event directly, witnessed it happening to someone else, or learned about it happening to a close family member or friend. Many participants experienced the same event across different means of transmission (i.e., experienced it directly and witnessed it happening to others). The percentages of traumas experienced by the sample are reported in Table 1. Some of the most directly experienced traumas included an unwanted or uncomfortable sexual experience (74.3% of the entire sample), sexual assault (61.2%), physical assault (52.7%), and serious transportation accident (41.6%).

Procedures

I used a quantitative descriptive design with convenience sampling. Participants were recruited over the internet through postings on professional organization listservs relevant to the trauma therapy profession whom allowed for listserv recruitment. These include American Psychological Association divisions 17 (Society of Counseling Psychology), 18 (Psychologists in Public Service), 19 (Society of Military Psychology), 29 (Society for the Advancement of Psychotherapy), 35 (Society for the Psychology of Women), 42 (Psychologists in Independent Practice), and 43 (Society for Couple and Family Psychology). Participants were also recruited from the American Counseling Association (ACA) via online

posts to the ACA Connect page. Additional participants were recruited from reputable social media groups devoted to mental health practitioners. A snowball sampling method was encouraged by asking participants to refer the study to their networks and individuals who might be interested.

Prior to engaging in the study, participants were informed regarding the purpose, methods, and potential risks for participation in the study. Informed consent was obtained from all participants. In order to ensure participant confidentiality, no personally identifying information (e.g., names, addresses) was collected, and all data has been stored on university-approved, password-protected, cloud-based storage system (i.e., Box), to which only primary research members have access. Given the sensitive nature of some survey questions, resources for the National Association of Mental Illness (NAMI) was provided prior to beginning the questionnaire.

Measures

Demographic form. Participants meeting the eligibility criteria were first directed to a demographics form, which included relevant personal and professional questions regarding age, gender identity, racial identity, the country in which they practice, their income, highest degree obtained, professional affiliation, length of time in the field, length of time practicing trauma-specific therapy, what kind of trauma-specific training they have received, level of exposure to client traumatic material (percentage of time spent working with trauma, percentage of clients with a Criterion A trauma as their presenting concern), timeframe of their personal trauma (childhood, adulthood, both), if they are receiving personal therapy (yes, no), if they are currently supervised (yes, no), and if they are currently supervising clinicians in training who also treat traumatized clients. These demographic questions are in

line with previous who have found relationships between these characteristics and secondary traumatic stress, countertransference, or other related constructs (e.g., compassion fatigue and burnout; Adams & Riggs, 2008; Elwood et al., 2011; Hensel et al., 2015; Khadambi & Truscott, 2004; Pearlman & Mac Ian, 1995; Robinson-Keilig, 2014).

Measuring personal trauma. As a group consisting of survivor therapists, it is important to understand the degree to which the sample is currently traumatized, and the nature of their traumatic experiences. In order to measure personal trauma, this study used the Life Events Checklist for the DSM-V (LEC-5; Weathers et al., 2013) and the PTSD Checklist for the DSM-V (PCL-5; Weathers et al., 2013). Both questionnaires can be found in Appendix E.

Life Events Checklist for the DSM-V. To measure personal trauma exposure, this study used a modified version of the Life Events Checklist for the DSM-V (LEC-5; Weathers et al., 2013). The LEC was created in conjunction with the Clinician Administered PTSD Scale (CAPS) by the National Center for PTSD in Boston, Massachusetts as a means of assessing exposure to a Criterion A trauma across the lifespan for the purpose of PTSD diagnosis, as defined by the Diagnostic Statistical Manual (Gray et al., 2004). The LEC-5 contains 17 potentially traumatizing events, each satisfying the Criterion A requirement for a diagnosis of PTSD [e.g., "Natural Disaster (for example, flood, hurricane, tornado, earthquake)," "Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)," and "Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)"]. In response to each event, participants are given the option to choose "Happened to me," "Witnessed it," "Learned about it [happening to close family or friend]," "Part of my job," "Not sure," and "Doesn't apply." As a means of

capturing direct personal trauma, this study focused on the traumatic events chosen as directly happening to the participant, the participant witnessed directly, or about which the participant learned happened to a close family member or friend. This measure will also serve as a validation point, screening out participants who do not endorse having experienced a traumatic event directly, witnessing it happen to another individual in person, or learning about a trauma happening to a close family member or friend. The LEC-5 has no formal scoring; rather, it will be used as a means of helping to describe the study sample.

In a sample of 108 non-treatment seeking undergraduate students, the LEC-5 demonstrated a mean kappa for .61 for all items, with a retest correlation of $r = .82$, $p < .001$, comparable to a well-studied measure of traumatic exposure (Traumatic Life Events Questionnaire; Gray et al., 2004). The LEC also demonstrated strong convergence with the Traumatic Life Events Questionnaire (TLEQ). The average kappa coefficient between individual items was .55, and the total scale correlation between the two measures was -.55, $p < .001$ (lower scores on the LEC represent more direct exposure to trauma; Gray et al., 2004). In this sample, the LEC was strongly and significantly related to two well-validated measures of PTSD symptoms in the expected direction (PTSD Checklist and Modified PTSD Symptom Scale; $r = -.48$ and -.44 respectively, $p < .05$). Additionally, in a sample of 131 combat veterans seeking evaluation at the National Center for PTSD in Boston, the LEC was significantly correlated with diagnostic measures of PTSD, including the Mississippi Scale for Combat-Related PTSD ($r = -.33$, $p < .001$), the PTSD checklist ($r = -.43$, $p < .01$), and the CAPS ($r = -.39$, $p < .01$), demonstrating concurrent validity. The LEC has been used in previous studies assessing STS (Ivicic & Motta, 2017).

PTSD Checklist for the DSM-V. In order to assess current level of post-traumatic stress disorder symptoms related to participants' direct and personal trauma, I used the PTSD Checklist for the DSM-V (PCL-5; Weathers et al., 2013). The PCL-5 is a 21-item measure used to assess for the presence of diagnostically significant PTSD symptoms, as defined by the DSM-5. The measure is based on the 4-factor DSM-5 model of PTSD, which includes intrusion/reexperiencing symptoms (i.e., recurrent trauma-related dreams), avoidance symptoms (e.g., avoiding people or places that are reminders of the traumatic event), negative alterations in cognitions and mood (e.g., exaggerated negative beliefs about oneself, others, or the world), and hyperarousal symptoms (e.g., exaggerated startle response; American Psychiatric Association, 2013; Blevins et al., 2015). Typically, however, the measure is used as a full scale score calculated by summing all items, and ranges from 0-80 with higher scores indicating a higher frequency and severity of PTSD symptoms. A score of 30 or above indicates the possibility of diagnosable PTSD (Blevins et al., 2015). Within the present sample 16% scored above 30 on the PCL-5, which is similar with other samples of this size (Olashore et al., 2018; Santiago et al., 2013). The measure has demonstrated strong internal consistency in a sample of 278 trauma-exposed undergraduate students (81 men, 197 women), with a Cronbach's alpha of .94 (Blevins et al., 2015). The PCL-5 total scores also demonstrated good test-retest reliability in 53 of the aforementioned participants over one week (r = .82, 95% *CI* [.71, .89]). The measure demonstrated convergent and discriminant validity, with strongest correlations with other well-validated measure of PTSD symptoms (rs ranged from .84-.85, $p < .01$), a moderate correlation with the often related but distinct construct depression as measured by the Personality Assessment Inventory (r = .60, $p < .01$), and correlating least strongly with less related constructs like antisocial personality features

($r = .39$, $p < .01$) and mania ($r = .31$, $p < .01$), also measured with the Personality Assessment Inventory (Blevins et al., 2015). Congruent results were established in a second sample of 558 separate undergraduate students (Blevins et al., 2015). The PCL-5 asks participants to indicate how much difficulty they are having with PTSD-congruent symptoms over the last month on a 5 point Likert scale (*Not at all, a little bit, moderately, quite a bit, extremely*). Items refer back to "the stressful experience," with the goal of having participants respond to how often they experience these symptoms as a result of their trauma. To make clear that participants in the present study should answer regarding their own personal trauma (as opposed to indirect trauma they receive from doing therapy), the phrase "stressful experience" was replaced with "personal trauma." Both Cronbach's alpha and McDonald's omega for the current study were .94.

Measuring empathy. Measuring empathy is often tricky, as most self-report instruments by nature of reflection tend to capture mostly cognitive empathy, or are misused to represent affective empathy when the factor structure of the measure supports no such action (Chrysikou & Thompson, 2016). With regards to survey research, questionnaires are the dominant means of measuring empathy, and while questionnaires are easy to use and present some advantages, they do not typically elicit an empathic or affective response, making it difficult to truly capture affective empathy (Chrysikou & Thompson, 2016). Thus, I used both questionnaires and the Pictorial Empathy Test (Lindeman et al., 2018) which is easily administered over the internet to better assess the cognitive and affective dimensions of empathy. Both affective and cognitive empathy measures can be found in Appendix F.

Affective empathy. Affective empathy was measured by the Pictorial Empathy Test. The development of the Pictorial Empathy Test (PET; Lindeman et al., 2018) was inspired by

the Multifaceted Empathy Test (MET; Dziobek et al., 2008), which is composed of 46 photographs of differing contexts and distressed people in these contexts. Lindeman and colleagues (2018) describe that the use of photographs in an ecologically valid means of assessing affective empathy, as the facial expressions of emotions are central to generating the emotional resonance necessary for other-emotion recognition and empathic behavior. Indeed, viewing emotional faces has been found to elicit facial mimicry behavior, which occurred in conjunction with emotional cue recognition as measured by functional magnetic resonance imagery (fMRI; Balconi et al., 2011). Using fMRI technology, Balconi and colleagues (2011) also identified that both facial mimicry and emotional cue recognition were both facilitated by medial prefrontal cortex (MPFC) activity; when the MPFC was inhibited via transcranial magnetic stimulation, performance on emotional recognition and facial mimicry was also inhibited, suggesting that emotional cue recognition and emotional facial mimicry are interrelated behaviors facilitated by conjunctive neural structures.

In order to select the most emotionally salient photographs for use in their scale, Lindeman and colleagues (2018) collected 22 freely-licensed images of various adults and children in distress using the search terms such as "sad, scared, fear, fright, disabled persons, and war" (Lindeman et al., 2018, p. 432). These photographs were presented along with the question, "How emotionally moving do you find the photograph?" to 91 Finnish participants (age range from 23-71, 49% women). Participants were given the option to choose a response on a 5-point Likert-type scale (1 = *not at all,* 2 = *a little bit,* 3 = *it arouses some feelings,* 4 = *quite a lot, and* 5 = *very much*; Lindeman et al., 2018). Based on these findings, 15 photos were eliminated for eliciting lower empathy ratings, and the 7 which remained demonstrated good internal reliability (Cronbach's alpha = .90). Responses to each item are averaged to

form a full scale score. Scores range from 1-5, with higher scores indicating greater affective empathy response.

In a second study, the 7-photo PET was then used in a sample of 3,084 Finnish individuals to establish factor structure, and collect evidence of convergent and divergent validity. The authors ran Confirmatory Factor Analysis to test a measurement model in which each of the seven items loaded onto one latent affective empathy factor, with errors between conceptually similar photographs allowed to covary, in accordance with best practices as defined by Cole, Maxwell, Arvey, and Salas (1993) and Crawford and Henry (2004). Model fit statistics indicated good fit: X^2 (5) = 45.34, $p < .001$, SRMR = .01, CFI = .99, and RMSEA = .053 (Lindeman et al., 2018). Factor loadings ranged from .64 to .90.

Evidence of convergent and divergent validity was found in the strong relationship between the PET and the Empathy Quotient short scale total score ($r = .48$, $p < .001$); PET scores were strongly correlated with the emotional reactivity subscale of the measure ($r = .53$, $p < .001$). The PET also showed a moderate positive relationship with intuitive thinking style ($r = .21$, $p < .001$) which has been previously shown to relate to affective empathic reactions and emotion appraisal, and a near zero relationship with analytical thinking style ($r = -.08$, $p < .001$; note that the large sample size likely affects the significance of this relationship despite its small effect size). The PET was also strongly and negatively correlated with symptoms of Autism Spectrum Disorder (-.32, $p < .001$), which was notable and expected by the authors. Although one study found that ASD is primarily characteristic of deficits in cognitive empathy (Dziobek et al., 2008), others have demonstrated deficits in both cognitive and affective empathy, particularly if the faces presented are unfamiliar to the observer, which is the case with the PET (Gillespie et al., 2014; Mathersul et al., 2013).

Finally, in a third random sample of 114 individuals from study 2 sent seven weeks after the first administration of the PET, the PET demonstrated good test-retest reliability ($r = .77$, $p < .001$). Lindeman et al. (2018) found support for convergent validity, correlating strongly and positively with affective empathy subscale of the Basic Empathy Scale in Adults ($r = .46$, $p < .001$) and less strongly with the cognitive empathy subscale of the same measure ($r = .26$, $p < .005$). Both Cronbach's alpha and McDonald's omega for the current study were .88.

Cognitive empathy. Cognitive empathy was measured using the Cognitive Empathy dimension of the Questionnaire of Cognitive and Affective Empathy (QCAE; Reniers et al., 2011). The QCAE was developed by combining items from other, well-validated measures of self-report empathy (EQ; Baron-Cohen et al., 2003; HES; Hogan, 1969; IVE; Eysenck & Eysenck, 1978; and the IRI; Davis, 1983). Two subject matter experts rated each item as either measuring cognitive empathy, affective empathy, or neither (Reniers et al., 2011). After a series of exploratory and confirmatory factor analyses, the final scale was a 31-item, 4-point forced-choice Likert scale (*strongly agree, slightly agree, slightly disagree,* and *strongly disagree*). The QCAE is divided into 5 subscales with a higher order two-factor organization of cognitive and affective empathy. The cognitive empathy dimension contains the perspective taking (10 items) and online simulation (9 items) scales. Perspective taking refers to the ability to intuitively put oneself in another's shoes and understand their perspective, and involves shared skills with theory of mind with a focus on emotional understanding and processing (e.g., "I can pick up quickly if someone says one thing but means another,"). Online simulation, on the other hand, refers to an *effortful attempt* to put oneself in another's position by imagining the emotional experience of that person (e.g., "I try to look at everybody's side of a disagreement before I make a decision,"). Lindeman et al.

(2018) stated that this skill is likely used to generate future intentions. Responses on these subscales are summed to produce a full scale cognitive empathy score. Scores range from 19-76 with higher scores indicating greater cognitive empathy.

The Perspective taking and online simulation subscales demonstrated good reliability (Cronbach's alphas of .85 and .83, respectively). Strong associations were found between the subscales and the higher-order cognitive empathy factor (.72 for perspective taking, .75 for online simulation, *p*s < .01). Evidence for convergent validity was found in a sample of 925 European individuals (79% within the United Kingdom, age range 16-65, 69% women) that produced strong correlations between both the affective and cognitive subscales of the Basic Empathy Scale ($r = .62$, $p < .001$ and $r = .76$, $p < .001$, respectively). Evidence was also found for construct validity with a strong negative correlation with a measure of psychopathy ($r = -.38$, $p < .001$) and a moderate negative relationship with a measure of Machiavellianism ($r = -.26$, $p < .001$; Reniers et al., 2011). Additionally, the cognitive empathy scale negatively correlated with dysfunctional impulsivity (i.e., behavior involving acting with little foresight, which then leads to difficulty; $r = -.33$, $p < .001$). Lindeman and colleagues (2018) also examined differences between affective and cognitive empathy in their relationships with related measures, and found that cognitive empathy correlated negatively with dysfunctional impulsivity and secondary psychopathology more so than affective empathy, and that affective empathy correlated more strongly (positive) with affective anger and expressive aggression than did cognitive empathy, which is in line with previous hypotheses that emotional lability is likely to affect affective empathy more so than cognitive empathy (Jollife & Farrington, 2006; Tully et al., 2016). It should be noted that empathy scores tend to vary as a function of gender, and in their development and validation of the QCAE, the

authors found a significant difference between men and women such that women had significantly higher empathy scores. Because both lower order (use of subscales separately) and higher order (one cognitive empathy scale and one affective empathy scale) fit the author's data, I performed an exploratory factor analysis to assess whether or not to use the full scale cognitive empathy score or analyze the Perspective Taking and Online Simulation scales separately. These results are discussed in the preliminary analysis section. Both Cronbach's alpha and McDonald's omega for the current study were .75 for the Perspective Taking subscale. Cronbach's alpha for the Online Simulation subscale was .75 for the current study, while McDonald's omega was .77.

Differentiation of self. Differentiation of Self was measured via the Differentiation of Self Inventory-Short Form (DSI-SF; Drake et al., 2015), which is a 20-item self-report measure based on the 46-item Differentiation of Self Inventory Revised (DSI-R; Skowron & Schmitt, 2003). Participants responded to items on a 6-point Likert-like scale from (1) *not at all characteristic of me* to (6) *very characteristic of me.* The scale contains four subscales: Emotional Cutoff (EC, 3 items), Emotional Reactivity (ER, 6 items), Ability to take the I-Position (IP, 6 items), and Fusion of Self with Others (FO, 5 items). Example items include "I tend to distance myself when people get too close to me" (EC), "At times, I feel as if I'm riding an emotional roller coaster" (ER), "I'm fairly self-accepting" (IP), and "I often feel unsure when others are not around to help me make a decision" (FO). In order to calculate subscale scores, appropriate items are reverse scored and averaged. Full scale scores are the average of subscale scores. Scores range from 1-6, and higher scores indicate higher levels of differentiation of self. Full scale scores will be used for main analyses, as Drake et al. (2015) demonstrated that full scale scores are reliable, retaining 96% of the internal reliability of the

DSI-R with only 43% of the items. Although the authors use full scale scores as well as subscale scores, no formal higher order factor analysis was explored with this scale. Therefore, the present study used exploratory factor analysis (EFA) to assure that the use of a full scale score is appropriate, discussed in the preliminary analysis section. Convergent validity has been found linking total and subscale scores of the DSI-SF with measures of perceived stress, depressive symptoms, and anxiety (negative relationships; Drake et al., 2015). It was also found to positively relate with self-esteem and the Level of Differentiation of Self Scale (Drake et al., 2015). Drake et al. (2015) found a Cronbach's alpha of .88 for the full scale, and alphas of .79, .80, .68, and .70 for the EC, ER, FO, and IP subscales, respectively. The DSI-SF is found in Appendix G. Cronbach's alpha for the current study was .90, and McDonald's omega was .91.

Secondary Traumatic Stress. Secondary Traumatic Stress was measured by the Secondary Traumatic Stress Scale (STSS; Bride et al., 2004). The STSS is a widely used measure of secondary stress in relation to therapeutic work with traumatized clients. Participants were asked to indicate how frequently *over the past seven days* they have experienced 17 relevant symptoms on a five-point Likert scale, from *Never* (1) to *Very Often* (5). In order to accommodate clinicians whose traumatized clients may have canceled within the past week, the instructions were modified, asking participants to indicate how frequently *over the past month* they have experienced the listed symptoms. The measure is structured in three factors according to the DSM-IV criteria for PTSD, as demonstrated by confirmatory factor analysis: Intrusion (e.g., "Reminders of my work with clients upsets me"), Avoidance (e.g., "I wanted to avoid working with some clients"), and Arousal (e.g., "I felt jumpy")(Bride et al., 2004). In a sample of 287 licensed social workers, the STSS evidenced

good internal reliability, with a full scale Cronbach's alpha of .93 and subscale alphas of .80, .87, and .83 for Intrusion, Avoidance, and Arousal respectively (Bride et al., 2004). The STSS has also demonstrated convergent validity with strong, positive correlations with a measure of depression ($r = .50$, $p < .002$) and anxiety ($r = .55$, $p < .002$). STSS also demonstrated moderate correlations with a measure of the extent to which their client population is traumatized ($r = .26$, $p < .002$) and the frequency with which their work addresses traumatic stress ($r = .23$, $p < .002$; Bride et al., 2004). Bride et al. (2004) also concluded that the STSS demonstrates discriminant validity with non-significant relationships with demographic variables, including age, ethnicity, and income. Subscale scores are calculated by summing responses to items within the subscale, and full scale scores are calculated by summing all items. Scores range from 17-85 with higher scores indicating greater secondary traumatic stress. Full scale scores are used for main analyses. The STSS is found in Appendix H. Both Cronbach's alpha and McDonald's omega for the current study were .89.

Countertransference. For the purposes of this study, countertransference was conceptualized via Type I and Type II reactions, as proposed by Wilson and Lindy (1991). Type I countertransference refers to avoidant reactions, which can be characterized as avoidant withdrawn, or detached reactions to therapeutic work and the client. Conversely, Type II refers to overidentification with the traumatized client, which can be characterized as overinvolved and enmeshment responses. I used selected subscales from the Therapist Response Questionnaire Revised Version (TRQ-R; Tanzilli et al., 2016), originally called the Countertransference Questionnaire (Betan et al., 2005; Zittel Conklin & Westen, 2003). The TRQ-R was developed using a practice network approach, in which responses from 181

clinicians from multiple theoretical orientations were pooled in order to generate common patterns of countertransference reactions (Betan et al., 2005). The authors found 8 factors of clinician countertransference reactions that were independent of theoretical orientation: Overwhelmed/Disorganized, or the clinician's own affective flooding due to the client's strong negative feelings; Helpless/Inadequate, or feelings of inadequacy, hopelessness, and incompetence in response to client difficulty; Positive, or perceptions of a positive working alliance between therapist and client; Special/Overinvolved, describing a sense of the client as special or distinct from other clients and difficulties maintaining appropriate boundaries (e.g., increased self-disclosure); Sexualized, or experiencing sexual feelings towards the client; Disengaged, or feeling distracted, bored, or annoyed in session; Parental/Protective, or desiring to nurture and protect the client in a parental manner; and Criticized/Mistreated, or feelings of being unappreciated and devalued by the client. Tanzilli, Colli, Del Corno, and Lingiardi (2016) then tested the factor structure of this measure in a separate, larger sample of 332 psychiatrists and psychologists of mixed theoretical orientations. They found a similarly stable factor structure, with the only added factor being Hostile/Angry, in which therapists felt anger or irritation towards their client. All other factors remained salient and stable through both exploratory and confirmatory factor analysis (Tanzilli et al., 2016).

The measure consists of statements about potential therapist reactions to clients, rated on a five-point Likert scale from 1 (*not at all true)* to 5 (*very true*). Reactions include both feelings (e.g., "*I feel bored in session with my traumatized clients,*") and behavior (e.g., "*I disclose my feelings with my traumatized clients more than with other clients,").* In accordance with instructions on the STSS, participants were instructed to provide how true the statements are in relation to their traumatized clients *over the past month*. Scores are

summed for each subscale, with higher scores indicating a greater presence for that particular type of reaction. Separate subscales are treated as separate but possibly related reactions. Tanzilli and colleagues (2016) reported that inter-factor correlations ranged from -.23 to .48, with a mean correlation of .28. The TRQ-R demonstrated significant and strong correlations with the previous scale version, with subscale correlations ranging from .78 to .98. Cronbach's alphas for each subscale ranged from .78 to .90, demonstrating good internal reliability across each factor (Tanzilli et al., 2016). The selected subscales from the TRQ-R can be found in Appendix I.

Type I. In accordance with Wilson et al.'s (1994) description of countertransference reactions (CTR) in response to trauma therapy, Type 1 CTRs are described as avoidant and disengaged. Therefore, Type 1 CTRs was measured with the five-item Disengaged subscale of the TRQ-R (e.g., *"I don't feel fully engaged in sessions with my traumatized clients,"*). The Cronbach's alpha for this subscale was .78 in the development study, demonstrating acceptable internal reliability (Tanzilli et al., 2016). Scores on this subscale range from 5-25. This scale is referred to as TRQ-underinvolved in the current study. Cronbach's alpha for the current study was .60, and McDonald's omega was .62.

Type II. Type 2 CTRs are described as overinvolved reactions to client concerns (Wilson et al., 1994). Therefore, Type 2 CTRs was measured with the six-item Overinvolved/Special subscale of the TRQ-R (e.g., *"I self-disclose more about my personal life with my traumatized clients than with my other clients,"*). This subscale demonstrated acceptable internal reliability, with a Cronbach's alpha of .79 in the development study (Tanzilli et al., 2016). Scores on this subscale range from 6-30. This scale will be referred to

as the TRQ-overinvolved. Cronbach's alpha for the current study is .65, and McDonald's omega is .74.

Results

Data Screening

A total of 362 participants accessed the survey. Of these participants, 31 completed less than 2% of the survey, akin to opening and immediately closing the survey. These 31 participants were dropped from further analysis, leaving a sample of 331. Next, missing data were assessed at the scale level, utilizing the seven primary variables of interest (PTSD, cognitive empathy, affective empathy, secondary traumatic stress, differentiation of self, overinvolved countertransference, underinvolved countertransference). Results revealed that 65 participants dropped out midway through the demographics form (first form of the survey), and failed to complete the seven primary variables of interest. Due to the large numbers of participant dropout during the demographic form, I assessed differences in completed demographic variables (age, gender, sexual orientation, and whether or not they practiced in the United States) between those missing all seven variables of interest (n = 65) and those not (n = 266). I used an independent samples t-test to assess for differences in age. Results revealed no significant differences between those who dropped out prematurely and those who did not in age: $t(328) = -1.04$, $p = .30$. I used the SPSS Crosstabs feature to perform a Chi-Squared test of independence to assess whether those who dropped out prematurely and those who did not significantly differed among the categorical demographic variables. Results revealed no significant differences between those who dropped out prematurely and those who did not regarding gender ($\chi^2[2] = 4.09$, $p = .13$), sexual

orientation ($\chi^2[5] = 2.67$, $p = .75$), or whether or not they practiced within the United States ($\chi^2[2] = 2.71$, $p = .10$).

Six participants completed the PTSD Check-list and the Pictorial Affective Empathy Test, but failed to complete the Questionnaire of Cognitive and Affective Empathy, the Differentiation of Self Inventory-Short Form, the Secondary Traumatic Stress Scale, and both measures (underinvolved and overinvolved) of the Therapist Response Questionnaire (missing 71.4% of the data). Four participants completed all measures but the Differentiation of Self Scale-Short Form, the Secondary Traumatic Stress Scale, and both measures (underinvolved and overinvolved) of the Therapist Response Questionnaire (missing 57% of the data). Four participants contained missing data for the Secondary Traumatic Stress Scale, and both measures (underinvolved and overinvolved) of the Therapist Response Questionnaire (missing 43%). Finally, a remaining five participants completed all measures besides the Therapist Response Questionnaire (missing 28.6%).

I then assessed item-level missingness beyond the 65 participants who failed to complete any variable of interest. Across all items, an additional seven participants dropped out entirely at the Questionnaire of Cognitive and Affective Empathy, three dropped out at the Differentiation of Self Inventory-Short Form, three dropped out at the Secondary Traumatic Stress Scale, and six dropped out at the Therapist Response Questionnaire. In total, 79 participants were missing over 20% of the data, skipping three surveys or more; six participants were missing 9.8% of the data, only skipping the Therapist Response Questionnaire, whereas 31 participants skipped between one (0.9% of total data) and three items (2.7% of total data) across the entire survey, including demographic items. Across all items and participants, Little's MCAR test revealed that data were missing completely at

random, MCAR $\chi^2(3179) = 3131.213$, $p = .724$. Therefore, the 79 participants missing more than 20% of the data (akin to missing three or more full scales) were dropped from the sample, as is typically done in datasets of this size (Parent, 2013). Given that data are missing completely at random, I used the expectation-maximization algorithm to impute the remaining missing data. I performed item-level expectation-maximization imputation because item-level imputation provides greater conservation of statistical power (Gottschall et al., 2012; Mazza et al., 2015). The remaining sample after imputation was $N = 252$.

Three validity check questions were included in the survey in order to address inattentive responding. Participants had to answer two out of the three questions correctly in order to remain in the sample. Five participants failed to answer two out of three validity checks correctly, and thus were removed from the dataset. The sample came to $N = 247$.

As this study employed multiple regression, preliminary analysis included assessment of univariate normality. All variables were within acceptable ranges of skewness and kurtosis, with the exception of the uninvolved countertransference Scale's kurtosis value (16.24) and skewness (3.20). Thus, I checked the data for multivariate outliers using Mahalanobis Distance, Cook's D, and leverage values. Two cases were identified as multivariate outliers due to significant Mahalanobis Distance ($p < .001$), Cook's Distance (>4/*N*, = .016), and large leverage scores (> .20). Removal of these multivariate outliers brought the underinvolved countertransference scale within acceptable skewness (2.02) and kurtosis limits (4.92), see Table 2. Additionally, correlations between STS and underinvolved countertransference were significantly greater when the multivariate outliers were included in the sample (.48 versus .36). Observation of the two identified multivariate outliers revealed extreme underinvolved countertransference and STS scores that distinguished the cases from

the rest of the sample (*Z*-scores > 5 for underinvolved countertransference, > 3 for STS). Furthermore, inclusion of the two multivariate outliers led to a significant finding that was not significant when the outliers were removed, highlighting the undue influence of these cases. Given the changes in variable relationships, multiple indices indicating distance from the rest of the sample, and the effect on underinvolved countertransference kurtosis scores, these two cases were removed from analysis bringing the sample to 245. I then standardized each variable in order to assess for univariate outliers (*Z*-score +/- |3.30|). After removal of the two multivariate outliers, uninvolved countertransference contained five univariate outliers, $Z = 3.42$ (3 participants), 4.01, and 4.59. Overinvolved countertransference contained three univariate outliers, $Z = 3.74$. Univariate outliers were retained within the dataset. The final sample was $N = 245$.

Next, I performed an exploratory factor analysis on the Differentiation of Self Inventory-Short Form (DSI-SF) and the Questionnaire of Cognitive and Affective Empathy (QCAE) to ensure that full-scale use of these measures was appropriate. Though full-scale scores of the DSI-SF have been used in previous studies and all four subscales are theoretically thought to represent the overall construct of differentiation of self, the measure was intended for subscale use, therefore appropriate dimensionality must be assessed. I used principal axis factoring (PAF) because PAF is the preferred method of factor extraction to assess *a priori* hypotheses about factor structure, and promax rotation. KMO's measure of sampling adequacy and Bartlett's associated Test of Sphericity were assessed, indicating that the sample was large enough to produce factor extraction: KMO's Sampling Adequacy was .88, and Bartlett's Test significant, $\chi^2(190) = 2221.92$, $p < .001$. Theoretically, eigenvalues over one can be retained, but the use of the full scale structure would be supported if the first

eigenvalue is 3-4 times larger than the second eigenvalue (Slocum-Gori & Zumbo, 2011). This was the case, as the first eigenvalue suggesting a one-factor solution for the DSI-SF was 7.29 and the second eigenvalue 1.96 before rotation. Factor loadings on a one factor solution ranged from .34 to .76. Thus, full scale DSI-SF scores were used in the main analyses.

I followed the same procedure for the cognitive empathy subscales of the QCAE. KMO's measure of sampling adequacy and Bartlett's associated Test of Sphericity were assessed, indicating that the sample was large enough to produce factor extraction: KMO's Sampling Adequacy was .78, and Bartlett's Test significant, $\chi^2(171) = 1094.61$, $p < .001$. Assessment of the eigenvalues and scree plot suggested that a two factor solution was more appropriate. The first eigenvalue for the factor structure of the cognitive dimension of the QCAE was 4.36, and the second eigenvalue was 2.17 before rotation; the first eigenvalue was only 2 times greater than the second eigenvalue. This pattern suggests that use of the two subscales would be more appropriate than calculating a full scale score. Analysis of the Scree Plot supported the two factor solution. Therefore, the Perspective Taking subscale and the Online Simulation subscale were analyzed separately, and are referred to as cognitive empathy-PT and cognitive empathy-OS, respectively. The bivariate correlations between these two scales was .34, $p < .001$. The moderate size of this correlation suggests that these two subscales are indeed related but distinct constructs, measuring different aspects of cognitive empathy and may perhaps interact with study variables differently. Therefore, the main analyses were conducted with subscale scores of the QCAE as opposed to one composite score. Factor loadings were acquired by then forcing a two factor solution while using PAF and Promax rotation. Loadings on factor one, corresponding to the Cognitive

empathy-OS subscale, ranged from .32 to .72. Loadings on factor two, corresponding to the Cognitive empathy-PT subscale ranged from .27 to .65.

Cronbach's alpha was used to assess the reliability of each measure (see Table 2). All measures demonstrated acceptable reliability, with the exception of the two countertransference measures, overinvolved (.56) and underinvolved (.58). Item-total statistics revealed that items could be removed from both measures to improve internal consistency. Beginning with the Overinvolved scale, removal of OI5, "I look forward to sessions with my traumatized clients," improved Cronbach's alpha to .63. However, internal consistency below .70 is still questionable. I performed an EFA (Principal Axis Factoring with Promax rotation) on both measures to assess whether factor structure could explain the poor reliability.

EFA of the Overinvolved scale revealed a predominantly one-factor solution with an eigenvalue of 1.76, although four total factors were extracted. Examination of the Scree Plot confirmed a suggested one-factor solution. Unfortunately, multiple items loaded poorly onto the first factor. Item OI2, "I tell my traumatized clients I love them," had a factor loading of .26, OI4, "I call my traumatized clients between sessions more than my other clients," had a factor loading of -.06, OI5, as indicated by the reliability analysis, had a factor loading of .00, but loaded strongly on a second factor (.63), and OI6 loaded .16 on the first factor and .36 on the second factor. Item OI5 was removed and factor structure reassessed. After rerunning the EFA, item OI4 had the lowest loading of -.02. This item was removed and EFA was analyzed again. Only one factor was extracted, with an eigenvalue of 1.89. Within the factor matrix, item OI1 "I disclose my feelings with my traumatized clients more than with other clients" had a factor loading of .83, item OI2 "I tell my traumatized clients I love them" had a

factor loading of .28, item OI3 “I self-disclose more about my personal life with my traumatized clients than with my other clients,” had a factor loading of .86, and item OI6 “II end sessions overtime with my traumatized clients more than with my other clients,” had a factor loading of .33. At this point, I ran another reliability analysis with these four items. Cronbach’s alpha equaled .62, but examination of item-total statistics revealed that removal of OI2, the item with the weakest factor loading, would increase reliability to .69. Therefore, item OI2 was dropped.

A final EFA was assessed with OI1, OI3, and OI6, and a stable one-factor solution was extracted, explaining 63.1% of the variance. Cronbach’s alpha as a reliability indicator has been criticized for use with ordinal data, with many considering alpha to be an underestimate of true ordinal scale reliability (Zumbo et al., 2007). Therefore, I calculated McDonald’s Omega using the following formula (McDonald, 1999):

$$\omega = \frac{(\sum \lambda_j)^2}{(\sum \lambda_j)^2 + \sum \sigma_{\varepsilon j}^2}$$

where λ_j denotes the factor loading for an item on a single factor EFA, and $\sigma_{\varepsilon j}^2$ denotes the standard error of measurement, or 1 - λ^2, for each item. Using this formula, the internal reliability for the three-item Overinvolved measure is .74, which is acceptable. Omega has been presented as a more practical solution to the failings and underestimations of Cronbach’s alpha (Deng & Chan, 2017); therefore I have reported both Cronbach’s alpha and McDonald’s omega as indicators of reliability for each of my measures (Table 2).

Next, I performed the same reliability analyses and EFA with the underinvolved scale. Item-total statistics revealed that removal of item UI1, “I begin sessions late with my traumatized clients more than with my other clients,” would improve Cronbach’s alpha from

.58 to .60. Principal Axis Factoring with Promax rotation extracted only one factor, with an eigenvalue of 1.94. Analysis of the Scree Plot confirmed the one-factor solution. Factor loadings indeed revealed that only item UI1 did not load adequately onto the factor, with a factor loading of .23. This item was dropped. As previously indicated, Cronbach's alpha improved to .60, but item-total statistics did not indicate that reliability would be improved by dropping any additional items. Rerunning the EFA, the four-item underinvolved scale again extracted only one factor with an eigenvalue of 1.87, explaining 46.75% of the variance. Factor loadings all appeared adequate, ranging from .45 to .68. The four-item underinvolved scale included the following items: UI2 "I feel bored in session with my traumatized clients," UI3 "My mind often wanders to things other than what my traumatized clients are talking about," UI4 "I don't feel fully engaged in sessions with my traumatized clients," and UI5 "I watch the clock with my traumatized clients more than with my other clients." McDonald's omega for the underinvolved was .62. This value indicated that the underinvolved scale has questionable reliability, but as one of the main dependent variables in the study, it was retained for analysis.

I assessed for collinearity using bivariate Pearson's correlations. None of the correlations between variables were greater than |.90|, therefore collinearity does not appear to be a concern (Tabachnick & Fidell, 2014). See Table 3 for bivariate correlations between all study variables. I created bivariate scatterplots to examine linearity, and all independent variables appeared to have linear relationships with the dependent variables (Secondary Traumatic Stress Scale, Therapist Response Questionnaire-overinvolved, and Therapist Response Questionnaire-underinvolved). Next, I assessed the standardized residual scatter

plots for the three dependent variables. The standardized residuals appeared to be normally distributed, linear, and assumptions of homogeneity and homoscedasticity were met.

Preliminary Analysis

In order to determine necessary control variables, I compared demographic variables with the Secondary Traumatic Stress Scale, The TRQ-underinvolved, and the TRQ-overinvolved. As continuous variables, the following were assessed via bivariate correlations: age, amount of years they have practiced professionally in the field, the amount of years working professionally with traumatized clients, the percentage of time spent working with traumatized clients over the last six months, the percentage of clients they currently see with a DSM-5 defined Criterion A trauma as their presenting concern, the amount of trauma-specific training the participants have received, income (measured as an ordinal variable ranging from 1-5), and personal PTSD scores. Percentage of current traumatized clients (r = .15, p = .020), and income (r = -.20, p = .002) were significantly related to the Secondary Traumatic Stress Scale. Age was significantly correlated with TRQ-underinvolved (r = -.20, p = .002) and the Secondary Traumatic Stress Scale (r = -.15, p = .021). PTSD was significantly related to the Secondary Traumatic Stress Scale (r = .57, p < .001), TRQ-underinvolved (r = .14, p = .024), and TRQ-overinvolved (r = .22, p < .001). Therefore, personal PTSD scores, percentage of current traumatized clients, income, and age were included as control variables for the main analyses.

As multicategorical variables, the following were assessed using one-way univariate analysis of variance: gender, sexual orientation, race, professional affiliation, and timing of personal trauma. Race appeared to be significantly associated with TRQ-underinvolved: $F(244) = 4.33$, $p < .001$. Assessment of the Tukey HSD posthoc test revealed that the only

significant difference was between individuals identifying as Middle Eastern and all other races (Black/African American, Non-Hispanic White, Hispanic/Latinx, Multicultural/Multiethnic, and Native American/American Indian/Indigenous). Results suggest that those identifying as Middle Eastern reported significantly higher TRQ-underinvolved scores than other participants. However, only two participants identified as Middle Eastern in the sample, therefore this relationship may easily be spurious, and will not be included as a control variable. Otherwise, the only other categorical variable that significantly covaried with the Secondary Traumatic Stress Scale was professional affiliation: $F(244) = 7.88$, $p < .001$. Posthoc analyses revealed that clinical social workers reported significantly greater secondary traumatic stress than all other professional affiliations (counselors/therapists, and psychologists/psychiatrists). Mental health counselors/therapists and psychologists/psychiatrists did not significantly differ from each other. Therefore, a dummy code variable distinguishing social workers was included as a control variable in the multivariate regression analysis (1 = clinical social workers, 0 = all other professions).

Independent-samples t-tests were utilized to assess whether any binary categorical variables covaried with the dependent variables. These included whether (a) the participant practiced within the United States (1= yes, 0 = no), (b) participants were currently receiving personal therapy for their trauma, (c) participants have received personal therapy for their trauma in the past, (d) participants were currently receiving professional supervision, (e) participants were currently involved in a professional consultation group, and (f) participants were currently providing supervision to other clinicians or clinicians-in-training. Two variables significantly covaried with secondary traumatic stress: currently receiving personal therapy ($t[243] = 3.35$, $p < .001$), and currently providing supervision to others ($t[242] = -$

2.83, $p = .005$). Participants currently receiving personal trauma therapy reported significantly *greater* secondary traumatic stress, and participants currently providing supervision to others reported significantly *lower* secondary traumatic stress.

In sum, the following six variables were identified as possible control variables in the main analyses: PTSD, percentage of current traumatized clients, income, age, the dummy code for identifying as a clinical social worker, the dummy code for currently receiving personal therapy, and the dummy code for currently providing supervision to others. PTSD, percentage of traumatized clients, age, and currently pursuing personal therapy have previously been identified as covariates to secondary traumatic stress in the literature (Adams & Riggs, 2008; Creamer & Liddle, 2005; Elwood et al., 2011; Hensel et al., 2015; Pearlman & Mac Ian, 1995; Robinson-Keilig, 2014). Dutton and Rubenstein (1995) theorized that personal and professional vulnerabilities, including dissatisfaction with professional and personal life, may leave a clinician more vulnerable to secondary traumatic stress and countertransference, providing support for the negative relationship between income and the dependent variables—individuals with lower income may experience more work-related stress, and subsequently more secondary traumatic stress and countertransference. Additionally, research suggests that secondary traumatic stress may vary by occupational groups due to varying levels of exposure and workplace support, providing support for utilizing social work identification as a relevant control (Hensel et al., 2015; Sprang et al., 2011). Providing supervision to others would theoretically be associated with secondary traumatic stress in the positive direction, adding another path for exposure. However, I found a negative relationship between providing supervision to others and secondary traumatic stress. The relationship between providing supervision and secondary traumatic stress may

have more to do with progression in one's career and a switch in clinical duties from direct client contact to indirect client contact through supervising other clinicians, lessening the exposure to traumatized clients Additionally, those who provide supervision to clinicians tend to be older and have a higher salary (see Table 3), qualities that are associated with less secondary traumatic stress. These six variables were included as control variables across the main analysis regression models (Hypotheses 5-7 and Research Question 3).

Main Analyses

Hypothesis 1: STS will be positively related to both types of countertransference reactions. Pearson product-moment correlations were examined between full scale STS scores and subscale countertransference scores on underinvolved and overinvolved countertransference reactions in order to test the hypothesis that greater countertransference is associated with greater STS. Both underinvolved ($r = .36$, $p < .001$) and overinvolved ($r = .19$, $p = .003$) countertransference was significantly positively correlated with STS, supporting Hypothesis 1.

Research Question 1: Does STS relate more strongly to Type II (overinvolved) countertransference reactions than to Type I (underinvolved) countertransference reactions? In order to explore whether STS relates differently to different countertransference reactions, I evaluated the associated correlations for size based on Cohen's effect size guidelines (small = .10, medium = .30, large = .50; Cohen, 2013). Based on these guidelines, it appears as though underinvolved countertransference is more strongly associated (r = .36) with STS than overinvolved countertransference (r = .19). The association between underinvolved countertransference and STS corresponds with a medium effect size, whereas the relationship between overinvolved countertransference and STS

corresponds with a small effect size. An r to z transformation using Steiger's Z Test revealed that this difference in size was statistically significant: $Z = 2.119$, $p = .017$.

Hypothesis 2: Affective empathy will be positively related to STS. Due to mixed findings, no hypothesis was made regarding the relationship between cognitive empathy and STS. Evaluation of Pearson correlations revealed that although affective empathy was related to STS in the positive direction, this relationship was not statistically significant ($r = .08$, $p = .19$). The dimensions of cognitive empathy, Cognitive empathy-PT ($r = .07$, $p = .31$) and Cognitive empathy-OS ($r = -.04$, $p = .57$), were not significantly related to STS. Thus, Hypothesis 2 is not supported. These findings differ from previous studies finding positive weak, but significant associations between affective empathy and therapist reactions like secondary traumatic stress (Gleichgerrcht & Decety, 2013), burnout (Cieslak et al., 2014), and compassion fatigue (Thomas & Otis, 2010), but are congruent with previous studies finding negligible associations between cognitive empathy and STS (Gleichgerrcht & Decety, 2013).

Research Question 2: Do cognitive and affective empathy relate to countertransference reactions? Are there differential relationships between cognitive and affective empathy and the two countertransference reaction measures? Pearson Product-Moment correlations were also examined to answer Research Question 2. Results revealed that affective empathy was not significantly related to either underinvolved ($r = -.12$, $p = .36$) or Overinvolved ($r = .003$, $p = .96$) countertransference. Although affective empathy appears to be negatively associated with underinvolved countertransference and negligibly, if slightly positively associated with overinvolved countertransference, the lack of statistical significance suggests that these differences in correlation directions may be

spurious, therefore interpretation of these directions is unwarranted. Similarly, Cognitive empathy-PT was differentially related to underinvolved (r = -.12, p = .07) and overinvolved (r = .06, p = .38) countertransference, though neither of these relationships were significant. Cognitive empathy-OS, on the other hand, was significantly negatively related to underinvolved countertransference (r = -.20, p = 002), but not significantly related to overinvolved countertransference (r = -.01, p = .92).

Hypothesis 3: Differentiation of self will be positively related to cognitive empathy. No hypothesis will be made regarding the relationships between affective empathy and differentiation of self. Pearson product-moment correlations were examined in order to test the hypothesis that differentiation of self and cognitive empathy are positively related, and to examine the relationships between affective empathy and differentiation of self. Results revealed partial support for Hypothesis 3. Whereas Cognitive empathy-OS was weakly but significantly positively related to differentiation of self (r = .14, p = .030), Cognitive empathy-PT revealed a non-significant relationship in the other direction (r = -.03, p = .69). Given that the negative relationship between Cognitive empathy-PT and differentiation of self is not significant, the directional difference may be spurious. Affective empathy was negatively related to differentiation of self, though this relationship was not significant (r = -.04, p = .50).

Hypothesis 4: Differentiation of self will be negatively related to both STS and both types of countertransference reactions. Pearson product-moment correlations were examined in order to test the hypothesis that differentiation of self is negatively related to STS and countertransference. Results revealed significant negative correlations between differentiation of self and STS (r = -.56, p < .001), underinvolved countertransference (r = -

.25, $p < .001$), and overinvolved countertransference ($r = -.22$, $p < .001$), supporting Hypothesis 4. Using Cohen's effect size guidelines, the relationship between differentiation of self and STS is large, while the relationships between differentiation of self and both underinvolved and overinvolved countertransference are small-to-medium.

Hypothesis 5: Cognitive empathy, affective empathy, and differentiation of self will predict STS and countertransference reactions over and above relevant covariates. Hypothesis 5 was tested via SPSS multivariate General Linear Models (GLM). GLM was used so that all three dependent variables, STS, underinvolved, and overinvolved, could be analyzed together due to their conceptual and statistical overlap. All control and test variables were entered as covariates. Given that all control variables were either continuous or dummy coded, there was no need to enter any variable into factors to explore group differences. Please see Figure 2 for a complete layout regarding model specifications for Hypotheses 5-7, and Research Question 3. The analyses for Hypothesis 5 correspond with Model 1 in Figure 2. I also selected to receive output regarding effect size and parameter estimates, which provide univariate results for each dependent variable. Results revealed a significant multivariate effect for differentiation of self: Hotelling's Trace = .158, Wilk's $\lambda = .863$; $F(3, 229) = 12.068$, $p < .001$; multivariate $\eta^2 = .137$. However, affective empathy [Hotelling's Trace = .012, Wilk's $\lambda = .988$; $F(3, 229) = .911$, $p = .436$; multivariate $\eta^2 = .012$; Observed Power = .248], Cognitive empathy-PT [Hotelling's Trace = .005, Wilk's $\lambda = .995$; $F(3, 229) = .405$, $p = .749$; multivariate $\eta^2 = .005$; Observed Power = .130], and Cognitive empathy-OS [Hotelling's Trace = .024, Wilk's $\lambda = .976$; $F(3, 229) = 1.862$, $p = .137$; multivariate $\eta^2 = .024$; Observed Power = .479] failed to account for significant variance in the three outcome variables over and above covariates in the sample. The following covariates remained

significant predictors of the three outcome variables, even when differentiation of self, affective empathy, and cognitive empathy were added to the model: PTSD [Hotelling's Trace = .122, Wilk's λ = .891; $F(3, 229) = 9.292$, $p < .001$; multivariate $\eta^2 = .109$], and identifying as a social worker [Hotelling's Trace = .039, Wilk's λ = .963; $F(3, 229) = 2.943$, $p = .034$; multivariate $\eta^2 = .037$]. Please see Table 4 for full results. Thus, Hypothesis 5 was partially supported, such that differentiation of self accounted for a significant proportion of variance in STS, underinvolved countertransference, and overinvolved countertransference over and above relevant personal and professional characteristics associated with STS and countertransference (PTSD scores, income, age, percentage of traumatized clients, professional affiliation, receiving personal therapy, and providing supervision to others); however, neither cognitive empathy nor affective empathy were significant predictors when controlling for the covariates and differentiation of self.

Univariate results evaluating the model, with all control variables and the four tested variables (affective empathy, Cognitive empathy-PT, Cognitive empathy-OS, and differentiation of self), were evaluated using a corrected *p*-value of .017 (.05/3 outcomes). The overall model significantly predicted Secondary Traumatic Stress, $F(11, 231) = 16.763$, $p < .001$, and accounted for approximately 44% of the variance in STS scores ($R^2 = .444$, *adjusted* $R^2 = .417$). Of the four tested variables, only differentiation of self accounted for a significant amount of variance in STS: $B = -4.723$, $\beta = -.358$, $p < .001$, partial $\eta^2 = .123$, a moderate effect size. Please see Table 4a. Regarding underinvolved countertransference, the overall model was significant: $F(11, 231) = 3.078$, $p = .001$, accounting for 13% of the variance ($R^2 = .128$, *adjusted* $R^2 = .086$). Of the four tested variables, only differentiation of self ($B = -.392$, $\beta = -.212$, p = .008, partial $\eta^2 = .030$) remained a significant predictor, also

with a moderate effect size. Please see Table 4b. For overinvolved countertransference, the overall model approached significance: $F(11, 231) = 1.795$, $p = .056$, accounting for 8% of the variance in overinvolved countertransference ($R^2 = .079$, *adjusted* $R^2 = .035$).

Hypothesis 6: Cognitive empathy will moderate the positive relationship between affective empathy and STS and countertransference reactions. To test this hypothesis, I performed another multivariate GLM analysis. Because I found evidence that the two cognitive empathy subscales may relate differently to other study variables, the analyses were carried out with Cognitive empathy-PT as a moderator of affective empathy first while controlling for Cognitive empathy-OS and differentiation of self, and then Cognitive empathy-OS as the moderator while controlling for Cognitive empathy-PT and differentiation of self. To organize these results, I separated Hypothesis 6 into 6A (Cognitive empathy-PT as the moderator) and 6B (Cognitive empathy-OS as the moderator). The steps of these analyses correspond with Model 2A and 2B in Figure 2. Affective empathy, Cognitive empathy-OS, Cognitive empathy-PT, and differentiation of self were mean-centered prior to entering into the model in order to facilitate interpretation. Interaction variables were computed with mean-centered affective empathy, and mean-centered Cognitive empathy-PT and Cognitive empathy-OS, respectively. As with the testing of Hypothesis 5, GLM was used so that all three dependent variables, STS, underinvolved, and overinvolved, could be analyzed together due to their conceptual and statistical overlap. All control and test variables were entered as covariates and univariate results regarding effect size and parameter estimates were selected for additional output.

6A: Cognitive empathy-PT as the Moderator. The two-way interaction term computed between Cognitive empathy-PT and affective empathy was not a significant

multivariate predictor of STS, underinvolved, and overinvolved countertransference: Hotelling's Trace = .010, Wilk's λ = .990; $F(3, 228) = .761$, $p = .517$; multivariate $\eta^2 = .010$; Observed Power = .212. Within this multivariate model containing all relevant control variables, affective empathy, Cognitive empathy-PT, Cognitive empathy-OS, differentiation of self, and the interaction term between Cognitive empathy-PT and affective empathy, only identifying as a social worker [Hotelling's Trace = .039, Wilk's λ = .963; $F(3, 228) = 2.941$, $p = .034$; multivariate $\eta^2 = .037$], personal PTSD scores [Hotelling's Trace = .122, Wilk's λ = .891; $F(3, 228) = 9.254$, $p < .001$; multivariate $\eta^2 = .109$] and differentiation of self [Hotelling's Trace = .157, Wilk's λ = .865; $F(3, 228) = 11.912$, $p < .001$; multivariate $\eta^2 = .135$] remained significant multivariate predictors. Hypothesis 6A is not supported. Please see Table 5a.

6B: Cognitive empathy-OS as the Moderator. The two-way interaction term computed between Cognitive empathy-OS and affective empathy was not a significant multivariate predictor of STS, underinvolved, and overinvolved countertransference: Hotelling's Trace = .010, Wilk's λ = .990; $F(3, 228) = .767$, $p = .514$; multivariate $\eta^2 = .010$; Observed Power = .213. Within this multivariate model containing all relevant control variables, affective empathy, Cognitive empathy-PT, Cognitive empathy-OS, differentiation of self, and the interaction term between Cognitive empathy-OS and affective empathy, only identifying as a social worker [Hotelling's Trace = .039, Wilk's λ = .963; $F(3, 228) = 2.928$, $p = .034$; multivariate $\eta^2 = .037$], personal PTSD scores [Hotelling's Trace = .121, Wilk's λ = .892; $F(3, 228) = 9.183$, $p < .001$; multivariate $\eta^2 = .108$] and differentiation of self [Hotelling's Trace = .164, Wilk's λ = .859; $F(3, 228) = 12.488$, $p < .001$; multivariate $\eta^2 = .141$] remained significant multivariate predictors. Hypothesis 6B was not supported. Please

see Table 5b. Thus, the hypothesis that cognitive empathy interacts with affective empathy to affect STS and countertransference was not supported in this sample.

Hypothesis 7: Differentiation of self will moderate the positive relationship between affective empathy and STS and countertransference reactions. To test this hypothesis, I performed another multivariate GLM analysis. The steps of this analysis correspond with Model 3 in Figure 2. Affective empathy, Cognitive empathy-OS, Cognitive empathy-PT, and differentiation of self were mean-centered prior to entering into the model in order to ease interpretation. An interaction variable was computed with mean-centered affective empathy and mean-centered differentiation of self. As with the testing of Hypotheses 5 and 6, GLM was used so that all three dependent variables, STS, underinvolved, and overinvolved, could be analyzed together due to their conceptual and statistical overlap. All control and test variables were entered as "Covariates," and univariate results regarding effect size and parameter estimates were selected for additional output.

The two-way interaction term computed between differentiation of self and affective empathy was not a significant multivariate predictor of STS, underinvolved, and overinvolved countertransference: Hotelling's Trace = .006, Wilk's λ = .994; $F(3, 228)$ = .448, p = .719; multivariate η^2 = .006; Observed Power = .139. Within this multivariate model containing all relevant control variables, affective empathy, Cognitive empathy-PT, Cognitive empathy-OS, differentiation of self, and the interaction term between differentiation of self and affective empathy, only identifying as a social worker [Hotelling's Trace = .038, Wilk's λ = .962; $F(3, 228)$ = 3.010, p = .031; multivariate η^2 = .038], personal PTSD scores [Hotelling's Trace = .121, Wilk's λ = .892; $F(3, 228)$ = 9.164, $p < .001$; multivariate η^2 = .108] and differentiation of self [Hotelling's Trace = .157, Wilk's λ = .864;

$F(3, 228) = 11.956$, $p < .001$; multivariate $\eta^2 = .136$] remained significant multivariate predictors. Thus, Hypothesis 7 was not supported in this sample. Please see Table 6.

Research Question 3: Does differentiation of self affect the degree to which cognitive empathy moderates the effect of affective empathy on trauma therapist reactions to trauma therapy (i.e., STS and countertransference reactions)? This research question was assessed by means of a three-way interaction term between cognitive empathy dimensions, affective empathy, and differentiation of self, and corresponds with Models 4A and 4B in Figure 2. In order to mathematically test a three-way interaction, all possible two-way interactions on main effect variables must be entered into the model. Because the dimensions of cognitive empathy are being evaluated separately, Model 4A includes the following interaction terms: Cognitive empathy-PT x affective empathy, affective empathy x differentiation of self, Cognitive empathy-PT x differentiation of self, and Cognitive empathy-PT x affective empathy x differentiation of self. Model 4B, focusing on Cognitive empathy-OS, includes the following interaction terms: Cognitive empathy-OS x affective empathy, affective empathy x differentiation of self, Cognitive empathy-OS x differentiation of self, and Cognitive empathy-OS x affective empathy x differentiation of self. All test variables were mean centered prior to calculation of the interaction terms in order to ease interpretation. The analyses were conducted using the same procedure used to test Hypotheses 5-7.

Model 4A: Three-Way Interaction between Cognitive empathy-PT, Affective Empathy, and Differentiation of Self. Multivariate results revealed that the three-way interaction term between Cognitive empathy-PT, affective empathy, and differentiation of self was not significant: Hotelling's Trace = .031, Wilk's $\lambda = .970$; $F(3, 225) = 2.297$, $p =$

.078; multivariate η^2 = .030; Observed Power = .574. Of the main effect variables, only differentiation of self [Hotelling's Trace = .135, Wilk's λ = .881; $F(3, 225) = 10.127$, $p <$ .001; multivariate η^2 = .119] remained significant. Please see Table 7.

Model 4B: Three-Way Interaction between Cognitive empathy-OS, Affective Empathy, and Differentiation of Self. Multivariate results revealed that the three-way interaction term between Cognitive empathy-OS, affective empathy, and differentiation of self was statistically significant: Hotelling's Trace = .085, Wilk's λ = .922; $F(3, 225) =$ 6.360, $p <$ .001; multivariate η^2 = .078. With the three-way interaction term in the model, age [Hotelling's Trace = .036, Wilk's λ = .966; $F(3, 225) = 2.667$, p = .049; multivariate η^2 = .034], identifying as a social worker [Hotelling's Trace = .038, Wilk's λ = .963; $F(3, 225) =$ 2.861, p = .038; multivariate η^2 = .037], personal PTSD scores [Hotelling's Trace = .123, Wilk's λ = .890; $F(3, 225) = 9.234$, $p <$ .001; multivariate η^2 = .110] and differentiation of self [Hotelling's Trace = .177, Wilk's λ = .849; $F(3, 225) = 13.298$, $p <$ .001; multivariate η^2 = .151] remained significant. Please see Table 8. I then examined univariate results using a corrected p-value of .017 (.05/3 outcomes) in order to evaluate the model's fit with each dependent variable. Results revealed that the three-way interaction accounted for a significant portion of variance in secondary traumatic stress and underinvolved countertransference, but not overinvolved countertransference. I organize the specific results below into sections for secondary traumatic stress, underinvolved countertransference, and overinvolved countertransference.

Secondary Traumatic Stress. Please see Table 8a. The overall model predicting secondary traumatic stress was significant, $F(15, 227) = 13.500$, $p <$ .001, and accounted for approximately 47% of the variance in STS scores (R^2 = .471, *adjusted* R^2 = .437). Of the

covariates, identifying as a social worker (B = 3.110, β = .129, p = .010, partial η^2 = .029) and personal PTSD score (B = .310, β = .322, p < .001, partial η^2 = .099) accounted for a significant amount of variance within secondary traumatic stress scores. Of the four tested variables and four interaction terms, differentiation of self (B = -4.858, β = -.368, p < .001 partial η^2 = .132, moderate effect size) and the three-way interaction term Cognitive empathy-OS x affective empathy x differentiation of self (B = -.096, β = -.146, p = .005, partial η^2 = .035, small effect size) accounted for a significant portion of variance within secondary traumatic stress. Specifically, differentiation of self accounted for 13.2% of variance within secondary traumatic stress, whereas the three way interaction accounted for an additional 3.5% of the variance. To probe the interaction further, I analyzed this same model using SPSS PROCESS Macro, Model 3 (three-way interaction) using only Secondary Traumatic Stress as the outcome variable. PROCESS Macro produces data for visualizing the three way interaction.

Figure 3 presents graphs of the simple slopes of the regression equation. Three graphs represent the interaction between Cognitive empathy-OS x affective empathy on secondary traumatic stress at -1 SD, average, and +1 SD values of differentiation of self, respectively labeled Low, Avg, and High Differentiation of Self. Figure 4 is also included for a more condensed view of the three-way interaction. Interpretation of these plots reveal that the interaction of Cognitive empathy-OS x affective empathy reverses direction based on the participants' differentiation of self. For individuals with low differentiation of self (1 SD below the mean), those with low affective empathy and high Cognitive empathy-OS scores have the lowest secondary traumatic stress scores; however, individuals with high affective empathy and high Cognitive empathy-OS scores have the highest secondary traumatic stress

scores. It appears that for individuals with low differentiation of self and high Cognitive empathy-OS scores, secondary traumatic stress *increases* as affective empathy scores increase, resulting in a positive relationship between affective empathy and secondary traumatic stress. For individuals with low differentiation of self and low Cognitive empathy-OS scores, secondary traumatic stress *decreases* as affective empathy scores increase, resulting in a negative relationship between affective empathy and secondary traumatic stress. This pattern of interaction suggests that for individuals with low differentiation of self, Cognitive empathy-OS is an antagonist on the relationship between affective empathy and secondary traumatic stress. For individuals with average levels of differentiation of self, there appears to be a unitary positive relationship between affective empathy and secondary traumatic stress, despite varying levels of Cognitive empathy-OS scores.

For individuals with high differentiation of self, the role of Cognitive empathy-OS appears to reverse. For those with low Cognitive empathy-OS scores, secondary traumatic stress increases as affective empathy increases, resulting in a positive relationship between affective empathy and secondary traumatic stress. However, for those with high Cognitive empathy-OS scores, secondary traumatic stress *decreases* as affective empathy increases, resulting in a negative relationship between affective empathy and secondary traumatic stress. Ultimately, the mental health professionals in this sample who have high differentiation of self, high Cognitive empathy-OS scores, and high affective empathy report the lowest secondary traumatic stress.

Underinvolved countertransference. Please see Table 8b. The overall model significantly predicted underinvolved countertransference: $F(15, 227) = 3.740$, $p < .001$, accounting for about 20% of the variance ($R^2 = .198$, *adjusted* $R^2 = .145$). None of the

covariates accounted for a significant amount of variance in underinvolved countertransference scores. Of the four tested variables and four interaction terms, differentiation of self (B = -.452, β = -.244, p = .002, partial η^2 = .042, moderate effect size) and the three-way interaction term OS x affective empathy x differentiation of self (B = -.023, β = -.253, p < .001, partial η^2 = .066, moderate effect size) accounted for a significant portion of variance, whereas Cognitive empathy-OS approached significance (B = -.066, β = -.146, p = .029, partial η^2 = .021). Specifically, differentiation of self uniquely accounted for 4.2% of variance in underinvolved countertransference, whereas the three-way interaction accounted for an additional 6.6% of the variance. To probe the interaction further, I conducted the same procedure done for secondary traumatic stress: I analyzed this same model using SPSS PROCESS Macro, Model 3 (three-way interaction) using only underinvolved countertransference as the outcome variable, and collected data to visualize the three-way interaction.

Please see Figure 5 for graphs of the simple slopes of the regression equation. Three graphs represent the interaction between Cognitive empathy-OS x affective empathy on underinvolved countertransference at -1 SD, average, and +1 SD values of differentiation of self, respectively labeled Low, Avg, and High Differentiation of Self. Figure 6 is also included for a more condensed view of the three-way interaction. Interpretation of these plots reveal that, for individuals with low differentiation of self, cognitive empathy attenuates and even reverses the relationship between affective empathy and underinvolved countertransference. Participants with low Cognitive empathy-OS scores and low affective empathy report the most underinvolved countertransference of those with low differentiation of self, and of the entire sample. Likewise, those with high Cognitive empathy-OS scores

and low affective empathy report the lowest underinvolved countertransference out of those with low differentiation of self. For those with low differentiation of self and high cognitive empathy-OS, underinvolved countertransference increases as affective empathy increases, resulting in a positive relationship between these two variables. As affective empathy increases, however, those with low differentiation of self and high, average, or low Cognitive empathy-OS scores begin to report similar amounts of underinvolved countertransference. For individuals with low differentiation of self and low Cognitive empathy-OS scores, underinvolved countertransference actually *decreases* as affective empathy increases, resulting in a negative relationship between these two variables. For individuals with low differentiation of self, the difference in underinvolved countertransference scores between those with low, average, and high Cognitive empathy-OS scores *decreases* as affective empathy increases. Taken together these results suggest for mental health professionals reporting low differentiation of self and low to average Cognitive empathy-OS scores, underinvolved countertransference decreases as affective empathy increases. But for individuals reporting low differentiation of self and high Cognitive empathy-OS, underinvolved countertransference seems to increase as affective empathy increases.

For mental health professionals with average levels of differentiation of self, affective empathy appears to have a slightly negative relationship with underinvolved countertransference across varying levels of Cognitive empathy-OS. Those with high Cognitive empathy-OS report lower underinvolved countertransference reactions than those with average and low Cognitive empathy-OS scores, though these differences are small. For individuals with high levels of differentiation of self, Cognitive empathy-OS again appears to attenuate and reverse the relationship between affective empathy and underinvolved

countertransference, however in the opposite direction than that observed for those with low differentiation of self. Individuals with high differentiation of self, high Cognitive empathy-OS scores, *and* high affective empathy report the lowest amount of underinvolved Countertransference reactions out of the entire sample. For individuals with average and high Cognitive empathy-OS scores, underinvolved countertransference decreases as affective empathy increases. However, for those with high differentiation of self and low Cognitive empathy-OS scores, underinvolved countertransference increases slightly as affective empathy increases. For individuals with high differentiation of self, the difference in underinvolved countertransference scores between those with low, average, and high Cognitive empathy-OS scores increases as affective empathy increases, such that those with high Cognitive empathy-OS and high affective empathy see greater reductions in underinvolved countertransference reactions.

Overinvolved Countertransference. The model predicting Overinvolved countertransference, was not statistically significant: $F(15, 227) = 1.404$, $p = .147$, accounting for about 9% of the variance in Overinvolved countertransference ($R^2 = .085$, *adjusted* $R^2 = .024$).

Discussion

The present study examined the roles of empathy and differentiation of self in the expression of secondary traumatic stress symptoms and countertransference in a sample of survivor therapists. These results indicated that differentiation of self is a strong predictor of secondary traumatic stress reactions and countertransference, even beyond the effects of therapist demographic and professional factors, personal PTSD scores, and empathy. Although neither cognitive nor affective empathy significantly related to secondary traumatic

stress and countertransference on their own, a three-way interaction between cognitive empathy, affective empathy, and differentiation of self emerged, suggesting that the effects of empathy on secondary traumatic stress and underinvolved countertransference change according to one's level of differentiation of self. These results reveal a new understanding about the empathic experiences of survivor therapists, and how these empathic experiences may be managed while working with traumatized clients. Findings from the present study expand upon previous literature by examining the experiences of survivor therapists more closely, by breaking empathy down into its cognitive and affective components, by incorporating the level of differentiation the therapist brings into the therapeutic relationship, and most interestingly by examining how affective empathy, cognitive empathy, and differentiation of self work together to predict secondary traumatic stress and countertransference reactions.

Hypothesis 1 predicted that secondary traumatic stress would be positively related to both underinvolved and overinvolved countertransference. The present findings supported this hypothesis, and demonstrated a significant, positive relationship between secondary traumatic stress and both underinvolved and overinvolved countertransference. This result suggests that mental health professionals' experience within the therapeutic relationship can have an impact on their wellbeing, beyond just the immediacy of the therapeutic interaction. These results also contribute to the ongoing debate regarding secondary traumatic stress and countertransference as distinct or overlapping constructs (Berzoff & Kita, 2010; Kanter, 2007). Given the magnitude of the correlations between these variables, it seems reasonable to suggest that countertransference and secondary traumatic stress are related but distinct phenomena. It may be that secondary traumatic stress and countertransference are more

closely related in samples of survivor therapists compared to therapists without underlying personal trauma. This suggestion that secondary traumatic stress and countertransference occur more strongly together in samples of survivor therapists would match the assumptions of Wilson and colleagues (1994), who stated that traumatized therapists may inadvertently address their own unresolved trauma in the therapeutic session in the form of countertransference. However, the small to moderate relationship between countertransference and secondary traumatic stress in the present sample, and the finding in previous studies that secondary traumatic stress emerges in clinicians who do not have underlying personal trauma (Adams et al., 2008; Kadambi & Trsucott, 2004), supports Figley's (1995) claim that secondary traumatic stress results from more than simply unresolved trauma.

Research Question 1 asked if there were differences in the relationship between secondary traumatic stress and the two types of countertransference. Although my results cannot assume the timing of countertransference and secondary traumatic stress, if one happens before the other or if they occur simultaneously, the stronger relationship between secondary stress and underinvolved countertransference suggests that those who are reporting more detachment from and avoidance of their traumatized clients are also reporting greater secondary traumatic stress. It is likely that professionals reporting greater underinvolved countertransference may be avoiding strong emotions with their traumatized clients and detaching from the therapeutic process because they are overwhelmed with secondary traumatic stress. For mental health professionals experiencing greater secondary traumatic stress, it may be easier, and safer, to cope with this intense reaction by disengaging from the stressful therapeutic relationship.

The positive association between overinvolved countertransference and secondary traumatic stress suggests that those who report more enmeshment (i.e., self-disclosing more and going over session limits) with their traumatized clients also report greater secondary traumatic stress. Wilson and colleagues (1994) suggested that individuals may experience overinvolved countertransference as a result of overidentifying with the client, and having some unmet need fulfilled through work with that client. It could be that the preoccupation with one's traumatized clients leads to overexposure to traumatic content or a strain on the mental health professional's empathic connection with the client, resulting in increased secondary traumatic stress; however, the relationship between overinvolved countertransference and secondary traumatic stress was significantly weaker than the relationship between underinvolved countertransference and secondary traumatic stress. The opportunity for the mental health professional to have some personal needs met through disclosure and enmeshment may limit the relationship with secondary traumatic stress, as this may indicate a general openness to traumatic content even if at times problematic for the therapeutic relationship. Indeed, experiential avoidance has been associated with increased posttraumatic stress symptoms and worse mental health outcomes (Fledderus et al., 2010; Kashdan et al., 2006; Orcutt et al., 2020). The deleterious effects avoidance can have on wellbeing may help to explain why underinvolved countertransference was more strongly associated with secondary traumatic stress than overinvolved countertransference.

Hypothesis 2 predicted that affective empathy would be positively related to secondary traumatic stress; due to mixed results in previous research, no hypothesis was made regarding the relationship between cognitive empathy and secondary traumatic stress. In the present study, the relationships between both affective empathy and cognitive and

secondary traumatic stress were negligible. These findings differ from previous studies that found weak positive, but statistically significant associations between affective empathy and therapist reactions like secondary traumatic stress (Gleichgerrcht & Decety, 2013), burnout (Cieslak et al., 2014), and compassion fatigue (Thomas & Otis, 2010), but are congruent with previous studies finding negligible associations between cognitive empathy and STS (Gleichgerrcht & Decety, 2013). This result indicates that affective empathy alone does not correspond with secondary traumatic stress within this sample of survivor therapists. An explanation for this finding could be that the previous studies finding a significant relationship between affective empathy and secondary traumatic stress/other related constructs predominantly use the Interpersonal Reactivity Index (IRI). The IRI has been criticized for its lack of coherent factor structure, and inclusion of subscales that may not be a valid representation of affective empathy in particular (Chrysikou & Thompson, 2016; Hojat et al., 2005; Pulos et al., 2004). For example, the IRI subscale most commonly related to secondary traumatic stress, compassion fatigue, and vicarious trauma is labeled Personal Distress. This subscale contains items that seem to reflect emotional and empathic regulation as opposed to pure affective empathy (e.g., "*I tend to lose control in emergencies*," and "*I sometimes feel helpless when I am in the middle of a very emotional situation*"; Davis, 1980). Indeed, more recent empathy researchers have questioned the construct validity of the Personal Distress scale, arguing that it simply measures sympathetic behavior and emotional responses to emergency situations (Jolliffe & Farrington, 2006; Reniers et al., 2011). Thus, previous findings may actually be pointing towards empathic regulation as a significant predictor of secondary traumatic stress. The present findings support this thought, given the negligible association between affective empathy and secondary traumatic stress and

countertransference alone, but its significant effect within its interaction with cognitive empathy and differentiation of self. It appears that the affective empathic reaction alone is not sufficient to incite an increase in secondary traumatic stress.

Due to a lack of previous literature on the topic, Research Question 2 inquired whether cognitive and affective empathy relate to countertransference, and if these relationships varied by type of countertransference. In general, neither empathy measure was significantly correlated with countertransference, with the exception of the negative relationship between the cognitive empathy-OS scale and underinvolved countertransference. Cognitive empathy-OS, otherwise known as Online Simulation, represents an effort to actively put oneself in another's position in a future-oriented way (Reniers et al., 2011). This component of cognitive empathy differs from perspective taking, which refers to the intuitive ability to put oneself in another's shoes (e.g., *"I am good at predicting how someone will feel,"*). Whereas the Perspective Taking scale measures trait cognitive empathy skills, the Online Simulation scale measures how one actually uses the skill *before* reacting (e.g., *"Before criticizing somebody, I try to imagine how I would feel if I was in their place,"*). This is an important distinction. Mental health professionals likely all see themselves as having the ability to perspective take, but how they actively use that ability appears to differ. Survivor therapists can better cognitively simulate others' emotional experience and use this knowledge to dictate their next steps experienced less underinvolved countertransference in this study. It is likely that therapists who are actively using cognitive empathy skills in session are more likely to remain engaged with the client. It may be, too, that the active employment of cognitive empathy skills allows mental health professionals a productive way to work with the intense affect within the room, leading to a decrease in provider anxiety and

ultimately, less of a need to detach from the session in order to assuage that anxiety. The lack of associations between Perspective Taking and affective empathy with underinvolved countertransference reveals that trait cognitive empathy skills and affective empathy alone do not appear to have an immediate effect on a professional's detachment experiences within the session. Similarly, the lack of significant associations between empathy variables and overinvolved countertransference suggests that the empathic experiences of therapists with personal trauma do not seem to have any bearing on their experiences of enmeshment and overidentification with the client.

Hypothesis 3 examined the relationship between differentiation of self and cognitive empathy. Differentiation of self was expected to be positively related to cognitive empathy, and results revealed that differentiation of self was indeed positively related with Online Simulation, but not significantly related to Perspective Taking. This finding is in line with previous studies finding positive relationships between differentiation of self and effortful control (Skowron & Dendy, 2004; Palmer, 2017). In an unpublished thesis, Palmer (2017) found, in a sample of 184 adults, that differentiation of self was positively associated with multiple executive functioning indices, including behavior regulatory skills (e.g., inhibition) and meta-cognitive skills (e.g., working memory). Online Simulation has also demonstrated a significant negative relationship with impulsivity (r = -.32, p < .01) whereas Perspective Taking has not (r = -.03, p > .05), suggesting that individuals who engage in more Online Simulation may also be characterized as less impulsive and better regulated, but the same cannot be said for individuals who report high perspective taking skills (Reniers et al., 2011). Individuals who are better differentiated are more likely to engage in a balance of both rational and emotional processing, allowing for a more stable sense of self and behavioral

regulation. Thus, it makes sense that professionals who report greater differentiation of self also report a greater tendency to actively consider others' perspectives and emotions before acting (i.e., Online Simulation). It may be that greater differentiation of self makes it easier to step into another person's experience while contemporaneously reflecting on how this may affect one's own actions.

Still, it is surprising that there was no relationship between differentiation of self and Perspective Taking. Given the nature of therapeutic work, mental health professionals may identify as having strong perspective taking abilities and reporting such abilities may be socially desirable. It could be that mental health professionals typically have an intuitive ability to perspective take across varying levels of differentiation of self, but professionals with higher differentiation of self tend to actively use this perspective taking to inform future actions (i.e., Online Simulation). In fact, greater differentiation of self may keep professionals, especially those with personal trauma, from over-empathizing with clients, and instead maintain an appropriate balance of considering others and considering one's own wellbeing. On this note, perhaps trait perspective taking can only help a professional so much without appropriate management and future-oriented action.

Results from Hypothesis 4 revealed that differentiation of self was inversely related to both secondary traumatic stress (large effect size) and countertransference (small to medium effect sizes). As hypothesized, it appears that mental health professionals who are better at untangling their emotional experience from their client's through a personal balance of the pulls of togetherness and separateness experience less secondary traumatic stress, a finding that is congruent with previous studies (Halevi & Idisis, 2018; Thomas & Otis, 2010; Zerach, 2015). Halevi and Idisis (2018), in a sample of 134 mental health therapists, found strong

negative relationships between both the interpersonal and intrapersonal dimensions of differentiation of self and vicarious trauma. The authors concluded that mental health professionals with higher levels of differentiation of self likely have ample emotional and intellectual resources that enable clear but flexible boundaries. These boundaries then assist the professional in remaining separate enough from the client to reduce damage done by vicarious trauma and secondary traumatic stress. Individuals with high differentiation of self have a clear sense of self, allowing them to more easily traverse autonomy-intimacy pulls that are likely to be heightened in any therapy session. This ability is especially important for therapists with their own personal trauma: a clear identification of the self and the ability to balance rational and emotional processing may enable the traumatized therapist to avoid enmeshing themselves with the client and, subsequently, the client's trauma.

The negative relationship between differentiation of self and both underinvovled and overinvolved countertransference is also supported by previous findings (Connery & Murdock, 2019; Fatter & Hayes, 2013). Connery and Murdock (2019), using the same measures for underinvolved and overinvolved countertransference and differentiation of self, collected a sample of 262 professional therapists and trainees. They found a small but significant relationship between underinvolved countertransference and differentiation of self (r = -.19, p < .001), and a medium significant relationship between overinvolved countertransference and differentiation of self (r = -.44, p < .001). Connery and Murdock (2019) found group differences by training in overinvolved countertransference, such that trainees experienced significantly more overinvolved reactions than did the licensed professionals. Differences between trainees and professionals may explain the effect size difference between the two studies regarding the relationship between differentiation of self

and overinvolved countertransference, given that the present study only contained professionals and not trainees. Regardless, these results suggest that individuals who are more differentiated experience less overinvolved and underinvolved countertransference reactions. Differentiation of self can assist mental health professionals in navigating anxiety in the therapeutic space that may otherwise lead to countertransference reactions and behaviors—especially with clients who may, with strong affect or intense pathology, test the boundaries of the therapeutic relationship. Just as differentiation of self allows individuals to neither cut off from nor enmesh with others in intimate relationships, so too does differentiation of self allow for the same distance/closeness balance in the therapeutic relationship. Furthermore, professionals who are better differentiated likely know themselves and their reactions and can remain vigilant to their internal conflicts that emerge within the therapeutic space (Hayes et al., 2018).

Hypotheses 5-7 and Research Question 3 assessed how affective empathy, cognitive empathy, and differentiation of self work together to predict secondary traumatic stress and both types of countertransference. As established in Hypothesis 5, only differentiation of self had a multivariate, negative effect on secondary traumatic stress and countertransference, over and above therapist personal and professional characteristics and personal PTSD scores. This finding was not surprising considering the lack of bivariate relationships between the empathy variables and outcome variables, with the exception of cognitive empathy-OS and Underinvolved countertransference. Notably, assessment of observed power revealed that the lack of statistically significant relationships between empathy variables and the outcome variables may be a result of not having adequate statistical power necessary to detect true effects. Considering these results, particularly the lack of association between affective

empathy and the outcome variables, it was also not surprising that none of the two-way interactions significantly predicted secondary traumatic stress or countertransference. The inability of both cognitive empathy and differentiation of self to moderate the effect of affective empathy differs slightly from previous studies. For example, Lamothe et al. (2014) found that cognitive empathy and affective empathy interacted to predict burnout in a sample of 295 French general practitioners, with high affective empathy and high cognitive empathy predicting lower burnout. Similarly, Lamm et al. (2007) found that manipulating self-other differentiation in a sample of 17 healthy adults modified feelings of distress in response to seeing another individual experience pain, such that those primed to self-differentiate experienced less distress than those primed to personalize the pain (i.e., imagine what this person feels versus imagine if this were happening to you). However, with the addition of the three-way interaction term between affective empathy, cognitive empathy-OS, and differentiation of self, the interaction between affective empathy and cognitive empathy did indeed emerge after accounting for varying levels of differentiation of self. The three-way interaction provides support for Decety and Jackson's (2004) and Eisenberg's (2000) theory of empathy, such that three pieces are necessary for effective empathy: an affective component in which a person shares in the emotional experience of another, a cognitive component in which a person can conceptualize and understand another's experience, and a regulatory mechanism by which self- and other-feelings are kept distinct.

The three-way interaction revealed that for individuals with low differentiation of self, high cognitive empathy-OS exacerbates a positive relationship between affective empathy on secondary traumatic stress. However, for individuals with high differentiation of self, Cognitive empathy-OS appears to buffer and even reverse the relationship between

affective empathy and secondary traumatic stress, such that affective empathy when modulated by high cognitive empathy does not increase and even trends towards reducing secondary traumatic stress—a finding similar to Lamothe et al. (2014). It appears that a high level of differentiation of self is necessary for survivor therapists to optimally utilize both aspects of empathy—they seem to be able to tolerate both high affective empathy and high cognitive empathy without experiencing an increase in secondary traumatic stress. Meanwhile, survivor therapists with low differentiation of self but high affective and cognitive empathy experienced the most secondary traumatic stress within the entire sample. As Decety et al. (2010) suggested, one's ability to down-regulate emotion and clearly differentiate themselves from another may allow for increased recruitment of cognitive processing while engaging in affective empathy, increasing the clinician's tolerance for strong empathic processing without a corresponding increase in personal distress. Indeed, intrapersonal differentiation of self is associated with an advanced ability to integrate rational and emotional processing (Bowen, 1978; Timm & Keiley, 2011). For individuals with high differentiation of self, the recruitment of cognitive processing like Online Simulation appears to temper distress caused by the emotional sharing indicative of strong affective empathy. Although strong cognitive empathy and affective empathy may occur concurrently in individuals with low differentiation of self, the failure to integrate these processes may result in a compounding effect of the two empathic processes: without high levels of differentiation of self, having high levels of both cognitive and affective empathy appears to overwhelm the survivor therapist, leaving them more vulnerable to secondary traumatic stress. Furthermore, differentiating interpersonally from the client allows the survivor therapist to remain close to but fundamentally separate from the client's experience (Halevi & Idisis, 2018). High levels

of cognitive and affective empathy allow the therapist this closeness, while high differentiation of self allows the therapist to step into this closeness without walking away with pain that is not their own. In this way, greater empathy without the ability to differentiate one's own experience from the client's results in a toxic closeness, and a sharing of traumatic symptoms.

The three-way interaction between affective empathy, cognitive empathy-OS, and differentiation of self revealed, in general, a neutral-to-negative relationship between affective empathy an underinvolved countertransference. This is most clearly identified for individuals with low cognitive empathy and low differentiation of self, and individuals with high cognitive empathy and high differentiation of self. The survivor therapists reporting the greatest amount of underinvolved countertransference reactions had low affective empathy, low cognitive empathy, and low differentiation of self. It is likely that, with such low empathy scores, these professionals are more prone to cut off from their traumatized clients when anxiety arises within the session. Professionals need some capacity to intimate with the client in order to keep from cutting off, whether that be high affective empathy or high cognitive empathy; however, under low differentiation of self conditions, having high levels of cognitive empathy results in an increased risk for underinvolved countertransference as affective empathy increases, again suggesting that higher levels of differentiation of self is needed to tolerate strong cognitive and affective empathic responses. It may be that individuals with low differentiation of self practice less empathy as a compensatory mechanism to keep their sense of self intact. For survivor therapists especially, limited empathy in session may mean less self-other blurring, and thus less of an opportunity for retraumatization or secondary trauma. Unfortunately, however, having little cognitive and

affective empathy likely results in emotional cutoff and a distanced therapeutic relationship. For survivor therapists with high differentiation of self, the interaction between cognitive empathy and affective empathy looks similar to secondary traumatic stress: high cognitive empathy and high affective empathy interact to predict the lowest report of underinvolved countertransference within the sample. Again, clinicians with high differentiation of self can more easily tolerate high affective and cognitive empathy, integrating both into healthy relationship building with their clients without cutting off in response to anxiety.

Notably, these results elucidate 'for whom' increased empathy is useful. For example, high affective empathy will not necessarily lead to increased secondary traumatic stress: when combined with high differentiation of self and high cognitive empathy, affective empathy appears to have a negative relationship with secondary traumatic stress and may be useful for the therapeutic relationship. For underinvolved countertransference especially, affective empathy can be helpful in keeping the provider from cutting off entirely, and keeping the therapist engaged with the client. However, individuals with low differentiation of self do not benefit from high cognitive and affective empathy, and instead see increases in secondary traumatic stress and, while less underinvolved countertransference than survivor therapists with low empathy, more underinvolved countertransference compared to survivor therapists with high differentiation of self. Thus, for individuals with low differentiation of self, empathy becomes a double-edged sword: too much, and these therapists run the risk of increased secondary traumatic stress—too little, and they run the risk of cutting off from their client and possibly damaging therapeutic progress.

The three-way interaction including cognitive empathy-PT approached significance but ultimately did not account for additional variance within the outcome variables. This

finding supports the earlier interpretation that perhaps the inherent trait of perspective taking is insufficient to temper the effects of affective empathy, or have a major impact on secondary traumatic stress and countertransference. Ultimately, the relationship between empathy, differentiation of self, secondary traumatic stress, and countertransference appears to be best understood when considering active cognitive empathy behaviors as opposed to trait cognitive empathy. Surprisingly, none of the models were able to account for a significant amount of variance within overinvolved countertransference scores. It appears that the overinvolved countertransference response, as it stands within the present sample, is poorly understood. Returning to Connery and Murdock's (2019) study, trainees tend to experience more overinvolved countertransference than do professionals in the field. It is likely that enmeshment responses are quite difficult to maintain for professionals, given high caseloads and demands for time and attention that trainees do not necessarily experience in clinical settings. When anxiety, the precipitating experience to countertransference, emerges within the therapeutic space, detaching and avoiding may be an easier (and perhaps more energy-effective) defense for professionals than preoccupation.

Theoretical Contributions

The present study contributed to the extant literature in many ways. First and foremost, survivor therapists are an understudied group within the professional community, despite the high likelihood of a trauma history within mental health professionals and calls for research in this area (Butler et al., 2017; Hayes, 2002, 2004; Zerubavel & Wright, 2012). This study contributes to our understanding of how survivor therapists from an array of professional affiliations manage therapeutic relationships with traumatized clients, highlighting the importance of self-other differentiation in tolerating high levels of empathy.

Previous studies have also theorized the overlap between secondary traumatic stress and countertransference, but no study to date has attempted to examine both constructs together to assess empirical overlap. The present study does so and provides support for claims that secondary traumatic stress and at least underinvolved and overinvolved countertransference are related but distinct concepts (Berzoff & Kita, 2010; Figley, 2005). Assessing these constructs together captures a broader therapist experience and opens the door for future research to refine our understanding about the overlapping emergence of secondary trauma and countertransference. Furthermore, the present study underscores the importance of empathy and differentiation of self in both therapist reactions. Differentiation of self, as well as the interaction between differentiation of self, affective empathy, and cognitive empathy predicted secondary traumatic stress beyond traumatic exposure variables. In fact, traumatized caseload was no longer a significant predictor of secondary traumatic stress when all other variables were entered into the model, supporting claims of previous researchers that emergence of secondary traumatic stress has more to do with therapist personal factors than exposure to traumatic content (Devilly, et al., 2009; Geoffrion et al., 2016; Kadambi & Truscott, 2004; Ortlepp & Friedman, 2002; Rzeszutek et al., 2015). On the other hand, it may simply be that the secondary traumatic stress model originally proposed by Figley (1995), such that the primary transmission of secondary traumatic stress is exposure to clients' traumatic stories, is better fit for therapists who have not already been exposed to their own personal trauma. Indeed, an unexpected result of trauma exposure can be posttraumatic growth and resilience (Tedeschi & Calhoun, 2006).

Countertransference has previously been conceptualized as a disruption of empathy, but exactly how empathy is disrupted has been unclear (Peabody & Gelso, 1982). Based on

the present findings, it appears that underinvolved countertransference specifically is predicted by low differentiation of self, and a lack of, or perhaps an exhaustion of, both cognitive and affective empathy. Literature exploring countertransference management acknowledge that empathy and self-integration (similar to differentiation of self) are essential for good countertransference management (Hayes et al., 2018; Perez-Rojas et al., 2017). The present findings provided support for these qualities as underinvolved countertransference management tools, and suggest that the two must be present together to perhaps allow for the self-reflection necessary for countertransference management (Peabody & Gelso, 1982). Additionally, rather than conceptualizing empathy as one-dimensional, the present study supports the assessment of empathy as a multidimensional construct, which may provide new directions for countertransference management research.

Another contribution of this study is the examination of empathy in greater detail, not just assessing for both cognitive and affective empathy but also examining two distinct components of cognitive empathy. This careful analysis revealed the importance of active cognitive empathy behaviors, as opposed to trait cognitive empathy, in altering the effects of affective empathy. The addition of the Bowen Family Systems Theory construct of differentiation of self gave needed context for the interaction between cognitive and affective empathy and provided support for Decety and Jackson's (2004) and Eisenberg's (2000) theorized model of empathy. Specifically, the present findings demonstrate that cognitive empathy can indeed moderate the effects of affective empathy, but that this moderation is based on the therapist's level of differentiation of self. Empathy researchers have previously hypothesized that self-other differentiation may be needed to manage empathy, and the

integration of Bowen Family Systems Theory provides an answer as to how individuals develop this ability: from the family system.

Contributing to Bowen Family Systems Theory, the present study demonstrates the ways in which differentiation of self facilitates empathy. Although empathy is seen as an innate human quality necessary for social functioning, it is likely that empathy is molded in the context of one's family-of-origin based on the child's ability to experience and balance both intimacy with the emotional system and appropriate autonomy from it (Ferrera, 2014). Based on the results of the present study, manifestations of emotional cutoff or fusion, which are the interpersonal ways in which an undifferentiated individual manages the anxiety that occurs in close relationships, can be understood as mismanaged empathy. Namely, high empathy coupled with low differentiation of self results in a greater sharing of trauma, or perhaps fusion with the client's trauma, and greater secondary traumatic stress. Lower empathy and low differentiation of self results in greater emotional cutoff from the client's experience, and thus underinvolvement with the client. These findings underscore the importance of differentiation of self in mental health professionals, and provides support for the utility of differentiation of self in relationship management in professional therapeutic relationships as well as in family or intimate relationships. .

Clinical Implications

The present study provides many practical implications for mental health professionals, particularly regarding supervision and training. Given the ubiquity of trauma in our clients' lives and our own, the present study bolsters the need for trauma-informed care as a guide for educators, agency leaders, and supervisors into safe training about secondary traumatic stress, countertransference, and the effects of clinicians' own trauma

(Knight, 2018). Whereas trauma-informed practice is a popular method promoted among mental health programs to create an atmosphere of safety, trust, collaboration, choice, and empowerment with traumatized clients, trauma-informed care asserts that these same principles are needed for healthy workplace environments among staff as well (Knight, 2018; Wolf et al., 2014). Central to trauma-informed care is trauma-informed supervision, which provides a framework for supervisors to address issues of primary and secondary trauma without crossing boundaries into "quasi-therapy" with the supervisee (Knight, 2018, p. 18). The present findings suggest that differentiation of self and empathy may be helpful topics to include in trauma-informed supervision, particularly with regards to experiencing secondary traumatic stress and countertransference.

The findings underscore the importance of the mental health professionals' ability to differentiate themselves from their client. Failing to do so is associated with increased risk of secondary traumatic stress and countertransference, which will harm not just the therapist but the client as well (Hayes et al., 2011). Supervisors and supervisees alike may find it beneficial to assess their levels of differentiation of self. Bowen (1978) asserted that, before assisting clients, therapists have a responsibility to address their own family dynamics and their own means of dealing with the intimacy-autonomy strain that is present in close relationships. Just as individuals bring their own family dynamics into their future relationships, so too will therapists into their therapeutic relationships. Training programs initiating clinicians on their professional journey should also consider integrating the importance of self-other differentiation into counseling method curricula. Kerr and Bowen (1988) suggest family genogram study as a means of assessing intergenerational family dynamics, which can help provide a visual for patterns of differentiation of self within a

family's emotional system. Such visual tools have proved useful in clinical settings, and may be just as useful for clinicians in training to become more mindful of the relational dynamics they may bring into the therapeutic or supervision space (Aten et al., 2008; Magnuson & Shaw, 2003).

It would also behoove supervisors to pay close attention to their supervisees' expressions of empathy and create active dialog around empathy management and the role of differentiation of self. Of particular importance is the role of Online Simulation in empathy management, as these are active behaviors that supervisors can model and teach to supervisees with the expressed purpose of improving affective empathy management. For example, a supervisor may ask their supervisee the following: "Imagine your client's feelings here. How does their emotion affect your own? How might this understanding influence your next decision?" Doing so actively allows the supervisee to empathically simulate their client's experience, and become more aware of their own reactions in order to proceed more thoughtfully with the self-other barrier intact. Another example may be, "How are you understanding your client's experience in this moment? Whose feelings are you experiencing, your own or your client's? How do you know? How close or distant do you feel from the client, and how might this affect your decisions moving forward?" Practicing these self-other reflective behaviors, informed by the clinician's levels of differentiation of self and empathy, may allow for therapeutic engagement while reducing the risk of secondary traumatic stress; doing so in supervision allows for an assessment of countertransference as well. For clinicians with personal trauma and lower levels of differentiation of self, the findings of the present study suggest that strong empathy may be difficult to manage without negative consequences. Attention should be paid to improving

clinicians' awareness around their level of differentiation of self first, and perhaps gradually building in empathic simulation exercises like the ones mentioned above.

The findings in the present study show that personal trauma does not necessarily preclude survivor therapists from protecting themselves against secondary traumatic stress and countertransference. In fact, survivor therapists likely have a large well of empathy from which to draw for their clients, and when coupled with high differentiation of self, these therapists appear to remain well and engaged. Supervisors should thus emphasize the strengths of these therapists, rather than assuming that personal trauma equates increased vulnerability. Underscoring these strengths may more effectively empower deeply empathic clinicians to remain attuned not only to their clients, but their own wellbeing as well.

Less central to the study purpose but worth noting, the present findings also demonstrated differences in secondary traumatic stress by professional affiliation. Clinical social workers reported significantly greater secondary traumatic stress than any other professional group in the current sample. This finding is in line with previous studies finding elevated rates of both secondary traumatic stress and PTSD in social workers (Bogstrand et al., 2016; Bride, 2007; Carangi et al., 2017; Choi, 2011). This finding may be due to workload differences between social workers and other mental health professionals. For example, social workers are often responsible for clinical work and case management, and may be employed in clinical settings with increased exposure to their clients' struggle like home-based care, child and family services, and the criminal-legal system (U.S. Bureau of Labor Statistics, 2020). In previous studies as well as present findings, workload and in particular trauma caseload has been associated with increased secondary traumatic stress (Hensel et al., 2015). On another note, a systemic review of United States social work

supervision demonstrated that negative experiences in supervision were associated with social worker burnout and emotional exhaustion (Carpenter et al., 2013). Notably, according to the U.S. Bureau of Labor Statistics (2020), social workers experience one of the highest rates of injury or illness out of all occupations. Whatever the cause, social workers with personal trauma appear to be particularly vulnerable to secondary traumatic stress. Social work educators, supervisors, and managers should take care in addressing job stress and secondary traumatization, perhaps through supervision or agency training, with social work trainees and clinicians.

Strengths, Limitations, and Future Directions

Beyond the important theoretical and clinical implications of the present findings, this study had many strengths. Through online surveys, I was able to capture a wide professional audience, such that the findings reflect the experiences of social workers, counselors, and psychologists, improving the generalizability of the findings across professional groups and highlighting the importance for social workers in particular. Using an anonymous online format, participants may have felt safer disclosing symptoms of secondary traumatic stress and potentially stigmatized countertransference experiences that they may not otherwise disclose in professional settings. In sampling survivor therapists specifically, the present study was also able to account for personal trauma in greater detail than previous studies by inquiring about traumatic events, timing of the trauma, and personal PTSD scores. By doing so, I can more confidently present secondary traumatic stress findings beyond the effects of personal trauma, a needed inclusion in the present literature (Elwood et al., 2011; Molnar et al., 2017). Furthermore, Zerubavel and Wright (2012) lamented that the failure of the mental health professional field to discuss the prevalence of "wounded healers" further reinforces

silence and shame for survivor therapists balancing their own adversity and that of their clients. Perhaps one of the greatest strengths of the present study is the normalization of personal trauma in mental healthcare professionals, and the exploration of factors that allow these professionals to protect themselves from secondary traumatic stress and countertransference.

The present study also took a more comprehensive approach in assessing empathy, which allowed for the examination of the novel interaction between affective empathy, Online Simulation, and differentiation of self. By assessing both dimensions of empathy, and exploring the differences between trait and active cognitive empathy (i.e., Perspective Taking vs. Online Simualtion), I answered Ludwick and Figley's (2016) call for a closer examination of the role of empathy in secondary traumatic stress transmission. The present findings also provided needed context regarding the relationships between cognitive empathy, affective empathy, and countertransference. To my knowledge, only one other study has attempted to assess both dimensions of empathy in relation to countertransference management (Talbot et al., 2019), and no other studies besides the present have attempted to assess both dimensions of empathy and actual countertransference reactions.

Despite many strengths, several factors limit the generalizability of these findings and inform future directions of study. Because these measures were given in survey form at one time, causality cannot be assumed. Although theory would dictate that empathy and differentiation of self develop before and contribute to secondary traumatic stress and countertransference, there is little to determine whether secondary traumatic stress and countertransference occur simultaneously or if one precedes the other. Now that we know that secondary traumatic stress and countertransference are indeed empirically related, future

work should more closely examine the temporal relationship between secondary traumatic stress and countertransference. A longitudinal study examining the emergence of countertransference and secondary traumatic stress reactions in therapists over time, perhaps through journaling and evaluation of recorded sessions by independent raters, is needed to more fully answer whether one reaction occurs as a result of another. Regardless of the temporal relationship between secondary traumatic stress and countertransference, differentiation of self was the strongest predictor of all three therapist reactions in each of the examined models. I encourage future studies to examine the subcomponents of differentiation of self to determine whether the interpersonal or intrapersonal dimensions drive these associations, or if the interpersonal and intrapersonal dimensions of differentiation of self have different relationships with secondary traumatic stress and the different types of countertransference.

Experimental or quasi-experimental studies may be useful in empirically demonstrating the cause and effect sequence of empathic processing, self-other differentiation, and emergence of therapist reactions. For example, Ivicic and Motta (2017) developed an emotional Stroop protocol as a performance-based test of secondary traumatic stress. This test could be used with experimental methodology to evaluate whether certain client characteristics or primes actively predict changes in secondary traumatic stress in therapist samples. Additionally, because the present study utilized self-report, there is a risk of social desirability bias. Within the mental health world especially, empathy is seen as a socially desirable trait and central to the therapeutic process (Elliott et al., 2011). Although the Pictorial Empathy Test is seen as an improvement to other self-report affective empathy questionnaires that may more obviously introduce social desirability bias, future studies may

find it beneficial to instead use performance-based indicators of both cognitive and affective empathy to confirm the present findings. Comparison of the assessed model with a group of non-survivor therapists would also be beneficial to assess whether the relationships between differentiation of self, empathy, and therapist reactions are ubiquitous or specific to survivor therapists.

I also had difficulties with the reliability of the countertransference outcome measures. Contrary to previous studies using the Therapist Response Questionnaire-R (Connery & Murdock, 2019; Tanzilli et al., 2016), the present study found that both the uniderinvolved and overinvolved countertransference scales had to be altered to achieve acceptable reliability. This may be due to the breadth of professional affiliations included in the present sample as compared to others using this measure. For example, Betan and colleagues (2005) developed the original measure through a sample of psychologists and psychiatrists, and Tanzilli and colleagues (2016) revised the measure with a similar sample. It could be that clinical social workers and mental health counselors, who make up the majority of the present sample, experience countertransference differently than psychologists and psychiatrists. Additionally, the sample reported relatively low countertransference, both underinvolved and overinvolved, with limited variability. This may be a result of social desirability bias, being that professionals may feel shame around experiences of countertransference and may thus underreport, or they may simply be poor historians of their own countertransference experiences (Fatter & Hayes, 2013). Unfortunately, restricted sample variance can also limit scale reliability (Lakes, 2013). Although low reliability may have attenuated relationships between the countertransference measures and other study variables, underinvolved countertransference scores behaved in expected ways and still

revealed significant outcomes. Nevertheless, caution should be taken when interpreting results.

The inability of the hypothesized model to predict overinvolved countertransference is intriguing and presents an avenue for future studies. Additional research is needed to determine whether overinvolved countertransference is indeed a problem for professionals, and if professionals with different training experience overinvolvement differently, or if the experience of overinvolved countertransference is better predicted with a model including client characteristics (Murdock & Connery, 2019). For example, Betan and colleagues (2005) found that overinvolved countertransference was experienced most often by clinicians treating clients with Borderline Personality Disorder. Tanzilli et al. (2016) also found positive associations between overinvolved countertransference and both Borderline Personality Disorder and Avoidant Personality Disorder client diagnoses. Again, however, both of these studies utilized psychologist and psychiatrist samples only. Dependent sample studies including both therapist and client characteristics across multiple professional affiliations may help to clarify when mental health professionals cross the line between engaged and overinvolved. Future studies would also do well to limit the use of self-report to assess countertransference, given the possibility for bias and error (Hayes, 2004).

One of the most notable limitations of the present study is the lack of generalizability to non-White, non-heterosexual, and non-cisgender female therapists. Although the sample reflects the majority of workers in the mental health field to date, the field is continually diversifying, thus it is important for studies to reflect the varying experiences of intersecting identities (Buche et al., 2016). Although understudied within the mental health profession specifically, evidence shows that individuals with marginalized identities experience

significant workplace stress and discrimination (Filut et al., 2020; Dietert & Dentice, 2009). These negative experiences affect the wellbeing for clinicians with non-dominant cultures and identities, and may contribute to secondary traumatic stress and countertransference experiences. Furthermore, secondary traumatic stress and related constructs compassion fatigue and vicarious trauma have been predominantly studied with majority White, cisgender, heterosexual samples. It is unclear whether the secondary traumatic stress model best describes the experience of therapists who are Black, Indigenous, or People of Color, differently-abled, or therapists identifying as LGBQIA or Trans, for example. Future studies assessing the utility of the secondary traumatic stress model within more diverse samples is needed.

Although the present study contributed to the literature by accounting for the influence of family dynamics on empathy, one's experience of empathy is also culturally informed. There is evidence that a collectivistic worldview, defined as placing the needs of one's in-group above the needs of oneself, relates more positively to both affective and cognitive empathy than an individualistic worldview, in which one's own needs are placed above the needs of one's in-group (Duan et al., 2008). Therapists with more collectivistic worldviews may have a higher tolerance for empathic experiences given the other-oriented nature of the culture. Individualism is seen as the prevailing worldview for White Americans and Western cultures; therefore, the present findings may only be generalizable to therapists from these backgrounds. On the other hand, several researchers advocate that individualism and collectivism are not opposite endpoints on a single continuum, but are instead bidimensional constructs, and that even cultures deemed more collectivistic (e.g., Japanese culture) can also produce individualistic worldviews perhaps due to the globalization of

Western ideology (Hamamura, 2011; Heinke & Louis, 2009; Oyserman et al., 2002). Regardless, how an individual relates to another is not just determined by one's relationship to their caregivers, but also to one's relationship with broader social systems. I encourage future studies to seek therapist samples with diverse worldviews and explore the impact that cultural worldview may have on the relationship between empathy and therapist reactions.

The methodology for recruitment may have also unintentionally biased the sample. In order to standardize inclusion, traumatized clients were defined as those who met DSM-5 criteria for a PTSD Criterion A trauma, but whether these experiences sufficiently encompass the breadth of traumatic experiences is hotly contested among professionals (Briere & Scott, 2015; Weathers, 2017). Experiences of racial trauma, for example, are not included in the DSM-5 despite associations with PTSD symptomology, mental health difficulty, and declines in wellbeing (Carter, 2007; Comas-Diaz et al., 2019; Pieterse et al., 2012). Although the DSM-5's definition served as a useful operationalization for trauma in creating a more homogenous sample, the strict criteria may exclude a broader clinician experience.

Additionally, the Life Events Checklist-5 was used to help describe the traumatic experiences of the sample and helped to serve as a validity check for evidence of traumatic experience by asking whether participants directly experienced an event, witnessed it happen, or learned about it happening to a loved one. It is likely, however, that certain traumatic events have a greater impact than others based on the degree of life threat or violation and the proximity to the person experiencing the event (e.g., directly experiencing sexual assault versus witnessing a car accident happen to others). Although the current study utilized the PTSD Checklist-5 in order to account for severity of current PTSD symptoms, I did not assess whether the intensity of the traumatic event itself had an additional impact on therapist

reactions. This would likely be very difficult to account for, because traumatic events are highly subjective, and the lingering effect of a traumatic event is due to a number of factors beyond the perceived intensity of the trauma (Briere & Scott, 2015). Still, future studies may approach this question by specifically assessing objective measures of trauma intensity, perhaps via degree of life threat and proximity (directly experiencing versus witnessing), as well as subjective perceptions of trauma severity. Trauma intensity may be more salient when assessing survivors of specific experiences, for example therapists who have experienced sexual assault currently treating sexual assault survivors (Baird & Kracen, 2006).

Conclusion

Trauma-focused therapy is challenging for clients and therapists alike, but is incredibly important work. Research on the needs of mental health professionals who mend the psychological damage of trauma is needed, particularly survivor therapists who have personally witnessed the effects of trauma in their own lives (Hayes 2002, 2004). The present findings highlight the importance of differentiation of self as a protective factor against difficult therapist reactions like secondary traumatic stress and underinvolved countertransference. Furthermore, the findings demonstrate how differentiation of self, cognitive empathy, and affective empathy interact to predict secondary traumatic stress and countertransference. Specifically, survivor therapists with high levels of differentiation of self appear to be able to tolerate both high cognitive empathy and high affective empathy, whereas survivor therapists with low differentiation of self experienced increased secondary traumatic stress with increased empathy (both cognitive and affective), and increased underinvolved countertransference with decreased empathy (both cognitive and affective).

However, these variables were unable to account for variance in overinvolved countertransference. Mental health professionals are encouraged to utilize differentiation of self in supervision and training, and to consider how differentiation of self helps to determine one's efficacy in managing their empathic responses. Approaches geared towards improving clinicians' awareness of their level of differentiation of self are recommended, as well as practicing cognitive empathic processing in the therapeutic space. By building clinicians' knowledge about their own ability to differentiate and empathize cognitively and affectively with their clients, risk of both secondary traumatic stress and disengagement from the therapeutic relationship can be reduced.

REFERENCES

Adams, S. A., & Riggs, S. A. (2008). An exploratory study of vicarious trauma among therapist trainees. *Training and Education in Professional Psychology*, *2*(1), 26–34. https://doi.org/10.1037/1931-3918.2.1.26

Adams, R. E., Figley, C. R., & Boscarino, J. A. (2008). The compassion fatigue scale: Its use with social workers following urban disaster. *Research on Social Work Practice*, *18*(3), 238-250. https://doi.org/10.1177/1049731507310190

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*. American Psychiatric Pub.

Aten, J. D., Madson, M. B., & Kruse, S. J. (2008). The supervision genogram: A tool for preparing supervisors-in-training. *Psychotherapy: Theory, Research, Practice, Training, 45*(1), 111–116. https://doi.org/10.1037/0033-3204.45.1.111

Baird, K., & Kracen, A. C. (2006). Vicarious traumatization and secondary traumatic stress: A research synthesis. *Counselling Psychology Quarterly*, *19*(2), 181–188. https://doi.org/10.1080/09515070600811899

Balconi, M., Bortolotti, A., & Gonzaga, L. (2011). Emotional face recognition, EMG response, and medial prefrontal activity in empathic behaviour. *Neuroscience Research*, *71*(3), 251-259. https://doi.org/10.1016/j.neures.2011.07.1833

Balconi, M., & Canavesio, Y. (n.d.). Emotional contagion and trait empathy in prosocial behavior in young people: The contribution of autonomic (facial feedback) and Balanced Emotional Empathy Scale (BEES) measures. *Journal of Clinical and Experimental Neuropsychology*, *35*(1), 41–48. https://doi.org/10.1080/13803395.2012.742492

Balconi, M., & Lucchiari, C. (2007). Consciousness and emotional facial expression recognition: Subliminal/supraliminal stimulation effect on N200 and P300 ERPs. *Journal of Psychophysiology*, *21*(2), 100–108. https://doi.org/10.1027/0269-8803.21.2.100

Batson, C. D. (2009). These things called empathy: Eight related but distinct phenomena. In J. Decety & W. Ickes (Eds.), *The Social Neuroscience of Empathy*. (pp. 3–15). MIT Press. https://doi.org/10.7551/mitpress/9780262012973.003.0002

Batson, C. D., Early, S., & Salvarani, G. (1997). Perspective taking: Imagining how another feels versus imaging how you would feel. *Personality and Social Psychology Bulletin*, *23*(7), 751-758.

Bercier, M. L., & Maynard, B. R. (2015). Interventions for secondary traumatic stress with mental health workers: A systematic review. *Research on Social Work Practice*, *25*(1), 81-89. http://doi.org/10.1177/1049731513517142

Berzoff, J., & Kita, E. (2010). Compassion fatigue and countertransference: Two different concepts. *Clinical Social Work Journal*, *38*(3), 341–349. https://doi.org/10.1007/s10615-010-0271-8

Betan, E., Heim, A. K., Zittel Conklin, C., & Westen, D. (2005). Countertransference phenomena and personality pathology in clinical practice: An empirical investigation. *American Journal of Psychiatry*, *162*(5), 890-898. https://doi.org/10.1176/appi.ajp.162.5.890

Blair, R. J. R. (2005). Responding to the emotions of others: Dissociating forms of empathy through the study of typical and psychiatric populations. *Consciousness and Cognition*, *14*(4), 698–718. https://doi.org/10.1016/j.concog.2005.06.004

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The Posttraumatic Stress Disorder Checklist for *DSM-5* (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress, 28*, 489-498. https://doi.org/10.1002/jts.22059

Bober, T., & Regehr, C. (2006). Strategies for reducing secondary or vicarious trauma: Do they work?. *Brief Treatment and Crisis Intervention*, *6*(1), 1. http://doi.org/10.1093/brief-treatment/mhj001

Bourke, M. L., & Craun, S. W. (2014). Secondary traumatic stress among Internet Crimes Against Children task force personnel: Impact, risk factors, and coping strategies. *Sexual Abuse: Journal of Research and Treatment*, *26*(6), 586–609. https://doi.org/10.1177/1079063213509411

Bowen, M. (1978). *Family therapy in clinical practice*. Jason Aronson.

Brady, P. Q. (2017). Crimes against caring: Exploring the risk of secondary traumatic stress, burnout, and compassion satisfaction among child exploitation investigators. *Journal of Police and Criminal Psychology*, *32*(4), 305–318. https://doi.org /10.1007/s11896-016-9223-8

Bride, B. E. (2007). Prevalence of secondary traumatic stress among social workers. *Social Work*. 52(1):63-70. https://doi.org/10.1093/sw/52.1.63.

Bride, B. E., Jones, J. L., & MacMaster, S. A. (2007). Correlates of secondary traumatic stress in child protective services workers. *Journal of Evidence-Based Social Work*, *4*(3-4), 69-80. https://doi.org /10.1300/J394v04n03_05

Bride, B. E., Robinson, M. M., Yegidis, B., & Figley, C. R. (2004). Development and validation of the secondary traumatic stress scale. *Research on Social Work Practice*, *14*(1), 27-35. https://doi.org/10.1177/1049731503254106

Briere, J. N., & Scott, C. (2015). *Principles of trauma therapy: A guide to symptoms, evaluation, and treatment (DSM-5 update)*. Sage Publications.

British Psychological Society. (2017, March 15). *New Savoy survey shows increasing mental health problems in NHS psychotherapists*. Retrieved from https://www.bps.org.uk/news-and-policy/new-savoy-survey-shows-increasing-mental-health-problems-nhs-psychotherapists

Buche, J., Beck, A. J., & Singer, P. M. (2016). *Behavioral health workforce challenges: recruitment, retention, and work environment*. Retrieved from http://www.behavioralhealthworkforce.org/wp-content/uploads/2016/10/FA2P1_Workforce_Challenges_Policy_Brief.pdf

Butler, L. D., Carello, J., & Maguin, E. (2017). Trauma, stress, and self-care in clinical training: Predictors of burnout, decline in health status, secondary traumatic stress symptoms, and compassion satisfaction. *Psychological Trauma: Theory, Research, Practice, and Policy*, *9*(4), 416–424. https://doi.org/10.1037/tra0000187

Caringi, J. C., Hardiman, E. R., Weldon, P., Fletcher, S., Devlin, M., & Stanick, C. (2017). Secondary traumatic stress and licensed clinical social workers. *Traumatology*, *23*(2), 186–195. https://doi.org/10.1037/trm0000061

Carpenter, J., Webb, C. M., & Bostock, L. (2013). The surprisingly weak evidence base for supervision: Findings from a systematic review of research in child welfare practice

(2000–2012). *Children and Youth Services Review*, *35*(11), 1843-1853. https://doi.org/10.1016/j.childyouth.2013.08.014

Cavanagh, A., Wiese-Batista, E., Lachal, C., Baubet, T., & Moro, M. R. (2015). Countertransference in trauma therapy. *Journal of Traumatic Stress Disorders & Treatment*, *4*(4). https://doi.org/doi:10.4172/2324-8947.1000149

Charles, R. (2001). Is there any empirical support for Bowen's concepts of differentiation of self, triangulation, and fusion? *American Journal of Family Therapy*, *29*(4), 279–292. https://doi.org/10.1080/01926180126498

Choi, G. Y. (2011). Organizational impacts on the secondary traumatic stress of social workers assisting family violence or sexual assault survivors. *Administration in Social Work*, *35*(3), 225-242. https://doi.org/10.1080/03643107.2011.575333

Chrestman, K. R. (1999). Secondary exposure to trauma and self reported distress among therapists. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (2nd ed., pp. 29-36). Sidran.

Chrysikou, E. G., & Thompson, W. J. (2016). Assessing cognitive and affective empathy through the interpersonal reactivity index: An argument against a two-factor model. *Assessment*, *23*(6), 769-777. https://doi.org/10.1177/1073191115599055

Cieslak, R., Anderson, V., Bock, J., Moore, B. A., Peterson, A. L., & Benight, C. C. (2013). Secondary traumatic stress among mental health providers working with the military: prevalence and its work-and exposure-related correlates. *The Journal of Nervous and Mental Disease*, *201*(11), 917-925. https://doi.org/10.1097/NMD.0000000000000034

Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Routledge.

Cole, D. A., Maxwell, S. E., Arvey, R., & Salas, E. (1993). Multivariate group comparisons of variable systems: MANOVA and structural equation modeling. *Psychological Bulletin*, *114*(1), 174. https://doi.org/10.1037/0033-2909.114.1.174

Comas-Díaz, L., Hall, G. N., & Neville, H. A. (2019). Racial trauma: Theory, research, and healing: Introduction to the special issue. *American Psychologist, 74*(1), 1-5. http://doi.org/10.1037/amp0000442

Connery, A. L., & Murdock, N. L. (2019). An interactive view of countertransference: Differentiation of self and client presentation. *Psychotherapy*, *56*(2), 181–192. https://doi.org/10.1037/pst0000218

Corcoran, K. J. (1983). Emotional separation and empathy. *Journal of Clinical Psychology*, *39*(5), 667–671. https://doi.org/10.1002/1097-4679(198309)39:5<667::AID-JCLP2270390505>3.0.CO;2-C

Courtois, C. A., & Gold, S. N. (2009). The need for inclusion of psychological trauma in the professional curriculum: A call to action. *Psychological Trauma: Theory, Research, Practice, and Policy*, *1*(1), 3. https://doi.org/10.1037/a0015224

Craig, C. D., & Sprang, G. (2010). Compassion satisfaction, compassion fatigue, and burnout in a national sample of trauma treatment therapists. *Anxiety, Stress & Coping*, *23*(3), 319–339. https://doi.org/10.1080/10615800903085818

Creamer, T. L., & Liddle, B. J. (2005). Secondary traumatic stress among disaster mental health workers responding to the September 11 attacks. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, *18*(1), 89-96. https://doi.org/10.1002/jts.20008.

Cuff, B. M., Brown, S. J., Taylor, L., & Howat, D. J. (2016). Empathy: A review of the concept. *Emotion Review*, *8*(2), 144-153. https://doi.org/10.1177/1754073914558466.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, *44*(1), 113–126. https://doi.org/10.1037/0022-3514.44.1.113

de Waal, F. B. M. (2008). Putting the altruism back into altruism: The evolution of empathy. *Annual Review of Psychology*, *59*, 279–300. https://doi.org/10.1146/annurev.psych.59.103006.093625

Decety, J., & Jackson, P. L. (2004). The functional architecture of human empathy. *Behavioral and Cognitive Neuroscience Reviews*, *3*(2), 406–412. https://doi.org/10.1177/1534582304267187

Decety, J. , & Lamm, C. (2009). The biological basis of empathy and intersubjectivity . In J. T. Cacioppo & G. G. Berntson (Eds.), *Handbook of neuroscience for the behavioral science* (pp. 940-957). John Wiley and Sons.

Decety, J., Yang, C.-Y., & Cheng, Y. (2010). Physicians down-regulate their pain empathy response: An event-related brain potential study. *NeuroImage*, *50*(4), 1676–1682. https://doi.org/10.1016/j.neuroimage.2010.01.025

Deng, L., & Chan, W. (2017). Testing the difference between reliability coefficients alpha and omega. *Educational and Psychological Measurement*, *77*(2), 185-203. https://doi.org/10.1177/0013164416658325

Devilly, G. J., Wright, R., & Varker, T. (2009). Vicarious trauma, secondary traumatic stress or simply burnout? Effect of trauma therapy on mental health professionals. *Australian & New Zealand Journal of Psychiatry*, *43*(4), 373–385. https://doi.org/10.1080/00048670902721079

Dietert, M., & Dentice, D. (2009). Gender identity issues and workplace discrimination: The transgender experience. *Journal of Workplace Rights*, *14*(1), 121–140. https://doi.org/10.2190/WR.14.1.g

Doherty, R. W. (1997). The emotional contagion scale: A measure of individual differences. *Journal of Nonverbal Behavior*, *21*(2), 131–154. https://doi.org/10.1023/A:1024956003661

Drake, J. R., Murdock, N. L., Marszalek, J. M., & Barber, C. E. (2015). Differentiation of Self Inventory—Short form: Development and preliminary validation. *Contemporary Family Therapy, 37*(2), 101-112. https://doi.org /10.1007/s10591-015-9329-7

Duan, C., Wei, M., & Wang, L. (2008). The role of individualism-collectivism in empathy: An exploratory study. *Asian Journal of Counselling*, *15*(1), 57-81. Retrieved from https://www.hkier.cuhk.edu.hk/journal/document/AJC/ajc_v15n1_57-81.pdf

Dutton, M. A., & Rubinstein, F. L. (1995). Working with people with PTSD: Research implications. *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*, *Routledge*, 82-100.

Dworkin, E. R., Sorell, N. R., & Allen, N. E. (2016). Individual- and setting-level correlates of secondary traumatic stress in rape crisis center staff. *Journal of Interpersonal Violence*, *31*(4), 743–752. https://doi.org/10.1177/0886260514556111

Dziobek, I., Rogers, K., Fleck, S., Bahnemann, M., Heekeren, H. R., Wolf, O. T., & Convit, A. (2008). Dissociation of cognitive and emotional empathy in adults with Asperger syndrome using the Multifaceted Empathy Test (MET). *Journal of Autism and Developmental Disorders*, *38*(3), 464-473. https://doi.org/10.1007/s10803-007-0486-x

Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual Review of Psychology*, *51*(1), 665. https://doi.org/10.1146/annurev.psych.51.1.665

Eisenberg, N., & Eggum, N. D. (2009). Empathic responding: Sympathy and personal distress. In J. Decety & W. Ickes (Eds.), *The Social Neuroscience of Empathy.* (pp. 71–83). MIT Press. https://doi.org/10.7551/mitpress/9780262012973.003.0007

Eisenberg, N., & Okun, M. A. (1996). The relations of dispositional regulation and emotionality to elders' empathy-related responding and affect while volunteering. *Journal of Personality*, *64*(1), 157–183. https://doi.org/10.1111/j.1467-6494.1996.tb00818.x

Elliott, R., Bohart, A. C., Watson, J. C., & Greenberg, L. S. (2011). Empathy. *Psychotherapy*, *48*(1), 43. https://doi.org/10.1037/a0022187

Elwood, L. S., Mott, J., Lohr, J. M., & Galovski, T. E. (2011). Secondary trauma symptoms in clinicians: A critical review of the construct, specificity, and implications for trauma-focused treatment. *Clinical Psychology Review*, *31*(1), 25-36. https://doi.org/10.1016/j.cpr.2010.09.004

Fatter, D. M., & Hayes, J. A. (2013). What facilitates countertransference management? The roles of therapist meditation, mindfulness, and self-differentiation. *Psychotherapy Research*, *23*(5), 502–513. https://doi.org/10.1080/10503307.2013.797124

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*, 1149-1160. https://doi.org/10.3758/BRM.41.4.1149

Fauth, J., & Hayes, J. A. (2006). Counselors' stress appraisals as predictors of countertransference behavior with male clients. *Journal of Counseling & Development*, *84*(4), 430–439. https://doi.org/10.1002/j.1556-6678.2006.tb00427.x

Ferrera, S. J. (2014). The evolution of helping: From altruism, to empathy, to di□erentiation of self. In P. Titleman (Ed.), *Di□erentiation of self: Bowen Family Systems Theory perspectives* (pp. 111–130). Routledge.

Field, A. P. (2009). *Discovering statistics using SPSS (and sex and drugs and rock "n" roll)*. SAGE.

Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. Routledge.

Figley, C. R. (1983). *Traumatic stress and the role of the family and social support system*. Serco Marketing.

Filut, A., Alvarez, M., & Carnes, M. (2020). Discrimination toward physicians of color: A systematic review. *Journal of the National Medical Association*, *112*(2), 117–140. https://doi.org/10.1016/j.jnma.2020.02.008

Fish, J. M. (1970). Empathy and the reported emotional experiences of beginning psychotherapists. *Journal of Consulting and Clinical Psychology*, *35*(1, Pt.1), 64–69. https://doi.org/10.1037/h0029630

Fledderus, M., Bohlmeijer, E. T., & Pieterse, M. E. (2010). Does experiential avoidance mediate the effects of maladaptive coping styles on psychopathology and mental health?. *Behavior modification*, *34*(6), 503-519. https://doi.org/10.1177/0145445510378379

Follette, V. M., Polusny, M. M., & Milbeck, K. (1994). Mental health and law enforcement professionals: Trauma history, psychological symptoms, and impact of providing services to child sexual abuse survivors. *Professional Psychology: Research and Practice*, *25*(3), 275. https://doi.org/10.1037/0735-7028.25.3.275

Garcia, H. A., McGeary, C. A., McGeary, D. D., Finley, E. P., & Peterson, A. L. (2014). Burnout in veterans health administration mental health providers in posttraumatic stress clinics. *Psychological Services*, *11*(1), 50. https://doi.org/10.1037/a0035643

Gelso, C. J., & Hayes, J. A. (2002). *Countertransference and the therapist's inner experience: Perils and possibilities*. Taylor and Francis. https://doi.org/10.4324/9780203936979

Gelso, C. J., Latts, M. G., Gomez, M. J., & Fassinger, R. E. (2002). Countertransference Management and therapy outcome: An initial evaluation. *Journal of Clinical Psychology*, *58*(7), 861–867. https://doi.org/10.1002/jclp.2010

Geoffrion, S., Morselli, C., & Guay, S. (2016). Rethinking compassion fatigue through the lens of professional identity: The case of child-protection workers. *Trauma, Violence, & Abuse*, *17*(3), 270–283. https://doi.org/10.1177/1524838015584362

Gillespie, S. M., McCleery, J. P., & Oberman, L. M. (2014). Spontaneous versus deliberate vicarious representations: different routes to empathy in psychopathy and autism. *Brain*, *137*(4), e272-e272. https://doi.org/10.1093/brain/awt364

Gleichgerrcht, E., & Decety, J. (2013). Empathy in clinical practice: How individual dispositions, gender, and experience moderate empathic concern, burnout, and emotional distress in physicians. *PLoS ONE*, *8*(4), 1–12. https://doi.org/10.1371/journal.pone.0061526

Gottschall, A. C., West, S. G., & Enders, C. K. (2012). A comparison of item-level and scale-level multiple imputation for questionnaire batteries. *Multivariate Behavioral Research*, *47*(1), 1-25. https://doi.org/10.1080/00273171.2012.640589

Gray, M., Litz, B., Hsu, J., & Lombardo, T. (2004). Psychometric properties of the Life Events Checklist. (PDF) *Assessment, 11*, 330-341. https://doi.org/10.1177/1073191104269954 PILOTS ID: 26825

Halevi, E., & Idisis, Y. (2018). Who helps the helper? Differentiation of self as an indicator for resisting vicarious traumatization. *Psychological Trauma: Theory, Research, Practice, and Policy*, *10*(6), 698–705. https://doi.org/10.1037/tra0000318

Hamamura, T. (2012). Are cultures becoming individualistic? A cross-temporal comparison of individualism–collectivism in the United States and Japan. *Personality and Social Psychology Review*, *16*(1), 3-24. https://doi.org/10.1177/1088868311411587

Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1993). Emotional contagion. *Current Directions in Psychological Science*, *2*(3), 96–99. https://doi.org/10.1111/1467-8721.ep10770953

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.

Hayes, J. A. (2002). Playing with fire: Countertransference and clinical epistemology. *Journal of Contemporary Psychotherapy*, *32*(1), 93-100. https://doi.org/10.1023/A:1015543531230

Hayes, J. A. (2004). The inner world of the psychotherapist: A program of research on countertransference. *Psychotherapy Research*, *14*(1), 21-36. https://doi.org/10.1093/ptr/kph002

Hayes, J. A., & Gelso, C. J. (1991). Effects of therapist□trainees' anxiety and empathy on countertransference behavior. *Journal of Clinical Psychology*, *47*(2), 284-290. https://doi.org/10.1002/1097-4679(199103)47:2<284::AID-JCLP2270470216>3.0.CO;2-N

Hayes, J. A., Gelso, C. J., Goldberg, S., & Kivlighan, D. M. (2018). Countertransference management and effective psychotherapy: Meta-analytic findings. *Psychotherapy*, *55*(4), 496. https://doi.org/10.1037/pst000018

Hayes, J. A., Gelso, C. J., & Hummel, A. M. (2011). Managing countertransference. *Psychotherapy*, *48*(1), 88. https://doi.org/10.1037/a0022182

Heberlein, A. S., & Saxe, R. R. (2005). Dissociation between emotion and personality judgments: Convergent evidence from functional neuroimaging. *NeuroImage*, *28*(4), 770–777. https://doi.org/10.1016/j.neuroimage.2005.06.064

Heinke, M. S., & Louis, W. R. (2009). Cultural background and individualistic–collectivistic values in relation to similarity, perspective taking, and empathy. *Journal of Applied Social Psychology*, *39*(11), 2570-2590. https://doi.org/10.1111/j.1559-1816.2009.00538.x

Hensel, J. M., Ruiz, C., Finney, C., & Dewa, C. S. (2015). Meta-analysis of risk factors for secondary traumatic stress in therapeutic work with trauma victims. *Journal of Traumatic Stress*, *28*(2), 83–91. https://doi.org/10.1002/jts.21998

Hojat, M., Mangione, S., Kane, G. C., & Gonnella, J. S. (2005). Relationships between scores of the Jefferson Scale of Physician Empathy (JSPE) and the Interpersonal Reactivity Index (IRI). *Medical Teacher*, *27*(7), 625–628. https://doi.org/10.1080/01421590500069744

Ivicic, R., & Motta, R. (2017). Variables associated with secondary traumatic stress among mental health professionals. *Traumatology*, *23*(2), 196–204. https://doi.org/10.1037/trm0000065

Jenkins, S. R., & Baird, S. (2002). Secondary traumatic stress and vicarious trauma: A validational study. *Journal of Traumatic Stress*, *15*(5), 423. https://doi.org/10.1023/A:1020193526843

Jolliffe, D., & Farrington, D. P. (2006). Development and validation of the Basic Empathy Scale. *Journal of Adolescence*, *29*(4), 589-611. https://doi.org/10.1016/j.adolescence.2005.08.010

Kadambi, M. A., & Truscott, D. (2004). Vicarious trauma among therapists working with sexual violence, cancer and general practice. *Canadian Journal of Counselling*, *38*(4), 260–276. Retrieved from Retrieved from https://cjc-rcc.ucalgary.ca/article/view/58744

Kanter, J. (2007). Compassion fatigue and secondary traumatization: A second look. *Clinical Social Work Journal*, *35* (4), 289. http://dx.doi.org/10.1007/s10615-007-0125-1

Kashdan, T. B., Barrios, V., Forsyth, J. P., & Steger, M. F. (2006). Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotion regulation strategies. *Behaviour Research and Therapy*, *44*(9), 1301-1320. https://doi.org/10.1016/j.brat.2005.10.003

Kernberg, O. (1965). Notes on countertransference. *Journal of the American Psychoanalytic Association*, *13*(1), 38-56.

Kerr, M. E., & Bowen, M. (1988). *Family evaluation: The role of the family as an emotional unit that governs individual behavior and development.* Penguin Books.

Kleespies, P. M., Van Orden, K. A., Bongar, B., Bridgeman, D., Bufka, L. F., Galper, D. I., Hillbrand, M., & Yufit, R. I. (2011). Psychologist suicide: Incidence, impact, and suggestions for prevention, intervention, and postvention. *Professional Psychology: Research and Practice*, 42(3), 244–251. https://doi.org/10.1037/a0022805

Kline, R. B. (2016). *Principles and practice of structural equation modeling*. Guilford Press.

Knight, C. (2018). Trauma-informed supervision: Historical antecedents, current practice, and future directions. *The Clinical Supervisor*, *37*(1), 7-37. https://doi.org/10.1080/07325223.2017.1413607

Krycak, R., Murdock, N., & Marszalek, J. (2012). Differentiation of self, stress, and emotional support as predictors of psychological distress. *Contemporary Family Therapy*, *34*(4), 495–515. https://doi.org/10.1007/s10591-012-9207-5

Lakes K. D. (2013). Restricted sample variance reduces generalizability. *Psychological Assessment*, *25*(2), 643–650. https://doi.org/10.1037/a0030912

Lamm, C., Batson, C. D., & Decety, J. (2007). The neural substrate of human empathy: Effects of perspective-taking and cognitive appraisal. *Journal of Cognitive Neuroscience*, *19*(1), 42–58. https://doi.org/10.1162/jocn.2007.19.1.42

Lamothe, M., Boujut, E., Zenasni, F., & Sultan, S. (2014). To be or not to be empathic: the combined role of empathic concern and perspective taking in understanding burnout in general practice. *BMC Family Practice*, *15*(1), 15–30. https://doi.org/10.1186/1471-2296-15-15

Lampis, J., Cataudella, S., Busonera, A., & Skowron, E. (2017). The role of differentiation of self and dyadic adjustment in predicting codependency. *Contemporary Family Therapy*, *39*(1), 62–72. https://doi.org/10.1007/s10591-017-9403-4

Lee, J. J., Gottfried, R., & Bride, B. E. (2018). Exposure to client trauma, secondary traumatic stress, and the health of clinical social workers: A mediation analysis. *Clinical Social Work Journal*, *46*(3), 228–235. https://doi.org/10.1007/s10615-017-0638-1

Lindeman, M., Koirikivi, I., & Lipsanen, J. (2018). Pictorial Empathy Test (PET): An easy-to-use method for assessing affective empathic reactions. *European Journal of Psychological Assessment*, *34*(6), 421. https://doi.org/10.1027/1015-5759/a000353

Ludick, M., & Charles R., F. (2017). Toward a mechanism for secondary trauma induction and reduction: Reimagining a theory of secondary traumatic stress. *Traumatology*, (1), 112. https://doi.org/10.1037/trm0000096

MacKay, L. (2012). Trauma and Bowen family systems theory: Working with adults who were abused as children. *Australian and New Zealand Journal of Family Therapy*, *33*(3), 232-241. https://doi.org/10.1017/aft.2012.28

MacKay, L. M. (2017). Differentiation of self: Enhancing therapist resilience when working with relational trauma. *Australian & New Zealand Journal of Family Therapy*, *38*(4), 637–656. https://doi.org/10.1002/anzf.1276

MacRitchie, V., & Leibowitz, S. (2010). Secondary traumatic stress, level of exposure, empathy and social support in trauma workers. *South African Journal of Psychology*, *40*(2), 149–158. https://doi.org/10.1177/008124631004000204

Magnuson, S., & Shaw, H. E. (2003). Adaptations of the multifaceted genogram in counseling, training, and supervision. *The Family Journal*, *11*(1), 45-54. https://doi.org/10.1177/1066480702238472

Makadia, R., Sabin□Farrell, R., & Turpin, G. (2017). Indirect exposure to client trauma and the impact on trainee clinical psychologists: Secondary traumatic stress or vicarious traumatization?. *Clinical Psychology & Psychotherapy*, *24*(5), 1059-1068. https://doi.org/10.1002/cpp.2068

Mathersul, D., McDonald, S., & Rushby, J. A. (2013). Understanding advanced theory of mind and empathy in high-functioning adults with autism spectrum disorder. *Journal of Clinical and Experimental Neuropsychology*, *35*(6), 655-668. https://doi.org/10.1080/13803395.2013.809700

Mazza, G. L., Enders, C. K., & Ruehlman, L. S. (2015). Addressing item-level missing data: A comparison of proration and full information maximum likelihood estimation. *Multivariate Behavioral Research*, *50*(5), 504-519. https://doi.org/10.1080/00273171.2015.1068157

McDonald, R. P. (1999). *Test theory: A unified treatment.* Routlege.

Molnar, B. E., Sprang, G., Killian, K. D., Gottfried, R., Emery, V., & Bride, B. E. (2017). Advancing science and practice for vicarious traumatization/secondary traumatic stress: A research agenda. *Traumatology*, *23*(2), 129–142. https://doi.org/10.1037/trm0000122

Murdock, N. L. (2017). *Theories of counseling and psychotherapy: a case approach*. Pearson.

Murdock, N. L., & Gore Jr, P. A. (2004). Stress, coping, and differentiation of self: A test of Bowen theory. *Contemporary Family Therapy*, *26*(3), 319-335. https://doi.org/10.1023/B:COFT.0000037918.53929.18

Myers, R. H. (1990). Detecting and combating multicollinearity. In *Classical and modern regression with applications*, (pp. 368-423). Duxbury Press.

Okun, M. A., Shepard, S. A., & Eisenberg, N. (2000). The relations of emotionality and regulation to dispositional empathy-related responding among volunteers-in-training. *Personality and Individual Differences*, *28*(2), 367–382. https://doi.org/10.1016/S0191-8869(99)00107-5

Olashore, A.A., Akanni, O.O., Molebatsi, K., Ogunjumo, J.A. (2018). Post-traumatic stress disorder among the staff of a mental health hospital: Prevalence and risk factors. *South African Journal of Psychiatry*, 24(1), 1-6. https://doi.org/10.4102/sajpsychiatry.v24i0.1222

Orcutt, H. K., Reffi, A. N., & Ellis, R. A. (2020). Experiential avoidance and PTSD. In *Emotion in Posttraumatic Stress Disorder* (pp. 409-436). Academic Press.

Ortlepp, K., & Friedman, M. (2002). Prevalence and correlates of secondary traumatic stress in workplace lay trauma counselors. *Journal of Traumatic Stress*, *15*(3), 213. https://doi.org/10.1023/A:1015203327767

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*(1), 3–72. https://doi.org/10.1037/0033-2909.128.1.3

Parent, M. C. (2013). Handling item-level missing data: Simpler is just as good. *The Counseling Psychologist*, *41*(4), 568-600. https://doi.org/10.1177/0011000012445176

Peabody, S. A., & Gelso, C. J. (1982). Countertransference and empathy: The complex relationship between two divergent concepts in counseling. *Journal of Counseling Psychology*, 29(3), 240–245. https://doi.org/10.1037/0022-0167.29.3.240

Pearlman, L. A., & Mac Ian, P. S. (1995). Vicarious traumatization: An empirical study of the effects of trauma work on trauma therapists. *Professional Psychology: Research and Practice*, *26*(6), 558–565. https://doi.org/10.1037/0735-7028.26.6.558

Pearlman, L. A., & Saakvitne, K. W. (1995). *Treating therapists with vicarious traumatization and secondary traumatic stress disorders.* In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (p. 150–177). Brunner/Mazel.

Perron, B., & Hiltz, B. (2006). Burnout and secondary trauma among forensic interviewers of abused children. *Child & Adolescent Social Work Journal*, *23*(2), 216–234. https://doi.org/10.1007/s10560-005-0044-3

Peleg-Popko, O. (2002). Bowen theory: A study of differentiation of self, social anxiety, and physiological symptoms. *Contemporary Family Therapy*, *24*(2), 355. https://doi.org/10.1023/A:1015355509866

Perez, L. M., Sachau, D., Jones, J., & Englert, D. R. (2010). Secondary traumatic stress and burnout among law enforcement investigators exposed to disturbing media images. *Journal of Police and Criminal Psychology*, *25*(2), 113–124. https://doi.org/10.1007/s11896-010-9066-7

Pérez-Rojas, A. E., Palma, B., Bhatia, A., Jackson, J., Norwood, E., Hayes, J. A., & Gelso, C. J. (2017). The development and initial validation of the Countertransference Management Scale. *Psychotherapy*, *54*(3), 307-319. https://doi.org/10.1037/pst0000126

Pieterse, A. L., Todd, N. R., Neville, H. A., & Carter, R. T. (2012). Perceived racism and mental health among Black American adults: A meta-analytic review. *Journal of Counseling Psychology, 59*(1), 1–9. https://doi.org/10.1037/a0026208

Pulos, S., Elison, J., & Lennon, R. (2004). The hierarchical structure of the Interpersonal Reactivity Index. *Social Behavior & Personality: An International Journal*, *32*(4), 355–360. https://doi.org/10.2224/sbp.2004.32.4.355

Raunick, C. B., Lindell, D. F., Morris, D. L., & Backman, T. (2015). Vicarious trauma among sexual assault nurse examiners. *Journal of Forensic Nursing*, *11*(3), 123–128. https://doi.org/10.1097/JFN.0000000000000085

Reik, T. (1964). *Listening with the third ear.* Pyramid.

Reniers, R. L., Corcoran, R., Drake, R., Shryane, N. M., & Völlm, B. A. (2011). The QCAE: A questionnaire of cognitive and affective empathy. *Journal of Personality Assessment*, *93*(1), 84-95. https://doi.org/10.1080/00223891.2010.528484

Robinson-Keilig, R. A. (2014). Secondary traumatic stress and disruptions to interpersonal functioning among mental health therapists. *Journal of Interpersonal Violence*, *29*(8), 1477-1496. https://doi.org/10.1177/0886260513507135

Rzeszutek, M., Partyka, M., & Gołąb, A. (2015). Temperament traits, social support, and secondary traumatic stress disorder symptoms in a sample of trauma therapists. *Professional Psychology: Research and Practice*, *46*(4), 213–220. https://doi.org/10.1037/pro0000024

Sabin-Farrell, R., & Turpin, G. (2003). Vicarious traumatization: implications for the mental health of health workers? *Clinical Psychology Review*, *23*(3), 449–480. https://doi.org/10.1016/S0272-7358(03)00030-8

Santiago P.N., Ursano R.J., Gray C.L., Pynoos R.S., Spiegel D., Lewis-Fernandez, R., Friedman, M.J., Fullerton, C.S. (2013) A systematic review of PTSD prevalence and trajectories in DSM-5 defined trauma exposed populations: Intentional and non-intentional traumatic events. *PLOS ONE 8*(4), e59236. https://doi.org/10.1371/journal.pone.0059236

Schauben, L. J., & Frazier, P. A. (1995). Vicarious trauma the effects on female counselors of working with sexual violence survivors. *Psychology of Women Quarterly*, *19*(1), 49-64. https://doi.org/10.1111/j.1471-6402.1995.tb00278.x

Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology*, *57*(1), 1. https://doi.org/10.1037/a0018082

Shamoon, Z. A., Lappan, S., & Blow, A. J. (2017). Managing anxiety: A therapist common factor. *Contemporary Family Therapy*, *39*(1), 43-53. https://doi.org/10.1007/s10591-016-9399-1

Shannon, P. J., Simmelink-McCleary, J., Im, H., Becher, E., & Crook-Lyon, R. E. (2014a). Developing self-care practices in a trauma treatment course. *Journal of Social Work Education*, *50*(3), 440-453. https://doi.org/10.1080/10437797.2014.917932

Shannon, P. J., Simmelink-McCleary, J., Im, H., Becher, E., & Crook-Lyon, R. E. (2014b). Experiences of stress in a trauma treatment course. *Journal of Social Work Education*, *50*(4), 678-693. https://doi.org/10.1080/10437797.2014.947901

Skowron, E. A., & Dendy, A. K. (2004). Differentiation of self and attachment in adulthood: Relational correlates of effortful control. *Contemporary Family Therapy, 26*(3), 337-357. https://doi.org/10.1023/B:COFT.0000037919.63750.9d

Skowron, E. A., & Friedlander, M. L. (1998). The differentiation of self inventory: Development and initial validation. *Journal of Counseling Psychology, 45*(3), 235-246. https://doi.org/10.1037/0022-0167.45.3.235

Skowron, E. A., Wester, S. R., & Azen, R. (2004). Differentiation of self mediates college stress and adjustment. *Journal of Counseling & Development*, *82*(1), 69–78. https://doi.org/10.1002/j.1556-6678.2004.tb00287.x

Skowron, E. A., & Schmitt, T. A. (2003). Assessing interpersonal fusion: Reliability and validity of a new DSI fusion with others subscale. *Journal of Marital and Family Therapy*, *29*(2), 209-222. https://doi.org/10.1111/j.1752-0606.2003.tb01201.x

Slakter, E. E. (1987). *Countertransference*. Jason Aronson.

Slocum-Gori, S. L., & Zumbo, B. D. (2011). Assessing the unidimensionality of psychological scales: Using multiple criteria from factor analysis. *Social Indicators Research*, *102*(3), 443-461. https://doi.org/10.1007/s11205-010-9682-8

Sprang, G., Craig, C., & Clark, J. (2011). Secondary traumatic stress and burnout in child welfare workers: a comparative analysis of occupational distress across professional groups. *Child Welfare*, *90*(6), 149-168. Retrieved from https://pubmed.ncbi.nlm.nih.gov/22533047/

Sonnby-Borgström, M., JÖnsson, P., & Svensson, O. (2008). Gender differences in facial imitation and verbally reported emotional contagion from spontaneous to emotionally regulated processing levels: Cognition and neurosciences. *Scandinavian Journal of Psychology*, *49*(2), 111–122. https://doi.org/10.1111/j.1467-9450.2008.00626.x

Stapley, L. A., & Murdock, N. L. (2020). Leisure in romantic relationships: An avenue for differentiation of self. *Personal Relationships*, 27(1), 76-101. https://doi.org/10.1111/pere.12310

Strayer, J., & Eisenberg, N. (Eds.). (1987). *Empathy and its development*. Cambridge University Press.

Tanzilli, A., Colli, A., Del Corno, F., & Lingiardi, V. (2016). Factor structure, reliability, and validity of the Therapist Response Questionnaire. *Personality Disorders: Theory, Research, and Treatment*, *7*(2), 147. https://doi.org/10.1037/per0000146

Thomas, J.T., & Otis, M.D. (2010). Intrapsychic correlates of professional quality of life: Mindfulness, empathy, and emotional separation. *Journal of the Society for Social Work and Research*, *1*(2), 83. https://doi.org/10.5243/jsswr.2010.7

Timm, T. M., & Keiley, M. K. (2011). The effects of differentiation of self, adult attachment, and sexual communication on sexual and marital satisfaction: A path analysis. *Journal of Sex & Marital Therapy, 37*(3), 206-223. https://doi.org/10.1080/0092623X.2011.564513

Titelman, P. (2015). *Differentiation of self: Bowen family systems theory perspectives*. Routledge.

Tully, E. C., Ames, A. M., Garcia, S. E., & Donohue, M. R. (2016). Quadratic associations between empathy and depression as moderated by emotion dysregulation. *The Journal of Psychology*, *150*(1), 15-35. https://doi.org/10.1080/00223980.2014.992382

United States Bureau of Labor Statistics (2020, September 09). *Occupational Outlook Handbook: Social Workers*. U.S. Department of Labor. Retrieved October 4, 2020,

from https://www.bls.gov/ooh/community-and-social-service/social-workers.htm#tab-3

Van Wagoner, S. L., Gelso, C. J., Hayes, J. A., & Diemer, R. A. (1991). Countertransference and the reputedly excellent therapist. *Psychotherapy: Theory, Research, Practice, Training*, *28*(3), 411–421. https://doi.org/10.1037/0033-3204.28.3.411

Warner, R. M. (2008). *Applied statistics: from bivariate through multivariate techniques*. SAGE Publications.

Way, I., Van Deusen, K. M., Martin, G., Applegate, B., & Jandle, D. (2004). Vicarious trauma: A comparison of clinicians who treat survivors of sexual abuse and sexual offenders. *Journal of Interpersonal Violence*, *19*(1), 49-71. https://doi.org/10.1177/0886260503259050

Weathers, F.W., Blake, D.D., Schnurr, P.P., Kaloupek, D.G., Marx, B.P., & Keane, T.M. (2013). *The Life Events Checklist for DSM-5 (LEC-5)*. Instrument available from the National Center for PTSD at www.ptsd.va.gov

Weathers, F. W. (2017). Redefining posttraumatic stress disorder for DSM-5. *Current Opinion in Psychology*, *14*, 122-126. https://doi.org/10.1016/j.copsyc.2017.01.002

Weathers, F.W., Litz, B.T., Keane, T.M., Palmieri, P.A., Marx, B.P., & Schnurr, P.P. (2013). The PTSD Checklist for *DSM-5* (PCL-5). Scale available from the National Center for PTSD at www.ptsd.va.gov.

Wilson, J. P., & Lindy, J. D. (Eds.). (1994). *Countertransference in the treatment of PTSD*. Guilford Press.

Wilson, J. P., Lindy, J. D., & Raphael, B. (1994). Empathic strain and therapist defense: Type I and II CTRs. In J. P. Wilson & J. D. Lindy (Eds.), *Countertransference in the treatment of PTSD.* (pp. 31–61). Guilford Press.

Wolf, M. R., Green, S. A., Nochajski, T. H., Mendel, W. E., & Kusmaul, N. S. (2014). 'We're civil servants': The status of trauma-informed care in the community. *Journal of Social Service Research*, *40*(1), 111-120. https://doi.org/10.1080/01488376.2013.845131

Wright, J. (2009). Self-soothing -- A recursive intrapsychic and relational Process: The contribution of the Bowen theory to the process of self-soothing. *Australian & New Zealand Journal of Family Therapy*, *30*(1), 29–41. https://doi.org/10.1375/anft.30.1.29

Yulis, S., & Kieser, D. J. (1968). Countertransference response as a function of therapist anxiety and content of patient talk. *Journal of Consulting and Clinical Psychology*, *32*(4), 413. https://doi.org/10.1037/h0026107

Zerach, G. (n.d.). Secondary traumatization among Ex-POWs' adult children: The mediating role of differentiation of the self. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(2), 187–194. https://doi.org/10.1037/a0037006

Zerubavel, N., & Wright, M. O. (2012). The dilemma of the wounded healer. *Psychotherapy, 49*(4), 482–491. https://doi.org/10.1037/a0027824

Zumbo, B. D., Gadermann, A. M., & Zeisser, C. (2007). Ordinal versions of coefficients alpha and theta for Likert rating scales. *Journal of Modern Applied Statistical Methods*, *6*(1), 4. https://doi.org/10.22237/jmasm/1177992180

Table 1.

Traumatic Experiences Present in the Sample, Percentage(n)

Event	Happened to me	Witnessed it	Learned about it happening to close family or friend
Natural disaster (for example, flood, hurricane, tornado, earthquake)	27.3% (67)	10.2% (25)	16.7% (41)
Fire or explosion	11.4% (28)	9.4% (23)	14.7% (36)
Transportation accident (for example, car accident, boat accident, train wreck, plane crash)	41.6% (102)	21.2% (52)	25.7% (63)
Serious accident at work, home, or during recreational activity	11.0% (27)	6.9% (17)	18.8% (46)
Exposure to toxic substance (for example, dangerous chemicals, radiation)	0.8% (2)	2.9% (7)	6.9% (17)
Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)	52.7% (129)	35.9% (88)	37.1% (91)
Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)	16.3% (40)	13.9% (34)	25.3% (62)
Sexual assault (rape, attempted rape, made to perform any type of sexual act through force, threat of harm, or coercion)	61.2% (150)	7.8% (19)	40.4% (99)
Other unwanted or uncomfortable sexual experience	74.3% (182)	15.9% (39)	33.4% (82)
Combat or exposure to a war-zone (in the military or as a civilian)	1.6% (4)	4.9% (12)	24.9% (61)
Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)	5.7% (14)	1.2% (3)	10.2% (25)
Life-threatening illness or injury	20.8% (51)	31.0% (76)	28.6% (70)
Severe human suffering	10.6% (26)	15.9% (39)	17.6 (43)

Sudden violent death (for example, homicide, suicide)	3.7% (9)	11.0% (27)	32.2% (79)
Sudden accidental death	2.4% (6)	10.6% (26)	29.8% (73)
Serious injury, harm, or death you caused someone else	3.3% (8)	3.3% (8)	6.9% (17)
Any other very stressful event or experience	56.3% (138)	24.5% (60)	23.7 (58)

Percentages are reported as the percentage out of the 245 final sample. Participants were able to choose multiple experiences and multiple modes of experience (i.e., 'It happened to me,' and 'I witnessed it happen to someone else'), therefore percentages can add up to over 100%.

Table 2.

Variable Descriptive Statistics, N =245

	Minimum	Maximum	Mean	SD	Skewness	Kurtosis	Cronbach's α	McDonald's ω
PCL-5	.00	54.00	16.46	11.69	0.71	-0.16	.94	.94
DSI-SF	1.90	5.85	3.87	0.86	-0.09	-0.54	.90	.91
PET	1.00	5.00	3.34	0.81	-0.29	-0.43	.88	.88
QCAE-Perspective Taking	24.00	40.00	34.81	3.42	-0.64	-0.10	.75	.75
QCAE – Online Simulation	22.00	36.00	30.43	3.52	-0.33	-0.80	.75	.77
STSS	16.83	68.00	36.35	11.42	.56	0.01	.89	.89
TRQ-UI	2.95	13.00	5.11	1.59	2.02	4.92	.60	.62
TRQ-OI	3.00	15.00	5.11	2.29	1.32	1.73	.65	.74

PCL-5 = PTSD Check List-5; DSI-SF = Differentiation of Self Inventory-Short Form; PET = Pictorial Empathy Test; QCAE = Questionnaire of Cognitive and Affective Empathy; STSS= Secondary Traumatic Stress Scale; TRQ-UI = Therapist Response Questionnaire-Underinvolved; TRQ-OI = Therapist Response Questionnaire-Overinvolved.

Table 3.

Correlations between Study Variables and Covariates, N = 245

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1. PTSD for Personal Trauma	--													
2. Affective Empathy	.07	--												
3. Cognitive Empathy – Perspective Taking	.09	.03	--											
4. Cognitive Empathy – Online Simulation	-.03	-.01	.34**	--										
5. Differentiation of Self	-.57**	-.04	-.03	.14*	--									
6. Secondary Traumatic Stress	.57**	.08	.07	-.04	-.56**	--								
7. Countertransference – Underinvolved	.14*	-.06	-.12	-.20**	-.25**	.36**	--							
8. Countertransference – Overinvolved	.22**	.00	.06	-.01	-.22**	.19**	.12	--						
9. Annual Household Income	-.23**	.02	.10	-.02	.27**	-.20**	-.09	-.08	--					
10. Age	-.12	-.04	.08	.03	.24**	-.15*	-.20**	.01	.36**	--				
11. Percentage of Current Trauma Clients	.10	-.03	.05	-.02	-.04	.15*	.07	.03	-.13*	-.16*	--			
12. Identify as Social Workers[a]	.16*	.01	.11	-.01	-.16*	.23**	-.01	.06	-.10	-.11	.04	--		
13. Currently in Therapy[a]	.39**	-.05	-.01	-.07	-.20**	.21**	.05	.12	-.01	-.08	.11	.12	--	
14. Provide Supervision to Others[a]	-.16*	-.14*	-.01	-.10	.07	-.18**	-.06	-.08	.34**	.22**	.02	-.08	-.04	--
M	16.46	23.38	34.81	30.43	3.87	36.35	5.11	5.11	4.00	38.31	59.38	.32	.37	.29
SD	11.69	5.69	3.42	3.52	.86	11.42	1.59	2.29	1.24	10.40	28.42	.47	.48	.46

[a]Binary variable, *$p < .05$, **$p < .01$.

Table 4.

Model 1: Multivariate Effects on Secondary Traumatic Stress, Underinvolved Countertransference, and Overinvolved Countertransference, N =245

Variable	Wilk's λ (Hoteling's Trace)	*F* (3, 229)	Partial η^2	Obs. Power
(Intercept)	.754 (.327)	24.932***	.246	1.000
Age	.969 (.032)	2.422	.031	.599
Income	.997 (.003)	.239	.003	.095
LCSW	.963 (.039)	2.943*	.037	.694
% Clients with Trauma	.983 (.018)	1.344	.017	.355
Personal Therapy	.998 (.002)	.166	.002	.080
Provide Supervision	.982 (.018)	1.402	.018	.370
PTSD	.891 (.122)	9.292***	.109	.997
Affective Empathy	.988 (.012)	.911	.012	.248
Cognitive Empathy - PT	.995 (.005)	.405	.005	.130
Cognitive Empathy - OS	.976 (.024)	1.862	.024	.479
Differentiation of Self	.863 (.158)	12.068***	.137	1.000

Note: variables were not mean centered prior to analysis. *$p < .05$, **$p < .01$, ***p < .001; PT = Perspective Taking, OS = Online Simulation

Table 4a.

Model 1: Univariate Effects on Secondary Traumatic Stress, N = 245

Variable	Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval			
	B	Std. Error	Beta	t	Lower Bound	Upper Bound	Partial η^2	Obs. Power
(Intercept)	43.631	7.710		5.659***	28.440	58.821	.122	1.000
Age	.018	.059	.017	.311	-.098	.135	.000	.061
Income	.245	.526	.027	.466	-.791	1.281	.001	.075
LCSW	2.943	1.220	.122	2.413	.540	5.346	.025	.671
% Clients with Trauma	.040	.020	.101	2.003	.001	.080	.017	.514
Personal Therapy	-.015	1.271	-.001	-.012	-2.520	2.490	.000	.050
Provide Supervision	-2.436	1.341	-.098	-1.817	-5.077	.206	.014	.440
PTSD	.316	.063	.327	5.010***	.191	.440	.098	.999
Affective Empathy	.484	.699	.035	.693	-.893	1.861	.002	.106
Cognitive Empathy - PT	-.005	.178	-.002	-.031	-.355	.345	.000	.050
Cognitive Empathy - OS	.010	.172	.003	.057	-.330	.349	.000	.050
Differentiation of Self	-4.723	.828	-.358	-5.702***	-6.354	-3.091	.123	1.000

R^2 = .444

Adj R^2 = .417

Note: variables were not mean centered prior to analysis. *p < .017, **p < .01, ***p < .001; PT = Perspective Taking, OS = Online Simulation

Table 4b.

Model 1: Univariate Effects on Underinvolved Countertransference, N = 245

Variable	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval			
	B	Std. Error	Beta	t	*p*	Lower Bound	Upper Bound	Partial η^2	Obs. Power
(Intercept)	10.652	1.357		7.848***	.000	7.978	13.327	.210	1.000
Age	-.022	.010	-.144	-2.103	.037	-.042	-.001	.019	.553
Income	.073	.093	.057	.792	.429	-.109	.256	.003	.124
LCSW	-.189	.215	-.056	-.879	.380	-.612	.234	.003	.141
% Clients with Trauma	.003	.004	.045	.717	.474	-.004	.009	.002	.110
Personal Therapy	-.086	.224	-.026	-.386	.700	-.527	.355	.001	.067
Provide Supervision	-.204	.236	-.059	-.866	.387	-.669	.261	.003	.139
PTSD	.005	.011	.034	.413	.680	-.017	.026	.001	.070
Affective Empathy	-.148	.123	-.075	-1.202	.230	-.390	.094	.006	.224
Cognitive Empathy - PT	-.027	.031	-.058	-.855	.393	-.088	.035	.003	.136
Cognitive Empathy - OS	-.067	.030	-.148	-2.215	.028	-.127	-.007	.021	.597
Differentiation of Self	-.392	.146	-.212	-2.690**	.008	-.680	-.150	.030	.764
R^2 = .128									
Adj R^2 = .086									

Note: variables were not mean centered prior to analysis. **p* < .017, ***p* < .01, ****p* < .001; PT = Perspective Taking, OS = Online Simulation

Table 5a.

Model 2A: Multivariate Effects of Affective Empathy x Cognitive Empathy-PT Interaction on Secondary Traumatic Stress, Underinvolved Countertransference, and Overinvolved Countertransference, N =245

Variable	Wilk's λ (Hoteling's Trace)	*F* (3, 228)	Partial η^2	Obs. Power
(Intercept)	.581 (.720)	54.714***	.419	1.000
Age	.970 (.031)	2.347	.030	.584
Income	.997 (.003)	.218	.003	.091
LCSW	.963 (.039)	2.941*	.037	.693
% Clients with Trauma	.984 (.016)	1.199	.016	.320
Personal Therapy	.998 (.002)	.147	.002	.077
Provide Supervision	.982 (.018)	1.411	.018	.372
PTSD	.891 (.122)	9.254***	.109	.996
Affective Empathy[a]	.988 (.012)	.914	.012	.249
Cognitive Empathy - PT[a]	.994 (.006)	.470	.006	.144
Cognitive Empathy - OS[a]	.976 (.024)	1.860	.024	.479
Differentiation of Self[a]	.865 (.157)	11.912***	.135	1.000
Aff x PT[a]	.990 (.010)	.761	.010	.212

*$p < .05$, **$p < .01$, ***p < .001; a = Variables were mean centered prior to analysis; PT = Perspective Taking, OS = Online Simulation; Aff x PT = Affective Empathy x Perspective Taking Interaction Term.

Table 5b.

Model 2B: Multivariate Effects of Affective Empathy x Cognitive Empathy-OS Interaction on Secondary Traumatic Stress, Underinvolved Countertransference, and Overinvolved Countertransference, N =245

Variable	Wilk's λ (Hoteling's Trace)	*F* (3, 228)	Partial η^2	Obs. Power
(Intercept)	.583 (.716)	54.425***	.417	1.000
Age	.972 (.029)	2.212	.028	.556
Income	.997 (.003)	.194	.003	.086
LCSW	.963 (.039)	2.928*	.037	.691
% Clients with Trauma	.982 (.018)	1.356	.018	.359
Personal Therapy	.998 (.002)	.169	.002	.081
Provide Supervision	.981 (.019)	1.475	.019	.387
PTSD	.892 (.121)	9.183***	.108	.996
Affective Empathy[a]	.988 (.012)	.931	.012	.253
Cognitive Empathy - PT[a]	.995 (.005)	.384	.005	.125
Cognitive Empathy - OS[a]	.978 (.023)	1.743	.024	.452
Differentiation of Self[a]	.859 (.164)	12.488***	.141	1.000
Aff x OS[a]	.990 (.010)	.767	.010	.213

*$p < .05$, **$p < .01$, ***p < .001; a = Variables were mean centered prior to analysis; PT = Perspective Taking, OS = Online Simulation; Aff x OS = Affective Empathy x Online Simulation interaction term.

Table 6.

Model 3: Multivariate Effects of Affective Empathy x Differentiation of Self Interaction on Secondary Traumatic Stress, Underinvolved Countertransference, and Overinvolved Countertransference, N =245

Variable	Wilk's λ (Hoteling's Trace)	*F* (3, 228)	Partial η^2	Obs. Power
(Intercept)	.580 (.724)	55.061***	.420	1.000
Age	.970 (.031)	2.371	.030	.589
Income	.997 (.003)	.243	.003	.096
LCSW	.962 (.040)	3.010*	.038	.705
% Clients with Trauma	.983 (.017)	1.284	.017	.341
Personal Therapy	.998 (.002)	.166	.002	.081
Provide Supervision	.981 (.020)	1.487	.019	.391
PTSD	.892 (.121)	9.164***	.108	.996
Affective Empathy[a]	.989 (.011)	.867	.011	.238
Cognitive Empathy - PT[a]	.995 (.005)	.404	.005	.130
Cognitive Empathy - OS[a]	.976 (.025)	1.881	.024	.484
Differentiation of Self[a]	.864 (.157)	11.956***	.136	1.000
Aff x DoS[a]	.994 (.006)	.448	.006	.139

*$p < .05$, **$p < .01$, ***$p < .001$; a = Variables were mean centered prior to analysis; PT = Perspective Taking, OS = Online Simulation; Aff x DoS = Affective Empathy x Differentiation of Self interaction term.

Table 7.

Model 4A: Multivariate Effects of Affective Empathy x Cognitive Empathy-PT Interaction on Secondary Traumatic Stress, Underinvolved Countertransference, and Overinvolved Countertransference, N =245

Variable	Wilk's λ (Hoteling's Trace)	*F* (3, 225)	Partial η^2	Obs. Power
(Intercept)	.572 (.747)	56.021***	.428	1.000
Age	.962 (.039)	2.937*	.038	.693
Income	.996 (.004)	.317	.004	.111
LCSW	.959 (.043)	3.210*	.041	.735
% Clients with Trauma	.985 (.015)	1.122	.015	.300
Personal Therapy	.999 (.001)	.112	.001	.070
Provide Supervision	.983 (.017)	1.297	.017	.344
PTSD	.893 (.119)	8.954***	.107	.995
Affective Empathy[a]	.985 (.016)	1.165	.015	.311
Cognitive Empathy - PT[a]	.996 (.004)	.329	.004	.113
Cognitive Empathy - OS[a]	.975 (.025)	1.884	.025	.484
Differentiation of Self[a]	.881 (.135)	10.127***	.119	.998
Aff x PT[a]	.989 (.011)	.803	.011	.222
Aff x DoS[a]	.996 (.004)	.316	.004	.111
PT x DoS[a]	.984 (.016)	1.222	.016	.325
Aff x PT x DoS[a]	.970 (.031)	2.297	.030	.574

*$p < .05$, **$p < .01$, ***$p < .001$; a = Variables were mean centered prior to analysis; PT = Perspective Taking, OS = Online Simulation, Aff x PT = Affective Empathy x Perspective Taking interaction term, Aff x DoS = Affective Empathy x Differentiation of Self interaction term, PT x DoS = Perspective Taking x Differentiation of Self interaction term, Aff x PT x DoS = Affective Empathy x Perspective Taking x Differentiation of Self 3-way interaction term.

Table 8.

Model 4B: Multivariate Effects of Affective Empathy x Cognitive Empathy-OS Interaction on Secondary Traumatic Stress, Underinvolved Countertransference, and Overinvolved Countertransference, N =245

Variable	Wilk's λ (Hoteling's Trace)	*F* (3, 225)	Partial η^2	Obs. Power
(Intercept)	.564 (.772)	57.919***	.436	1.000
Age	.966 (.036)	2.667*	.034	.646
Income	.987 (.014)	1.022	.013	.276
LCSW	.963 (.038)	2.861*	.037	.680
% Clients with Trauma	.984 (.016)	1.226	.016	.326
Personal Therapy	.998 (.002)	.166	.002	.081
Provide Supervision	.976 (.025)	1.857	.024	.478
PTSD	.890 (.123)	9.234***	.110	.996
Affective Empathy[a]	.983 (.018)	1.319	.017	.349
Cognitive Empathy - PT[a]	.992 (.008)	.618	.008	.178
Cognitive Empathy - OS[a]	.978 (.023)	1.726	.022	.448
Differentiation of Self[a]	.849 (.177)	13.298***	.151	1.000
Aff x OS[a]	.996 (.004)	.318	.004	.111
Aff x DoS[a]	.996 (.004)	.281	.004	.104
OS x DoS[a]	.975 (.026)	1.952	.025	.500
Aff x OS x DoS[a]	.922 (.085)	6.360***	.078	.966

*$p < .05$, **$p < .01$, ***p < .001; a = Variables were mean centered prior to analysis; PT = Perspective Taking, OS = Online Simulation, Aff x OS = Affective Empathy x Online Simulation interaction term, Aff x DoS = Affective Empathy x Differentiation of Self interaction term, OS x DoS = Online Simulation x Differentiation of Self interaction term, Aff x OS x DoS = Affective Empathy x Online Simulation x Differentiation of Self 3-way interaction term.

Table 8a.

Model 4B: Univariate Effects on Secondary Traumatic Stress, N = 245

Variable	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval			
	B	Std. Error	Beta	t	*p*	Lower Bound	Upper Bound	Partial η^2	Obs. Power
(Intercept)	26.933	2.968		9.073***	.000	21.084	32.782	.266	1.000
Age	.013	.059	.012	.220	.826	-.104	.130	.000	.055
Income	.558	.533	.061	1.048	.296	-.492	1.608	.005	.181
LCSW	3.110	1.204	.129	2.583*	.010	.737	5.483	.029	.730
% Clients with Trauma	.038	.020	.095	1.914	.057	-.001	.077	.016	.478
Personal Therapy	-.071	1.252	-.003	-.057	.955	-2.538	2.396	.000	.050
Provide Supervision	-2.680	1.328	-.108	-2.019	.045	-5.296	-.064	.018	.520
PTSD	.310	.062	.322	5.002***	.000	.188	.433	.099	.999
Affective Empathy[a]	.619	.700	.044	.885	.377	-.760	1.999	.003	.143
Cognitive Empathy - PT[a]	-.012	.176	-.004	-.069	.945	-.359	.335	.000	.051
Cognitive Empathy - OS[a]	-.026	.174	-.008	-.151	.880	-.370	.317	.000	.053
Differentiation of Self[a]	-4.858	.828	-.368	-5.869***	.000	-6.489	-3.227	.132	1.000
Aff x OS[a]	.043	.200	.011	.218	.828	-.350	.437	.000	.055
Aff x DoS[a]	-.595	.763	-.039	-.780	.436	-2.099	.909	.003	.121
OS x DoS[a]	-.197	.191	-.052	-1.034	.302	-.573	.179	.005	.177
Aff x OS x DoS[a]	-.673	.236	-.146	-2.853**	.005	-1.138	-.208	.035	.811
R^2 = .471									
Adj R^2 = .437									

*p < .017, **p < .01, ***p < .001; a = Variables were mean centered prior to analysis; PT = Perspective Taking, OS = Online Simulation, Aff x OS = Affective Empathy x Online Simulation interaction term, Aff x DoS = Affective Empathy x Differentiation of Self interaction term, OS x DoS = Online Simulation x Differentiation of Self interaction term, Aff x OS x DoS = Affective Empathy x Online Simulation x Differentiation of Self 3-way interaction term.

Table 8b.

Model 4B: Univariate Effects on Underinvolved Countertransference, N = 245

Variable	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval			
	B	Std. Error	Beta	t	*p*	Lower Bound	Upper Bound	Partial η^2	Obs. Power
(Intercept)	5.614	.514		10.922***	.000	4.601	6.627	.344	1.000
Age	-.024	.010	-.158	-2.347	.020	-.044	-.004	.024	.647
Income	.153	.092	.119	1.654	.100	-.029	.334	.012	.377
LCSW	-.120	.209	-.036	-.578	.564	-.531	.290	.001	.089
% Clients with Trauma	.002	.003	.038	.622	.535	-.005	.009	.002	.095
Personal Therapy	-.085	.217	-.026	-.392	.696	-.512	.342	.001	.068
Provide Supervision	-.292	.230	-.084	-1.270	.205	-.745	.161	.007	.244
PTSD	.002	.011	.018	.231	.818	-.019	.024	.000	.056
Affective Empathy[a]	-.174	.121	-.088	-1.434	.153	-.413	.065	.009	.298
Cognitive Empathy - PT[a]	-.037	.030	-.079	-1.210	.228	-.097	.023	.006	.226
Cognitive Empathy - OS[a]	-.066	.030	-.146	-2.194	.029	-.126	-.007	.021	.589
Differentiation of Self[a]	-.452	.143	-.244	-3.150**	.002	-.734	-.169	.042	.880
Aff x OS[a]	.028	.035	.051	.810	.419	-.040	.096	.003	.127
Aff x DoS[a]	.030	.132	.014	.228	.820	-.230	.291	.000	.056
OS x DoS[a]	.054	.033	.102	1.636	.103	-.011	.119	.012	.371
Aff x OS x DoS[a]	-.164	.041	-.253	-4.014***	.000	-.244	-.083	.066	.979
R^2 = .198									
Adj R^2 = .145									

*p < .017, **p < .01, ***p < .001; a = Variables were mean centered prior to analysis; PT = Perspective Taking, OS = Online Simulation, Aff x OS = Affective Empathy x Online Simulation interaction term, Aff x DoS = Affective Empathy x Differentiation of Self interaction term, OS x DoS = Online Simulation x Differentiation of Self interaction term, Aff x OS x DoS = Affective Empathy x Online Simulation x Differentiation of Self 3-way interaction term.

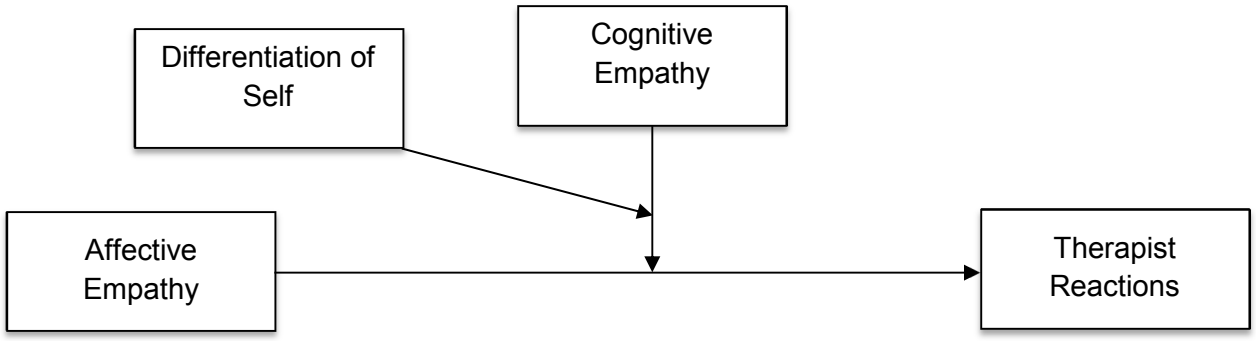

Figure 1. Conceptual Diagram of the Possible Three-Way Interaction between Cognitive Empathy, Affective Empathy, and Differentiation of Self on Therapist Reactions to Client Trauma (i.e., Overinvolved Countertransference, Underinvolved Countertransference, and Secondary Traumatic Stress).

Model 1: Covariates, cog emp (PT and OS), aff emp, DoS → Outcomes

Model 2A: Covariates, PT, OS, aff emp, DoS, PTxaff → Outcomes

Model 2B: Covariates, PT, OS, aff emp, DoS, OSxaff → Outcomes

Model 3: Covariates, PT, OS, aff emp, DoS, DoSxaff → Outcomes

Model 4A: Covariates, PT, OS, aff emp, DoS, PTxaff, PTxDoS, affxDoS, PTxaffxDoS → Outcomes

Model 4B: Covariates, PT, OS, aff emp, DoS, OSxaff, OSxDoS, affxDoS, OSxaffxDoS → Outcomes

Figure 2. Steps of Multivariate Multiple Linear Regression

Covariates = PCL-5 scores, age, income, percentage of traumatized clients, identifying as a social worker, currently receiving personal trauma therapy, and currently providing supervision to others; cog emp = cognitive empathy as measured by the Questionnaire of Cognitive and Affective Empathy (QCAE); PT = Perspective Taking subscale of the QCAE; OS = Online Simulation subscale of the QCAE; aff emp = affective empathy as measured by the Pictorial Empathy Test; DoS = differentiation of self as measured by the Differentiation of Self Inventory-Short Form; Outcomes Secondary Traumatic Stress Scale, Therapist Response Questionnaire-Underinvolved, and the Therapist Response Questionnaire-Overinvolved.

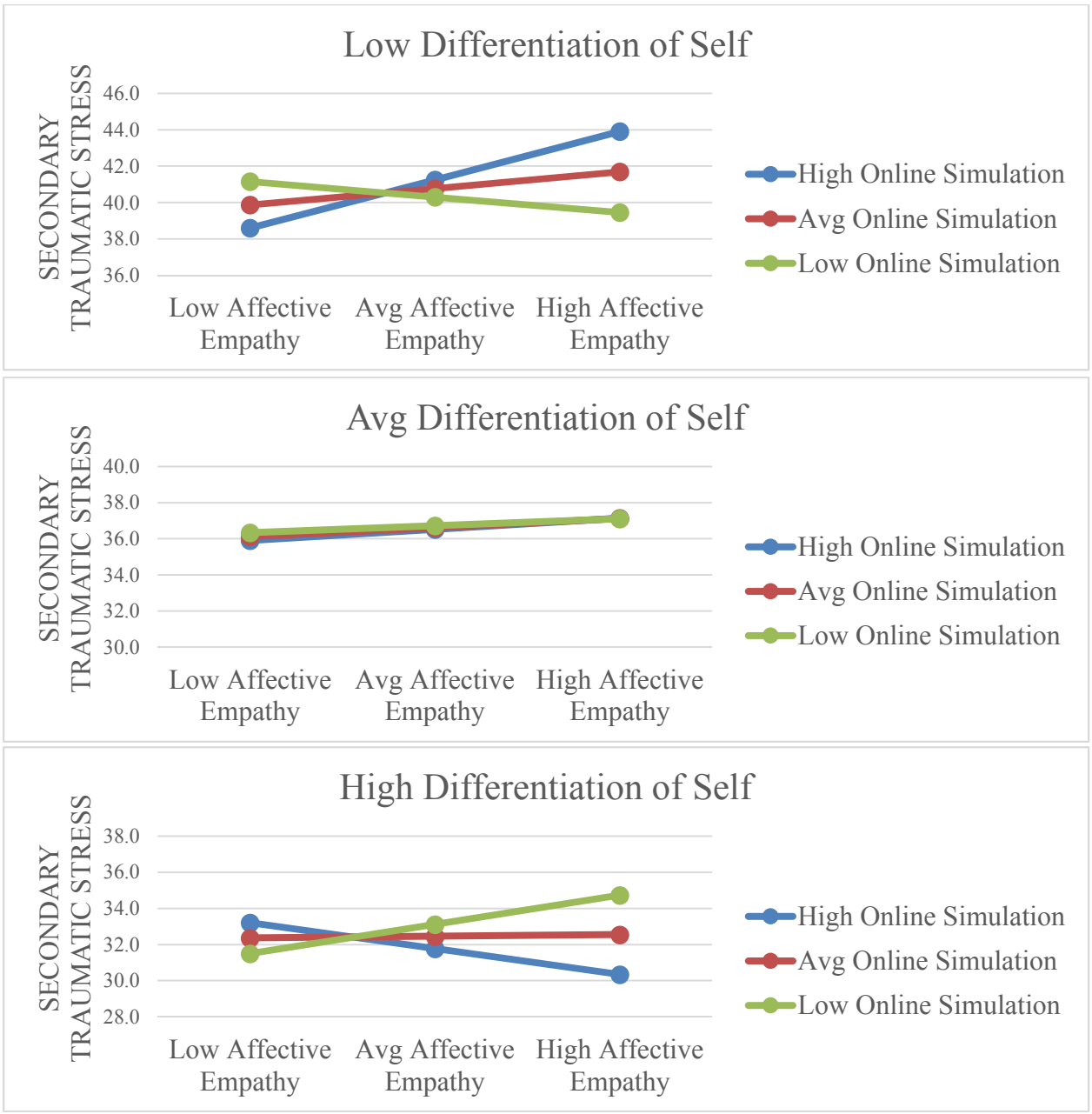

Figure 3. Conditional Effects of the Cognitive empathy-OS x Affective Empathy Interaction on Secondary Traumatic Stress, at +/- 1 SDs and Average Differentiation of Self: A Three-Way Interaction

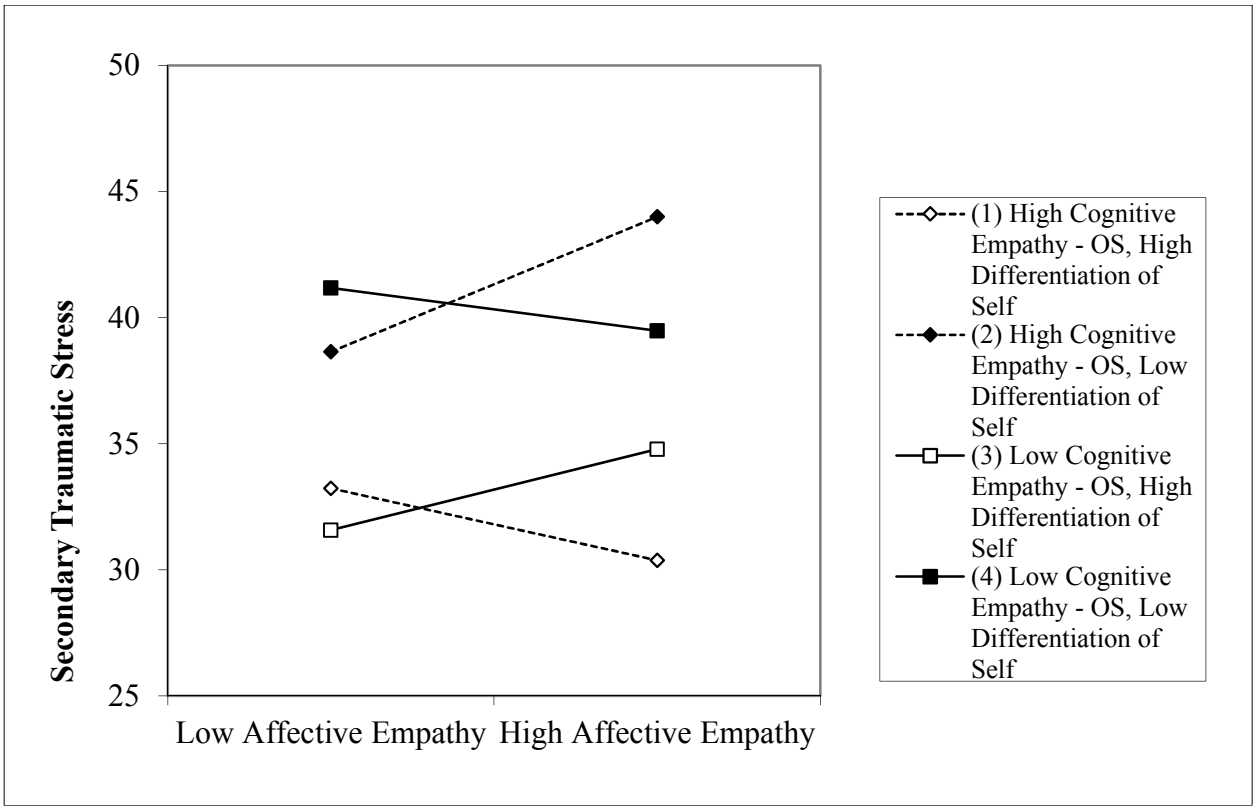

Figure 4. Conditional Effects of the Cognitive empathy-OS x Affective Empathy Interaction on Secondary Traumatic Stress, at +/- 1 SDs and Average Differentiation of Self: A Three-Way Interaction Condensed.

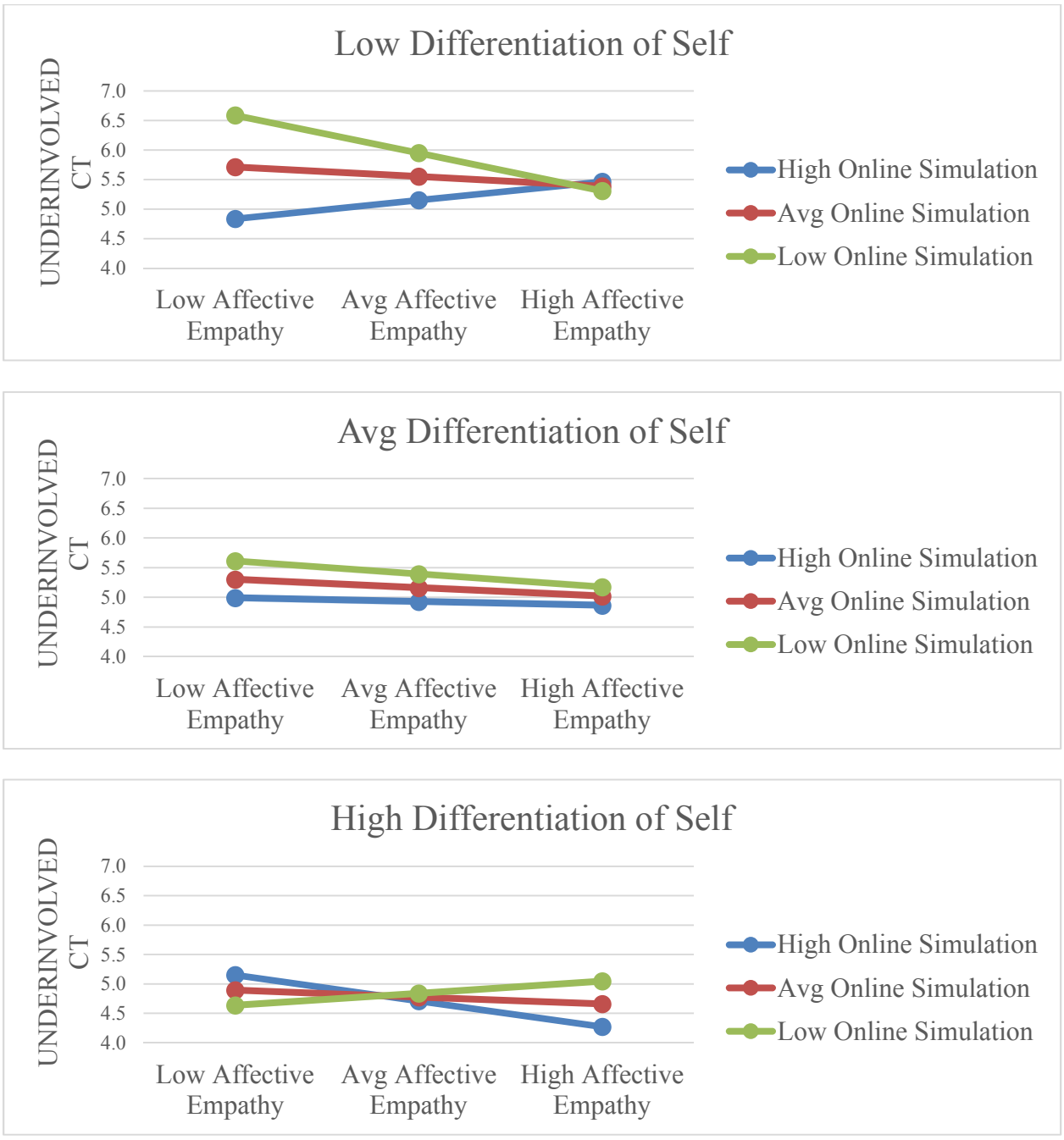

Figure 5. Conditional Effects of the Cognitive empathy-OS x Affective Empathy Interaction on Underinvolved Countertransference, at +/- 1 SDs and Average Differentiation of Self: A Three-Way Interaction

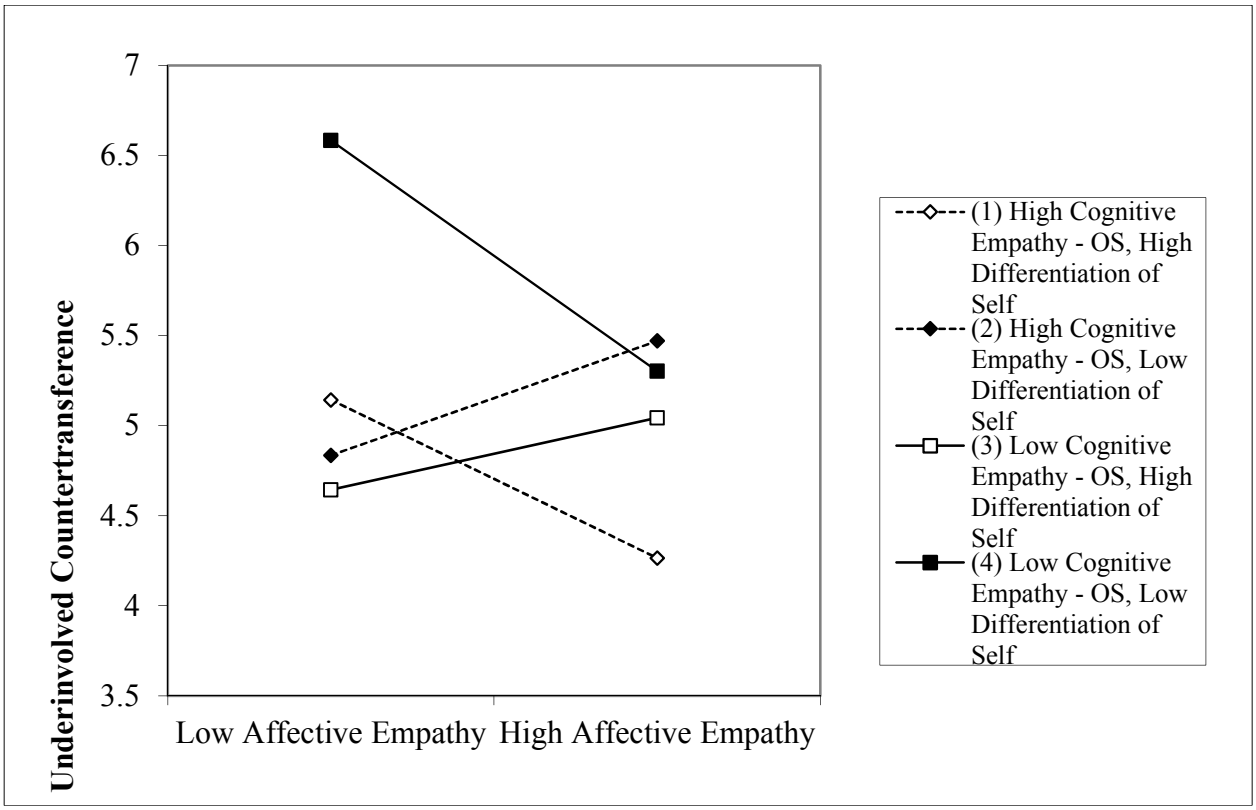

Figure 6. Conditional Effects of the Cognitive empathy-OS x Affective Empathy Interaction on Underinvolved Countertransference, at +/- 1 SDs and Average Differentiation of Self: A Three-Way Interaction Condensed.

APPENDIX A

Demographics Form

1. Please indicate your age:
2. Please indicate your gender identity:
3. Please indicate your sexual orientation:
4. Do you practice within the United States? (yes, no)
    a. If no, where?
5. Please identify your race/ethnicity/cultural identity:
    a. Asian/Pacific Islander
    b. Black/African American
    c. Non-Hispanic Caucasian/White/European American
    d. Hispanic/Latino/Latina/Latinx
    e. Middle Eastern
    f. Multicultural/ethnic
    g. Native American/American Indian
    h. If the above terms do not adequately describe your race/ethnicity/cultural identity, please describe in your own words:
6. Please indicate your professional affiliation:
    a. Clinical social worker (Master's degree minimum)
    b. Mental health counselor/therapist (Master's degree minimum)
    c. Psychologist (Ph.D., Ed.D., or Psy.D. minimum)
    d. Psychiatrist (M.D.)
    e. If the above professional affiliations do not adequately describe your occupation, please describe in your own words:
7. What is your household annual income?
    a. Less than $20,000
    b. $20,000-39,999
    c. $40,000-74,999
    d. $75,000-99,999
    e. $100,000-149,999
    f. $150,000 or more
8. Please indicate whether you have received the following training in trauma, PTSD, or trauma-specific therapy (select as many as is appropriate):
    a. Graduate coursework in trauma and/or approaches for treating traumatized clients
    b. CEUs in trauma and/or approaches for treating traumatized clients
    c. Certification training for trauma-focused treatments (e.g., Cognitive Processing Therapy, Prolonged Exposure, Eye Movement Desensitization and Reprocessing, Narrative Exposure Therapy, etc.)
9. Please indicate how long you have been practicing in the field, in years and/or months:
10. Please indicate how long you have been working with traumatized clients, in years and/or months:

11. Please estimate the percentage of time that you spend working with trauma during your regular practice within the past 6 months:
12. Please estimate the percentage of clients you currently see with a Criterion A trauma as their presenting concern (Criterion A trauma is defined as "Exposure to actual or threatened death, serious injury, or sexual violence in one or more of the following ways: directly experiencing the traumatic event, witnessing in person the event as it occurred to others, learning that the traumatic event occurred to a close family member or close friend [in this case, the event must have been violent or accidental], or experiencing repeated or extreme exposure to aversive details of the traumatic events" [American Psychiatric Association, 2013, p. 271]):
13. Regarding your own personal trauma, please indicate when you experienced this trauma(s):
    a. Childhood
    b. Adulthood
    c. Both
14. Are you currently receiving personal therapy for your own personal trauma? (yes, no)
15. Have you in the past received personal therapy for your own personal trauma? (yes, no)
16. Do you currently receive supervision? (yes, no)
    a. If no, do you attend a professional consultation group specific to trauma?
17. Do you provide supervision to other clinicians in training who treat clients with trauma? (yes, no)

APPENDIX B

PTSD Measures

Life Events Checklist – 5 (LEC-5, modified for present study; Weathers et al., 2013)

Instructions: Listed below are a number of difficult or stressful things that sometimes happen to people. For each event, click to indicate if the event: (a) happened to you personally; (b) you witnessed it happen to someone else; or (c) you learned about it happening to a *close family member or close friend.*

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 happening to close family or friend**
Natural disaster (for example, flood, hurricane, tornado, earthquake)			
Fire or explosion			
Transportation accident (for example, car accident, boat accident, train wreck, plane crash)			
Serious accident at work, home, or during recreational activity			
Exposure to toxic substance (for example, dangerous chemicals, radiation)			
Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)			
Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)			
Sexual assault (rape, attempted rape, made to perform any type of sexual act through force, threat of harm, or coercion)			
Other unwanted or uncomfortable sexual experience			

Combat or exposure to a war-zone (in the military or as a civilian)			
Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)			
Life-threatening illness or injury			
Severe human suffering			
Sudden violent death (for example, homicide, suicide)			
Sudden accidental death			
Serious injury, harm, or death you caused someone else			
Any other very stressful event or experience			

PTSD Checklist for DSM-5 (PCL-5; Weathers et al., 2013)

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. 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 (0)**	**A little bit (1)**	**Moderately (2)**	**Quite a bit (3)**	**Extremely (4)**
Repeated, disturbing, and unwanted memories of your personal trauma?					
Repeated, disturbing dreams of your personal trauma?					
Suddenly feeling or acting as if the trauma were actually happening again (as if you were actually back there reliving it)?					
Feeling very upset when something reminded you of your personal trauma?					

Having strong physical reactions when something reminded you of your personal trauma (e.g., heart pounding, trouble breathing, sweating)?					
Avoiding memories, thoughts, or feelings related to your personal trauma?					
Avoiding external reminders of your personal trauma (for example, people, places, conversations, activities, objects, or situations)?					
Trouble remembering important parts of your personal trauma?					
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)?					
Blaming yourself or someone else for your personal trauma or what happened after it?					
Having strong negative feelings such as fear, horror, anger, guilt, or shame?					

Loss of interest in activities that you used to enjoy?					
Feeling distant or cut off from other people?					
Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?					
Irritable behavior, angry outbursts, or acting aggressively?					
Taking too many risks or doing things that could cause you harm?					
Being “superalert” or watchful or on guard?					
Feeling jumpy or easily startled?					
Having difficulty concentrating?					
Trouble falling or staying asleep?					

APPENDIX C

Empathy Measures

Pictorial Empathy Test (Lindeman et al., 2018)

Instructions: please review each photo and indicate how emotionally moving you find each photograph.

1	2	3	4	5
Not at all	A little bit	It arouses some feelings	Quite a lot	Very much

How emotionally moving do you find the photograph?

File name: "Julien Bryan – Life – 50893.jpg." Copyright information: This work is in the public domain (Wikimedia Commons).

File name: “2012 East Azerbaijan earthquakes. By Mardetanha 1527.jpg.”

Copyright information: GNU Free Documentation License [GFDL (http://www.gnu.org/copyleft/fdl.html) or CC-BY-SA-3.0-2.5-2.0-1.0 (http://creativecommons.org/licenses/by-sa/3.0)] (Wikimedia Commons). Author: Mardetanha.

File name: “Rahima Banu.jpg”.

File name: “Tratamiento epidermolisis bullosa.jpg.”

Copyright information:: GNU Free Documentation License [GFDL (http://www.gnu.org/copyleft/fdl.html) or CC-BY-SA-3.0-2.5-2.0-1.0 (http://creativecommons.org/licenses/by-sa/3.0)] (Wikimedia Commons). Author: Yovanna.Gonzalez.

File name: “V rekonstrukcja Bitwy o Mławę, miasto 0992.jpg.”

Copyright information: Creative Commons Attribution-Share Alike 3.0 Poland license (Wikimedia Commons). Author: Adam Kliczek, http://zatrzymujeczas.pl (CC-BY-SA-3.0).

File name: “Bala Baluk massacre by US troops.jpg.”

Copyright information: Creative Commons Attribution-Share Alike 3.0 [CC-BY-SA-3.0 (http://creativecommons.org/licenses/by-sa/3.0)] (Wikimedia Commons). Author: Rawa77.

File name: “Wounded Minsk blast 2.jpg.”

Questionnaire of Cognitive and Affective Empathy – Cognitive Empathy Scale (Reniers et al., 2011)

Instructions: please indicate your level of agreement concerning the following statements.

1	2	3	4
Strongly disagree	Slightly disagree	Slightly agree	Strongly Agree

Perspective Taking

1. I can easily work out what another person might want to talk about.
2. I can tell if someone is masking their true emotion.
3. I can sense if I am intruding, even if the other person does not tell me.
4. I am good at predicting how someone will feel.
5. I am good at predicting what someone will do.
6. I am quick to spot when someone in a group is feeling awkward or uncomfortable.
7. I can pick up quickly if someone says one thing but means another.
8. I can easily tell if someone else is interested or bored with what I am saying.
9. I can easily tell if someone else wants to enter a conversation.
10. Other people tell me I am good at understanding how they are feeling and what they are thinking.

Online Simulation

11. I try to look at everybody's side of a disagreement before I make a decision.
12. Before criticizing somebody, I try to imagine how I would feel if I was in their place.
13. When I am upset at someone, I usually try to "put myself in their shoes" for a while.
14. I always try to consider the other fellow's feelings before I do something.
15. I sometimes try to understand my friends better by imagining how things look from their perspective.
16. I can usually appreciate the other person's viewpoint, even if I do not agree with it.
17. I sometimes find it difficult to see things from the "other guy's" point of view **(reversed).**
18. Before I do something I try to consider how my friends will react to it.
19. I find it easy to put myself in somebody else's shoes.

APPENDIX D

Differentiation of Self Inventory – Short Form (Drake et al., 2015)

Instructions: These are questions concerning your thoughts and feelings about yourself and relationships with others. Please read each statement carefully and decide how much the statement is generally true of you on a 1 (not at all) to 6 (very) scale. If you believe that an item does not pertain to you (e.g., you are not currently married or in a committed relationship, or one or both of your parents are deceased), please answer the item according to your best guess about what your thoughts and feelings would be in that situation. Be sure to answer every item and try to be as honest and accurate as possible in your responses.

1	2	3	4	5	6
Not at all characteristic of me					Very characteristic of me

1. I tend to remain pretty calm even under stress. IP1
2. I usually need a lot of encouragement from others when starting a big job or task. FO-R1
3. No matter what happens in my life, I know that I'll never lose my sense of who I am. IP2
4. I tend to distance myself when people get too close to me. EC-R1
5. When my spouse/partner criticizes me, it bothers me for days. FO-R2
6. At times my feelings get the best of me and I have trouble thinking clearly. ER-R1
7. I'm often uncomfortable when people get too close to me. EC-R2
8. I feel a need for approval from virtually everyone in my life. FO-R3
9. At times, I feel as if I'm riding an emotional roller-coaster. ER-R2
10. There's no point in getting upset about things I cannot change. IP3
11. I'm overly sensitive to criticism. ER-R3
12. I'm fairly self-accepting. IP4
13. I often agree with others just to appease them. FO-R4
14. If I have had an argument with my spouse/partner, I tend to think about it all day. ER-R4
15. When one of my relationships becomes very intense, I feel the urge to run away from it. EC-R3
16. If someone is upset with me, I can't seem to let it go easily. ER-R5
17. I often feel unsure when others are not around to help me make a decision. FO-R5
18. I'm very sensitive to being hurt by others. ER-R6
19. My self-esteem really depends on how others think of me. IP-R5
20. I tend to feel pretty stable under stress. IP6

APPENDIX E

Secondary Traumatic Stress Scale (Bride et al., 2007)

Instructions: The following is a list of statements made by persons who have been impacted by their work with *traumatized clients*. Read each statement, then indicate how frequently the statement was true for you in the *past month.*

1	2	3	4	5
Never	Rarely	Occasionally	Often	Very Often

1. I felt emotionally numb.
2. My heart started pounding when I thought about my work with clients.
3. It seemed as if I was reliving the trauma(s) experienced by my client(s).
4. I had trouble sleeping.
5. I felt discouraged about the future.
6. Reminders of my work with clients upset me.
7. I had little interest in being around others.
8. I felt jumpy.
9. I was less active than usual.
10. I thought about my work with clients when I didn't intend to.
11. I had trouble concentrating.
12. I avoided people, places, or things that reminded me of my work with clients.
13. I had disturbing dreams about my work with clients.
14. I wanted to avoid working with some clients.
15. I was easily annoyed.
16. I expected something bad to happen.
17. I noticed gaps in my memory about client sessions.

APPENDIX F

Therapist Response Questionnaire – Underinvolved/Disengaged and Overinvolved/Special Subscales (Tanzilli et al., 2016)

Directions: Please read each statement and select the response that best describes your overall reaction to the traumatized clients you have treated *over the past month*.

1	2	3	4	5
Not at all true	A little true	Somewhat true	Mostly true	Very true

Overinvolved Countertransference

1. I disclose my feelings with my traumatized clients more than with other clients.
2. I tell my traumatized clients I love him/her/them.
3. I self-disclose more about my personal life with my traumatized clients than with my other clients.
4. I call my traumatized clients between sessions more than my other clients.
5. I look forward to sessions with my traumatized clients.
6. I end sessions overtime with my traumatized clients more than with my other clients.

Underinvolved Countertransference

7. I begin sessions late with my traumatized clients more than with my other clients.
8. I feel bored in session with my traumatized clients.
9. My mind often wanders to things other than what my traumatized clients are talking about.
10. I don't feel fully engaged in sessions with my traumatized clients.
11. I watch the clock with my traumatized clients more than with my other clients.

VITA

Leslie Stapley Taylor was born on July 3, 1993 in Lawrenceville, Georgia. She earned her high school diploma at Brookwood High School in 2011, and went on to graduate from the University of Georgia in 2015 with a Bachelor of Science in Psychology, emphasis in Neuroscience. In August 2015, she began her studies at the University of Missouri-Kansas City (UMKC) to pursue her Ph.D. in Counseling and Health Services Psychology under the tutelage of Nancy Murdock, Ph.D. She was awarded her M.A. in Counseling and Guidance en route to her Ph.D. in May 2018.

While at UMKC, she worked as a graduate research assistant with the UMKC Office of Institutional Research, served as Co-Chair and Treasurer for the UMKC Student Affiliates of Seventeen organization, assisted in teaching the Psychology of Trauma and Methods of Counseling courses, and worked part-time as a family violence therapist with a local non-profit intimate partner violence agency. During her doctoral career she was awarded the UMKC School of Education Endowment Research Grant, the UMKC DaLee Fund Research Grant, and she was awarded the UMKC Women's Council Graduate Assistance Fund Award twice. Her predoctoral psychology internship was at the Memphis VA Medical Center under the Clinical Psychology emphasis from August 2020 thru July 2021.

Mrs. Taylor is a member of the American Psychological Association and has served as the Program Representative for the National Student Affiliates of Seventeen, the Program Representative for Div. 43, The Society for Couple and Family Psychology, and served on Div. 43's Student Leadership Committee. To date, she has co-authored four articles published in refereed journals. She has twelve presentations at national conferences.