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Comprehensive model for vicarious traumatization: examining the effect of therapist, work, and supportive factors on vicarious traumatization

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A COMPREHENSIVE MODEL FOR VICARIOUS TRAUMATIZATION: EXAMINING THE EFFECT OF THERAPIST, WORK, AND SUPPORTIVE FACTORS ON VICARIOUS TRAUMATIZATION

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ABSTRACT

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Professional counselors' exposure to demoralizing, tragic stories of trauma, disempowerment and abuse is inevitable. The effects of exposure to traumatized clients on professional counselors have received increased attention in the literature (e.g. Figley, 1995; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Scholars identified the development of vicarious traumatization as one of the most extreme effects of working with traumatized clients; however, not all practitioners working with traumatized clients will develop vicarious traumatization (McCann & Pearlman; Pearlman & Saakvitne).

This study addressed the gap in the literature regarding the examination of a comprehensive theoretical model for vicarious traumatization based on the constructivist self-development theory (CSDT). Path analytic procedures were used to assess a comprehensive theoretical model of vicarious traumatization. Based on the CSDT, the path model tested the effects of a combination of organizational factors (i.e. job satisfaction and workload), clinical supervision (i.e. supervisory working alliance), personal wellness, and childhood trauma on vicarious traumatization in practitioners working in community mental health centers.

Results of this study provided insight into the effect of therapist, work, and supportive factors on vicarious traumatization. While the CSDT failed to provide a

comprehensive framework for vicarious traumatization, results of this study explained 46% of the variance in vicarious traumatization in practitioners surveyed. Childhood trauma and personal wellness had significant effects on vicarious traumatization, whereas the effects of supervisory working alliance, organizational culture, and workload were not statistically significant. Examination of these results within the context of the literature provided practical implications for practitioners, counselor educators and supervisors in decreasing the impact of vicarious traumatization in practitioners.

DEDICATION

This dissertation is dedicated to my grandfathers, Lawrence W. Moores, Jr. and Harold E. Williams, for giving me the confidence, inspiration, and resources to pursue my dreams.

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CHAPTER I

INTRODUCTION

Professional counselors' exposure to demoralizing, tragic stories of trauma, disempowerment and abuse is inevitable. In fact, the number of clients seeking help in mental health facilities who have experienced trauma has been predicted to be between 82 and 94 percent (Bride, 2004). The effects of exposure to traumatized clients on professional counselors have received increased attention in the literature (e.g. Figley, 1995; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Scholars identified the development of vicarious traumatization as one of the most extreme effects of working with traumatized clients; however, not all practitioners working with traumatized clients will develop vicarious traumatization (McCann & Pearlman; Pearlman & Saakvitne). Recently, vicarious traumatization has received increased attention from researchers, practitioners, and educators in the field of counseling, particularly those working with traumatized clients. Over the past two decades, since the initial description of this phenomenon by McCann and Pearlman, researchers have conducted qualitative and quantitative studies in attempt to describe, predict, and prevent vicarious traumatization in practitioners working with traumatized clients (Bober & Regehr, 2005; Brady, Guy, Polestra, & Brokaw, 1999; Bride, 2004; Pearlman & Mac Ian, 1995).

The percentage of practitioners affected by vicarious traumatization is difficult to predict; however, Pearlman and Saakvitne (1995) described vicarious traumatization as an unavoidable, occupational hazard for trauma counselors. It is difficult to identify the

exact number of practitioners impacted by vicarious traumatization due to researchers' confusion regarding what constitutes vicarious traumatization and failure to distinguish it from other forms of counselor impairment (e.g. Nelson-Gardell & Harris, 2003; Sabin-Farrell & Turpin, 2003). However, the literature on vicarious traumatization suggests this phenomenon is an immense and pervasive problem among professional counselors working with traumatized clients (McCann & Pearlman, 1990a; Pearlman & Saakvitne; Trippany, White Kress, & Wilcoxon, 2004).

All practitioners are affected to some degree by their work with traumatized clients; however, vicarious traumatization is a unique manifestation of this work that impacts the personhood of the counselor (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Vicarious traumatization refers to "the transformation in the inner experience of the therapist that comes about as a result of empathic engagement with clients' trauma material" (Pearlman & Saakvitne, p. 31). It describes the impact of working with traumatized clients on the internal experience of the counselor rather than on external, observable symptoms (Pearlman & Saakvitne). According to the constructivist self-development theory, vicarious traumatization describes shifts in the counselor's worldview, belief system, identity, psychological needs, and memory system as a result of continued exposure to stories of trauma (McCann & Pearlman). It describes the cognitive shift in practitioners' beliefs about self, others, and the world, resulting from working with clients' trauma material (Pearlman & Saakvitne; Way, VanDeusen, & Cottrell, 2007).

Vicarious traumatization affects the personhood of the counselor, resulting in significant impairment in practitioners' personal and professional functioning (McCann

& Pearlman, 1990a; Pearlman & Saakvitne, 1995; Trippany, et al., 2004). Dramatic shifts in beliefs about self, others, and the world associated with vicarious traumatization cause practitioners to feel unsafe in the world and develop an increased awareness of their own personal vulnerability in the world, causing them to feel helpless, depressed, disengaged, and confused (Pearlman & Saakvitne; Saakvitne & Pearlman, 1996). Changes in the practitioner's affective style and worldview and are coupled with interpersonal challenges including increased dependence on or distance from significant others (Pearlman & Saakvitne; Saakvitne & Pearlman). Intra- and interpersonal difficulties practitioners experience as a result of vicarious traumatization negatively impact their professional functioning (Sexton, 1999; Trippany et al.).

Vicarious traumatization not only affects the counselor's personal life but also the counseling process. Affected practitioners often experience an interruption in empathic abilities and have difficulty maintaining a therapeutic stance. Vicarious traumatization results in practitioners' compromised therapeutic boundaries, misdiagnosis, diminished ability to attend to client needs, and loss of energy, optimism, and commitment (Pearlman & Saakvitne, 1995; Sexton, 1999; Trippany et al.). Often, clients are negatively impacted by vicarious traumatization because affected practitioners avoid discussions of traumatic events, prematurely push clients to reveal details of traumatic events, and become less emotionally available in counseling sessions (Trippany et al.). Both practitioners and clients are clearly impacted by vicarious traumatization. A more comprehensive understanding of the complexity of this phenomenon is necessary in order to protect both clients and practitioners from the negative effects of vicarious traumatization (Pearlman & Saakvitne, 1995; Trippany et al., 2004).

Problem Statement

Based on the constructivist self-development theory, Pearlman and Saakvitne (1995) proposed a combination of therapist, work, and supportive factors contribute to the development of vicarious traumatization in counselors working with traumatized clients; however, no studies to date have examined the combined influence of these variables on the development of vicarious traumatization. Although various studies have explored the influence of childhood trauma (Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995; Way et al., 2007), clinical supervision (Bober & Regehr, 2005; Hunter & Schofield, 2006), personal wellness (Brady et al., 1999; Bride, 2004; Schauben & Frazier), and organizational factors (Linley & Joseph, 2007; Pearlman & Mac Ian; Schauben & Frazier) on the development of vicarious traumatization, there is no application of a comprehensive model based on the constructivist self-development theory examining the relationship among these variables. Few researchers have investigated the combined influence of more than one of these variables on vicarious traumatization. There is evidence from these studies that each of these variables alone influences the development of vicarious traumatization (e.g. Bell, Kulkarni, & Dalton, 2003; Way, et al.); however, there is a gap in the research exploring the combined impact of these variables.

Rationale

The theoretical premise for this research is the constructivist self-development theory, which explains that the development of vicarious traumatization is influenced by a combination of therapist (i.e. identity, worldview, spirituality, childhood trauma), work (i.e. workload, clientele, organizational culture, organizational context, exposure to

stories of trauma), and supportive (i.e. wellness, self-care, clinical supervision, social support) factors (Pearlman & Saakvitne, 1995). Researchers have found that each of these factors alone has some influence on the development of vicarious traumatization; however, the literature reveals that each factor does not alone predict the development of vicarious traumatization in counselors working with traumatized clients (Bell et al., 2003; Bober & Regehr, 2005; Pearlman & Mac Ian, 1995). "Unfortunately, the literature has not yet provided a systematic theoretical framework for understanding the complex interplay of the therapist, client, and contextual factors" that influence the work and self of the therapist working with traumatized clients (Pearlman & Saakvitne, p. 8). Researchers have explored the influence of each of these constructs alone on vicarious traumatization; however, no exploration of the combined influence of these constructs has been studied.

Researchers have reported evidence the influence of various therapist, work, and supportive factors on vicarious traumatization (Bell et al., 2003; Brady et al., 1999; Bride, 2004; Pearlman & Mac Ian, 1995). Therefore, scholars have theorized that some counselors may be more susceptible to developing vicarious traumatization than others (Pearlman & Saakvitne, 1995). Many researchers focused on the influence of a counselor's experience of past trauma (i.e. childhood trauma) on vicarious traumatization. Literature regarding the influence of childhood trauma on vicarious traumatization is inconclusive; some studies report significant positive correlations (Bride, 2004; Pearlman & Mac Ian), while others report no relationship (Adams, Matto, & Harrington, 2001; Schauben & Frazier, 1995). Although a history of childhood trauma seems to contribute to the development of vicarious traumatization in some practitioners,

it does not alone explain its incidence. In fact, the literature describing the relationship between childhood trauma and vicarious traumatization is contradictory.

In addition to examining the influence of childhood trauma, Pearlman and Saakvitne (1995) proposed that organizational factors significantly contribute to practitioners' vulnerability or resilience toward developing vicarious traumatization. Based on this proposition, researchers have attempted to identify the influence various organizational factors have on the development of vicarious traumatization, including workload (i.e. collective work responsibilities), clientele (i.e. percentage of traumatized clients on caseload), administrative support, and organizational culture (i.e. expectations, values, and emotional climate) (Bell et al., 2003; Trippany et al., 2004). Because vicarious traumatization results from working with traumatized clients, much of the research on organizational factors focused on counselor workload and clientele. According to the literature, the counselor's caseload seemed to influence the development of vicarious traumatization (e.g. Bell et al.; Pearlman & Saakvitne; Trippany et al.). There is a gap in the literature regarding the influence of administrative support and organizational culture on the development of vicarious traumatization; however, the theoretical basis for the influence of these on the development of vicarious traumatization is strong (Bell et al., Neumann & Gamble, 1995; Pearlman & Saakvitne; Sexton, 1999). Theorists suggest organizational factors greatly impact the development of vicarious traumatization (McCann & Pearlman, 1990a; Pearlman & Saakvitne); however, researchers have not conducted studies to examine the influence of administrative support or organizational culture on vicarious traumatization.

The literature reveals that certain supportive factors seem to prevent vicarious traumatization. Theorists proposed both participation in clinical supervision and personal wellness may decrease the development of vicarious traumatization in practitioners. When first conceptualizing vicarious traumatization, McCann and Pearlman (1990a) suggested that participation in clinical supervision could mediate the development of vicarious traumatization in trauma counselors because it helps practitioners to avoid professional isolation, normalize their reactions to trauma work, and promote self-awareness (Pearlman & Mac Ian, 1995; Rosenbloom, Pratt, & Pearlman, 1999). Although scholars have theorized clinical supervision can mediate the impact of vicarious traumatization, there is little empirical research examining the relationship between participation in clinical supervision and the development of vicarious traumatization (Bober & Regehr, 2005; Hunter & Schofield, 2006; Pearlman & Mac Ian).

In addition to participation in clinical supervision, theorists proposed that personal wellness and self-care may prevent the development of vicarious traumatization (Bober, Regehr, & Zhou, 2006; McCann & Pearlman, 1990a). Pearlman and Saakvitne (1995) proposed a holistic wellness approach (i.e. including physical, emotional, cognitive, spiritual, and social aspects of wellness) helps to prevent and alleviate symptoms of vicarious traumatization in trauma workers. After examining individual aspects of wellness, various researchers concluded that counselors who reported participation in self-care or wellness activities were less likely to be impacted by vicarious traumatization (e.g. Bober et al.; Bride, 2004; Sexton, 1999). Although researchers have examined the relationships between certain wellness and self-care activities and vicarious traumatization (e.g. Bober et al.; Bride, 2004; Sexton, 1999), they have not examined the

influence of a holistic approach to wellness on the development of vicarious traumatization.

Since the initial description of vicarious traumatization by McCann and Pearlman (1990a), theorists have indicated a need to create a comprehensive model describing the relationships among personal trauma history, clinical supervision, personal wellness, and the organization on vicarious traumatization. Several researchers have examined the individual influences of these factors on vicarious traumatization; however, researchers have failed to develop an integrated model based on the constructivist self-development theory to determine the influence of personal trauma history, clinical supervision, personal wellness, and the organization on the development of vicarious traumatization. Currently, a comprehensive model of vicarious traumatization does not exist in the literature.

Knowledge of the strength and direction of the relationships among childhood trauma, personal wellness, supervisory working alliance, organizational factors (i.e. organizational culture and workload), and vicarious traumatization has implications for researchers, practitioners, and educators in the field of counseling. For example, if the model indicates a strong causal path between organizational culture or workload and vicarious traumatization, there will be implications for mental health organizations to help prevent vicarious traumatization in practitioners working with traumatized clients. Testing a comprehensive model of vicarious traumatization is consistent with the theoretical proposal by Pearlman and Saakvitne (1995) who call for a comprehensive approach to examining the influence of vicarious traumatization based on the constructivist self-development theory.

Purpose

The purpose of this study was to test a comprehensive model of factors contributing to vicarious traumatization in professional counselors. A path model was developed based on the constructivist self-development theory indicating that a combination of childhood trauma, clinical supervision, personal wellness, and organizational factors (i.e. organizational culture, workload) influence the development of vicarious traumatization in professional counselors. A hypothesized model was developed to explain the relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization and will be tested in this study. Path analysis was used to examine the overall fit of the model to the data as well as the hypothesized directional relationships between childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization (see Figure 1).

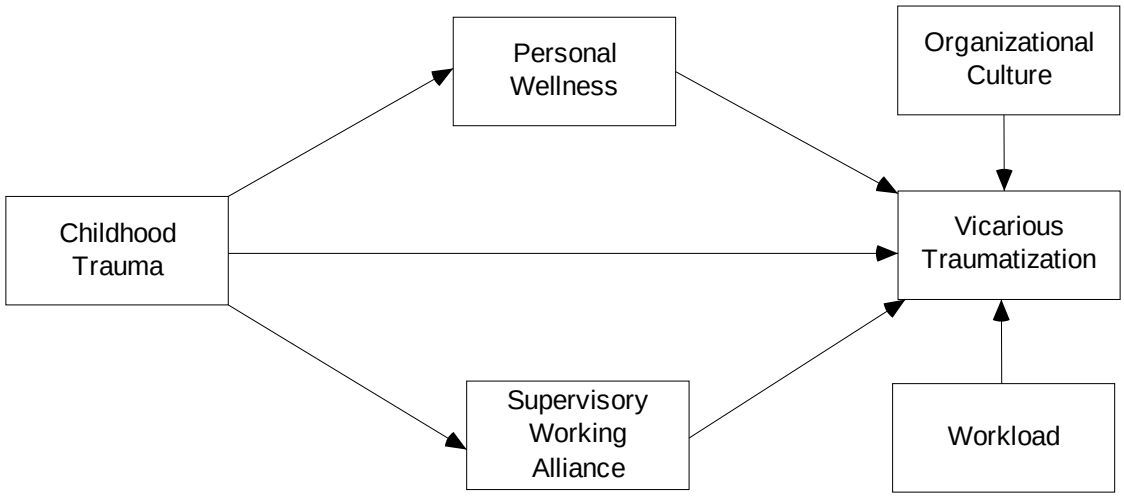

Figure 1. Path model: A comprehensive model for vicarious traumatization.

Research Questions

Q1 To what degree do the hypothesized relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization in the path model fit the data?

Q2 What are the direct effect of childhood trauma and the partial mediating impacts of supervisory working alliance and personal wellness on vicarious traumatization?

Q3 What is the direct effect of organizational culture on vicarious traumatization?

Q4 What is the direct effect of workload on vicarious traumatization?

Definition of Terms

Vicarious Traumatization

For the purpose of this study, vicarious traumatization was operationally defined as a unique construct from other forms of counselor impairment resulting from working with traumatized clients (e.g. countertransference, compassion fatigue, secondary traumatic stress, and burnout). Pearlman and Saakvitne (1995) broadly defined vicarious traumatization as "the transformation in the inner experience of the therapist that comes about as a result of empathic engagement with clients' trauma material" (p. 31). Vicarious traumatization refers to the impact of working with traumatized clients on the internal experience of the counselor rather than on external, observable symptoms. It describes the cognitive shift in practitioners resulting from working with clients' trauma material; this cognitive shift describes a practitioner's negative change in cognitions regarding self, others, and the world as a result of working with traumatized clients (Pearlman & Saakvitne; Way et al., 2007).

Childhood Trauma

Childhood trauma refers to a practitioners' experience of trauma in their past. Although trauma is broadly defined any event a person witnesses or experiences that involves "actual or threatened death or serious injury" (American Psychiatric Association, 2000), Pearlman and Saakvitne (1995) proposed a practitioner's experience of childhood trauma is more likely to result in the development of vicarious traumatization. Therefore, for the purpose of this study, personal trauma was defined as a practitioner's experience of physical abuse, emotional abuse, sexual abuse, physical neglect, or emotional neglect before the age of 18 years.

Personal Wellness

Personal wellness is defined holistically as a practitioners' physical, emotional, cognitive, spiritual, and social wellbeing. Personal wellness is not merely the absence of disease or psychopathology (Hettler, 1984; Myers & Sweeney, 2005a).

Clinical Supervision

Clinical supervision refers to a hierarchical relationship between a senior counselor and a more junior counselor (Loganbill, Hardy, & Delworth, 1982). The purpose of this relationship is to enhance the supervisee's professional development, monitor services provided by the supervisee, and attend to supervisee reactions to clients (Loganbill et al.; Pearson, 2000). The supervisory working alliance refers to the quality of the relationship between a supervisor and supervisee (Loganbill et al.).

Organizational Factors

Organizational factors refer to various aspects of the organization theorized to influence the development of vicarious traumatization, including workload (i.e. collective

work responsibilities) and organizational culture (i.e., nature of the work, pay, opportunities for promotion, administrative support, contingent rewards, communication, and support from co-workers; Bell et al., 2003; Pearlman & Saakvitne, 1995; Trippany et al., 2004).

CHAPTER II

LITERATURE REVIEW

In this chapter, literature regarding vicarious traumatization is synthesized and examined. Vicarious traumatization is differentiated from other forms of counselor impairment and distinguished as a unique form of impairment in professional counselors working with traumatized clients. The symptoms, impact, and prevalence of vicarious traumatization are examined. The influence of various factors (i.e. organizational factors, clinical supervision, personal wellness, and childhood trauma) on vicarious traumatization in professional counselors is described. Theoretical writings and empirical research on vicarious traumatization are summarized and examined in this review.

The Unique Nature of Trauma Work

The nature of the counseling profession requires practitioners to be continually exposed to tragic stories of disempowerment, abuse, and trauma (Bride, 2004; Trippany et al., 2004). Those working with traumatized clients are continually exposed to graphic material and intrusive images of their clients' stories of trauma and must "bear witness to human suffering" on a regular basis (Figley, 1995; Pearlman & Saakvitne, 1995, p. 301, Trippany et al., 2004). Trauma can be broadly defined as an extreme event a person witnesses or experiences resulting in actual or perceived threat of serious injury or death to self or others (American Psychiatric Association, 2000). Pearlman and Saakvitne (1995) defined trauma as an experience, "associated with an event or enduring conditions," in which an individual experienced actual or perceived

bodily injury or an individual's inability to cope with or integrate the affective response associated with an extreme event (p. 60). An individual may experience trauma related to a singular event (i.e. sexual assault, physical assault, school violence, terrorist attack, natural disaster, automobile accident) or an enduring condition (i.e. childhood physical, emotional or sexual abuse, neglect, domestic violence, military combat; APA; Pearlman & Saakvitne; Trippany et al.).

The incidence of trauma in the United States is immense and pervasive. For example, an estimated one in four American women will experience a violent sexual assault within their lifetime (Heppner et al., 1995), and one in six women and one in ten men experience childhood sexual abuse (Ratna & Mukergree, 1998). Many clients seeking treatment in community mental health facilities have survived some type of traumatic event in their lifetime. According to Bride (2004), "between 82% and 94% of clients in mental health settings have experienced at least one trauma in their lifetime and 31% to 42% have experienced symptoms of posttraumatic stress" (p. 29-30). Due to the prevalence of trauma in the United States, most professional counselors will work with trauma survivors at some point in their professional lives (Bride; Trippany et al., 2004).

According to scholars, working with traumatized clients presents a unique set of challenges for practitioners (Knight, 2004; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). The trauma worker's empathic connection with the client is critical to the counseling relationship and subsequent therapeutic progress; however, this empathic connection leaves trauma workers affectively vulnerable (McCann & Pearlman; Pearlman & Saakvitne). This affective vulnerability may lead to trauma workers to experience symptoms similar to their survivor clients including intense feelings of fear,

helplessness, and lack of control (Figley, 1995; McCann & Pearlman; Sexton, 1999). Because of the intense nature of trauma work, trauma workers have an increased vulnerability to various forms of counselor impairment including substance abuse, affect numbness, countertransference, burnout, compassion fatigue, and vicarious traumatization (Bride, 2004; Figley; Pearlman & Saakvitne; Sexton; Trippany et al.).

Due to the unique challenges of trauma work, working with this population requires practitioners to receive specialized preparation, training, supervision, and ongoing professional support (Bell et al., 2003; Knight, 2004; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Over the past decade, accrediting bodies and professional organizations have emphasized the importance of trauma specific training for those working with traumatized clients (American Counseling Association: ACA, 2003; Council for Accreditation of Counseling and Related Educational Programs: CACREP, 2009). The CACREP 2009 Standards emphasize the importance of understanding the impact of trauma on practitioners, clients, and the counseling profession and require counselor education programs to provide trauma specific training in order to prepare students to work with this population. In addition, ACA's Task Force on Counselor Wellness and Impairment recommended practitioners working with traumatized clients seek trauma specific training and supervision throughout their professional careers in order to manage the unique challenges of working with this population (ACA). Over the past 30 years, the unique nature of trauma work has been highlighted in the literature. Practitioners working with trauma experience a unique set of challenges and need to receive ongoing trauma specific preparation, training, and

supervision in order to manage these challenges (Bride, 2004; Figley, 1995; Knight, 2004; McCann & Pearlman; Pearlman & Saakvitne; Sexton, 1999).

Overview of Vicarious Traumatization

Throughout the history of the counseling profession, theorists have described the personal impact of working with clients. The potentially negative impact of continued exposure to clients' trauma material has received increased attention in the literature over the past two decades (e.g. Figley, 1995; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). To describe the unique impact of working with traumatized clients on practitioners, McCann and Pearlman (1990a) introduced the term vicarious traumatization. Previously described forms of counselor impairment (i.e. burnout, countertransference, psychological abnormalities, and substance abuse) failed to encompass the unique manifestation of disruptive psychological effects on those working with traumatized clients (Pearlman & Saakvitne). All practitioners are affected to some degree by their work with traumatized clients (Figley; McCann & Pearlman); however, vicarious traumatization is a unique manifestation of this work that impacts the personhood of the counselor, including his or her belief system, worldview, psychological wellbeing, motivation, and affective responses (McCann & Pearlman; Pearlman & Saakvitne). This unique form of counselor impairment describes the psychological effects of working with traumatized clients.

Defining Vicarious Traumatization

After working with traumatized clients and seeing the impact of this work on practitioners, McCann and Pearlman (1990a) conceptualized vicarious traumatization to describe the cognitive shifts and disruptive psychological effects of trauma work.

Vicarious traumatization is a distinct form of counselor impairment, which describes the "transformation in the inner experience of the therapist that comes about as a result of empathic engagement with clients' trauma material" (Pearlman & Saakvitne, 1995, p. 31). Essentially, vicarious traumatization describes a shift in the internal experience and psychological wellbeing of practitioners working with traumatized clients. It encompasses the negative impact of trauma work on the psychological functioning and worldview of the practitioner, and describes changes in a practitioner's worldview, identity, values, philosophy of life, and sense of the world (as described by the constructivist self-development theory) as a result of prolonged exposure to clients' experiences of trauma (Pearlman & Saakvitne; Rasmussen, 2005; Way et al., 2007).

The negative impact of vicarious traumatization on a practitioner's psychological functioning and worldview result in both intra- and interpersonal difficulties (McCann & Pearlman, 1990a; Trippany, et al., 2004). Practitioners affected by vicarious traumatization experience dramatic shifts in their perceptions about themselves, others and the world. Vicarious traumatization negatively influences a practitioner's sense of safety in the world and sense of control over life situations (Pearlman & Saakvitne, 1995). For example, an affected practitioner may begin experience difficulty trusting people he or she previously trusted and feeling safe in previously unthreatening situations or environments (McCann & Pearlman; Trippany et al.). Due to the negative impact on the practitioner's sense of safety and trust, affected practitioners experience interpersonal difficulties as a result of their disrupted worldview. Changes in beliefs associated with vicarious traumatization often result in relational conflict and strained interpersonal relationships (Saakvitne & Pearlman, 1999). In order to understand vicarious

traumatization and its unique manifestation in practitioners, it is important to understand the constructivist self-development theory, which provides the theoretical basis for this phenomenon (McCann & Pearlman, 1990b; Pearlman & Saakvitne, 1995).

Constructivist Self-Development Theory

The constructivist self-development theory (CSDT) provides the theoretical foundation for vicarious traumatization and its unique manifestation in trauma workers (McCann & Pearlman, 1990a). CSDT is based on a constructivist foundation, which purports that individuals construct personal realities based on the development of perceptions or complex cognitive schemas used to interpret and make sense of life experiences (Pearlman & Saakvitne, 1995; Trippany et al., 2004). In the process of self-development, individuals recreate and restructure their realities and perceptions based on new life experiences (McCann & Pearlman). Thus, in order to adapt to the environment, individuals' beliefs, behaviors, and worldviews change based on new experiences (Trippany et al.). Individuals make sense of new life experiences (i.e. continued exposure to client's traumatic stories) by adapting their views of reality based on their underlying cognitive schemas, frame of reference, self-capacities, ego resources, and psychological needs (McCann & Pearlman, 1990b). Vicarious traumatization results when a practitioner's frame of reference, cognitive schemas, and psychological needs are challenged by continued exposure to clients' stories of trauma (McCann & Pearlman, 1990a).

An individual's frame of reference refers to his or her worldview, identity, and belief system; it provides the foundation for viewing and creating meaning regarding self and the world (McCann & Pearlman, 1990b; Pearlman & Saakvitne, 1995). It

encompasses the “framework of beliefs through which the individual interprets experiences” and includes an individual’s identity, spirituality, and worldview (Pearlman & Saakvitne, p. 62). Based on their frame of reference, individuals attribute meaning to life experiences in order to make sense of the world and their place in the world (Pearlman & Saakvitne; Trippany et al., 2004). When working with traumatized clients, counselors try to make sense of why their clients experienced trauma and their own personal reactions to the trauma based on their existing frame of reference (McCann & Pearlman, 1990a). A practitioner’s worldview, identity, and belief system may be challenged when he or she is unable to make sense of traumatic events based on his or her current frame of reference (Pearlman & Saakvitne; Saakvitne, 2002). For example, when practitioners identify with clients (through empathic engagement) who have experienced trauma, they may have difficulty making sense of these experiences and begin to feel vulnerable and unsafe in the world. A practitioner’s inability to make sense of the traumatic experiences of a client may result in disorientation, confusion, and difficulties in the therapeutic relationship (Trippany et al., 2004). Experiencing trauma, either personally or secondarily, inevitably impacts a practitioner’s worldview, identity, and spirituality (Pearlman & Saakvitne). In addition to changes in frame of reference, distortions in a practitioner’s cognitive schemas as a result of unmet psychological needs play a significant role in the development of vicarious traumatization (Pearlman & Saakvitne; Trippany et al.).

According to CSDT, cognitive schemas and psychological needs are related. Cognitive schemas include the individual’s expectations, assumptions, and beliefs regarding self and the world and are impacted by an individual’s attempt to meet his or

her own psychological needs (McCann & Pearlman, 1990b; Trippany et al., 2004). Individuals have five basic psychological needs including safety needs, esteem needs, intimacy needs, trust needs, and control needs (Baird & Kracen, 2006). Although each of these psychological needs is affected by trauma work, challenges to a practitioner's sense of safety and trust seem to be most vulnerable when working with traumatized clients.

A sense of safety and security in the world provide the foundation for an individual's psychological need for safety. Practitioners affected by vicarious traumatization experience anxiety, fearfulness, and vulnerability as a result of real or imagined threats to their sense of safety. Subsequently, these practitioners may become overly cautious or panicked as a result of feeling unsafe in the world (Trippany et al). In addition to safety needs, people have a psychological need to trust themselves and others (McCann & Pearlman). Practitioners' natural need to trust themselves and others makes them particularly vulnerable to vicarious traumatization; in fact, "the exposure to repeated client trauma shakes the trusting foundations upon which the counselor's world rests" (Trippany et al., p. 33). Disruptions in their ability to trust others may result in suspiciousness and increased feelings of vulnerability. Although not as central to the development of vicarious traumatization, the psychological needs of intimacy, esteem and control may also be challenged as a result of continued exposure to clients' stories of trauma. Intimacy, esteem, and control refer to an individual's need to feel connected to others, value themselves and others, and experience a sense of control (McCann & Pearlman; Pearlman & Saakvitne; Trippany et al.).

Psychological needs are universal and determine how an individual processes information from the environment (McCann & Pearlman, 1990b; Trippany et al., 2004).

Based on their psychological needs, people develop a set of cognitive schemas (beliefs about self, others, and the world; Pearlman & Saakvitne, 1995). These cognitive schemas provide a lens through which the individual views the world and subsequent life events (McCann & Pearlman; Pearlman & Saakvitne). Practitioners working with traumatized clients actively restructure and recreate their perceptions and realities based on the interaction between their personal psychological needs and clients' stories of trauma (Pearlman & Saakvitne). In response to continued exposure to details of clients' traumatic experiences, practitioners adapt their belief systems and worldviews to make sense and meaning of these events (McCann & Pearlman; Pearlman & Saakvitne). Changes in clinicians' cognitive schemas as a result of trauma work are often cumulative in nature; each new story of trauma reinforces negative psychological and cognitive changes (McCann & Pearlman; Pearlman & Saakvitne). For example, a practitioner may begin to believe people cannot be trusted after hearing a plethora of clients' traumatic experiences. She may then decide to protect herself from the pain her clients have experienced by not trusting others.

CSDT also describes aspects of the individual that may protect some practitioners from developing vicarious traumatization. An individual's self-capacities and ego resources may guard him or her from the negative impact of trauma work (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Self-capacities describe an individual's intrapersonal abilities that help him or her to maintain a coherent, consistent sense of self across time and situations. This allows practitioners to manage emotions and maintain a positive sense of self and interpersonal relationships (Trippany et al., 2004). Like frame of reference and psychological needs, self-capacities are susceptible to disruptions as a

result of vicarious traumatization; however, they may also protect practitioners from the negative impact of trauma work when practitioners are able to maintain a consistent sense of self despite continued exposure to clients' stories of trauma (Pearlman & Saakvitne). Similarly, ego resources may protect certain practitioners from the negative impact of trauma work. A individual's ego resources refer to his or her interpersonal abilities which help meet his or her psychological needs and include awareness of psychological needs, striving for personal growth, anticipating consequences, and establishing meaningful interpersonal relationships (McCann & Pearlman). Practitioners with strong ego resources are less susceptible to vicarious traumatization because of their increased ability to set boundaries and self-protect from the negative impact external stressors (Pearlman & Saakvitne; Trippany et al.). Those with established self-capacities and ego resources are less vulnerable to vicarious traumatization because they are less susceptible to changes in frame of reference and cognitive schemas as a result of continued exposure to stories of trauma.

According to CSDT, practitioners' responses to clients' stories of trauma differ based on their existing frame of reference, cognitive schemas, psychological needs, self-capacities, and ego resources (Trippany et al., 2004). Practitioners develop vicarious traumatization when they are unable to maintain a consistent sense of self and make sense of clients' traumatic stories based on their existing frame of reference (McCann & Pearlman, 1990a). The negative impact of vicarious traumatization has gained recognition in the mental health field over the past two decades as professional organizations have begun to recognize the impact of professional impairment on the helping professions (Stadler, Willing, Eberhage, & Ward, 1988).

Counselor Impairment

Although professional impairment has plagued the helping professions for centuries, the issue of professional impairment went unrecognized in the literature until the 1970s. Along with the wellness movement, professionals began to recognize the negative impact of professional impairment in the helping professions (Stadler et al., 1988). The American Medical Association (AMA) was the first professional organization to formally recognize and describe professional impairment (Stadler et al., 1988). According to the AMA, impaired physicians were described as those professionals who could not deliver competent care due to "alcoholism, chemical dependency, or mental illness" (Kempthorne, 1979, p. 24). Subsequently, the National Association of Social Workers (NASW) and the American Psychological Association (APA) recognized and described the negative impact of professional impairment in social workers and psychologists (Olsheski & Leech, 1996; Reamer, 1992; Stadler et al.). At the 1981 Annual Convention, APA held the first open forum on practitioner impairment where professionals identified "physical and emotional handicaps, alcohol and chemical dependencies, sexual intimacies with clients or students, mental illness, and suicide" as forms of practitioner impairment (Stadler et al., p. 66). It was not until 1988 that the field of counseling recognized counselor impairment when Stadler et al. proposed counselors were also susceptible to impairment. As a result of Stadler et al.'s proposal, the ACA formed the Task Force for Impaired Counselors in 1991 to describe the impact of practitioner impairment on the profession and develop recommendations to decrease this impact (ACA, 2003; Olsheski & Leech). Since the initial recognition of practitioner impairment, researchers and scholars have paid increased attention to the prevalence and

impact of counselor impairment on practitioners and clients (ACA; Emerson & Markos, 1996; Reamer).

Over the past two decades, scholars have described various forms of counselor impairment including vicarious traumatization, compassion fatigue, burnout, substance abuse, and other forms of psychological impairment including depression and anxiety (Bride, 2004; Figley, 1995; McCann & Pearlman, 1990a; Trippany et al., 2004). The ACA (2003) Task Force on Impaired Counselors broadly defined therapeutic impairment as anything that has a "significant negative impact on a counselor's professional functioning which compromises client care or poses the potential for harm to the client" (p. 1). Impaired counselors previously demonstrated clinical competence, which subsequently diminished due to life circumstances or experiences (ACA). Actions which compromise client care are not uninformed or malicious but directly result from the impaired physical, psychological, or emotional functioning of the practitioner (ACA; Stadler et al., 1988). In addition to defining counselor impairment, the Task Force on Impaired Counselors described the impact of impairment on the personal and professional lives of affected practitioners.

As a result of impairment, counselors often experience difficulties in their personal and professional functioning (ACA, 2003; Emerson & Markos, 1996). Impairment negatively impacts the physical, psychological, and emotional functioning of affected practitioners. Common manifestations of counselor impairment include substance abuse, depression, anxiety, personal crises, temporary emotional imbalance, burnout, and physical illness or distress (ACA: Emerson & Markos). In addition to personal difficulties, impaired practitioners experience significant impairment in their

professional functioning (ACA; Stadler et al., 1988). By definition, impairment results in compromised client care and client harm often resulting from interruptions in the practitioner's empathic abilities (ACA; Pearlman & Saakvitne, 1995). Counselor impairment negatively impacts the counseling relationship and often results in misdiagnosis, compromised therapeutic boundaries, and loss of commitment to the therapeutic process (ACA; Pearlman & Saakvitne; Sexton, 1999). Clearly, various forms of counselor impairment negatively impact the practitioner, client, and counseling profession (ACA; Stadler et al.).

The Task Force on Impaired Counselors identified vicarious traumatization as a form of counselor impairment (ACA, 2003). Although similar to other forms of counselor impairment, McCann and Pearlman (1990a) described vicarious traumatization as a unique manifestation of trauma work on practitioners. With its basis in the constructivist self-development theory and work with traumatized clients, vicarious traumatization is a unique construct which conceptually differs from other forms of counselor impairment including countertransference, burnout, and compassion fatigue (Figley, 1995; McCann & Pearlman; Pearlman & Saakvitne, 1995).

Countertransference

Countertransference is a psychoanalytic term, which is broadly defined as a practitioner's personal, affective response to his or her client. In regards to counselor impairment, countertransference refers to a counselor's conscious or unconscious negative affective response to a particular client's emotional exposure based on past personal experiences. This affective reaction impedes the therapeutic process and prevents the practitioner from interacting therapeutically with the client (Cohen, 1952).

Countertransference reactions are felt within the context of a practitioner-client relationship and do not influence the practitioner's beliefs about self, others, and the world (Cohen; Pearlman & Saakvitne, 1995). Although vicarious traumatization also refers to a practitioner's negative affective response to a client's trauma material, it refers to the cumulative impact of doing trauma work on his or her belief system (Pearlman & Saakvitne; Trippany et al., 2004). Vicarious traumatization affects the counselor outside of counseling sessions and impacts all aspects of his or her life, whereas countertransference reactions are often limited to specific clients or counseling sessions (McCann & Pearlman, 1990a; Pearlman & Saakvitne; Trippany et al.).

Burnout

Like countertransference, burnout is a related yet distinct phenomenon from vicarious traumatization. Unlike other forms of counselor impairment, burnout can occur in any profession, tends to manifest itself over time, and refers to psychological stress and feeling overwhelmed (Dunkley & Whelan, 2006; Emerson & Markos, 1996). In the counseling field, burnout encompasses a practitioner's sense of physical and emotional exhaustion in relation to job stress (Roach & Young, 2007). Often, burnout is related to job and organizational pressures rather than the specific impact of working with traumatized clients and can be mediated by job change or taking a vacation (ACA, 2003; Bell et al., 2003). Burnout is described as the broader impact of psychological stress related to working with traumatized clients and includes practitioners' feelings of emotional strain, professional isolation, and inadequacy; it refers to job related stressors that can occur across professions, whereas vicarious traumatization describes changes in

a practitioner's belief system as a direct result of working with traumatized clients (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995; Trippany et al., 2004).

Compassion Fatigue

Another form of counselor impairment most often confused with vicarious traumatization is compassion fatigue, also referred to as secondary traumatic stress. Figley (1995) proposed that "people not directly at risk in traumatic situations nevertheless can become traumatized – that knowing and especially treating someone who is traumatized is the systemic connector that links the traumatic feelings and emotions of the primary to the secondary victims" (p. xvi). Compassion fatigue refers to the development of symptoms of posttraumatic stress disorder (PTSD) in practitioners working with traumatized clients. As a result of their work with traumatized clients, practitioners experiencing compassion fatigue experience PTSD-like symptoms including intrusive imagery of the traumatic event, intense fear, avoidance, and hyperarousal (Figley). Although compassion fatigue and vicarious traumatization describe the potential negative impact of trauma work, these phenomena differ conceptually (e.g. Bride, 2004; Figley; Pearlman & Saakvitne, 1995). Counselors may develop compassion fatigue in response to working with one traumatized client, and PTSD-like symptoms may be related to a particular client's traumatic experience; whereas, vicarious traumatization results from continued exposure to clients' stories of trauma. In addition, compassion fatigue manifests in practitioners through symptoms similar to PTSD as a result of working with traumatized clients; vicarious traumatization refers to the impact of this work on a practitioner's frame of reference and cognitive schemas (Figley; Pearlman & Saakvitne).

Although confused with other forms of counselor impairment, vicarious traumatization is conceptually different than countertransference, burnout, and compassion fatigue. Despite the original authors' (of vicarious traumatization literature) distinction, subsequent theorists and researchers often fail to distinguish vicarious traumatization from other forms of counselor impairment (e.g. Nelson-Gardell & Harris, 2003; Sabin-Farrell & Turpin, 2003). In fact, Baird and Kracen (2006) described a lack of conceptual clarity in the literature distinguishing vicarious traumatization from other forms of counselor impairment including countertransference, burnout, and compassion fatigue. Although there is a lack of conceptual clarity in the literature thus far, vicarious traumatization, with its basis in the constructivist self-development theory, is conceptually different from other forms of counselor impairment. For the purpose of this study, vicarious traumatization will be operationally defined as a unique construct from other forms of counselor impairment resulting from working with traumatized clients (i.e. compassion fatigue, secondary traumatic stress, and burnout). This distinction is necessary because factors contributing to vicarious traumatization differ from those contributing to other forms of counselor impairment (Pearlman & Saakvitne, 1995).

Impact of Vicarious Traumatization

Research examining the exact number of practitioners impacted by vicarious traumatization is limited due to confusion regarding what constitutes vicarious traumatization. Because many researchers failed to distinguish vicarious traumatization from other forms of counselor impairment (e.g. Nelson-Gardell & Harris, 2003; Sabin-Farrell & Turpin, 2003), there are few studies specifically examining vicarious traumatization and its impact on trauma workers. Data on the number of practitioners

affected by vicarious traumatization are not available and difficult to predict; however, theorists proposed all counselors working with traumatized clients are impacted by continued exposure to stories of trauma (Pearlman & Saakvitne, 1995). McCann and Pearlman (1990a) described vicarious traumatization as a normal reaction to trauma work. Vicarious traumatization has been further described as an unavoidable, occupational hazard for trauma workers (Pearlman & Saakvitne). The literature on vicarious traumatization purports this phenomenon is an immense and pervasive problem among professional counselors working with traumatized clients (McCann & Pearlman; Pearlman & Saakvitne) and is a normal counselor adaption "to recurrent client-presented traumatic material" (Trippany et al., 2004, p. 32). Symptoms of vicarious traumatization are viewed as counselors' attempts to adapt and make sense of clients' traumatic experiences (Saakvitne & Pearlman, 1996).

Although the exact number of practitioners affected by vicarious traumatization is unknown, scholars have described the negative impact of vicarious traumatization on trauma workers as pervasive and potentially debilitating. In fact, vicarious traumatization affects a practitioner's "ability to live fully, to love, to work, to play, to create" (Pearlman & Saakvitne, 1995, p. 281). Practitioners suffering from vicarious traumatization often report a shaken sense of themselves and the world, which results in significant impairment in personal and professional functioning (McCann & Pearlman, 1990a; Pearlman & Saakvitne; Trippany et al., 2004; Way et al., 2007).

On a personal level, vicarious traumatization affects practitioners' psychological, cognitive, spiritual, physical, and interpersonal wellbeing (McCann & Pearlman, 1990a; Rasmussen, 2005; Way et al., 2007). As a result of continued exposure to client's stories

of trauma and "bear[ing] witness to human suffering" (Pearlman & Saakvitne, 1995, p. 301), practitioners' beliefs about themselves, others, and the world are challenged (McCann & Pearlman; Rasmussen; Trippany et al., 2004). When practitioners' beliefs about self, others, and the world are challenged, they often develop an increased awareness of their own personal vulnerability, which may cause them to feel unsafe in the world, confused, angry, sorrowful, helpless, depressed, and disengaged (Pearlman & Saakvitne; Saakvitne & Pearlman, 1996). Intrapersonal challenges associated with vicarious traumatization (i.e. changes in affective style and worldview) are coupled with interpersonal or relational challenges as a result of the practitioner's disrupted worldview and belief system (Pearlman & Saakvitne; Saakvitne & Pearlman). Interpersonally, affected practitioners tend to be less emotionally available to or trusting of others, resulting in strained interpersonal relationships (McCann & Pearlman; Saakvitne & Pearlman; Trippany et al.). Feelings of increased vulnerability associated with vicarious traumatization may cause once trusting practitioners to begin to doubt the goodness of the world and other people, often resulting in either increased dependence on or distance from significant others (Pearlman & Saakvitne; Trippany, et al.). In addition to the intra- and interpersonal difficulties the practitioner experiences, vicarious traumatization also negatively impacts the affected practitioners' professional functioning.

Vicarious traumatization not only affects the counselor's personal life but also the counseling process. Due to interpersonal difficulties experienced by affected practitioners, the therapeutic relationship is consequently affected. Practitioners suffering from vicarious traumatization often experience an interruption in empathic abilities and have difficulty maintaining a therapeutic stance (Pearlman & Saakvitne, 1995; Sexton,

1999; Trippany et al., 2004). Often, symptoms of vicarious traumatization cause the affected practitioner to avoid discussions of traumatic events, to prematurely push clients to reveal details of the traumatic events, or to become less emotionally available in counseling sessions (Trippany et al.). In addition to difficulties in the therapeutic relationship, vicarious traumatization results in practitioners' compromised therapeutic boundaries, misdiagnosis, diminished ability to attend to client needs, and loss of energy, optimism, and commitment (Pearlman & Saakvitne; Sexton; Trippany et al.). Symptoms of vicarious traumatization clearly impact the personal and professional lives of affected practitioners.

Although vicarious traumatization is a normal, adaptive response to working with traumatized clients, not all practitioners experience vicarious traumatization as a result of trauma work. Scholars have theorized that some counselors may be more susceptible to developing vicarious traumatization than others (McCann & Pearlman, 1990a; Saakvitne & Pearlman, 1996). Based on the constructivist self-development theory, Pearlman & Saakvitne (1995) proposed that the development of vicarious traumatization is influenced by a combination of therapist, work, and supportive factors.

Factors that Influence Vicarious Traumatization

The theoretical basis for this research study comes from Pearlman and Saakvitne's (1995) proposal based on CSDT that the development of vicarious traumatization is influenced by a combination of therapist (i.e. identity, worldview, spirituality, personal trauma history), work (i.e. workload, clientele, organizational culture, organizational context, exposure to stories of trauma), and supportive (i.e. wellness, self-care, clinical supervision, social support) factors. Specific factors identified

by scholars which influence the development of vicarious traumatization include organizational factors, supportive factors (including clinical supervision and personal wellness), and personal trauma history (McCann & Pearlman, 1990a; Pearlman & Saakvitne). According to theorists, the most influential factors on the development of vicarious traumatization include organizational factors, clinical supervision, personal wellness, and a history of childhood trauma (e.g. McCann & Pearlman; Pearlman & Saakvitne; Rosenbloom et al., 1999). Despite the theoretical importance of each of these constructs in the development of vicarious traumatization, the research examining each of these constructs is unequal. Although scholars proposed each of these factors influences the development of vicarious traumatization, researchers have failed to examine a comprehensive theoretical framework for the development of vicarious traumatization (Pearlman & Saakvitne). Due to the theoretical importance of each of these factors (McCann & Pearlman; Pearlman & Saakvitne), a comprehensive overview of what been examined regarding each of these factors will be further examined in this review.

Organizational Factors

Several organizational factors including organizational culture or context, organizational support, work environment, and workload or caseload influence the development of vicarious traumatization in practitioners working with traumatized clients (Bell et al., 2003; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Based on the work of Norcross and Prochaska (1986), which highlighted the role of organizational context on practitioner's stress level, Pearlman and Saakvitne proposed that organizational factors significantly contributed to practitioners' resilience or vulnerability toward developing vicarious traumatization. Much of the current empirical research

regarding organizational factors and counselor impairment focused on counselor burnout rather than vicarious traumatization (Jayaratne & Chess, 1984; Schulz, Greenley, & Brown, 1995); however, many of the research findings in this area apply to vicarious traumatization. Currently, only four empirical studies addressed specific organizational factors in relationship to vicarious traumatization (Brady, et al., 1999; Linley & Joseph, 2007; Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995). Much of the literature regarding organizational factors and vicarious traumatization is theoretical rather than empirical in nature (Bell et al., 2003; Pearlman & Saakvitne; Saakvitne & Pearlman, 1996).

Organizational culture or context refers to the expectations, values, and emotional climate of an organization (Bell et al., 2003; Pearlman & Saakvitne, 1995). Organizational emotional climate and values tend to be resistant to change and seem to permeate the history of most organizations. Specifically related to trauma work, organizational culture describes how practitioners are expected to experience and mange the personal and professional impact of trauma work (Bell et al.). Conceptually, when organizations are committed to normalizing the experience of symptoms related to vicarious traumatization, practitioners are empowered to express their experiences in a supportive environment rather than feeling ineffective and disempowered (Bell et al.; Pearlman & Saakvitne; Rosenbloom et al., 1999). A positive emotional climate provides a safe environment for practitioners to explore the personal and professional impact of trauma work (Hunter & Schofield, 2006; McCann & Pearlman, 1995a; Sexton, 1999). Organizational politics influence an organization's culture. Often, mental health agencies are negatively impacted by organizational politics and administrators who are not trained

as mental health professionals. Burnout researchers indicated practitioners working in mental health agencies were often more stressed than those working in private practice due to the impact of a negative organizational climate (Ackerly, Burnell, Holder, & Kurdek, 1988). A negative organizational climate and high level of stress may contribute to a practitioner's increased vulnerability to vicarious traumatization. Currently, researchers have not conducted empirical studies to describe the relationship between organizational culture and vicarious traumatization.

Conceptually, organizational support is related to organizational culture. An organization's culture is often impacted by the level of support provided for practitioners. Organizational support refers to the level of peer and administrative support a practitioner experiences (Bell et al., 2003). When organizations failed to create a supportive environment for counselors working with trauma survivors, theorists predicted they would experience an increased vulnerability to vicarious traumatization (Pearlman & Saakvitne, 1995; Sexton, 1999). A supportive organizational environment is predicted to create a place for practitioners to share and reflect on their experiences of working with traumatized clients (Pearlman & Saakvitne). According to Neumann and Gamble (1995), supportive organizations provided a supportive environment for practitioners to struggle with personal and professional difficulties experienced as a result of trauma work. Supportive organizations promoted self-care, provided flexible vacation time, recognized the value of training and education, and devoted time to managing organizational dynamics (Bell et al.; Neumann & Gamble; Trippany et al., 2004).

Without organizational support, practitioners tended to feel more isolated and helpless in their work with traumatized clients. Lack of organizational support predicted a

greater sense of personal and professional isolation and increased the likelihood of experiencing symptoms of vicarious traumatization as a result of trauma work (Bell et al., 2003; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995; Sexton, 1999). Promoting teamwork within the organization provided a supportive environment and a sense of shared responsibility for the burden of working with traumatized clients (Bell et al.; McCann & Pearlman). Although there are theoretical implications for organizational support, there is a gap in the literature regarding the relationship between organizational support and the incidence of vicarious traumatization.

Because vicarious traumatization results from working with traumatized clients, much of the research on organizational factors focused on counselor workload and exposure to traumatized clients (Brady et al., 1999; Pearlman & Mac Ian, 1995). Workload refers to the collective work responsibilities of the practitioner, including paperwork, meetings, trainings, supervision, administrative duties, and work with clients, whereas caseload and exposure to traumatized clients refer to the specific clients a practitioner encounters on a weekly basis (Bell et al., 2003). McCann and Pearlman (1990a) hypothesized that practitioners with more exposure to traumatized clients are more likely to develop vicarious traumatization because of the amount of exposure to trauma. On the other hand, having diverse caseloads enables practitioners to avoid developing a traumatic worldview by keeping stories of trauma in perspective (Bell et al.; Pearlman & Saakvitne, 1995). Rosenbloom et al. (1999) suggested organizations vary the types of cases each practitioner manages as well as types of work (i.e. evaluation, research, training, counseling, an clerical) in order to mitigate the impact of trauma work.

Researchers have conducted four empirical studies which describe the relationship between exposure to traumatized clients and vicarious traumatization (Brady, et al., 1999; Linley & Joseph, 2007; Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995). The most widely recognized and frequently cited studies are those conducted by Schauben and Frazier and Pearlman and Mac Ian. Pearlman and Mac Ian conducted a study to examine the effects of trauma work on counselors. They examined the influence of the length of time working with traumatized clients, current exposure to clients' trauma material, personal therapy, work setting, supervision, education, and personal trauma history on vicarious traumatization. The Trauma Stress Institute Belief Scale was used to measure vicarious traumatization. Based on the constructivist self-development theory, this instrument measures safety, self-trust, self-intimacy, self-esteem, and other-esteem. In relation to caseload, researchers reported a negative correlation ($r = -.22$; $p < 0.01$) between percentage of traumatized clients on a practitioner's caseload and views of self-trust, indicating only a small effect. Those with more traumatized clients on their caseloads reported lower levels of self-trust. According to this study, only levels of self-trust were influenced by caseload (Pearlman & Mac Ian).

Schauben and Frazier (1995) conducted a study to measure the effects of working with sexual violence survivors on female counselors. Researchers collected information regarding work information (i.e. percentage of traumatized clients, number of hours per week working with traumatized clients, and how many years working with survivors), counselor victimization history, vicarious traumatization, PTSD, negative affect, burnout, and coping strategies. Results indicated that counselors whose current caseload had a higher percentage of traumatized clients reported more disruptions in cognitive schemas

(r = .16; p<0.05) as indicated by the Trauma Stress Institute Belief Scale. Therefore, Schauben and Frazier concluded counselors with more exposure to traumatized clients experienced higher levels of vicarious traumatization.

Brady et al. (1999) designed a research study to examine the impact of working with traumatized clients on women psychotherapists. As a part of this study, researchers examined the influence of percentage of trauma survivors on current caseloads, number of survivors on current caseload, average number of survivors over career, percentage of survivors over career, and exposure to graphic details of trauma on the development of vicarious traumatization. They used the Trauma Stress Institute Belief Scale to measure vicarious traumatization, and participants self-reported percentages and numbers of traumatized clients. Effect sizes for each of these results were reported. According to one-way ANOVA results, researchers concluded no relationship between vicarious traumatization and percentage of trauma survivors on current caseload (R^2=.0070), number of survivors on current caseload (R^2=.0059), average number of survivors over career (R^2=.0004), percentage of survivors over career (R^2=.0000), or exposure to graphic details of abuse (R^2=.0026). This study indicated no statistically or practically significant relationship between vicarious traumatization and caseload (Brady et al.).

In their study, Linley and Joseph (2007) examined factors which positively impacted a practitioner's well-being. One factor examined was practitioner workload, which researchers operationally defined as hours per week spent with clients. Seemingly contrary to previous studies, Linley and Joseph concluded practitioners who spent more time per week with clients reported higher levels of personal growth (r = .23; p < 0.01) and positive psychological changes (r = .16; p < 0.05) than their counterparts who spent

less time per week with clients. Although these findings seem contrary to previous findings, a limitation of the study is researchers did not have subjects specify whether they were working with traumatized clients. Therefore, results could be a result of practitioners working with higher functioning clients and lacking exposure to stories of trauma. Empirical research examining the relationship between caseload and vicarious traumatization indicated some relationship between increased percentage of traumatized clients on a practitioner's caseload and vicarious traumatization (Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995).

According to the few studies conducted examining the relationship between organizational factors and vicarious traumatization, researchers have concluded practitioners with a higher percentage of traumatized clients on their caseloads experience more disruptions in cognitive schemas related to vicarious traumatization than their counterparts; however, these conclusions are based on small effect sizes, which lack practical significance (Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995). Studies examining the relationships between vicarious traumatization and other organizational factors believed to influence its development (i.e. work environment and organizational support) have not been conducted despite the vast call for such studies in the literature (Bell et al., 2003; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Currently, there is a lack of research describing the impact of organizational factors on the development of vicarious traumatization in professional counselors working with traumatized clients. Theorists predicted the impact of organizational culture and organizational support on practitioners' resilience or vulnerability to developing vicarious traumatization (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995; Rosenbloom

et al., 1999); however, there are no empirical studies to determine the impact of these factors on trauma counselors. In order to provide a comprehensive explanation of the development of vicarious traumatization, organizational factors including organizational culture, organizational support, and workload or caseload must be examined (Pearlman & Saakvitne).

Clinical Supervision

In addition to describing the impact of organizational factors on vicarious traumatization, scholars have recommended participation in clinical supervision to mitigate the potentially negative impact of trauma work. McCann and Pearlman (1990a) suggested that participation in clinical supervision could mediate the development of vicarious traumatization in trauma counselors. In fact, clinical supervision is essential to the prevention of vicarious traumatization as well as the healing process of practitioners already experiencing symptoms (Bell et al., 2003; Bober & Regehr, 2005; Knight, 2004; Pearlman & Saakvitne, 1995; Rosenbloom et al., 1999). Because of the healing and preventative nature of clinical supervision, trauma counselors have an ethical responsibility to participate in clinical supervision despite level of experience (Pearlman & Saakvitne; Trippany et al., 2004).

Various types of clinical supervision are utilized in the mental health field. Supervision theories are as diverse as counseling theories; however, most theories recognize the importance of the supervisory alliance or relationship (Pearson, 2000; Watkins, 1997). Clinical supervision, as opposed to peer supervision, is a hierarchal relationship between a senior counselor and a more junior counselor (Loganbill et al., 1982; Pearlman & Saakvitne). The relationship between supervisor and supervisee is

critical to the supervisory process, which serves to enhance the supervisee's professional development, monitor services provided by the supervisee, and attend to supervisee reactions to clients (Loganbill, et al.; Pearson; Saakvitne & Pearlman, 1996). In relation to trauma work, Pearlman and Saakvitne (1995) described essential components to supervision with trauma counselors, which included a solid theoretical understanding of the effects of trauma on practitioners and clients, a focus on the supervisory relationship, and providing a safe environment for supervisees to recognize and attend to countertransference and parallel process. Others have also recognized the importance of the supervisory relationship in alleviating the impact of trauma work, vicarious traumatization, and countertransference in clinical supervision (Knight, 2004; Pearlman & Mac Ian, 1995; Rosenbloom et al., 1999).

Quality clinical supervision often helps practitioners to avoid professional isolation, normalize their reactions to trauma work, and promote self-awareness. A healthy supervisory relationship creates a safe environment for practitioners to debrief and process reactions to clients' trauma material (Knight, 2004; Trippany et al., 2004). In order for trauma supervision to be effective, supervisors must foster an "atmosphere of respect, safety, and control for the therapist who will be exploring the difficult issues evoked by trauma therapy" (Rosenbloom et al., 1999, p. 77). This supportive environment provides a place for trauma workers to sort through beliefs and emotions regarding trauma work in order to avoid developing vicarious traumatization (Bell et al., 2003). In addition, clinical supervisors help to prevent professional isolation by normalizing the counselor's experience of symptoms of vicarious traumatization (Bell et al.; Pearlman & Saakvitne, 1995). In addition to emotional support, supervisors need to

teach counselors about vicarious traumatization in a respectful and supportive way. Education provided by supervisors in clinical supervision can not only normalize the effects of trauma work but increase counselors' sensitivity to the effects of vicarious traumatization in themselves and others (Bell et al.; Pearlman & Saakvitne).

Although experts have described a need for clinical supervision to decrease the impact of vicarious traumatization, there is little empirical research examining the relationship between participation in clinical supervision and the development of vicarious traumatization (Bober & Regehr, 2005; Hunter & Schofield, 2006; Knight, 2004; Pearlman & Mac Ian, 1995; Sommer & Cox, 2005). Few quantitative studies have examined this relationship, and those that have seemed to examine it as an afterthought (Bober & Regehr; Pearlman & Mac Ian). Pearlman and Mac Ian first studied the relationship between participation in supervision and vicarious traumatization in their study which examined the overall effects of trauma work on counselors. As a part of their study, researchers asked participants if they were currently participating in clinical supervision on a regular basis. Only sixty four percent of the 188 clinicians were participating in clinical supervision at the time. Participants who indicated they were not participating in clinical supervision reported higher levels of disrupted cognitive schemas associated with vicarious traumatization as indicated by higher scores on the Trauma Stress Institute Belief Scale. The specific correlation coefficient for clinical supervision and disrupted cognitive schemas was not reported in the study.

Similarly, Linley and Joseph (2007) examined the relationship between clinical supervision and positive well-being in practitioners. Participants were asked to respond yes or no to the question, "Do you receive formal supervision or support for your work as

a therapist?" (p. 392). Those actively participating in clinical supervision regarding their work with clients experienced greater levels of personal growth.

Bober and Regehr (2006) found no statistically significant relationship between participation in clinical supervision and vicarious traumatization. In this study, researchers examined strategies for reducing vicarious traumatization in practitioners working with traumatized clients. One limitation to this study is its failure to distinguish between secondary traumatic stress and vicarious traumatization; however, researchers used two different measures to assess these phenomena. The Traumatic Stress Institute Belief Scale was used to measure vicarious traumatization and the Impact of Events Scale was used to measure secondary traumatic stress. In order to determine the relationship between vicarious traumatization and supervision, only results from the Traumatic Stress Institute Belief Scale are examined. Researchers found there was no statistically significant relationship between participating in clinical supervision and scores on the Traumatic Stress Institute Belief Scale indicating no relationship between these constructs.

In addition to quantitative studies, researchers conducted qualitative studies in attempt to describe the relationship between vicarious traumatization and participation in clinical supervision (Hunter & Schofield, 2006; Sommer & Cox, 2005). Hunter and Schofield (2006) created a qualitative study to examine personal, professional, and organizational strategies trauma counselors implemented to cope with the impact of working with traumatized clients. Researchers inquired about participants' view of clinical supervision. They reported all participants described participation in clinical supervision as an important coping strategy. Participants indicated a positive supervisory

alliance, an opportunity to debrief and explore personal reactions to clients' stories, the supervisor's ability to balance positive and constructive feedback, and a sense of safety as essential components to effective clinical supervision (Hunter & Schofield). Pearlman and Saakvitne (1995) identified each of these aspects of supervision as essential to mediating the negative impact of trauma work on professional counselors.

Sommer and Cox (2005) designed a qualitative study to examine helpful qualities of supervision in decreasing vicarious traumatization from the perspective of the trauma counselor. Researchers identified several themes which emerged regarding clinical supervision. First, participants benefited from clinical supervision when allowed to discuss the difficulties associated with trauma counseling, and they also indicated feeling unsupported when they did not have the opportunity to address their reactions to trauma work in supervision. Therefore, it seems being able to talk about reactions to clients' trauma material in supervision was helpful for trauma counselors. Researchers indicated other helpful qualities of supervision included a positive supervisory alliance and the supervisor's ability to take multiple perspectives (Sommer & Cox).

Theorists' proposals of the importance of clinical supervision to help decrease the negative impact of vicarious traumatization are supported by qualitative and quantitative studies, which examined the relationship between clinical supervision and vicarious traumatization (Hunter & Schofield, 2006; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995; Sommer & Cox, 2005). Qualitative researchers concluded practitioners view clinical supervision as helpful in decreasing the negative impact of their work with traumatized clients. Maintaining a positive working alliance with their supervisors was critical to the prevention and management of the negative impact of trauma work for

interviewed practitioners (Hunter & Schofield, 2006; Sommer & Cox, 2005). Quantitative researchers found that participation in supervision was often helpful for counselors in reducing cognitive changes related to vicarious traumatization (Pearlman & Mac Ian, 1995); however, researchers have not explored how specific characteristics of supervision impact vicarious traumatization (i.e. supervisory relationship) using instruments to measure this construct. Generally, researchers concluded that participation in clinical supervision was critical for practitioners to prevent and cope with the negative impact of trauma work on their personal and professional lives. In order to provide a comprehensive explanation for the development of vicarious traumatization, the supervisory working alliance must be examined as factor which alleviates the negative impact of trauma work on practitioners (Pearlman & Saakvitne).

Wellness and Self-Care

Researchers and theorists have identified counselor wellness and self-care as essential to preventing the extreme negative effects of working with traumatized clients (Brady et al., 1999; Pearlman & Saakvitne, 1995; Saakvitne, 2002; Schauben & Frazier, 1995). In fact, many suggested counselor wellness is essential to alleviating the impact of vicarious traumatization on trauma counselors (Bell et al., 2003; Bober et al., 2006; O'Halloran & Linton, 2000; Pearlman & Saakvitne, 1995). Personal wellness and self-care enabled counselors working with traumatized clients to address and manage the potential negative impact of working with trauma (Bober et al.; Schauben & Frazier). "To balance the cost of bearing witness, [trauma counselors] need opportunities that allow [them] to turn away, to escape from harsh reality into fantasy, imagination, art, music, creativity, and sheer foolishness" (Saakvitne, 2002, p. 448). A focus on wellness required

practitioners to focus on balancing play, work, and rest in order to promote physical, emotional, cognitive, spiritual, and social wellbeing (Bell et al.; Pearlman & Saakvitne). Dedication to wellness and self-care helped to prevent and alleviate symptoms of vicarious traumatization in practitioners (Pearlman & Saakvitne).

In recent years, researchers have devoted more time to defining and examining the preventative benefits of wellness and self-care for professional counselors. Although the literature contains descriptions of various models of wellness (e.g. Hettler, 1984; Sweeney & Witmer, 1991), each of these models described a holistic view of the person of the counselor and described the importance of addressing physical, emotional, cognitive, spiritual, and social aspects of the counselor in order to prevent counselor impairment and burnout (Hettler; Pearlman & Saakvitne, 1995; Sweeney & Witmer). Practitioners who committed time and energy to each area of wellness built a foundation for preventing the development of vicarious traumatization and showed and increased ability to manage symptoms when they occurred (Bober et al., 2006; Pearlman & Saakvitne; Pearlman, 1999).

Physical wellness referred to the physical wellbeing of the practitioner and included nutrition, physical fitness, adequate sleep, and stress-management (Hettler, 1984; Myers & Sweeney, 2005a). Focusing on physical wellness resulted in increased mental functioning, positive affect, increased job performance, and decreased physiological reactions to stress (Sweeney & Witmer, 1991). In their study, Schauben and Frazier (1995) explored the impact of coping strategies on the development of vicarious traumatization. Researchers asked participants which coping strategies were most helpful in preventing the negative effects of trauma work, and the most common

coping strategies identified were those that promoted physical wellness (i.e. exercising, sleeping well, and nutrition). Over 35 percent of participants described the benefit of physical wellness activities in preventing the negative effects of trauma work. In their qualitative study examining coping strategies of trauma counselors, Hunter and Schofield (2006) found that most counselors identified physical activity as a coping strategy for managing the emotionally demanding nature of trauma work. Participants described that physical activity and wellness reduced the stress of trauma work. Although researchers indicated the importance of physical wellness in reducing the negative impact of vicarious traumatization (e.g. Schauben & Frazier; Hunter & Schofield), there is a gap in the literature describing the relationship between physical wellness and vicarious traumatization.

In additional to physical wellness, wellness researchers identified the importance of emotional wellness in healthy practitioners (e.g. Hettler, 1984; Myers & Sweeney, 2005a). Emotional or psychological wellness refers to an individual's ability to express and manage emotions effectively, authentically express emotions, engage in creative expression, maintain a sense of humor, and increase self-awareness (Hettler; Myers & Sweeney; Sweeney & Witmer, 1991). It is critical for practitioners to be aware of and express both positive and negative emotions. Researchers identified that suppressed negative emotions are destructive to an individual's well-being and may result in increased anxiety, depression, loneliness, and counselor impairment as well as decreased self-awareness and sense of humor (Sweeney & Witmer). Maintaining a sense of humor is described as critical for emotional and psychological wellbeing. Researchers have found humor reduces stress, creates flexibility in problem-solving, and improves

communication (Sweeney & Witmer; Witmer & Sweeney, 1992). Appropriate emotional expression, self-awareness, and a sense of humor appeared to be essential to psychological wellness in practitioners working with traumatized clients.

Each aspect of emotional wellness is critical for trauma workers to guard against vicarious traumatization (Pearlman & Saakvitne, 1995). In relation to trauma work, practitioners are required to develop an awareness to the emotional and psychological impact of working with traumatized clients, understand early warning signs of vicarious traumatization, and identify their own somatic signals of distress in order to be psychologically well (Bell et al., 2003; Pearlman & Saakvitne). Many emphasized the importance of self-awareness in guarding against vicarious traumatization (Bride, 2004; Pearlman, 1999; Pearlman & Saakvitne). In addition to self-awareness, it was hypothesized that practitioners who maintain a sense of humor in their personal and professional lives are better able to mange stress related to working with traumatized clients (Pearlman & Saakvitne; Saakvitne, 2002); however, Schauben and Frazier (1995) reported there was not a statistically significant correlation between sense of humor and disruptions in cognitive schemas associated with vicarious traumatization (r = -.13, $p>0.05$). Currently, there are no other research studies measuring the relationship between emotional or psychological wellness and vicarious traumatization.

Another area of wellness is cognitive or intellectual wellness, which is an individual's ability to think critically, continually acquire knowledge, and implement effective problem-solving techniques (Hettler, 1984; Sweeney & Witmer, 1991). Those who demonstrate cognitive wellness are open-minded, flexible thinkers, imaginative, and creative (Hettler; Witmer & Sweeney, 1992). Research on cognitive or intellectual

wellness in the social science field is lacking and has focused primarily on problem-solving abilities. Myers and Sweeney (2005a) explained that problem-solving ability is enhanced by intellectual stimulation, and those with effective problem-solving abilities experienced fewer irrational beliefs and a higher sense of control. Theoretically, practitioners who are intellectually well, able to implement problem-solving strategies, and demonstrate flexibility in thinking are less likely to experience cognitive distortions associated with vicarious traumatization (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995; Myers & Sweeney). Currently, researchers have not examined the relationship between intellectual wellness and vicarious traumatization.

Scholars broadly define spirituality as a person's core beliefs which assist him or her in creating a sense of meaning and purpose (Brady et al., 1999; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Spiritual wellness refers to an individual's ability to make meaning of life experiences, maintain a sense of hope, and hold a positive view of human nature (Myers & Sweeney, 2005a; Pearlman & Saakvitne; Witmer & Sweeney, 1992). Because vicarious traumatization causes disruptions in core beliefs and has the power to shatter a practitioner's belief system, a focus on spiritual wellness is necessary to decrease a practitioner's vulnerability to vicarious traumatization (Brady et al., 1999; Schauben & Frazier, 1995). Many have described a need for trauma workers to participate in activities which enhance spiritual wellness (e.g. Pearlman & Saakvitne; Trippany et al., 2004). In fact, Brady et al. asserted, "damage to one's spiritual life is one of the possible outcomes of vicarious traumatization and is considered by some to be the most dangerous threat to trauma therapists' well-being" (p. 387). Pearlman and Saakvitne

asserted that self-care strategies which address practitioners' spiritual needs are most helpful in protecting them against the development of vicarious traumatization.

Few researchers examined the relationship between spirituality and vicarious traumatization (Brady et al., 1999; Schauben & Frazier, 1995). Brady et al. conducted a quantitative study examining vicarious traumatization and spirituality. In this study, researchers measured a practitioner's experience of vicarious traumatization using the Trauma Stress Institute Belief Scale and spirituality using the Spiritual Well-being Scale. Researchers found a relationship between number of survivors on a practitioners caseload and spiritual well-being ($F = 9.94$; $p < 0.004$), percentage of survivors over a practitioners career and spiritual well-being ($F = 14.98$; $p < 0.004$), and practitioners' exposure to graphic details of trauma and spiritual well-being ($F = 9.94$; $p < 0.004$). Unfortunately, researchers did not correlate participants' scores on the Trauma Stress Institute Belief Scale and the Spiritual Well-Being Scale, so the relationship between spiritual wellbeing and vicarious traumatization were not measured (Brady et al.).

As a result of their qualitative research study, Schauben and Frazier (1995) reported a focus on spirituality is an important coping strategy in helping to prevent vicarious traumatization. When asked which coping strategies helped decrease the negative impact of trauma work, more than 35 percent of participants indicated spiritually-oriented activities helped to reduce the impact of trauma work. Spiritual-oriented activities were the second most common coping strategy utilized by participants (Schauben & Frazier). Although these studies addressed spirituality in relation to vicarious traumatization, they did not directly measure the relationship between these constructs.

Physical, emotional, cognitive, and spiritual wellness refer to intrapersonal wellness. In addition to these intrapersonal constructs, wellness scholars believe interpersonal wellness is critical to an individual's wellbeing (Hettler, 1984; Sweeney & Witmer, 1991). Interpersonal or social wellness referred to an individual's ability to connect with and feel supported by others (Myers & Sweeney, 2005a; Witmer & Sweeney, 1992). Practitioners who feel socially connected and supported are more able to manage stress and the impact of trauma work (Pearlman & Saakvitne, 1995; Schauben & Frazier, 1995). Theorists have suggested practitioners can avoid the potential negative effects of trauma work by intentionally focusing on interpersonal relationships (McCann & Pearlman, 1990a; Pearlman & Saakvitne).

Schauben and Frazier (1995) examined the relationship between emotional support (i.e. feeling supported by interpersonal relationships) and the experience of vicarious traumatization. Using the Traumatic Stress Institute Belief Scale to measure disrupted cognitions associated with vicarious traumatization, researchers found practitioners who experienced more emotional support experienced less distorted cognitions associated with vicarious traumatization ($r = -0.15$; $p < 0.05$). No other research studies have examined the relationship between vicarious traumatization and interpersonal wellness; however, theorists believe interpersonal self-care and wellness are critical to mediating the impact of vicarious traumatization in practitioners (Pearlman & Saakvitne, 1995).

Scholars suggested a holistic approach to wellness is essential to mitigating the impact of vicarious traumatization on trauma counselors (Hunter & Schofield, 2006; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Practitioners who devoted

time to wellness activities were less likely to experience negative symptoms related to counselor impairment, particularly vicarious traumatization (Brady et al., 1999; Schauben & Frazier, 1995). As a result of recent studies, researchers concluded physical wellness activities (i.e. exercise, nutrition, adequate sleep) and emotional support are essential to guarding against the potentially negative impact of trauma work (Brady et al.; Schauben & Frazier). In fact, practitioners who reported higher levels of social support experienced less distorted cognitions associated with vicarious traumatization. Although wellness models found in the literature described holistic views of personal wellness including physical, emotional, cognitive, spiritual, and interpersonal wellness (Hettler, 1984; Myers & Sweeney, 2005a), researchers have not examined the influence of a holistic approach to wellness on the development of vicarious traumatization. However, various scholars theorized a holistic approach to wellness may prevent the negative impact of working with traumatized clients (Bober et al., 2006; O'Halloran & Linton, 2000; Pearlman & Saakvitne, 1995). In order to provide a comprehensive explanation for the development of vicarious traumatization, a holistic approach to personal wellness must be examined as a factor which helps guard practitioners against the negative impact of trauma work (Pearlman & Saakvitne).

Childhood Trauma History

Unlike participation in clinical supervision and personal wellness, which seemed to protect practitioners from the negative impact of trauma work, a practitioner's experience of childhood trauma is theorized to result in an increased vulnerability to vicarious traumatization (Pearlman & Saakvitne, 1995; Saakvitne & Pearlman, 1996). "Therapists' own unresolved victimizations of early childhood experiences can contribute

to the process of vicarious traumatization" (McCann & Pearlman, 1990a, p. 146). Because listening to clients' stories of trauma can result in reawakening memories and intense emotions for trauma counselors, practitioners with a personal history of trauma may be more susceptible to vicarious traumatization (Pearlman & Saakvitne). Listening to stories of trauma may stir the memory and personal pain associated with the practitioner's experience of trauma. When these memories and emotions are stirred, a practitioner's personal and professional boundaries are challenged, and he or she may experience reenactments of his or her own traumatic experiences in sessions (McCann & Pearlman; Pearlman & Saakvitne).

Although a history of childhood trauma may increase a practitioner's vulnerability to developing vicarious traumatization, it is not indicative of vicarious traumatization (McCann & Pearlman, 1990a); therefore, practitioners with history of childhood trauma are not destined to develop vicarious traumatization. Practitioners with unresolved traumatic experiences are believed to be more likely to develop vicarious traumatization; however, those who have completed personal therapy to resolve their own personal experiences of trauma may not experience the same vulnerability (Pearlman & Saakvitne). Despite the potential risk of a childhood trauma, those who have experienced trauma themselves may be more able to empathically engage with traumatized clients (McCann & Pearlman; Pearlman & Saakvitne). A history of childhood trauma has the potential to be either helpful or harmful when working with traumatized clients.

Due to the suggested increased vulnerability of survivor practitioners to developing vicarious traumatization, several empirical studies have examined the relationship between vicarious traumatization and childhood trauma (Pearlman & Mac

Ian, 1995; Schauben & Frazier, 1995; Way et al., 2007). In fact, most of the research on vicarious traumatization examined the relationship between personal trauma history and the development of vicarious traumatization. Results reported from these studies seem contradictory; some reported a statistically significant relationship between childhood trauma and disrupted cognitive schemas associated with vicarious traumatization (e.g. Pearlman & Mac Ian; Way et al.), while others reported no statistically significant relationship (e.g. Adams et al., 2001; Schauben & Frazier).

Pearlman and Mac Ian (1995) designed a quantitative study to examine the effects of trauma work on practitioners working with traumatized clients. In order to measure cognitive disruptions associated with vicarious traumatization, researchers gave participants the Trauma Stress Institute (TSI) Belief Scale. The TSI Belief Scale measured practitioners' disrupted beliefs regarding safety, self-trust, other-trust, self-esteem, other-esteem, self-intimacy, and other intimacy. This measure is based on the constructivist self-development theory, and high scores indicate disrupted cognitive schemas related to vicarious traumatization. Researchers also asked participants if they had a history of childhood trauma. In their sample, 60 percent of participants indicated a history of childhood trauma. According to MANOVA results comparing those with a trauma history to those without a trauma history on each of the subscales of the TSI Belief Scale, practitioners who indicated a trauma history reported statistically significant higher scores on five of the seven TSI Belief Scale subscales. Those with a trauma history reported higher levels of cognitive disruptions on the subscales of safety ($F = 5.25$, $p < 0.05$), self-trust ($F = 5.48$, $p < 0.05$), other trust ($F = 5.61$, $p < 0.05$), self-esteem ($F = 5.71$, $p < 0.05$), and other intimacy ($F = 5.00$, $p < 0.05$). Therefore, researchers

concluded practitioners with a history of childhood trauma were more likely to experience disrupted cognitive schemas associated with vicarious traumatization than those without a history of childhood trauma (Pearlman & Mac Ian).

In a more recent quantitative study, Way et al. (2007) conducted a study to examine the relationship between various factors, including childhood trauma, on clinicians' cognitions about self-intimacy and self-esteem. Using the Trauma Attachment Belief Scale, a revised version of the Trauma Stress Institute Belief Scale, researchers measured the relationship between childhood trauma (i.e. sexual abuse, physical abuse, physical neglect, emotional abuse, physical neglect, emotional abuse, emotional neglect, and multiple forms of abuse) and disrupted cognitions about self-intimacy and self-esteem, which are both related to vicarious traumatization. Researchers reported no statistically significant relationship between childhood trauma and disrupted cognitions about self-esteem; however, emotional neglect was reported to be related to disrupted cognitions about self-intimacy ($t = 2.51$, $p = 0.0125$). According to this study, childhood trauma seemed related to disruptions in cognitions about self-intimacy and not to other cognitive disruptions related to vicarious traumatization (Way et al.).

Contrary to the previous two studies, Schauben and Frazier (1995) reported no statistically significant relationship between previous victimization and the development of vicarious traumatization in trauma workers. In this study, researchers examined the effects of trauma work on female trauma counselors. Vicarious traumatization was measured using the Trauma Stress Institute Belief Scale, and researchers asked participants if they had experienced prior victimization. Regression analyses indicated there was no statistically significant relationship between prior victimization and

vicarious traumatization. Similarly, Adams et al. (2001) reported no statistically significant relationship between trauma history and vicarious traumatization in practitioners working with traumatized clients. In this study, researchers defined trauma history as an "experience during childhood or adulthood of sexual abuse, rape, a violent crime, or witnessing violence" (p. 266) and measured disrupted cognitions associated with vicarious traumatization using the Traumatic Stress Institute Belief Scale. According to regression analyses, the relationship between previous victimization and vicarious traumatization was not statistically significant (Adams et al.).

Although the literature regarding childhood trauma history seems inconclusive and contradictory, theorists have identified mediating factors which may explain these seemingly contradictory results. Pearlman & Saakvitne (1995) suggested personal therapy, supervision, self-care, and wellness may mediate the impact of childhood trauma on practitioners working with traumatized clients. These mediating factors may prevent survivor therapists from an increased vulnerability to vicarious traumatization. In addition, each study defined personal trauma history differently, and only one utilized an instrument to assess this variable (Way et al., 2007). A personal history of trauma (i.e. childhood trauma) may influence the development of vicarious traumatization; however, supervision, personal therapy, self-care, and wellness may mediate the impact of past traumatic experiences on counselors working with traumatized clients. Scholars provided a theoretical basis for the increased vulnerability of practitioners with a history of childhood trauma for developing symptoms of vicarious traumatization (McCann & Pearlman, 1990a; Pearlman & Saakvitne); however, researchers' attempts to describe this

vulnerability empirically have resulted in contradictory results, which may be explained by some survivors' participation in supervision, personal therapy, and self-care activities.

Since the introduction of vicarious traumatization into the literature, authors have proposed that a combination of therapist, work, and supportive factors contribute to a practitioner's development of vicarious traumatization (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Researchers have investigated the impact of organizational factors, participation in clinical supervision, practitioner wellness, and childhood trauma on vicarious traumatization (Brady et al., 1999; Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995). Organizational factors related to vicarious traumatization include organizational culture, organizational support, work environment, and workload or caseload (Bell et al., 2003; Pearlman & Saakvitne). Supportive factors identified which may help prevent vicarious traumatization include participation in clinical supervision and self-care or wellness activities (McCann & Pearlman; Pearlman & Saakvitne; Trippany et al., 2004). On the contrary, authors and researchers indicated history of childhood trauma may increase a practitioner's vulnerability to vicarious traumatization (Pearlman & Mac Ian, 1995; Pearlman & Saakvitne; Way et al., 2007). There is evidence in the literature that each of these factors influences the development of vicarious traumatization.

A Comprehensive Theoretical Model of Vicarious Traumatization

Recent research supports the influence of various organizational, supportive, and personal factors on vicarious traumatization. Organizational culture, organizational support, work environment, workload and caseload comprise the organizational factors authors indicated may impact the development of vicarious traumatization in practitioners

working with traumatized clients (Bell et al., 2003; McCann & Pearlman; Pearlman & Saakvitne, 1995). According to the literature, organizational factors (i.e. organizational culture, organizational support, and workload) directly influence a practitioner's vulnerability or resilience toward developing vicarious traumatization (Pearlman & Saakvitne). Theorists proposed practitioners experience high levels of job satisfaction as a result of a positive organizational emotional climate and felt organizational support (Bell et al., 2003). There is some evidence to suggest a positive organizational emotional climate and organizational support will decrease a practitioner's vulnerability toward developing vicarious traumatization, whereas high workload (i.e. collective work responsibilities) will increase his or her vulnerability toward vicarious traumatization (Pearlman & Saakvitne; Trippany et al., 2004).

In addition to organizational factors, researchers have studied the influence of supportive factors on the development of vicarious traumatization. Supportive factors include participation in clinical supervision and counselor self-care or wellness (Pearlman & Saakvitne, 1995). Both quantitative and qualitative researchers concluded that practitioners who participated in clinical supervision and reported a positive supervisory relationship experienced a decreased vulnerability toward developing vicarious traumatization (Bober & Regehr, 2005; Hunter & Schofield, 2006; Pearlman & Mac Ian, 1995; Sommer & Cox, 2005). In addition to clinical supervision, researchers examined the impact of self-care strategies and wellness on vicarious traumatization. Conceptually, wellness researchers identified several components to wellness including physical, emotional, cognitive, spiritual, and social wellness (Hettler, 1984). Qualitative and quantitative researchers indicated wellness also helps decrease a practitioner's

vulnerability to developing vicarious traumatization as a result of working with traumatized clients (Brady et al., 1999; Hunter & Schofield, 2006; Schauben & Frazier, 1995).

Much of the research examining vicarious traumatization has attempted to describe the relationship between childhood trauma history and vicarious traumatization (Adams, et al., 2001; Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995; Way et al., 2007). The literature describing the relationship between vicarious traumatization and childhood trauma seemed contradictory; some researchers indicated a relationship between these constructs (e.g. Pearlman & Mac Ian) and others reported no statistically significant relationship (e.g. Schauben & Frazier, 1995). According to Pearlman & Saakvitne (1995), seemingly contradictory results could be a result mediating factors, which impact the development of vicarious traumatization in practitioners with a history of childhood trauma. Identified mediating factors include personal therapy, a positive supervisory working alliance, and self-care or wellness activities (Pearlman & Saakvitne).

According to the constructivist self-development theory, the development of vicarious traumatization is influenced by a combination of therapist, work, and supportive factors (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Since the initial description of vicarious traumatization by McCann and Pearlman, theorists have indicated a need for a comprehensive theoretical framework to describe the influence each of these factors on the development of vicarious traumatization in practitioners working with traumatized clients. Researchers indicated a combination of organizational factors (i.e. organizational culture, workload), clinical supervision (i.e. supervisory

working alliance), personal wellness, and childhood trauma influenced the development of vicarious traumatization in practitioners (Pearlman & Mac Ian, 1995; Pearlman & Saakvitne, 1995; Schauben & Frazier, 1995).

There is evidence that a practitioner's experience of childhood trauma may directly influence the development of vicarious traumatization; however, personal wellness and a positive supervisory working alliance may mediate the development of vicarious traumatization in practitioners who have experienced childhood trauma (Pearlman & Mac Ian, 1995; Pearlman & Saakvitne, 1995). There is further evidence that organizational factors (i.e. organizational culture, workload) may also directly affect the development of vicarious traumatization in practitioners (Brady et al., 1999; Linley & Joseph, 2007; Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995). According to the literature, a supportive organizational culture, personal wellness, and a positive supervisory working alliance are predicted to increase a practitioner's resilience toward developing vicarious traumatization, whereas a childhood trauma history and workload are predicted to increase a practitioner's vulnerability toward developing vicarious traumatization.

Researchers have failed to develop an integrated model based on CSDT to determine the influence of childhood trauma history, personal wellness, clinical supervision, and the organization on the development of vicarious traumatization. Based on the current literature, further investigation of the relationships among these variables is warranted in order to better understand the development of vicarious traumatization in practitioners working with traumatized clients. Using path analytic procedures to test a comprehensive, theoretical model describing the relationships between childhood trauma

history, personal wellness, supervisory working alliance, organizational culture, and workload is consistent with the literature that calls for an examination of factors influencing the development of vicarious traumatization in practitioners working with traumatized clients (Pearlman & Saakvitne).

CHAPTER III

METHODS

This chapter includes a description of the research design of the study. It details participants, variables, instruments, procedure, and data analysis that were used to conduct the study. The hypothesized model describing the relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization are also described.

Participants

Participants in the study represented a sample of practitioners working with traumatized clients in community mental health agencies in the Rocky Mountain region of the United States of America as designated by the Association for Counselor Education and Supervision (ACES; 2009). Community mental health agencies are comprised of a cluster of mental health practitioners who serve clients from the community. Pearlman and Saakvitne (1995) proposed that practitioners working in community agencies may be more likely to develop vicarious traumatization due to their inability to control organizational factors and caseloads. Unlike practitioners working in private practice, those working in community mental health agencies serve the entire community and cannot screen out clients based on the nature or severity of their presenting problem. Therefore, practitioners in community mental health agencies are likely to be more exposed to traumatized clients because of their inability to screen clients. Because community mental health agencies are community organizations, the

researcher surveyed practitioners from these agencies in order to measure all constructs in the path analysis model, including organizational factors.

The researcher utilized stratified sampling procedures to select a sample of practitioners working in community mental health centers in urban, suburban, and rural communities in the Rocky Mountain Region (Colorado, Idaho, Montana, New Mexico, Utah, Wyoming; ACES, 2009). Community mental health centers in the region were divided into three strata according to the size of community in which they are located (i.e. urban, suburban, or rural). For the purpose of this study, urban communities were those designated as "urban areas" by the United States Census Bureau (2002) with a population of more than 100,000 according to the 2000 Census. Suburban communities were those with a population of less than 100,000 according to the 2000 census and were located adjacent to or within 20 miles of an urban community. Rural communities were those with a population of less than 100,000 according to the 2000 Census and located greater than 20 miles from an urban community. After dividing community mental health centers in the region according to strata, the researcher then randomly selected community mental health centers from each stratum to participate in the study.

Once randomly selected, the researcher contacted the organization to inquire about surveying practitioners within the organization. The onset of vicarious traumatization requires practitioners to be continually exposed to stories of trauma, and practitioners who spend at least 50 percent of their time working with clients are more likely to be exposed to a variety of clients and to on-going stories of trauma. In order to participate in the study, practitioners must spend at least 50 percent of their time working with clients in a community mental health facility. Therefore, those in primarily

administrative or supervisory roles were excluded from the study due to their decreased exposure to stories of trauma. Because vicarious traumatization is a result of continued empathic engagement with traumatized clients, only practitioners who had a minimum of two years of clinical experience post master's degree were surveyed. As an incentive for the community mental health agencies to participate in the study, the researcher offered to provide a one-hour in-service on vicarious traumatization after administering the survey.

The researcher contacted a total of 33 randomly selected community mental health centers to participate in the study (8 urban, 10 suburban, and 15 rural) from the database of community mental health centers provided by the Substance Abuse and Mental Health Services Administration (SAMHSA, 2009). Several mental health facilities indicated they were unable to participate in the study at this time due to recent administrative and organizational changes (6 centers; 18.2%), practitioners' workload not accommodating the time needed to participate in the study (4 centers; 12.1%), and the study not being conducted by a current faculty member (one center; 3.0%). Additionally, nine centers (27.3%) were not included in the final sample because administrators failed to respond to the researcher's request for participation during the data collection period. Therefore, the final sample was comprised of practitioners from 13 community mental health centers in the Rocky Mountain Region of the United States of America (3 urban, 5 suburban, and 5 rural). The overall response rate of community mental health centers was 39.4 percent.

One hundred thirty four practitioners from the 13 community mental health centers volunteered to participate in the study. Of the 134 completed survey packets,

three were excluded from the data analysis due to missing data; therefore, the final sample size was 131 practitioners. The total completion rate of practitioners who volunteered for the study was 97.8% percent.

When using path analysis, a medium (N = 100 to 200) to large (N > 200) sample size is required for accurate parameter estimates (Kline, 2005). In path analysis, small sample sizes often result in unreliable, biased results (Hu & Bentler, 1995). A sample size of at least 100 is recommended when using this statistical method (Thompson, 2000) because smaller sample sizes are associated with higher sampling error (Kline). Because small sample sizes are problematic when using path analysis, many researchers suggested using medium to large sample sizes, between 100 and 200, to accurately estimate parameters and standard errors (MacCallum & Austin, 2000). Based on reviews of the literature, researchers recommended using a minimum of at least a 10:1 ratio (10 participants per free parameter in the path model) when using path analysis (Kline; Thompson). The hypothesized path model included 13 free parameters; therefore, a minimum sample size of 130 participants was recommended. Based on the literature and the recommended medium to large sample size when using path analysis, the overall sample size of 131 is considered a medium sample size and adequate to analyze the hypothesized model (Kline).

Variables

In path analysis, the path diagram or model is used to describe the hypothesized, causal relationships between measured or observed variables (Kline, 2005). Variables in the hypothesized model for this study included: (1) childhood trauma, (2) personal wellness, (3) supervisory working alliance, (4) organizational culture, (5) workload, and

(6) vicarious traumatization. The exogenous (independent) variables in the model were childhood trauma, organizational culture, and workload, and the endogenous (dependent) variables were personal wellness, supervisory working alliance, and vicarious traumatization. The model describes the hypothesized relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization (see Figure 1).

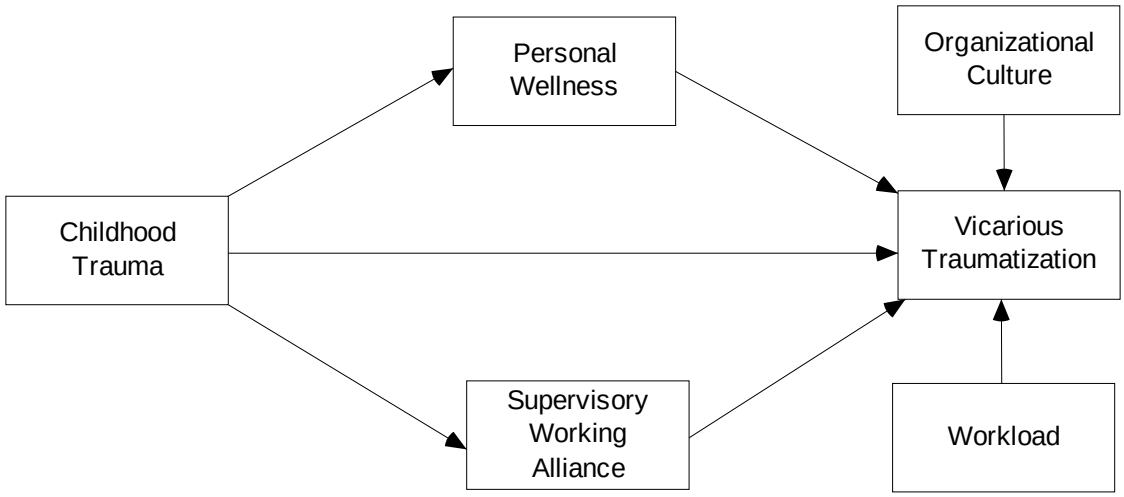

Figure 1. Path model: A comprehensive model for vicarious traumatization.

This path model describes the hypothesized direct and mediating effects of exogenous variables on endogenous variables in the model (Klem, 2000). The path model described the hypothesized relationships among variables and predicts that childhood trauma, organizational culture, and workload would have a direct effect on vicarious traumatization. It also predicted that personal wellness and supervisory working alliance would have a partial mediating effect on vicarious traumatization.

Research Questions

Q1 To what degree do the hypothesized relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization in the path model fit the data?

Q2 What are the direct effect of childhood trauma and the partial mediating impacts of supervisory working alliance and personal wellness on vicarious traumatization?

Q3 What is the direct effect of organizational culture on vicarious traumatization?

Q4 What is the direct effect of workload on vicarious traumatization?

Hypotheses

H1 The hypothesized relationships among variables in the path model will fit the data well.

H2 There will be a positive direct effect of childhood trauma and negative, partial mediating effects of personal wellness and supervisory working alliance on vicarious traumatization.

H3 There will be a negative direct effect of organizational culture on vicarious traumatization.

H4 There will be a positive direct effect of workload on vicarious traumatization.

Instruments

Trauma and Attachment Belief Scale

The Trauma and Attachment Belief Scale (TABS; Pearlman, 2003) was used to assess vicarious traumatization. TABS is an 84-item self-report questionnaire based on the constructivist self development theory used to describe vicarious traumatization. This instrument measures an individual's beliefs about self and others related to the five psychological needs (safety, intimacy, trust, control, esteem), which are commonly

altered as a result of exposure to trauma (Pearlman). Participants answer items on a 6-point Likert-type scale ranging from 1 (*Disagree Strongly*) to 6 (*Agree Strongly*). TABS results consist of 10 subscale scores as well as a total score. Subscales represent disruptions in beliefs about self and about others related to the five psychological needs. The subscales for the TABS are self-safety (i.e. “I believe I am safe”), other-safety (i.e. “I can’t stop worrying about others’ safety”), self-trust (i.e. “I don’t trust my instincts”), other-trust (i.e. “trusting people is not smart”), self-esteem (i.e. “I’m not worth much”), other-esteem (i.e. “I often think the worst of others”), self-intimacy (i.e. “I feel hollow inside when I am alone”), other-intimacy (i.e. “I don’t feel much love from anyone”), self-control (i.e. “I feel like I can’t control myself”), and other-control (i.e. “I often feel people are trying to control me”). Higher subscale and total scores indicate a higher disruption in beliefs about safety, trust, esteem, intimacy, and control; therefore, high levels of vicarious traumatization are associated with higher scores on each of the subscales and the total score.

The manual for TABS reported the test demonstrates internal reliability based on a study conducted with a nonclinical sample of 260 college students. The study yielded a Cronbach’s alpha value of .96 for the total scale, .83 for self-safety, .72 for other-safety, .74 for self-trust, .84 for other-trust, .83 for self-esteem, .82 for other-esteem, .67 for self-intimacy, .87 for other-intimacy, .73 for self-control, and .76 for other-control (Pearlman, 2003). The same study yielded a test-retest correlation of .75 for the total score, .72 for self-safety, .73 for other-safety, .70 for self-trust, .79 for other-trust, .69 for self-esteem, .72 for other-esteem, .74 for self-intimacy, .60 for other-intimacy, .76 for self-control, and .66 for other-control for test-retest intervals ranging from one to two weeks.

According to the author, the lowest internal consistency score of .67 for the self-intimacy subscale is offset by good test-retest reliability (.74) and factor-analytic evidence for creating a separate subscale for this construct. The Cronbach's alpha reliability estimate for the total score in the present study was .95.

Pearlman (2003) provided evidence for the validity of the instrument. The author first reported face validity of the instrument because items on the instrument directly ask respondents about their beliefs in the five psychological needs areas (safety, trust, esteem, intimacy, and control). Additionally, the author provided an argument for construct validity of the instrument through the use of interscale correlations, factor-analysis, and correlations with other instruments measuring similar constructs. The strongest evidence for construct validity provided in the manual are the significant correlations between the TABS and the Trauma Symptom Inventory.

Reliability and validity research on the current version of TABS is limited; however, this instrument is very similar to the 1994 version of the test the Traumatic Stress Institute Belief Scale–Revision L (TSI-BSL). Items on the TSI-BSL were revised for readability to form the current TABS instrument. When examining the reliability and validity of the former version of TABS, Jenkins and Baird (2002) reported a Cronbach's alpha score of .95 for the total score and .62 to .83 for the 10 subscales. In addition, authors reported concurrent and discriminant validity for the measure when correlated with other measures (Jenkins & Baird). Currently, TABS has not been used to examine vicarious traumatization in the literature because of the lack of empirical research in this area since this version of the instrument was published; however, the previous version,

the TSI-BSL, was commonly used to measure this construct. The total score on the TABS was used to assess vicarious traumatization in the hypothesized model.

Job Satisfaction Survey

To measure organizational culture, the researcher used the Job Satisfaction Survey (Spector, 1985). The Job Satisfaction Survey is a 36-item self-report survey designed to assess employee attitudes toward his or her job. Each of the questions requires the participant to rate their opinion regarding each of the statements on a 6-point Likert-type scale ranging from 1 (*Disagree Very Much*) to 6 (*Agree Very Much*). Approximately half of the items were written with positive language (i.e. "communications seem to be good within this organization,") and half were written with negative language (i.e. "I sometimes feel my job is meaningless"; Spector, pp. 708-711). Negatively worded items are inversely scored; therefore, higher scores indicate higher job satisfaction. Identified subscales of the instrument include pay (i.e. "I feel I am being paid a fair amount"), promotion (i.e. "there is really too little chance for promotion on my job"), supervision (i.e. "my supervisor is quite competent in doing his/her job"), benefits (i.e. "I am not satisfied with the benefits I receive"), contingent rewards (i.e. when I do a good job, I receive the recognition for it that I should receive"), operating procedures (i.e. many of our rules and procedures make doing a good job difficult"), coworkers (i.e. "I like the people I work with"), nature of work (i.e. I sometimes feel my job is meaningless"), and communication (i.e. "communications seem good within this organization") (Spector).

Internal consistency reliability scores were reported for each of the subscales and for the total score based on a normative sample of 2,870 (Spector, 1985). Reliability

coefficients (Cronbach's alphas) for the subscales were .75 for pay, .73 for promotion, .82 for supervision, .73 for benefits, .76 for contingent rewards, .62 for operating procedures, .60 for co-workers, .78 for nature of work, and .71 for communication and the coefficient for the total score was .91. In addition, test-retest reliability estimates were reported for a test-retest interval of 18 months and were .45 for pay, .62 for promotion, .55 for supervision, .37 for benefits, .59 for contingent rewards, .74 for operating procedures, .64 for co-workers, .54 for nature of work, .65 for communication, and .71 for the total scale. Lower test-retest reliabilities may be a result of an 18 month span between the test and retest. Many organizational changes likely occurred during this lengthy time span including layoffs, new administration, and reorganization (Spector). Based on reliability coefficient for the total score, the test seemed to reliably measure job satisfaction in employees in human service organizations. According to the present study, the Cronbach's alpha reliability estimate for the total score of the JSS was .92.

In order to determine discriminant and convergent validity of the instrument, the author employed a multitrait-multimethod analysis of the Job Satisfaction Survey and the Job Descriptive Index, an existing measure. Equivalent subscales from both measures had significant validity correlations, ranging from .61 to .80. Additionally, there were small to moderate correlations between subscales indicating discriminant validity of the subscales. According to Spector, the Job Satisfaction Survey seems to be a valid and reliable instrument for measuring job satisfaction. The total score on the JSS was used to assess organizational culture in the hypothesized model.

Quantitative Workload Inventory

The Quantitative Workload Inventory (QWI; Spector & Jex, 1998) was used in this study to measure workload, or the "perceived amount of work in terms of pace and volume" (Spector & Jex, p. 358). The QWI is a 5-item, self-report survey designed to asses a practitioner's perception of their workload. Practitioners rate their perception of their workload (i.e. "How often does your job leave you with little time to get things done?") on a 5-point, Likert-type scale ranging from 1 (*less than once per month or never*) to 5 (*several times per day*). Total scores on the scale range from 5, low level workload, to 25, high level workload. Spector and Jex indicated internal consistency reliability of the QWI and reported an average coefficient alpha of .82 across 15 studies. The Cronbach's alpha reliability estimate for the QWI in the present study was .80. The authors indicated that determining convergent and discriminant validity of this instrument is difficult due to the lack of other instruments measuring this construct (Spector & Jex). The total score on the QWI was used to assess workload in the hypothesized model.

Supervisory Working Alliance Inventory – Supervisee Form

Researchers designed the Supervisory Working Alliance Inventory (SWAI; Efstation, Patton, & Kardash, 1990) to measure the quality of the relationship in clinical counseling supervision. The instrument consists of a supervisor and a supervisee form. For this study, only the supervisee form was used to measure the supervisory relationship. The supervisee form is a 19-item, self-report questionnaire that measures the supervisee's perception of the supervisory relationship. Supervisees identify their perception of the quality of the supervisory working alliance by responding to a 7–point, Likert-type scale ranging from 1 (*Almost Never*) to 7 (*Almost Always*). A factor analysis

of the supervisee form identified the two subscales, which are rapport (i.e. “I feel comfortable working with my supervisor”) and client focus (i.e. “My supervisor helps me work within a specific treatment plan with my clients”).

Cronbach’s alpha coefficients were reported to demonstrate internal consistency of the instrument. Efstation et al. reported an alpha coefficient of .90 for the rapport subscale, .77 for the client focus subscale indicating adequate reliability for both subscales. According to the present study, the Cronbach’s alpha coefficient for the rapport subscale of the SWAI-Supervisee form was .95.

When compared to other established measures, the SWAI-Supervisee form demonstrated convergent and divergent validity. Subscales on the SWAI correlated with similar subscales on the Supervisory Styles Inventory (SSI) indicating convergent validity. In addition, authors reported some evidence for predictive validity for the subscales on the supervisee form of the instrument. The score for the rapport subscale on the SWAI-Supervisee Form was used to assess supervisory working alliance in the hypothesized model.

Five Factor Wellness Inventory – Form A

The Five Factor Wellness Inventory – Form A (5F-Wel-A; Myers & Sweeney, 2005b) was used in the proposed study to measure personal wellness. The 5F-Wel-A is a 73-item comprehensive measure of personal wellness based on a holistic, Adlerian view of optimal health (Myers & Sweeney). It was designed to measure optimal functioning (physical, mental and spiritual health) and enthusiasm for life. Participants answer items on a 4-point Likert-type scale ranging from 1 (*Strongly Agree*) to 4 (*Strongly Disagree*). The 5F-Wel-A results consist of five subscale scores and an overall wellness score.

Subscales include the creative self, the coping self, the social self, the essential self, and the physical self. Each subscale represents an essential component of personal wellness. The creative self subscale is comprised of 21 items and measures "the combination of attributes that each of us forms to make a unique place among others in our social interactions and to positively interpret our world" (Myers & Sweeney, p. 10). This subscale includes items that measure an individual's thoughts, emotions, perceived control, use of positive humor, and work satisfaction. The coping self subscale consists of 19 items intended to measure an individual's ability to cope with life events and "provide a means for transcending their negative effects" (Myers & Sweeney, p. 10). An individual's realistic beliefs, sense of self-worth, perception of stress management, and satisfaction with leisure activities are measured by this subscale. The 8-item social self subscale was designed to measure social support or interpersonal wellness; this subscale measures the perceived quality of one's intimate relationships and friendships. The essential self subscale consists of 15 items to measure an individual's ability to make meaning of life, others, and self. This subscale includes spirituality, gender identity, cultural identity, and self-care practices. Lastly, the 10-item physical self subscale was designed to measure physical wellness and functioning including nutrition and exercise (Myers & Sweeney).

The manual for the 5F-Wel-A reported the test is both reliable and valid. The 5F-Wel-A demonstrates internal consistency based on a five year study of 2,093 participants. Based on this sample, authors reported alpha coefficients of .98 for total wellness, .96 for the creative self subscale, .89 for the coping self subscale, .96 for the social self subscale, .95 for the essential self subscale, and .90 for the physical self subscale. Hattie, Myers,

and Sweeney (2004) also reported internal consistency scores and reported alpha coefficients of .94 for total wellness, .93 for creative self, .92 for coping self, .94 for social self, .91 for essential self, and .90 for physical self. According to these two studies, this measure demonstrates internal consistency for each of the 5 subscales and the overall score (Hattie et al.; Myers & Sweeney, 2005b). In the present study, the Cronbach's alpha reliability estimate was .93 for total wellness.

In addition, the authors claim convergent and divergent validity of the 5F-Wel-A factors (subscales) based on studies which found each of the factors ability to "discriminate among a variety of populations related to these variables" (Myers & Sweeney, p. 16). The total wellness score on the 5F-Wel-A was used to assess personal wellness in the hypothesized model.

Childhood Trauma Questionnaire

The Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) was developed to measure histories of abuse and neglect. It is a 28-item self-report survey designed to assess a history of childhood abuse or neglect. It does not measure the impact of the abuse or neglect, only its incidence in the individual's life. A five-point frequency scale is used to indicate the incidence of childhood abuse or neglect ranging from 1 (*never true*) to 5 (*very often true*). The CTQ consists of 5 subscales, which are emotional abuse (i.e. "I felt that someone in my family hated me"), physical abuse (i.e. "I was punished with a belt, a board, a cord, or some other hard object"), sexual abuse (i.e. "someone tried to make me do sexual things or watch sexual things"), emotional neglect (i.e. "I felt loved" – reverse scoring), and physical neglect (i.e. "I didn't have enough to eat") (Bernstein & Fink).

Internal consistency coefficients (Cronbach's alpha) are reported for each of the subscales were .89 for emotional abuse and emotional neglect, .82 for physical abuse, .92 for sexual abuse, and .66 for physical neglect (Bernstein & Fink, 1998). Bernstein et al. (1994) reported the initial reliability scores for the CTQ. Alpha coefficients for the subscales and total score were .94 for physical and emotional abuse, .91 for emotional neglect, .92 for sexual abuse, .79 for physical neglect, and .95 for the total score. Significant test-retest reliability coefficients for test-retest intervals ranging from 1.6 to 5.6 months were also reported as .79 for physical neglect, .80 for physical and emotional abuse, .81 for sexual abuse and emotional neglect, and .86 for the total score, suggesting respondents' reports of trauma remain consistent over time (Bernstein & Fink). The internal consistency coefficient (Cronbach's alpha) for the present study was .91 for the total score.

Research regarding the validity of the instrument seems to be mixed; however, the authors report adequate construct validity based on the exploratory factor analysis of 70 original items to reduce the scale to the current 28 items; however, some have found that the physical and emotional abuse subscales are highly correlated (Bernstein et al.; Bernstein & Fink). Bernstein and Fink reported content validity because the content domains were written to reflect the domains of childhood trauma described in the maltreatment literature. Overall, researchers reported adequate reliability and validity coefficients indicating it is an appropriate measure for assessing the incidence of childhood abuse and neglect (Bernstein et al.). The total score on the CTQ was used to assess childhood trauma in the hypothesized model.

Procedure

After receiving permission for the study from the institutional review board (IRB), the researcher used stratified sampling procedures to randomly select community mental health centers from the SAMHSA online directory of mental health centers in the Rocky Mountain region for participation in the study. Then, the researcher contacted, via telephone, the executive or training director of selected community mental health centers to explain the nature of the research and offered to provide an in-service training on vicarious traumatization. After the initial telephone contact, the researcher sent a letter to the executive or training director with additional information regarding the study, in-service, and researcher credentials. The researcher then made a follow-up phone call to determine the organization's willingness to participate in the study. Upon agreement to participate in the study, the researcher secured a date to go to the organization to administer the surveys and provide the in-service on vicarious traumatization. Clinicians from the organization who agreed to participate in the survey signed a consent form prior to participating in the study (Appendix A). Consent forms were collected separately from the survey packet to ensure confidentiality of participants. Participants were informed they could voluntarily withdraw from the study at any time, without penalty.

After giving consent to participate in the study, participants completed the self-report instruments included in the study. The survey packet completed by each participant was comprised of a demographics questionnaire (Appendix B) developed by the researcher as well as the following instruments: Trauma and Attachment Belief Scale, Job Satisfaction Survey, Quantitative Workload Inventory, Supervisory Working Alliance Inventory – Supervisee Form, Five Factor Wellness Inventory – Form A, and

Childhood Trauma Questionnaire. Surveys were administered to participants in random order to help control for score differences based on testing fatigue. Upon completion of the instruments, the researcher provided a one hour in-service on preventing and managing vicarious traumatization for employees of the community mental health center. Administrators, supervisors, and non-participating clinicians were invited to attend the in-service in addition to participants. Additional resources were provided to in-service attendees regarding managing the negative impact of trauma work.

Data Analysis

After collecting data from participants, the surveys were scored according to the appropriate procedures indicated by the instruments' instructions. Data from the scored instruments and the researcher developed demographics questionnaire were entered into the Statistical Package for Social Sciences 17.0 (SPSS) computer software. In order to describe the sample, demographic information was entered into SPSS 17.0 for data analysis. The frequency distributions for gender, race/ethnicity, highest degree earned, and license type and the means, standard deviations, and ranges for age, years of experience, number of clients of caseload, and percentage of traumatized clients were analyzed.

Scores from the instruments were then entered into SPSS 17.0 for preliminary data analysis. In order to test the path analytic assumption of multivariate normality, graphical procedures in SPSS were implemented (Thompson, 2000). Because univariate normality provides the foundation for multivariate normality, examining graphical distributions of individual variables in the model is an appropriate method to test for multivariate normality (Kline, 2005; Thompson; Weston & Gore, 2006). Path analysis

was conducted using LISREL 8.80 (J□reskog & S□rbom, 2008) to determine the overall fit of the hypothesized path model to the data as well as the directional relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization (Kline, 2005).

Path analytic procedures were used to analyze the data and test hypotheses. This statistically powerful technique is used to assess the "predictive ordering of measured variables" in a path model, which graphically describes the predicted causal relationships between measured variables (Klem, 2000, p. 227; Kline, 2005). Path analytic procedures are commonly used to assess model fit as well as the strength of causal relationships between measured variables (Klem; Kline; MacCallum & Austin, 2000). In order for the results of path analytic procedures to be theoretically meaningful and not data specific, the hypothesized model must be developed based on previous knowledge or theory (Klem; Kline; Weston & Gore, 2006), and the predicted directional relationships among variables must be determined a priori (Martens, 2005).

The path model for this study was developed a priori and has its theoretical basis in the constructivist self-development theory (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). According to CSDT, the development of vicarious traumatization is influenced by a combination of therapist (i.e. childhood trauma, personal wellness), work (i.e. organizational culture, workload), and supportive (i.e. personal wellness, supervisory working alliance) factors (Pearlman & Saakvitne). The hypothesized model described the theoretical relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization and predicted childhood trauma and workload would have a positive direct effect on vicarious

traumatization, organizational culture would have a negative direct effect on vicarious traumatization, and personal wellness and supervisory working alliance would have negative, partial mediating effects on vicarious traumatization (Figure 1). Alternative path analysis models were considered in the development of the hypothesized model; however, the literature did not provide strong enough support for an alternative model.

For this study, the weighted least squares estimation method was used to estimate path coefficients in the path model using LISREL 8.80. The weighted least squares estimation method is a "full-information method," which estimates all parameters in the model simultaneously (Kline, 2005, p. 159). The researcher used the weighted least squares estimation method because this method is recommended over other estimation methods when variables in the model are measured using ordinal data (i.e. Likert-type scales) rather than interval data (J□reskog, 2005; Kline). Solutions for this analysis were then standardized for easier interpretation.

In order to interpret the results, it is necessary to first assess how well the hypothesized model fits the data (Kline, 2005; Martens, 2005; Thompson, 2000). When using path analysis, assessing model fit with multiple fit indices is necessary because different indices measure different aspects of model fit (Kline; Martens). The researcher used the following fit indices to determine how well the model fits the data: model chi square (X^2), Bentler comparative fit index (CFI), incremental fit index (IFI), standardized root mean square residual (SRMR), and Steiger-Lind root mean square error of approximation (RMSEA). Kline recommended a minimal set of fit indices for all structural equation modeling analyses include X^2, CFI, SRMR, and RMSEA. Other researchers recommended using the CFI, IFI, SRMR, and RMSEA over other fit indices

because they are “less affected factors other than model misspecification” (i.e. sample size and model complexity) (Martens, 2005, p. 275). Therefore, these fit indices were appropriate for this study due to having a medium rather than large sample size (Kline, 2005).

The model chi square (X^2) was used to test for model misspecification (Weston & Gore, 2006) at a .05 alpha level. When using X^2, the researcher is testing the null hypothesis that the model fits the data well; therefore, a statistically significant X^2 results in the rejection of the null hypotheses indicating the model does not fit the data well (Kline, 2005; Thompson, 2000; Weston & Gore). The model X^2 is the most commonly reported fit statistic; however, it can be unreliable in predicting model fit because it is largely affected by sample size and not a good indicator of fit when data are ordinal (Kline; Martens, 2005).

The CFI and IFI were used to test the goodness of fit of the model. The CFI is recommended for use in all structural equation modeling procedures because of its ability to account for sample size (Hu & Bentler, 1999; Kline; Thompson, 2000). Scores for the CFI range from 0 to 1.0, with values closer to 1.0 indicating the model fits the data well (Hu & Bentler; Kline; Weston & Gore). In addition to the CFI, researchers recommended using the IFI to compensate for model complexity and sample size (Hu & Bentler; Martens, 2005). The IFI is a nonnormed fit index; therefore, scores can range from 0 to larger than 1.0, with values closer to 1.0 indicating the model fits the data well (Hu & Bentler). The researcher used the recommended cutoff score (for samples of less than 500 subjects) of $\geq .90$ for both the CFI and the IFI to determine model fit (Kline; Weston & Gore).

Additionally, the SRMR and RMSEA were used in this study to assess the badness of fit of the model (Kline, 2005). Most researchers recommended using the SRMR to assess badness of fit in conjunction with other fit indices (Martens, 2005; Kline; Weston & Gore, 2006; Hu & Bentler, 1999). In addition to the SRMR, the RMSEA was used to assess the badness of fit. Researchers recommended using RMSEA to compensate for model complexity (Hu & Bentler; Kline; Weston & Gore). Scores for the SRMR and RMSEA range from 0 to 1.0 with scores closer to 0 indicating better model fit (Kline; Thompson, 2000). In this study, the common cutoff criterion (for samples of less than 500 subjects) of $\leq .10$ was used for the SRMR and RMSEA (Kline; Thompson; Weston & Gore). All of the fit statistics (X^2, CFI, IFI, SRMR, and RMSEA) were used to determine the degree to which the data fits the hypothesized path model.

This study was conducted according to the research design described in this chapter. After receiving approval from the IRB at the University of Northern Colorado, the researcher followed the described procedures for sampling and data analysis. Using path analysis, the researcher tested the hypothesized path model describing the relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization using the recommended fit indices and cutoff scores.

CHAPTER IV

RESULTS

This chapter provides an overview of the results of the study. The results of preliminary data analyses are reported including demographic data describing the sample, descriptive data for each of the instruments, tests related to statistical assumptions, and correlations among variables in the path model. Then, results are reported for each of the research questions and corresponding hypotheses tested.

Preliminary Analyses

Demographic Data

The final sample was comprised of 131 practitioners working in urban (*n* = 41; 31.30%), suburban (*n* = 52; 39.69%), and rural (*n* = 38; 29.01%) community mental health centers across the Rocky Mountain Region of the United States of America. Each participant completed a researcher developed demographics questionnaire indicating her or his gender, race/ethnicity, age, highest degree earned, license type, years of clinical experience, number of client's on her or his current caseload, and the percentage of traumatized clients on her or his caseload. Of the 131 participants, 83 reported being female (63.36%) and 48 reported being male (36.64%). The majority of participants were Caucasian (*n* = 106; 80.92%), while others reported being Hispanic (*n* = 19; 14.50%), American Indian (*n* = 1; 0.76%), and Multiethnic/Multiracial (*n* = 2; 1.53%). Three participants (2.29%) indicated *other* for their racial/ethnic identity and did not further

specify their ethnicity. Participants ranged in age from 25 to 71 years (*M* = 42.18; *SD* = 11.00).

Of the 131 participants, most indicated they had earned a master's degree (*n* = 123; 93.89%) in their field of study. Additionally, seven (5.34%) participants indicated they had earned a doctoral degree and one (0.76%) an educational specialist degree in their perspective fields. Participants reported being Licensed Clinical Social Workers (*n* = 50; 38.17%), Licensed Marriage and Family Therapists (*n* = 11; 8.40%), Licensed Professional Counselors (*n* = 40; 30.53%), Licensed Psychologists (*n* = 7; 5.34%), or unlicensed professionals (*n* = 17; 12.98%).

Participants' years of clinical experience ranged from two to 33 years (see Table 1). The average number of clients on the caseload of professionals surveyed was 39.11 (*SD* = 25.87) and ranged from 8 to 126 clients. Participants reported that, of the clients on their current caseloads, an average of 50.2 percent of clients had experienced a significant trauma in their lifetime and had either a primary or secondary treatment goal of addressing the impact of this experience during the course of treatment (see Table 1).

Table 1

Demographic Data: Clinical Experience, Caseload, & Traumatized Clients

Variable	Mean	SD	Min	Max
Years of Clinical Experience	10.31	8.11	2	33
Current Caseload	39.11	25.87	8	126
Percentage of Traumatized Clients	50.20	28.82	5	100

Note. *N* = 131.

Instruments

In addition to the demographics questionnaire, participants completed a survey packet of six Likert-type, self-report surveys to measure each variable in the hypothesized model. The survey packet included instruments to measure vicarious traumatization (Trauma Attachment and Belief Scale, Pearlman, 2003), organizational culture (Job Satisfaction Survey, Spector, 1994), workload (Quantitative Workload Inventory, Spector & Jex, 1998), supervisory working alliance (Supervisory Working Alliance Inventory – Supervisee Form, Efstation et al., 1990), personal wellness (Five Factor Wellness Inventory – Form A, Meyers & Sweeney, 2005), and childhood trauma (Childhood Trauma Questionnaire, Bernstein & Fink, 1998). Descriptive statistics for each of the variables included in the hypothesized path model are described in Table 2. Participant responses for personal wellness, supervisory working alliance, organizational culture, and workload were negatively skewed, while childhood trauma and vicarious traumatization were positively skewed. Although variables in the model were skewed, the skewness of the variables was not considered severe (i.e. less than the absolute value of 3.0; Kline, 2005; Weston & Gore, 2006). Additionally, the direction of skewness for childhood trauma, personal wellness, supervisory working alliance, organizational culture, and vicarious traumatization were consistent with more socially desirable responses, which are common when using self-report instruments.

Table 2

Descriptive Statistics for Variables Included in the Hypothesized Model

	Childhood Trauma	*Personal Wellness*	*Supervisory Working Alliance*	*Organizational Culture*	*Workload*	*Vicarious Traumatization*
Mean	43.00	81.02	66.83	142.15	19.75	175.02
Standard Deviation	14.54	7.42	13.44	24.28	3.91	36.97
Minimum	25	58.9	23	67	9	113
Maximum	86	97.3	84	200	25	327
Range	61	38.4	61	133	16	214
Skewness	.97	-.37	-1.12	-.30	-.57	.91
Kurtosis	.38	-.15	1.07	.12	-.32	1.32
Likert Scale	1-5	1-4	1-7	1-6	1-5	1-6

Note. $N = 131$. The standard error for skewness was .21 for all scales. The standard error for kurtosis was .42 for all scales.

Instrument Cutoff Scores

The test manuals for the Job Satisfaction Survey (JSS; Spector, 1985), Quantitative Workload Inventory (QWI; Spector & Jex, 1998), and the Trauma Attachment and Belief Scale (TABS; Pearlman, 2003) provide information regarding total scale cutoff scores that may be used to aid in the interpretation of results. Information regarding cutoff scores for the instruments for the present sample is presented in Table 3.

Spector (1985) indicated that individuals whose total scores on the Job Satisfaction Survey were less than or equal to 144 were ambivalent or dissatisfied with

their jobs, whereas those whose scores were greater than 144 were satisfied with their jobs when responding to questions related to organizational culture. In the present study, 70 (53.44%) of participants reported being either ambivalent or dissatisfied with their current job, while 61 (46.56%) reported feeling satisfied with their current work environment.

The Quantitative Workload Inventory measures individuals' current workload (Spector & Jex, 1998). According to the cutoff scores reported in the test manual for the QWI, two participants (1.53%) reported low levels or workload, while 120 reported experiencing high levels of workload (n = 120; 91.60%). Thus, the majority of participants reported experiencing high levels of workload (i.e. feeling the need to work fast, not having adequate time to complete work tasks, etc.) compared to other professionals.

According to the test manual for the Trauma Attachment and Belief Scale, individuals whose total scores on the instrument were greater than or equal to 210 were experiencing clinically significant levels of cognitive distortions associated with vicarious traumatization (Pearlman, 2003). In the present study, 19 participants (14.50%) had total scores greater than 210, indicating they were experiencing significant levels of vicarious traumatization. Additionally, participants whose total scores were less than or equal to 146 (n = 32; 24.43%) did not report significant cognitive distortions associated with vicarious traumatization (Pearlman).

Table 3

JSS, QWI, and TABS Cutoff Scores

	Low Cutoff Score			High Cutoff Score		
	Score	*N*	%	Score	*n*	%
JSS	≤ 144	70	53.44	> 144	61	46.56
QWI	≤ 10	2	1.53	≥ 15	120	91.60
TABS	≤ 146	32	24.43	≥ 210	19	14.50

Note. $N = 131$ for the present sample.

Testing of Assumptions

Score reliability. Score reliability refers to "the degree to which scores are free from random measurement error" (Kline, 2005, p. 58). When using path analytic strategies to analyze data, it is important to have reliable scores (Kline; Weston & Gore, 2006). Often, score reliability is measured using Cronbach's coefficient alpha which measures the internal consistency of scores on items on an instrument (Kline). The Cronbach's coefficient alpha scores for this study are reported in Table 4. For the present study, the coefficient alphas ranged from .80 to .95. These scores are considered very good (≥ 0.80) to excellent (≥ 0.90) according to most standards and are sufficient for path analytic data analysis strategies (Kline, 2005).

Table 4

Reliability Information

Instrument	Number of Items	Cronbach's Alpha
Trauma and Attachment Belief Scale (Pearlman, 2003)	84	.95
Job Satisfaction Survey (Spector, 1994)	36	.92
Quantitative Workload Inventory (Spector & Jex, 1998)	5	.80
Supervisory Working Alliance Inventory (Efstation, Patton, & Kardash, 1990)		
S*upervisee Form – Rapport Scale*	12	.95
Five Factor Wellness Inventory – Form A (Myers & Sweeney, 2005b)	73	.93
Childhood Trauma Questionnaire (Bernstein & Fink, 1998)	28	.91

Note. N = 131 for all scales.

Multivariate normality. After examining the reliability of instruments used in the study, the researcher used graphical procedures in SPSS to test the path analytic assumption of multivariate normality. Although univariate normality differs from multivariate normality, it is difficult to "assess all aspects of multivariate normality" (Kline, 2005, p. 49). Therefore, scholars recommend assessing univariate normality as a foundation for determining multivariate normality because most violations can be detected through a thorough examination of univariate distributions (Kline; Martens, 2005; Thompson, 2000). Because univariate normality provides the foundation for multivariate normality, the researcher examined the graphical distributions, skewness,

and kurtosis of the individual variables in the model to assess multivariate normality (Martens; Thompson). The graphical distributions for each of the variables in the model appeared to be normally distributed as evidenced by graphs (i.e. histograms and box plots) that showed no extreme outliers and responses that were normally distributed about the mean; however, the distributions for the Childhood Trauma Questionnaire, the Supervisory Working Alliance Inventory, and the Trauma and Attachment and Belief Scale demonstrated minor skewness (see Table 2). Because path analytic procedures are considered robust, the results are not significantly impacted by minor to moderate levels of skewness (i.e. $\leq |3.0|$); therefore, the skewness of these scales was not severe enough to impact the path analytic procedure (Kline, 2005; Weston & Gore, 2006).

Correlations

A correlation matrix of the variables in the hypothesized path model was analyzed prior to conducting the path analysis. The scores for the Pearson product-moment correlations are presented in a correlation matrix in Table 5. Vicarious traumatization was significantly positively correlated with childhood trauma ($r = .36$, $p < 0.01$) and practitioner workload ($r = .22$, $p < 0.05$) indicating that practitioners who experienced childhood trauma and reported having a higher workload also reported higher levels vicarious traumatization. Additionally, vicarious traumatization was negatively correlated with personal wellness ($r = -.63$, $p < 0.01$), supervisory working alliance ($r = -.26$, $p < 0.01$), and organizational culture ($r = -.19$, $p < 0.05$). Therefore, practitioners who reported consistently engaging in activities to enhance personal wellness, experienced a stronger supervisory working alliance with their supervisors, and experienced higher job

satisfaction as a result of a positive organizational culture also reported lower levels of vicarious traumatization.

Other statistically significant correlations among variables in the model included negative relationships between childhood trauma and supervisory working alliance (r = -.23, $p < 0.01$), personal wellness and workload (r = -.25, $p < 0.01$), and organizational culture and workload (r = -.24, $p < 0.01$) and positive relationships between personal wellness and supervisory working alliance (r = .22, $p < 0.05$), personal wellness and organizational culture (r = .28, $p < 0.01$), supervisory working alliance and organizational culture (r = .49, $p < 0.01$), and childhood trauma and workload (r = .27, $p < 0.01$). Many of the relationships between variables in the model were statistically significant and considered small (≥0.10) to medium (≥0.30) effect sizes in counseling research; however, statistical significance may be a function of the large sample size required for path analytic procedures (Granello, 2007; Kline, 2005). Although variables in the model are correlated, the bivariate correlations among all variables are less than r = |.85|; therefore, the correlations do not violate the path analytic assumption of multicollinearity (Kline; Weston & Gore, 2006).

Table 5

Correlation Matrix for Variables in the Hypothesized Model

	1	2	3	4	5	6
1. Childhood Trauma	1.0					
2. Personal Wellness	-.16	1.0				
3. Supervisory Working Alliance	-.23**	.22*	1.0			
4. Organizational Culture	-.16	.28**	.49**	1.0		
5. Workload	.27**	-.25**	-.04	-.24**	1.0	
6. Vicarious Traumatization	.36**	-.63**	-.26**	-.19*	.22*	1.0

Note. $N = 131$. * indicates correlation is significant at $p \leq 0.05$ level. ** indicates correlation is significant at $p \leq 0.01$ level.

Research Question Results

Research Question One

Q1 To what degree do the hypothesized relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization in the path model fit the data?

It was hypothesized that the relationships among the variables in the path model would fit the data well. Results provided partial support for this hypothesis. The fit indices used to assess model fit were contradictory. The *badness of fit statistics* indicated the model did not fit the data well, whereas the *goodness of fit statistics* indicated good model fit.

In order to examine whether the hypothesized relationships among childhood trauma, personal wellness, supervisory working alliance, organizational culture, workload, and vicarious traumatization in the path model fit the data well, the researcher

estimated the path model using the weighted least squares estimation method in LISREL 8.0 (2006). In order to assess the overall fit of the path model, multiple fit indices were examined (see Table 6).

Table 6

Fit Indices

Fit Statistic	Score
Badness of Fit Statistics	
Model Chi Square (X^2)	25.41
Standardized Root Mean Square Residual (SRMR)	0.30
Steiger-Lind Root Mean Square Error of Approximation (RMSEA)	0.13
Goodness of Fit Statistics	
Bentler Comparative Fit Index (CFI)	1.00*
Incremental Fit Index (IFI)	1.10*

Note. N = 131. * indicates statistical significance.

The model chi square (X^2) was used to assess for model misspecification and was statistically significant (X^2 = 26.41, df = 12, p <0.05). This indicates the model does not fit the data well, as X^2 assesses *badness of fit*; however, X^2 is largely influenced by sample size and is not a good indicator of fit when data are ordinal (Kline, 2005). Therefore, it must be examined in conjunction with other fit statistics (Martens, 2005).

The standardized root mean square residual (SRMR) and the Steiger-Lind root mean square error of approximation (RMSEA) were examined in addition to the model chi square to assess the *badness of fit* of the path model. The SRMR for the model was

0.30 (greater than the recommended cutoff score of ≤.10 for samples of less than 500 participants) indicating poor model fit (Kline; Weston & Gore, 2006). Similarly, the RMSEA was 0.13, suggesting the model does not fit the data well. Each of the fit indices used to assess *badness of fit* (i.e. X^2, SRMR, and RMSEA) indicate the model is not a good fit.

The Bentler comparative fit index (CFI) and incremental fit index (IFI) are considered *goodness of fit* statistics and were used in conjunction with the *badness of fit statistics* to assess the overall fit of the model. The CFI, which assesses the model compared to a baseline or null model, was 1.0 for the tested model. This value is greater than the recommended cutoff score for samples of less than 500 of greater than 0.90, indicating the model is a good fit (Weston & Gore, 2006; Martens, 2005). Finally, the IFI assesses model fit while compensating for sample size; the IFI of 1.10 for this study indicates good model fit, as it is greater than the recommended cutoff score of 0.90 (Hu & Bentler, 1999). Both of the *goodness of fit* indices (i.e. CFI and IFI) indicate the model fits the data well.

According to Weston and Gore (2006) fit indices occasionally contradict and must be examined simultaneously. Although the *badness of fit* indices suggested the model does not fit the data well, the *goodness of fit* indices suggested the model was a good fit. Thus, examining the fit indices simultaneously suggests that certain aspects of the model fit the data well, while other aspects do not (Klem, 2000). When the results of the fit indices are contradictory, it is critical to examine the path coefficients in the model to determine which aspects of the model fit the data well and which do not (Weston & Gore, 2006).

The solutions for the path coefficients were standardized for easier interpretation (see Figure 2). The path coefficients as well as the direct and partial mediating effects of each variable in the model are examined in subsequent research questions.

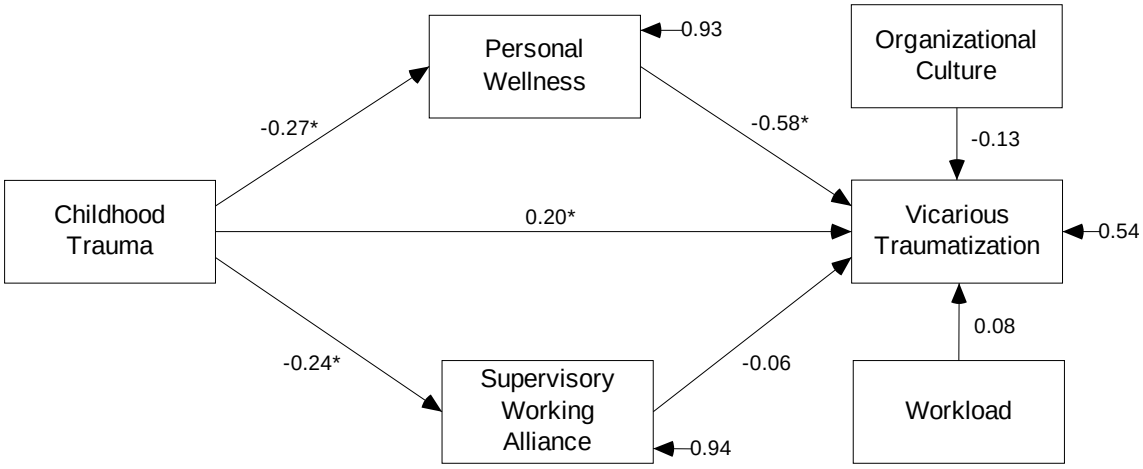

Figure 2. Path analysis results: A comprehensive model for vicarious traumatization. N = 131. Weighted least squares estimation method with standardized solutions. * indicates path coefficient is significant at the $p \leq 0.05$ level.

Research Question Two

Q2 What are the direct effect of childhood trauma and the partial mediating impacts of supervisory working alliance and personal wellness on vicarious traumatization?

It was hypothesized that there would be a positive direct effect of childhood trauma and negative, partial mediating effects of personal wellness and supervisory working alliance on vicarious traumatization. Results of the path analysis provided partial support for this hypothesis. Although the directions of the relationships between variables were consistent with the hypothesis, not all relationships among the variables were statistically significant (see Figure 2).

The direct effect of childhood trauma (0.20) and the partial mediating effect of personal wellness on vicarious traumatization (-0.58) were statistically significant. Personal wellness partially mediated the relationship between childhood trauma and vicarious traumatization. The partial mediating effect of supervisory working alliance on vicarious traumatization (-0.06); however, was not statistically significant. Consequently, childhood trauma and personal wellness influenced vicarious traumatization, while supervisory working alliance did not have a significant influence on vicarious traumatization when examined in conjunction with other variables in the model. The direct effect of childhood trauma and the partial mediating effect of personal wellness on vicarious traumatization are considered significant effects in the field of counseling (Kline, 2005). These results suggest that the direct effect of childhood trauma and the partial mediating effect of personal wellness are aspects of the model that fit the data well, whereas the partial mediating effect of supervisory working alliance is an aspect of the model that did not fit the data well.

Research Question Three

Q3 What is the direct effect of organizational culture on vicarious traumatization?

It was hypothesized that there would be a negative direct effect of organizational culture on vicarious traumatization. The results of the study did not support this hypothesis. The direction of the effect was consistent with the hypothesis; however, the direct effect of organizational culture on vicarious traumatization (-0.13, $p = .07$) was not statistically significant. These results suggest organizational culture is an aspect of the model that did not fit the data well (Kline, 2005; Weston & Gore, 2006).

Research Question Four

Q4 What is the direct effect of workload on vicarious traumatization?

It was hypothesized that there would be a positive direct effect of workload on vicarious traumatization. The results of the path analysis did not support this hypothesis. While the direction of the relationship was consistent with the hypothesis, the direct effect of workload on vicarious traumatization (0.08) was not statistically significant. According to the results, workload is an aspect of the model that did not fit the data well (Weston & Gore, 2006).

Amount of Variance Explained by the Model

Examining the squared multiple correlation coefficient (ΔR^2_{SMC}) for the endogenous variable indicates the proportion of total variance in each variable that is explained by the model (Kline, 2005). Results indicate the path model accounted for 46% of the variance in vicarious traumatization, which is considered a large effect and practically significant in field of counseling and education (≤0.35; Granello, 2007; Fan, 2001).

In this chapter, the results of the study were reported and included participant demographics, results of tests of statistical assumptions and results pertaining to each research question. The hypotheses associated with research questions one and two were partially supported, while the results for hypotheses associated with research questions three and four were not supported. Regarding the overall fit of the model, the results indicated that some aspects of the hypothesized model fit the data well, while other aspects did not. The direct effect of childhood trauma and the partial mediating effect of personal wellness were significant in the model, indicating these were aspects of the

model that fit the data well. On the other hand, the partial mediating effect of supervisory working alliance and the direct effects of organizational culture and workload were not statistically significant, thus representing aspects of the model that did not fit the data well. An overview of the results are provided in the next chapter along a discussion of the practical significance of results, implications for practice, limitations of the study, and directions for future research.

CHAPTER V

DISCUSSION

This chapter includes a discussion of the results, implications, and limitations of the study. The beginning of the chapter provides an overview of the results of the study. The statistical and practical significance of the findings are considered within the context of the current body of literature on vicarious traumatization. Based on the results, implications for practitioners, supervisors, counselor educators, and community mental health center administrators are presented. Finally, limitations of the present study and suggestions for future research are outlined.

Incidence of Vicarious Traumatization

Vicarious traumatization refers to the cognitive shift practitioners experience as a result of working with clients' traumatic material; this cognitive shift describes a practitioner's negative change in cognitions regarding self, others, and the world as a result of working with traumatized clients (Pearlman & Saakvitne, 1995; Way et al., 2007). Thus, a practitioners' experience of vicarious traumatization is measured by the level of cognitive distortions related to his or her sense of safety, trust, esteem, intimacy and control (Pearlman, 2003; Pearlman & Saakvitne). Although scholars have theorized that most practitioners are impacted by their work with traumatized clients and some have described vicarious traumatization as an unavoidable, occupational hazard (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995), it is difficult to identify the exact

number of practitioners impacted by vicarious traumatization because it develops on a continuum and does not have distinct diagnostic criteria (Pearlman, 2003).

According to Pearlman (2003), clinicians whose total score on the Trauma and Attachment and Belief Scale is greater than 210 are experiencing significant levels of cognitive distortions associated with vicarious traumatization (e.g., disrupted beliefs about self, others, and the world) when compared to a non-clinical standardization group. Of the 131 clinicians surveyed, 19 (14.5%) reported experiencing levels of vicarious traumatization that warrant clinical attention. An additional 65 (49.6%) practitioners' reported moderate levels of vicarious traumatization, whereas the remaining 47 (35.9%) reported not currently experiencing significant shifts in their worldviews and belief systems (Pearlman). Affected clinicians reported significant shifts in their worldview, belief system, identity, and memory system as a result of their work with traumatized clients (McCann & Pearlman; Pearlman & Saakvitne). These findings revealed that several clinicians providing services to clients reported levels of vicarious traumatization that warrant clinical attention and may negatively impact client care as a result of the potentially debilitating effects of vicarious traumatization.

Relevance of the Constructivist Self-Development Theory in Explaining Vicarious Traumatization

Prior to this study, researchers have not tested a comprehensive theoretical framework for vicarious traumatization based on the constructivist self-development theory (CSDT). Although research supports the influence of various organizational, supportive, and personal factors on vicarious traumatization, these factors have not been examined concurrently in the literature. The researcher used path analytic procedures to test a comprehensive theoretical model of vicarious traumatization. The results provided

insight into the impact of therapist, work, and supportive factors on vicarious traumatization. Based on the CSDT, the path model tested the effects of a combination of organizational factors (i.e. job satisfaction and workload), clinical supervision (i.e. supervisory working alliance), personal wellness, and childhood trauma on vicarious traumatization in practitioners working in community mental health centers.

Overall Model Fit

After testing the assumptions of path analysis (i.e., scale reliability, multivariate normality, and multicollinearity), the overall fit of the hypothesized model was tested. In order to determine the fit of the model, multiple fit indices were used which included indices to measure *badness of fit* (i.e. model misspecification) and *goodness of fit* (i.e. comparative fit). The results were contradictory as the *badness of fit* indices (i.e. X^2, SRMR, and RMSEA) suggested the model did not fit the data well while the *goodness of fit indices* (i.e. CFI and IFI) indicated good model fit. The insignificant *badness of fit* indices suggested model misspecification or that some aspects of the model did not fit the data well, while the statistically significant *goodness of fit* indices indicated the tested model was a better fitting model when compared to a null model.

When examining model fit, it is important to examine all fit indices simultaneously, as each index measures a different aspect of model fit (Klem, 2000; Kline, 2005). Occasionally, fit indices are contradictory, and their simultaneous evaluation suggests certain aspects of the model fit the data well while others do not (Klem; Weston & Gore, 2006). When the results of the fit indices are contradictory, it is critical to examine the path coefficients in the model to determine which aspects of the model fit the data well and which do not (Weston & Gore, 2006). Simultaneous

evaluation of the fit indices indicates the CSDT appears to have some relevance to explaining the development of vicarious traumatization in practitioners; however, it fails to provide a comprehensive explanation. When examining the relevance of the CSDT to vicarious traumatization, one must consider the overall variance explained by the model, the theoretical and practical significance of each of the constructs in the model, and the ability of the measures to accurately assess theoretical constructs.

Overall Variance Explained by the Constructivist Self-Development Theory

In addition to examining the overall fit of the model, it is important to evaluate the model by the proportion of overall variance explained in the endogenous variables in the model in order to determine its practical significance (Weston & Gore, 2006). According to the results of the path analysis, the CSDT explained 46% of the variance in vicarious traumatization. Although this is considered a large effect in the field of social sciences (Fan, 2001; Granello, 2007), each variable in the model must be examined in conjunction with the current literature because effect size alone does not determine the practical significance of results (Fan; Granello; Thompson, 2006). The relationships among each of the variables in the model are further examined within the context of the literature.

Relationships Among Variables in the Model

In order to determine which aspects of the model fit the data well, it is important to examine the path coefficients in addition to the overall fit of the model and amount of variance explained in the endogenous variables of interest. Weston and Gore (2006) indicated it is important to examine the path coefficients in conjunction with fit indices to identify aspects of the model that fit the data well and those that do not. When using path analysis, unreliable measures inflate path coefficients; however, when the reliability of all

of the scales used in the path model are good, the path coefficients may be used to assist in the interpretation of results (Kaplan, 2000). Because the Cronbach's alpha coefficients of the six scales used to assess variables in the model are considered very good to excellent (.80 to .95), examining path coefficients to assist in the interpretation of the model is appropriate (Kaplan). Additionally, the relative weight of the path coefficients can be interpreted because the solutions were standardized (Kline, 2005).

Childhood Trauma, Personal Wellness, & Supervisory Working Alliance

According to the CSDT, clinicians who have a history of childhood trauma are more susceptible to developing vicarious traumatization as a result of working with traumatized clients; however, this effect is partially mediated by personal wellness, self-care, and a strong supervisory working alliance (Pearlman & Saakvitne, 1995). Researching the relationship between childhood trauma and vicarious traumatization is not new; in fact, it is the most commonly studied relationship found in the literature. Previously, researchers reported a statistically significant relationship between childhood trauma and vicarious traumatization (e.g., Pearlman & Mac Ian, 1995; Way et al., 2007), while others found no relationship (e.g., Adams et al., 2001; Schauben & Frazier, 1995). To date, no studies have examined the partial mediating effect of personal wellness and supervisory working alliance on vicarious traumatization. The hypothesized model was designed based on the CSDT, which purports practitioners with a history of childhood trauma have an increased vulnerability towards developing vicarious traumatization, unless it is mediated by personal wellness practices (i.e. self-care) and supervision (i.e. a strong supervisory working alliance). Thus, the model tested the conceptual claim that a

history of childhood trauma effects the development of vicarious traumatization but may be partially mediated by personal wellness and a strong supervisory working alliance.

Results indicated that childhood trauma had a significant direct effect (.20) on vicarious traumatization. These results aligned with the CSDT and indicated that clinicians who reported a history of childhood trauma also reported higher levels of cognitive distortions associated with vicarious traumatization (Pearlman & Mac Ian, 1995; Way et al., 2007). Although there was also support for the partial mediating effect of personal wellness on vicarious traumatization (-.58), there was no evidence to support the partial mediating effect of supervisory working alliance on vicarious traumatization in the presence of childhood trauma (-.06). The results of the partial mediating effect of personal wellness and supervisory working alliance on vicarious traumatization only partially aligned with the CSDT, as personal wellness had a significant partial mediating effect, while supervisory working alliance did not.

Childhood trauma had a significant direct effect on vicarious traumatization. As suggested by the direction of the path coefficients, practitioners who experienced more severe levels of childhood trauma also experienced higher levels of vicarious traumatization. The positive direct effect of childhood trauma on vicarious traumatization is supported by the CSDT as well as findings reported by Pearlman and Mac Ian (1995) indicating that practitioners who reported a history of trauma also reported higher levels of cognitive distortions associated with safety ($F = 5.25$, $p < 0.05$), self-trust ($F = 5.48$, $p < 0.05$), other-trust ($F = 5.71$, $p < 0.05$), and other intimacy ($F = 5.00$, $p < 0.05$). Therefore, the direct effect of childhood trauma on vicarious traumatization is both practically and statistically significant.

Although childhood trauma was found to have a direct effect on vicarious traumatization, this effect was partially mediated by personal wellness. Practitioners who engaged in more personal wellness or self-care activities experienced decreased levels of vicarious traumatization in the presence of childhood trauma. Thus, personal wellness had a partial mediating effect on vicarious traumatization in practitioners' who experienced a history of childhood trauma. Practitioners who engaged more frequently in self-care and wellness practices as described by Myers and Sweeney (2005a) to promote wellness holistically also reported lower levels of cognitive distortions associated with vicarious traumatization. Additionally, childhood trauma had a negative effect on engagement in personal wellness activities or practitioner self-care strategies, which indicated that practitioners who reported more severe histories of childhood trauma often engaged in fewer activities to promote personal wellness.

A review of the literature revealed that no studies have been conducted to examine the effect of childhood trauma on vicarious traumatization with personal wellness and supervisory working alliance as partial mediating factors. This study was the first to examine the relationship between a holistic approach to personal wellness and vicarious traumatization. Findings are consistent with the CSDT, which indicated engagement in personal wellness practices decrease a practitioners' vulnerability toward developing vicarious traumatization and partially mediate the effect of childhood trauma on vicarious traumatization (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995). Although previous research has not been conducted examining the relationship between personal wellness and vicarious traumatization, the results of this study can be considered

both practically and statistically significant because the CSDT provided the theoretical basis for the hypothesized relationships in the model.

Based on the CSDT, supervisory working alliance was also predicted to have a partial mediating effect on vicarious traumatization. Supervisory working alliance and vicarious traumatization were significantly negatively correlated (r = -.26, p <.01), which suggested practitioners who experienced a stronger supervisory working alliance also reported lower levels of cognitive distortions associated with vicarious traumatization. Although these variables were correlated, supervisory working alliance did not have a statistically significant partial mediating effect on vicarious traumatization (-.06) when childhood trauma was present in the model. These results suggest that the supervisory working alliance does not partially mediate the effect of childhood trauma on vicarious traumatization, as suggested by the CSDT. Therefore, this was an aspect of the model based on the CSDT that did not fit the data well.

Although supervisory working alliance did not have a significant partial mediating effect on vicarious traumatization, significant correlations between supervisory working alliance and vicarious traumatization as well as the literature base suggesting that the supervisory working alliance is an important factor in decreasing a practitioners' vulnerability towards vicarious traumatization suggest this is an important construct when examining vicarious traumatization (e.g., Bober & Regehr, 2005; Hunter & Schofield, 2006; Pearlman & Mac Ian, 1995; Pearlman & Saakvitne, 1995). However, the supervisory working alliance may have a direct rather than a mediating effect on vicarious traumatization. Quality clinical supervision and a strong supervisory working alliance often help practitioners avoid professional isolation, debrief and process

reactions to trauma, and normalize the negative impact of trauma work (Knight, 2004; Pearlman & Saakvitne, 1995). These benefits provide a context for all practitioners to explore and mitigate the negative impact of trauma work, not only those who experienced childhood trauma (Bell et al., 2003; Pearlman & Saakvitne). As these benefits can be experienced by all practitioners, a strong supervisory working alliance may have a direct effect on vicarious traumatization in all practitioners, rather than simply mediating the effect of childhood trauma.

When conducting path analysis, it is important not to disregard the theoretical significance of a construct because its effect was not statistically significant in the model (Martens, 2005; Weston & Gore, 2006). Given the theoretical significance of the supervisory working alliance when examining vicarious traumatization, it is possible that the effect of this variable was not adequately represented in the present model as a partial mediating factor for childhood trauma. Theoretically, the supervisory working alliance provides a foundation for all practitioners to assuage the negative impact of trauma work, not only those with a history of childhood trauma. The strong theoretical significance of the supervisory working alliance suggests its relationship with vicarious traumatization be further examined rather than disregarded as a significant factor in decreasing a practitioners' vulnerability towards developing vicarious traumatization (Martens, 2005; Bober & Regehr, 2005; Pearlman & Saakvitne, 1995).

Organizational Culture

Although organizational constructs are emphasized in the CSDT literature and thought to effect the development of vicarious traumatization in practitioners, empirical research examining the relationship between organizational culture and vicarious

traumatization remains limited. Much of the research on organizational culture has focused on other forms of counselor impairment, including burnout (Jayaratne & Chess, 1984; Schulz et al., 1995). The purpose of examining organizational culture in this study was to provide an empirical foundation for the theorized effect of organizational culture on vicarious traumatization (Ackerly et al., 1988; McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995).

The direction of the effect of organizational culture and vicarious traumatization (-.13) was consistent with the literature, but the effect was not significant; therefore, it was an aspect of the model that did not fit the data well. Although the CSDT literature supported the inclusion of this construct in the model, organizational culture did not have a direct effect on vicarious traumatization. Based on these findings organizational culture does not significantly effect the development of vicarious traumatization; however, it has been found to influence the development of other forms of counselor impairment including burnout, psychological distress, and substance abuse (Jayaratne & Chess, 1984; Schulz et al.; Bell et al., 2003).

Although organizational culture did not have an effect on vicarious traumatization the descriptive statistics for organizational culture are of interest. When evaluating the culture of their organization, 53.4% (n = 70) of participants indicated they were either ambivalent or dissatisfied with their jobs, while 46.6% (n = 61) reported being somewhat to extremely satisfied. The organizational culture, organizational climate, practitioner caseload, and administrative support were variable among the organizations surveyed. However, the difference in organizational culture between organizations was not assessed because it was outside the scope of this study.

Additionally, the average score on the Job Satisfaction Survey indicated practitioners were not satisfied with the culture of their organization (M = 142.15, SD = 24.28) related to the nature of their work, pay, opportunities for promotion, contingent rewards, administrative support, communication, and relationships with coworkers. These findings are consistent with the literature, which indicated that practitioners employed in community mental health agencies are more stressed and dissatisfied with the organizational culture than practitioners who work in other settings (Ackerly et al., 1988).

Workload

The effect of workload on vicarious traumatization has received little attention in the literature although high levels of workload are thought to increase a practitioners' vulnerability towards developing vicarious traumatization according to the CSDT (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995; Schauben & Frazier, 1995). Although some studies have examined this relationship (e.g., Pearlman & Mac Ian, 1995; Schauben & Frazier), this study was the first to examine the effect of workload on vicarious traumatization using an instrument to measure practitioner workload.

Results of the path coefficient (.08) did not support the hypothesis that there would be a positive direct effect of workload on vicarious traumatization. The direction of the path coefficient was consistent with the hypothesis; however, the direct effect of this variable was not statistically significant. Although the positive direct effect of workload on vicarious traumatization was not significant in the tested path model, this variable remains theoretically significant.

When examining the scores on the Quantitative Workload Inventory (QWI), which was used to assess workload, it is important to note the limited variability among

participant scores, as they suggested the majority of practitioners experienced heavy workloads. Total scores for the scale range from 5 to 25; however, the scores for the present study ranged from 9 to 25 (M = 19.75). Additionally, participant responses on this scale indicate that most participants (n = 120, 91.6%) reported experiencing heavy workloads according to the scale's cutoff score (i.e. total scores ≥ 15; Spector & Jex, 1998). Historically, practitioners employed in community mental health agencies have reported having limited resources and higher workloads than practitioners working in other settings (Ackerly et al., 1988; Dadich & Muir, 2009).

Although it did not demonstrate a statistically significant effect on vicarious traumatization in this study, the theoretical significance of this variable indicates it may be practically significant and an important aspect of the path model (Martens, 2005; Weston & Gore, 2006). Therefore, including practitioners employed in a variety of mental health settings may be necessary in order to better assess the significance of this variable in the model, as practitioners in community mental health settings have consistently reported heavier workloads.

Based on the results of this study, the CSDT failed to provide a comprehensive explanation of vicarious traumatization in practitioners. According to results, some aspects of the model fit the data well (i.e., childhood trauma and personal wellness), while others did not (i.e., supervisory working alliance, organizational culture, and workload). Considering the results of this study within the context of previous research indicated that certain aspects of path model, developed based on the CSDT, fit the data well while others did not. The results of this study provide practical implications for

practitioners, counselor educators, and supervisors in decreasing the impact of vicarious traumatization.

Implications

The results of this study have practical implications for practitioners, counselor educators, and supervisors. Implications are discussed pertaining to results of the path analysis as well as descriptive statistics of constructs in the model. Emphasis is placed on prevention and mediation efforts to decrease the incidence of vicarious traumatization in practitioners.

Practitioners

Results of this study indicated that a personal history of childhood trauma has a direct effect on the development of vicarious traumatization. Theorists have attributed practitioners' increased vulnerability toward developing vicarious traumatization to being reminded of one's own trauma history when listening to clients' stories of trauma (McCann & Pearlman, 1990a; Pearlman & Saakvitne; 1995). This may result in the awakening of memories and intense emotions related to one's own experience of trauma and result in disrupted cognitions associated with vicarious traumatization.

These findings have substantive implications for practitioners who have experienced childhood trauma (e.g., physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual abuse). First, it is important for these practitioners to recognize they may have an increased vulnerability towards developing vicarious traumatization. Awareness of the potential impact of one's own history of trauma will enable practitioners to recognize when emotions and memories related to their own experiences have been triggered and seek help to manage shifting beliefs regarding the

goodness of self, others, and the world associated with vicarious traumatization. Once a practitioner becomes aware of altered beliefs, he or she can engage in activities to mediate the development of vicarious traumatization.

According to the present study, personal wellness had a strong, partial mediating effect on vicarious traumatization. Thus, practitioners who reported a personal history of childhood trauma were able to partially mediate the development of vicarious traumatization by engaging in activities to promote personal wellness. Although it cannot be inferred directly from the results of this study, engaging in personal wellness activities has also been found to decrease the impact of vicarious traumatization in practitioners after its development (Brady et al., 1999; Pearlman & Saakvitne, 1995; Saakvitne, 2002; Schauben & Frazier, 1995). As the study measured the partial mediating effect of a holistic approach to wellness (Hettler, 1984; Myers & Sweeney, 2005a), practitioners are encouraged to engage in a variety of self-care or wellness practices in order to promote physical, emotional, cognitive, spiritual, and interpersonal wellness.

Regular participation in wellness activities was significantly, negatively correlated to vicarious traumatization, suggesting that practitioners who engaged in wellness practices more frequently experienced fewer cognitive distortions related to vicarious traumatization. Therefore, in addition to engaging in wellness activities to mediate the effect of childhood trauma, practitioners should be proactive in decreasing their vulnerability toward developing vicarious traumatization by creating a wellness plan to follow on a regular basis. Such a wellness plan should include activities to address physical wellness (e.g., eating healthily, getting adequate sleep, exercising regularly), emotional wellness (e.g., maintaining a sense of humor, engaging in activities to promote

self-awareness), cognitive wellness (e.g., engaging one's imagination, developing problem-solving skills), spiritual wellness (e.g., attending religious services, meditating), and interpersonal wellness (e.g., fostering interpersonal wellness). Personal wellness was the most significant effect in the model and accounted for the most variance in vicarious traumatization; therefore, engaging in personal wellness activities was essential to decreasing a practitioner's vulnerability toward developing vicarious traumatization.

Additionally, supervisory working alliance did not partially mediate the effect of childhood trauma on vicarious traumatization; however, they were negatively correlated, indicating there may be a relationship between these constructs not accounted for in the present model. Developing a strong supervisory working alliance may help practitioners decrease their vulnerability toward developing vicarious traumatization, although it is not able to partially mediate the effect of childhood trauma. Thus, practitioners should seek to form a strong working alliance with their supervisors in order to provide a context in which they can explore their reactions to clients' trauma material and avoid professional isolation (Knight, 2004; Pearlman & Mac Ian, 1995).

Counselor Educators

The results of this study have implications for counselor education and training. Counselor educators are in a unique position to introduce counselors-in-training to the nature of working in community mental health centers, the potential for counselor impairment, and ways to mediate and manage the potentially negative impact of trauma work. According to the Council for the Accreditation of Counseling and Related Educational Programs (CACREP; 2009), counselor educators are required to introduce students to the nature and challenges of working in the field as a counselor. As many

students begin working in community mental health centers post-graduation in order to receive supervised clinical hours to attain licensure, talking about the challenges of working in community mental health centers is appropriate.

According to the present study, many practitioners (53.4%) reported being either ambivalent or dissatisfied with their jobs when assessing organizational culture and most (91.6%) reported experiencing high workload (i.e. not having adequate time to complete job related tasks, feeling rushed at work, etc.). Due to high workload and low job satisfaction, there is often a higher turnover rate among community mental health practitioners (Dadich & Muir, 2009). In order to prepare counselors-in-training to enter jobs in community mental health centers, counselor educators can engage students in discussions regarding the impact of low job satisfaction and high workload on practitioners. These discussions will enable counselors-in-training to develop a realistic rather than idealistic perspective regarding the nature of working in community mental health centers.

In addition to introducing counselors-in-training to the nature of working in community mental health, counselor educators are in a unique position to introduce counselors-in-training to the potential risk of experiencing counselor impairment (i.e., vicarious traumatization) as well as factors found to influence the development of impairment. According to the present study, 64.1% of practitioners reported experiencing moderate to clinically significant levels of cognitive distortions associated with vicarious traumatization, which suggests there are professionals experiencing significant levels of impairment who are currently employed in community mental health centers. When educated about counselor impairment, counselors-in-training are better able to identify

potential areas of vulnerability and develop strategies for the prevention and mediation of impairment (ACA, 2003).

The CACREP (2009) Standards and the ACA (2005) Code of Ethics emphasize counselor educators' role in educating counselors-in-training about the potential for counselor impairment and promoting wellness in students. Integrating discussions of counselor impairment throughout the curriculum is consistent with the CACREP (2009) Standards, which emphasize promoting wellness in counselors-in-training throughout their academic program. Recommendations for introducing counselors in training to counselor impairment and wellness include leading discussions regarding the potential for a personal history of trauma to increase practitioners' vulnerability toward developing vicarious traumatization as well as tools to help mediate the potentially negative impact of trauma work (i.e. personal wellness, self-care).

As personal wellness had a strong partial mediating effect on vicarious traumatization, it is essential for counselor educators to promote wellness in their students throughout their training programs. Counselor educators have been charged with the responsibility of preparing resilient practitioners and helping students to develop a wellness identity during their training programs (Skovholt, 2001; Smith, Robinson, & Young, 2007). Modeling wellness, developing a wellness course, and requiring students to develop holistic wellness plans have been found to increase wellness in counseling students (e.g., Myers, Mobley, & Booth, 2003; Roach & Young, 2007; Skovholt). Specifically, counselor educators can require counselors-in-training to develop a personal wellness plan during an orientation course and evaluate and revise the plan during other critical points in the training program (i.e. practicum and internship). Encouraging

students to develop a comprehensive, holistic wellness plan early in their counseling programs can help them to develop wellness "habits" that they can continue to use as new professionals. Helping students to develop and implement a wellness plan during their program coupled with introducing them to counselor impairment and factors to mediate its impact will enable them to better understand this phenomenon and be proactive in decreasing their potential for becoming impaired.

As gatekeepers for the counseling profession, counselor educators are also responsible for recognizing impairment in counselors-in-training and taking steps to mediate impairment (ACA, 2005). Within training programs, counselor educators have the opportunity to recognize impairment in counselors-in-training during practicum and internship experiences. Early recognition of impairment coupled with discussions of counselor impairment and wellness throughout the training program can help counselors-in-training develop the skills necessary (i.e. personal wellness activities, participation in supervision) to mediate the potentially negative impact of trauma work as they enter the counseling field as new professionals.

Supervisors

Although the results did not support the partial mediating effect of a supervisory working alliance on vicarious traumatization, the study has several implications for supervisors. Like counselor educators, supervisors can promote wellness and self-care activities in their supervisees. Specifically, supervisors can encourage supervisees to develop and consistently implement a comprehensive wellness plan during supervision by dedicating time during supervision sessions to discuss personal wellness. In order to emphasize the importance of personal wellness, supervisors can solicit information

regarding supervisees' struggles with maintaining their own wellness plans as well as sharing their own struggles with maintaining personal wellness. In general, supervisors can promote wellness and self-care by modeling these behaviors, encouraging supervisees to develop a holistic wellness plan, and providing a means of accountability for practitioners to follow through on self-care activities.

Finally, 23 participants (17.6%) included notes on their survey packets indicating they had a strong working alliance with their supervisor; however, they did not have time to meet with their supervisor on a regular basis. It seems as though because of the time constraints and limited resources available in community mental health settings, supervisors often do not have time to meet with supervisees on a regular basis. This information is noteworthy, as this information was unsolicited by the researcher. Participation in supervision has been found to decrease a practitioner's vulnerability toward developing vicarious traumatization in previous studies (e.g., Hunter & Schofield, 2006; McCann & Pearlman, 1990a; Sommer & Cox, 2005). Additionally, the ACA (2005) Code of Ethics requires that supervisors meet regularly with supervisees in order to monitor supervisee competence and client welfare; therefore, it is important for practitioners and supervisors to advocate for time for supervision. Often, practitioners do not have time to participate in supervision due to time constraints and limited resources in community mental health centers. Advocating for the inclusion of supervision time as a job requirement or as a part of productivity requirements for practitioners in community mental health centers may be a practical resolution to the continued struggle for finding adequate time for supervision.

The combined prevention and mediation efforts of practitioners, counselor educators, and supervisors can help to decrease practitioners' vulnerability towards developing vicarious traumatization. The aforementioned recommendations provide a foundation for decreasing the incidence of vicarious traumatization in practitioners working in community mental health centers.

Limitations

Despite precautions taken to minimize threats to validity, the present study has several limitations that must be considered when interpreting results. Limitations that potentially impacted the internal and external validity of the study included limitations regarding instrumentation (i.e. the use of self-report, Likert-type measures and length of survey packet) and sampling (i.e. sample size and response rate of community mental health centers).

Instrumentation

Limitations regarding instrumentation in the current study included the use of self-report, Likert-type scales to measure constructs in the path model. Although precautions were taken to minimize limitations regarding instrumentation, these limitations can be considered potential threats to internal validity.

As is common in social science research, self-report instruments were used to measure constructs in the proposed model. The most common concern regarding using self-report measures is the susceptibility of these measures to social desirability bias, especially when used to gather data regarding belief systems, attitudes, or objective measures of behavior (i.e. personal wellness practices and cognitive distortions related to vicarious traumatization; Gall, Gall, & Borg, 2007; Heppner, Kivlighan, & Wampold,

2007). Steps to ensure confidentiality of responses were taken in order to decrease this threat to internal validity.

In addition to being self-report measures, all of the measures included in the study were Likert-type scales. Using Likert-type scales is considered a limitation because participants may have different interpretations of points on the scale (Gall et al., 2007). Descriptive anchors were included on all Likert-type scales used in the study in order to decrease this threat to internal validity. Additionally, each of the scales used in the study were previously established surveys, which demonstrated adequate reliability and validity.

Finally, the limited variability in participant responses on the measure for workload (i.e., Quantitative Workload Inventory) was a limitation of this study. Most participants reported experiencing heavy workloads resulting in negatively skewed data. Although this data was considered only moderately skewed, the lack of variability in participant scores likely resulted in this variable not being accurately represented in the model (Kline, 2005).

Sample Size

Another limitation of the present study was related to sample size. The sample of 131 participants met the 10:1 rule of thumb (i.e. 10 participants per free parameter in the model) and was considered a medium sample; however, large sample sizes (i.e. greater than 200) are preferable when using path analytic procedures (Kline, 2005). Additionally, mixed or contradictory results among fit indices are more likely with smaller sample sizes, and increasing sample size may result in more distinctive results (Kline; MacCallum & Austin, 2000; Weston & Gore, 2006).

Response Rate

As in the present study, researchers have historically reported having difficulty engaging community mental health practitioners in research due to limited resources, time constraints, limited funding, and high staff turnover in most community mental health centers (Dadich & Muir, 2009). The response rate of community mental health centers contacted to participate in the present study was 39.4% and may be considered a limitation of the present study, as practitioners employed in community mental health centers that participated in the study may differ from practitioners employed in centers that did not.

Although the response rate may be considered a limitation, it was a high response rate for research conducted with practitioners in community mental health centers, which typically ranged from 17 to 48 percent (Hawley, Cook & Jensen-Doss, 2009; Van Horn, Green & Martinussen, 2009). Community mental health practitioners have been described as "time- and resource-poor" and often do not have the additional time and energy necessary to participate in research due to the demands of their job (Dadich & Muir, p. 40).

Finally, the length of the survey packet and time commitment necessary to complete the survey packet is considered a limitation of the current study related to response rate. When conducting research in community mental health centers, researchers have recommended decreasing the time commitment for participation in order to increase response rates among practitioners in these settings (Dadich & Muir, 2009). Although decreasing the amount of time required to participate in the study is ideal for research in community mental health centers, this may not be possible when using path analytic

procedures, as different measures are needed to assess each variable in the path model (Kline, 2005).

Despite the potential limitation related to response rate, surveying practitioners employed in community mental health centers is also considered a strength of the present study. Historically, researchers have struggled to involve community mental health practitioners in research due to lengthy administrative processes to approve research and agencies' limited resources (Dadich & Muir, 2009). Because of the difficulties associated with conducting research with practitioners employed in community based mental health centers, researchers often avoid conducting research with this population (Dadich & Muir; Hawley et al., 2009; Van Horn et al., 2009). The limitations of the present study (i.e. instrumentation and sampling) provide a foundation for developing future research studies to examine the incidence, prevention, and mediation of vicarious traumatization.

Directions for Future Research

The results of this study coupled with the limitations provide several directions for future research. These include directions for assessing the relevance of the CSDT in describing the development of vicarious traumatization, developing and testing alternative models for vicarious traumatization, and further examining the relationships among variables.

The results of this study indicated the CSDT does not provide a comprehensive framework for explaining the development of vicarious traumatization in practitioners working in community mental health centers. Although some aspects of the model fit the data well (i.e. childhood trauma, personal wellness), others did not (i.e. supervisory working alliance, organizational culture, workload), which resulted in the contradictory

results of fit indices. These results provided several directions for future research using the CSDT.

First, assessing a similar model based on the CSDT using a larger sample size of practitioners working in community mental health centers may provide more conclusive results. When results of fit indices are contradictory, it can be a result of sample size. Therefore, increasing the size of the sample may result in more conclusive results (Klem, 2000; Weston & Gore, 2006).

Because some aspects of the model fit the data well, while others did not, it is important to develop and test other models for vicarious traumatization. Reorganization of the model using similar constructs might be warranted. For example, including supervisory working alliance in the model as an exogenous rather than endogenous or partial mediating variable in order to examine its direct effect on vicarious traumatization might be more appropriate. Additionally, as more parsimonious models are preferable when using path analytic procedures, removing variables with small effects (i.e. workload or organizational culture) from the model might also provide an avenue for future research (Kline, 2005).

Based on the results of this study, a proposed model for future research would include effective supervision (i.e., supervisory working alliance, accessibility of supervision, and focus on the person of the counselor), organizational factors (i.e., workload, administrative support, co-worker support, and communication), and childhood trauma as exogenous variables and personal wellness, resiliency, and vicarious traumatization endogenous variables. Using the proposed model the researcher could use path analytic strategies to examine the direct effects of effective supervision and

organizational factors on vicarious traumatization and the full mediating effects of personal wellness and resiliency on vicarious traumatization with childhood trauma present in the model.

Additionally, as testing a model with one sample is not enough to fully assess a hypothesized model, conducting a similar study with a different population of practitioners may also provide valuable results (Kaplan, 2000; Kline, 2005). In the present study, most practitioners reported high levels of workload; therefore, the effect of this variable on the development of vicarious traumatization may not have been fully assessed. Surveying practitioners working in various settings (e.g., community mental health centers, private practice settings, universities, schools) may result in wider variability of scores on this construct, as practitioners in community mental health centers often report higher levels of workload than other practitioners (Dadich & Muir, 2009), and thus more conclusive results.

Finally, future research should be conducted to examine the effect of variables external to the present model on vicarious traumatization. For example, researchers could examine the influence of demographic variables (e.g., caseload, percentage of traumatized clients, or years of clinical experience) on vicarious traumatization. Although the present study provided a foundation for assessing the relevance of the CSDT in providing a framework for the development of vicarious traumatization, further examination of the relevance of this theory is necessary.

Conclusion

This study addressed the gap in the literature regarding the examination of a comprehensive theoretical model for the development of vicarious traumatization based

on the CSDT. While the CSDT failed to provide a comprehensive framework for vicarious traumatization, results of this study explained 46% of the variance in the development of vicarious traumatization in practitioners surveyed. Childhood trauma and personal wellness had significant effects on vicarious traumatization, whereas the effects of supervisory working alliance, organizational culture, and workload were not statistically significant. Examination of these results within the context of the literature provided practical implications for practitioners, counselor educations and supervisors in decreasing the impact of vicarious traumatization in community mental health practitioners.

REFERENCES

Ackerly, G. D., Burnell, J., Holder, D. C., & Kurdek, L. A. (1988). Burnout among licensed psychologists. *Professional Psychology: Research and Practice, 18,* 624-631.

Adams, K. B., Matto, H. C., & Harrington, D. (2001). The traumatic stress institute belief scale as a measure of vicarious trauma in a national sample of clinical social workers. *Families in Society, 82,* 363-371.

American Counseling Association. (2003). *ACA's taskforce on counselor wellness and impairment*. Retrieved January 30, 2009, from http://www.counseling.org/wellness_taskforce/tf_definitions.htm.

American Counseling Association. (2005). *ACA code of ethics.* Retrieved January 20, 2009, from http://www.counseling.org.

American Psychiatric Association. (2000). *Diagnostic and statistic manual of mental disorders: DSM-IV-TR*. Washington, DC: Author.

Association for Counselor Education and Supervision. (2009). *ACES regions*. Retrieved January 25, 2009, from www.acesonline.net/regions.asp.

Baird, K., & Kracen, A. C. (2006). Vicarious traumatization and secondary traumatic stress: A research synthesis. *Counselling Psychology Quarterly, 19,* 181-188.

Bell, H., Kulkarni, S., & Dalton, L. (2003). Organizational prevention of vicarious trauma. *Families in Society, 84,* 463-470.

Bernstein, D. P., & Fink, L. (1998). *Childhood trauma questionnaire*. San Antonio, TX: Psychological Corporation.

Bernstein, D. P., Fink, L., Handelsman, L., Foote, J., Lovejoy, M., Wenzel, K., et al. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *American Journal of Psychiatry, 151*, 1132-1136.

Bober, T., & Regehr, C. (2005). Strategies for reducing secondary or vicarious trauma: Do they work. *Brief Treatment and Crisis Intervention, 6*, 1-9.

Bober, T., Regehr, C. & Zhou, Y.R. (2006). Development of the coping strategies inventory for trauma counselors. *Journal of Loss and Trauma, 11,* 71-83.

Brady, J. L., Guy, J. D., Polestra, P. L., & Brokaw, B. F. (1999). Vicarious traumatization, spirituality, and the treatment of sexual abuse survivors: A national survey of women psychotherapists. *Professional Psychology: Research and Practice, 30*, 386-393.

Bride, B. (2004). The impact of providing psychosocial services to traumatized populations. *Stress, Trauma, and Crisis, 7*, 29-46.

Cohen, M. B. (1952). Countertransference and anxiety, *Psychiatry, 15*, 231-243.

Council for Accreditation of Counseling and Related Educational Programs. (2009). *2009 standards*. Retrieved January 11, 2009 from http://www.cacrep.org/2009standards.pdf.

Dadich, A., & Muir, K. (2009) Tricks of the trade in community mental health research: working with mental health services and clients. *Evaluation and the Health Professions, 32*, 38-58.

Dunkley, J., & Whelan, T. A. (2006). Vicarious traumatization: Current status and future directions. *British Journal of Guidance and Counseling, 34*, 107-116.

Efstation, J. F., Patton, M. J., & Kardash, C. M. (1990). Measuring the working alliance in counselor supervision. *Journal of Counseling Psychology, 37*, 322-329.

Emerson, S. & Markos, O. A. (1996). Signs and symptoms of the impaired counselor. *Journal of Humanistic Education and Development, 34*, 108-117.

Fan, X. (2001). Statistical significance and effect size in educational research: Two sides of the same coin. *Journal of Educational Research, 94*, 275-282.

Figley, C. (Ed.). (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized.* New York: Brunner/Mazel, Publishers.

Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston: Pearson.

Granello, D. H. (2007). Publishing quantitative manuscripts in counselor education and supervision: General guidelines and expectations. *Counselor Education and Supervision, 47*, 66-75

Hattie, J., Myers, J. E., & Sweeney, T. J. (2004) A factor structure of wellness: Theory, assessment, analysis, and practice. *Journal of Counseling and Development, 82*, 354-364.

Hawley, K. M., Cook, J. R., & Jensen-Doss, A. (2009). Do noncontingent increase survey response among mental health providers? A randomized trial comparison. *Administration & Policy in Mental Health & Mental Health Services Research, 36*, 343-348.

Heppner, M. J., Good, G. E., Hillenbrand-Gunn, T. L., Hawkins, A. K., Hacquard, L. L., Nichols, R. K., et al. (1995). Examining sex differences in altering attitudes about rape: A test of the elaboration likelihood model. *Journal of Counseling and Development, 73*, 640-747.

Heppner, P. P., Kivlighan, D. M., & Wampold, B. E. (2007). *Research design in counseling* (3rd ed.). San Anselmo, CA: Brooks Cole.

Hettler, W. (1984). Wellness: Encouraging a lifetime pursuit of excellence. *Health Values: Achieving High Level Wellness, 8*, 13-17.

Hoyle, R. H. (1995). The structural equation modeling approach: Basic concepts and fundamental issues. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 1-15). Thousand Oaks, CA: Sage Publications, Inc.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76-99). Thousand Oaks, CA: Sage Publications, Inc.

Hunter, S. V., & Schofield, M. J. (2006). How counselors cope with traumatized clients: Personal, professional and organizational strategies. *International Journal for the Advancement of Counselling, 28*, 121-138.

Jayaratne, S., & Chess, W. A. (1984). Job satisfaction, burnout, and turnover: A national study. *Social Work, 29*, 448-453.

Jenkins, S. R., & Baird, S. (2002). Secondary traumatic stress and vicarious trauma: A validational study. *Journal of Traumatic Stress, 15,* 423-432.

J□reskog, K. G. (2005). *Structural equation modeling with ordinal variables using LISREL*. Retrieved April 17, 2009 from http://www.ssicentral.com/lisrel/techdocs/ordinal.pdf.

J□reskog, K. G., & S□rbom, D. (2008). LISREL 8.8 student edition [Computer software]. Lincolnwood, IL: Scientific Software International.

Kaplan, D. (2000). *Structural equation modeling foundations and extensions*. Thousand Oaks, CA: Sage Publications, Inc.

Kempthorne, J. (1979). The impaired physician: The role of the state medical society. *Wisconsin Medical Journal, 78,* 24-25.

Klem, L. (2000). Structural equation modeling. In L. G. Grimm, & P. R. Yarnold (Eds.), *Reading and understanding more multivariate statistics* (pp. 227-260). Washington, DC: American Psychological Association.

Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: The Guilford Press.

Knight, C. (2004). Working with survivors of childhood trauma: Implications for clinical supervision. *The Clinical Supervisor, 23,* 81-105.

Linley, P. A., & Joseph, S. (2007). Therapy work and therapists' positive and negative well-being. *Journal of Social and Clinical Psychology, 26,* 385-403.

LISREL for Windows (2006). Student version 8.80. Scientific Software International, Inc.

Loganbill, C., Hardy, E., Delworth, H. (1982). Supervision: A conceptual model. *The Counseling Psychologist, 10*, 3-42.

McCann, I. L., & Pearlman, L. A. (1990a). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress, 3*, 131-149.

McCann, I. L., & Pearlman, L. A. (1990b). *Psychological trauma and the adult survivor: Theory, therapy, and transformation*. New York: Brunner/Mazel.

MacCallum, R. C., & Austin, J. T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of Psychology, 51*, 201-226.

Martens, M. P. (2005). The use of structural equation modeling in counseling psychology research. *The Counseling Psychologist, 33*, 269-298.

Myers, J. E., Mobley, A. K., & Booth, C. S. (2003). Wellness of counseling students: Practicing what we preach. *Counselor Education & Supervision, 42*, 264-274.

Myers, J. E., & Sweeney, T. J. (2005a). Introduction to wellness theory. In J. E. Myers, & Sweeney, T. J. (Eds.), *Counseling for wellness: Theory, research, and practice* (pp. 7-14). Alexandria, VA: American Counseling Association.

Myers, J. E., & Sweeney, T. J. (2005b). *Five factor wellness inventory: Adult, teenage, and elementary school versions*. Menlo Park, CA: Mind Garden, Inc.

Nelson-Gardell, D., & Harris, D. (2003). Child abuse history, secondary traumatic stress, and child welfare workers. *Child Welfare, 82*, 5-26.

Neumann, D. A., & Gamble, S. J. (1995). Issues in the professional development of psychotherapists: Countertransference and vicarious traumatization in the new trauma therapist. *Psychotherapy, 32*, 341-347.

Norcross, J. C., & Prochaska, J. O. (1986). Psychotherapist heal thyself: The psychological distress of self-change of psychologists, counselors, and laypersons. *Psychotherapy, 23,* 102-114.

O'Halloran, T. M., & Linton, J. M. (2000). Stress on the job: self-care resources for counselors. *Journal of Mental Health Counseling*, *22*, 354-364.

Olsheski, J. & Leech, L. L. (1996). Programmatic interventions and treatment of impaired professionals. *Journal of Humanistic Education and Development, 37*, 128-140.

Pearlman, L. A. (2003). *Trauma and attachment belief scale*. Los Angeles, CA: Western Psychological Services.

Pearlman, L. A. (1999). Self care for trauma therapists: Ameliorating vicarious traumatization. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 51-64). Lutherville, MD: The Sidran Press.

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*, 558-565.

Pearlman, L. A., & Saakvitne, K. W. (1995). *Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors*. New York: Norton.

Pearson, Q. M. (2000). Opportunities and challenges in the supervisory relationship: Implications for counselor supervision. *Journal of Mental Health Counseling, 22*(4), 283-294.

Rasmussen, B. (2005). An intersubjective perspective on vicarious trauma and its impact on the clinical process. *Journal of Social Work Practice, 19,* 19-30.

Ratna, L., & Mukergree, S. (1998). The long-term effects of childhood sexual abuse: Rational for and experience of pharmacotherapy with nefazodone. *International Journal of Psychiatry in clinical Practice, 2,* 83-95.

Reamer, F. G. (1992). The impaired social worker. *Social Work, 37,* 165-171.

Roach, L. F., & Young, M. E. (2007). Do counselor education programs promote wellness in their students? *Counselor Education & Supervision, 47*, 29-45.

Rosenbloom, B. J., Pratt, A. C., & Pearlman, L. A. (1999). Helpers' responses to trauma work: Understanding and intervening in an organization. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 65-79). Lutherville, MD: The Sidran Press.

Saakvitne, K. W. (2002). Shared trauma: The therapist's increased vulnerability. *Psychoanalytic Dialogues, 12*, 443-449.

Saakvitne, K. W., & Pearlman, L. A. (1996). *Transforming the pain*. New York: Norton.

Sabin-Farrell, R., & Turpin, G. (2003). Vicarious traumatization: Implications for the mental health of health workers. *Clinical Psychology Review, 23*, 449-480.

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*, 49-64.

Schulz, R., Greenley, J. R., & Brown, R. (1995). Organization, management, and client effects on staff burnout. *Journal of Health and Social Behavior, 36*, 333-345.

Sexton, L. (1999). Vicarious traumatization of counselors and effects on their workplaces. *British Journal of Guidance & Counseling, 27*, 393-403.

Skovholt, T. M. (2001). *The resilient practitioner: Burnout prevention and self-care strategies for counselors, therapists, teachers, and health professionals*. Needham Heights, MA: Allyn & Bacon.

Smith, H. L., Robinson, E.H., & Young, M. E. (2007). The relationship among wellness, psychological distress, and social desirability of entering master's-level counselor trainees. *Counselor Education & Supervision, 47*, 96-109.

Sommer, C. A., & Cox, J. A. (2005). Elements of supervision in sexual violence counselors' narratives: A qualitative analysis. *Counselor Education and Supervision, 45*, 119-134.

Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the job satisfaction survey. *American Journal of Community Psychology*, *13*, 693-713.

Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *Journal of Occupational Health Psychology, 3*, 356-367.

Stadler, H. A., Willing, K. W., Eberhage, M. G., & Ward, W. H. (1988). Impairment: Implications for the counseling profession. *Journal of Humanistic Education and Development, 37*, 96-107.

Substance Abuse and Mental Health Services Administration (2009). *Mental health center locator*. Retrieved May 26, 2009, from http://mentalhealth.samhsa.gov/databases/.

Sweeney, T. J., & Witmer, J. M. (1991). Beyond social interest: Striving toward optimum health and wellness. *Individual Psychology, 47,* 527-540.

Thompson, B. (2000). Ten commandments of structural equation modeling. In L. G. Grimm, & P. R. Yarnold (Eds.), *Reading and understanding more multivariate statistics* (pp. 261-283). Washington, DC: American Psychological Association.

Thompson, B. (2006). The role of effect sizes in contemporary research in counseling. *Counseling and Values, 50,* 176-186.

Trippany, R., White Kress, V. & Wilcoxon, A. (2004). Preventing vicarious trauma: What counselors should know when working with trauma survivors. *Journal of Counseling and Development, 82*, 31-37.

United States Census Bureau. (2002). *State-sorted corrected list of UAs*. Retrieved May 26, 2009 from http://www.census.gov/geo/www/ua/ua_state_100302.txt.

Van Horn, P. S., Green, K. E., Martinussen, M. (2009). Survey response rates and survey administration in counseling and clinical psychology. *Educational and Psychological Measurement, 69*, 389-403.

Watkins, C. E. (1997). Defining psychotherapy supervision and understanding supervisor functioning. In C. E. Watkins (Ed.), *Handbook of psychotherapy supervision* (pp. 3-10). New York, NY: John Wiley & Sons, Inc.

Way, I., VanDeusen, K. & Cottrell, T. (2007). Vicarious trauma: Predictors of clinicians' disrupted cognitions about self-esteem and self-intimacy. *Journal of Child Sexual Abuse, 16*, 81-98.

Weston, R., & Gore, P. A. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist, 34*, 719-751.

Witmer, J. M., & Sweeney, T. J. (1992). A holistic model for wellness and prevention over the life span. *Journal of Counseling and Development, 71*, 140-148.

APPENDIX A

INFORMED CONSENT

UNIVERSITY of
NORTHERN COLORADO

School of Applied Psychology and Counselor Education

Informed Consent for Participation in Research
University of Northern Colorado

Project Title: A Comprehensive Model for Vicarious Traumatization: Examining the Effects of Therapist, Work, and Supportive Factors on Vicarious Traumatization

Researcher: Amy M. Williams, MA Research Advisor: Heather M. Helm, PhD
Phone Number: (970)351-1630 Email: amychisig@gmail.com or heather.helm@unco.edu

The purpose of this study is to examine a comprehensive model of factors contributing to the development of vicarious traumatization in professionals working with traumatized clients. If you agree to participate, you will be asked to answer six surveys that measure childhood trauma, personal wellness, supervisory working alliance, job satisfaction, workload, and the impact of trauma work on you and your beliefs about yourself, others, and the world. Answering the surveys will take approximately 25 to 40 minutes. Following participation, you will have the opportunity to participate in a one-hour in-service on the prevention and management of vicarious traumatization presented by the lead researcher.

In order to protect your confidentiality and privacy, this informed consent form will be the only document indicating your name. This will be collected separately from your completed surveys, so your name will not be associated with your answers. Thus, all identifying information will be collected and kept separately from the data to maximize your confidentiality. This form will be stored in a locked filing cabinet, in a locked office. Completed surveys will also be stored in a locked filing cabinet. All data will be stored for a period of three years. To further protect your confidentiality, no identifying information will be released in the reporting of results.

The risks associated with this study are minimal. The minimal risks include the possibility that completing the surveys regarding the negative impact of trauma work may heighten your awareness regarding the specific impact of this work on you. Additionally, there is a possibility of being reminded of unpleasant childhood memories as a result of completing the surveys for this study. Although participation may increase your awareness of the negative impact of trauma work, the possible negative impact of this work on professionals is normal and reversible. While the possibility of reminders of unpleasant childhood memories exists, it is unlikely to impact you more significantly

than other events reminding you of your childhood. The resource list included with this form outlines resources in your area that you may contact (i.e. hotlines, therapeutic services outside of your agency) in the event that you experience a reaction that is uncomfortable or frightening to you.

Following participation in the study, you will be invited to attend a one-hour in-service conducted by the lead researcher. This in-service will include information regarding vicarious traumatization, methods for preventing the negative impact of trauma work, and strategies for managing symptoms of vicarious traumatization. In addition, you may benefit from participation in this study. You will have the opportunity to reflect on the impact of your work with traumatized clients.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decided to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Sponsored Programs and Academic Research Center, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1907.

By signing below, you are indicating you are aware of the nature and purpose of the research study, and you agree to participate in the project.

_____ _____

Signature of Participant Date

_____ _____

Signature of Researcher Date

APPENDIX B

DEMOGRAPHICS QUESTIONNAIRE

Demographics Questionnaire

Instructions: Please indicate the correct answer for each question with an "**X**" or written response in the corresponding blank.

1. **Gender**:
   __ Female
   __ Male

2. **What is your age**: _____

3. **What is your race/ethnicity:**
   __ African American
   __ American Indian
   __ Asian American/Pacific Islander
   __ Caucasian
   __ Hispanic/Latino/a
   __ Multiethnic/Multiracial
   __ Other

4. **Highest Degree Earned**:
   __ Bachelor's
   __ Master's
   __ Educational Specialist (Ed.S.)
   __ Doctoral

5. **How many years of clinical experience do you have (post masters degree)**:
   _____

6. **License Type**:
   __ Licensed Clinical Social Worker
   __ Licensed Marriage and Family Therapist
   __ Licensed Professional Counselor (or equivalent)
   __ Licensed Psychologist
   __ Other, Please Specify _____
   __ None

7. **How many clients are on your current caseload**: (NOTE: a family seen only for family therapy would equal 1 client) _____

8. **What is the percentage of clients on your current caseload whose primary or secondary reason for seeking treatment at this time is a result of trauma?** (NOTE: Trauma is defined as an extreme event a person witnesses or experiences resulting in actual or perceived threat of serious injury or death to self or others).
   _____