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## CONSIDERING THE POWER OF CONTEXT: RACISM, SEXISM, AND BELOGING IN THE VICARIOUS TRAUMATIZATION OF COUNSELORS

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ABSTRACT OF DISSERTATION

Katharine J. Hahn

The Graduate School  
University of Kentucky

2010

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A dissertation submitted in partial fulfillment of the  
requirements for the degree of Doctor of Philosophy in the  
College of Education  
at the University of Kentucky

By  
Katharine J. Hahn

Lexington, Kentucky

Director: Dr. Pamela Remer, Associate Professor of Counseling Psychology  
Lexington, Kentucky

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### CONSIDERING THE POWER OF CONTEXT: RACISM, SEXISM, AND BELONGING IN THE VICARIOUS TRAUMATIZATION OF COUNSELORS

Recent concerns have arisen about the effects on counselors of working with trauma survivors. Vicarious traumatization may be a normal developmental process of adapting to client trauma material and may ultimately result in vicarious posttraumatic growth, or positive changes arising from vicarious trauma. Most studies have focused on individual variables or clinician coping strategies that predict vicarious traumatization. Taking a feminist approach to vicarious traumatization, this study examined the role of workplace context variables, such as sense of belonging in the workplace and support for vicarious trauma at work, on counselor vicarious traumatization and vicarious posttraumatic growth. Stratified random sampling was used to recruit counselors from domestic violence and rape crisis centers, and recruitment messages were sent to all psychology internship and postdoctoral sites in the United States which were accredited by the American Psychological Association. Surveys were completed by 234 counselors.

Counselors reported sub-clinical levels of vicarious trauma symptoms (intrusions, avoidance, and hyperarousal resulting from work with trauma survivors). Results of hierarchical regression analyses indicated that amount and intensity of exposure to client trauma material positively predicted vicarious trauma symptoms, and sense of belonging in the workplace negatively predicted vicarious trauma symptoms. Intensity of exposure, work setting, and support for vicarious trauma at work predicted vicarious posttraumatic growth, so that counselors exposed to more graphic details of client trauma, those working in domestic violence or rape crisis centers, and counselors with more support for vicarious trauma at work reported more vicarious posttraumatic growth. The relation between amount of exposure and vicarious posttraumatic growth was moderated by intensity of exposure and by sense of belonging in the workplace. Counselors with low sense of belonging at work reported less vicarious posttraumatic growth when amount of exposure was high, whereas counselors with high sense of belonging reported more vicarious posttraumatic growth with high exposure. Results suggest that counselors' reactions to client trauma material are normal rather than pathological, are largely due to exposure to client trauma, and can be affected by workplace context factors, especially sense of belonging in the workplace and support for vicarious trauma at work.

CONSIDERING THE POWER OF CONTEXT: RACISM, SEXISM, AND  
BELONGING IN THE VICARIOUS TRAUMATIZATION OF COUNSELORS

Keywords: Vicarious Traumatization, Posttraumatic Growth, Sense of Belonging,  
Support, Workplace

*Katharine J. Hahn*

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December 9, 2009

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DISSERTATION

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I would not have embarked on a doctoral program if it were not for the influence of my family, especially my mother, Nancy Cramer. I have wonderful childhood memories of driving as a family around dusty Nebraska roads searching for wildflowers for my mother's master's thesis. The joy on her face when she discovered a new plant taught me that learning is play. Mother, your love of learning and your undaunted courage inspired me to persevere and soak up the benefits of a thorough education.

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## Chapter 1: Introduction and Review of the Literature

There are stories I will never forget. I will never forget the woman brought in to the shelter by police whose husband had kept her hostage for three days, tied up and bruised, forcing her down on her knees to give him oral sex while he pounded the top of her head with the blunt end of an axe. I will never forget the six-year-old boy, thin like an old man from failure-to-thrive, who cussed and turned over tables in his rage and later shook in his bed, unable to sleep from memories of sexual abuse. I cannot forget my fear for the woman who insisted she go back to her trailer, the home she had worked so long for, knowing her ex-boyfriend might be there again with his knife to hold to her throat while he raped her again. I will never forget the six-year-old girl who returned to the psychiatric hospital after trying to kill herself again because her father had passed her around to his friends to provide oral sex. I remember her pale and trembling, unable to get warm. There are more stories than can be told here; I hold them in my memory.

I have had the privilege of helping trauma survivors hold their pain and anger and grief. And my own strong emotions burn their stories into my memory. I have learned from these stories, learned to be slow to trust when I trust at all, learned that I am not safe in my own home or anywhere, learned how evil humans can be to one another. And I have learned the incredible strength and resilience of the human spirit, learned to feel pain and rage and yet to hope, learned how fragile and precious this life is. When I began doing trauma counseling at a domestic violence shelter, I felt pain as my schemas darkened, realizing the human capacity for harm. Then I experienced awe as I recognized how deep and strong is the capacity to survive and grow. As I have continued working with trauma clients in individual counseling and at a psychiatric hospital, there are times when my schemas darken again and times when I am struck by the courage of my clients and my ability to sit in the room with their pain. The strong emotions I experienced and the changing of my schemas were necessary for me to continue working effectively with clients who have been traumatized. The process of change has been adaptive, as I transform by beliefs and my capacity to hold strong emotion, I am more available to walk in my clients' worlds and to help them hold their grief.

From the perspective of my own experience, I was disappointed to find that research about this process of vicarious traumatization has focused primarily on what

individual traits of counselors might predict vicarious trauma. As a feminist and a practitioner of relational-cultural therapy, I wondered what contextual factors might help counselors through the transition. Thus, in this study, I explore factors in the workplace that predict vicarious trauma in both its painful and positive aspects.

Specifically, in this study I surveyed counselors who work in pre- and post-doctoral internships and counselors who work in domestic violence and/or rape crisis centers. I investigated predictors of vicarious trauma symptoms and of posttraumatic growth. According to theory, exposure to client trauma material is the cause of vicarious trauma, so I included exposure as a predictor variable. I drew other predictor variables from the work context of counselors (e.g., amount of supervision, support for vicarious trauma at work, sense of belonging) with only a few individual predictor variables (e.g., education level). Finally, I explored sense of belonging as a moderating variable that may impact the effect of exposure on vicarious trauma symptoms.

As I explored the previous research of vicarious trauma, I found my own experience mirrored there. As a result of working with trauma survivors, counselors reported feeling horror, anger, and powerlessness, having nightmares about clients' traumas, feeling ineffective as therapists, having difficulties maintaining professional boundaries, and feeling isolated from colleagues, friends, and family (Benatar, 2000; Illife & Steed, 2000; Steed & Downing, 1998). Experienced trauma counselors also reported that through their development as trauma counselors, they now have enhanced empathy and compassion, improved counseling skills and a greater faith in the process of counseling, appreciation for the resilience of the human spirit, greater sensitivity to instances of racism and sexism, a deepened spirituality, and a sense of the preciousness of life (Arnold, Calhoun, Tedeschi, & Cann, 2005; Benatar; Illife & Steed; Lonergan, O'Halloran, & Crane, 2004). Pearlman (1999) called this process of vicarious traumatization a "deep personal transformation" which includes "personal growth, a deeper connection with both individuals and the human experience, and a greater awareness of all aspects of life" (p. 51). Trauma counselor development involves crossing over from the space where negative affect is overwhelming and schemas do not hold the trauma stories to the space where affect can be managed and schemas have



accommodated to the horror of trauma as well as to the amazing strength of survivors (Loneragan et al.).

Though I use the term “trauma counselor,” almost all counselors work with trauma survivors. Trauma can include any event that involves “threats to life or bodily integrity, or a close personal encounter with violence and death” (Herman, 1992, p. 33). Formerly understood to be “outside the range of usual human experience” (APA, 1980, p. 236), trauma is now understood to be widespread (Herman). When the range of traumas is considered (rape, childhood abuse, domestic violence, military trauma, natural disaster, life-threatening illness, car accident, etc.), few families are spared the experience. Some counselors specialize in trauma counseling, but almost all counselors are involved in it. Thus, all counselors may move through the process of vicarious traumatization as they begin to hear the stories of their clients’ traumas.

Vicarious traumatization research to date has been heavily focused on how individual characteristics of counselors make them vulnerable to vicarious traumatization and on how individual counselors can cope. Bober and Regehr (2006), however, found that regardless of how much time counselors spent using coping strategies, their exposure to clients’ trauma material was the only significant predictor of vicarious trauma. They aptly point out that the focus on individual coping implies “that those who feel traumatized may not be balancing life and work adequately and may not be making effective use of leisure, self-care, or supervision” (p. 8). In other words, this emphasis on the individual implies that the counselors themselves are to blame. Challenging this internal focus, Bober and Regehr then recommend, “It is perhaps time that vicarious and secondary trauma intervention efforts with therapists shift from education to advocacy for improved and safer working conditions” (p. 8). In order to advance that advocacy, in this study, I researched the context of vicarious traumatization to discover how factors in the workplace might help alleviate the acute negative effects of working with trauma clients and help usher in the long-term rewards counselors gain from working with trauma survivors.

The current study was informed by feminist theory. First, feminist psychologists insist that socio-cultural awareness is essential for understanding individuals’ experiences (Worell & Remer, 2003). Brabeck and Brown (1997) wrote that “feminist theory

observes the development of human behavior across a wide range of interpersonal, social, and political dimensions,” acknowledging “that all experiences are profoundly shaped by the contexts within which each of us lives” (p. 29). This principle informed the choice of predictor variables so that predictors are predominantly context-based. In the current study, I explored the culture of the workplace by investigating how quality of supervision and sense of belonging in the workplace affect counselors.

Second, feminist theorists posit that traditional notions of pathology be reframed with context in mind so that “pain is not defined as evidence of deficit or defect” (Brabeck & Brown, 1997), but is acknowledged as a normal response to oppressive and difficult circumstances. In accordance with this feminist principle to be slow to pathologize, I take a contextual approach, thus avoiding the error of blaming the victim (Worell & Remer, 2003) in the case of vicarious traumatization and instead viewing the process as a natural adaptation to a difficult reality. Vulnerability and experience of strong affect are all encompassed in feminist theory as part of being a person, and the counselor is regarded first of all as a person. Finally, feminist theorists extend an invitation to look for strengths in persons usually considered weak or oppressed (Brabeck & Brown). As a way of granting authority to the voices of counselors who talked about the benefits of trauma counseling, I measured not only the negative effects of working with trauma clients (vicarious trauma symptoms), but also the vicarious posttraumatic growth that occurs as counselors engage with trauma survivors.

#### *Defining Vicarious Traumatization*

Researchers have looked at secondary traumatic stress, compassion fatigue, and vicarious traumatization (VT), all similar but somewhat different concepts. Secondary traumatic stress (STS) is stress caused by caring about someone who has been traumatized. Wives of combat veterans, children of holocaust survivors, and therapists can experience STS. In its broadest definition, STS has been operationalized by researchers as any heightened level of distress (often measured by the Symptom Checklist-90, Revised; SCL-90-R) apparently caused by empathic exposure to another’s pain or the burden of caring for a traumatized loved one.

Figley (1995) argued that STS is more specific and involves the same symptoms as PTSD (intrusions, avoidance, and hyperarousal), but that STS is in response to

empathic exposure to another's trauma rather than direct exposure to one's own trauma. According to Figley's theory, individuals suffering from STS would experience intrusive thoughts and memories of the person's trauma; they would seek to avoid activities, people, or places that reminded them of the person's trauma; and they would have symptoms of hyperarousal (e.g., hypervigilance or exaggerated startle response). Figley and other researchers have particularly focused on professionals (therapists, social workers, nurses) experiencing STS from their work, and Figley coined the term "compassion fatigue" to be interchangeable with STS, using the new term because he found that professionals preferred it. Though Figley argued that STS is a natural response to working with trauma survivors, he used the terminology of disorder, writing of Secondary Traumatic Stress Disorder.

McCann and Pearlman (1990) coined the term "vicarious traumatization" to describe the effects of trauma work on therapists. The construct of vicarious traumatization (VT) is grounded in an integrated trauma theory, Constructivist Self-Development Theory (CSDT; Pearlman & Saakvitne, 1995). CSDT integrates assumptions from constructivist, developmental, and relational cultural theories. Viewing trauma and vicarious trauma through this lens, recovery from trauma involves an active reconstruction of meaning which occurs differently for each individual. Trauma has developmental implications, as the timing of the trauma may impede development and recovery can move development forward. Trauma occurs in interpersonal contexts and so healing also occurs in the interpersonal context of the relationship with the therapist. Trauma symptoms are viewed as adaptive and protective strategies employed by the survivor. Finally, trauma occurs in the broader contexts of the family and socio-cultural realms, and assumptions and values of these contexts impact the survivor's trauma and recovery. One primary difference between CSDT and Figley's approach is that in CSDT, symptoms are assumed to be adaptive rather than pathological: "unlike the other constructs, vicarious traumatization emphasizes the role of meaning and adaptation, rather than symptoms" (Pearlman & Saakvitne, p. 280-281).

CSDT represents a fairly comprehensive understanding of trauma within interpersonal and social contexts and attends to multiple ways that trauma affects survivors. Pearlman and Saakvitne (1995) describe the many aspects of self that are

affected by trauma: (a) frame of reference, including world view, identity, and spirituality; (b) self capacities to tolerate affect, maintain positive sense of self, and maintain connection to others; (c) ego resources needed for personal growth and interpersonal relationships; (d) psychological needs and schemas related to them (sense of safety, trust, esteem, intimacy, and control); and (e) the memory system. McCann and Pearlman (1990) posit that these same systems are affected by VT and the experience of VT must be processed, just as trauma survivors process and make sense of their experiences.

Research related to McCann and Pearlman's (1990) theory has primarily been focused on the cognitive schemas affected by trauma. Thus, in addition to measuring symptoms of STS, researchers of VT measure cognitive disruptions or maladaptive beliefs. Like Figley's STS, VT, according to McCann and Pearlman, is a natural response. It is, in fact, inevitable: "It is our belief that all therapists working with trauma survivors will experience lasting alterations in their cognitive schemas, having a significant impact on the therapists' feelings, relationships, and life" (p. 136).

McCann and Pearlman (1990) pointed out the dangers of VT if it is not addressed (becoming numb to client stories, losing effectiveness as a therapist); however, they argued that VT is not a disorder and, instead, should be treated as an issue of trauma therapist development or adaptation: "Whether these changes are ultimately destructive to the helper and to the therapeutic process depends, in large part, on the extent to which the therapist is able to engage in a parallel process to that of the victim client, the process of integrating and transforming these experiences of horror or violation" (p. 136). Because CSDDT represents a more comprehensive theory of trauma and views VT as a normal developmental process rather than as pathology, in this study, I use the terminology of CSDDT.

Early literature on the negative effects of helping were focused on the construct of burnout. As conceptualized by Maslach and Jackson (1981), burnout includes the three factors of emotional exhaustion, depersonalization (feeling callous or cynical toward clients), and a decreased sense of personal accomplishment (feeling ineffective at work). In a recent study, Devilly, Wright, and Varker (2009), investigating the predictors of affective distress among therapists, suggested that burnout (along with cognitive

disruptions in self-safety) is a more significant predictor of distress than VT. Devilly et al. also questioned the construct validity of VT, suggesting that work stress predicts VT more than exposure to client trauma material. Most researchers have found a relationship between burnout and VT, but the two constructs appear to be distinct. Adams, Matto, and Harrington (2001) found that high emotional exhaustion and low sense of personal accomplishment (along with younger age and less social support) significantly predicted maladaptive beliefs. In other studies, researchers have found significant but relatively low correlations between burnout and vicarious trauma symptoms, with correlations ranging from .25 to .34 (Adams, Boscarino, & Figley, 2006; Jenkins & Baird, 2002). The evidence indicates that although burnout is experienced by therapists, the effects of VT are distinct from burnout as therapists attempt to integrate the painful stories of their clients. These effects and predictors of VT have been explored in previous research.

#### *Effects and Predictors of Vicarious Traumatization*

With qualitative studies of VT in human service workers, researchers have explored the effects of working with survivors. With quantitative studies, researchers have analyzed some predictors of intrusion and avoidance symptoms and maladaptive beliefs.

#### *Qualitative Studies*

In qualitative studies, counselors discussed the negative effects of working with trauma clients, including physical and emotional responses, negative effects on their work, intrusions, and isolation. In a study of 21 licensed psychologists (Arnold et al., 2005) therapists reported feeling their clients' pain and feeling weary and exhausted. In a study of 18 counselors working with domestic violence victims and perpetrators (Illife & Steed, 2000), therapists reported "horror" (p. 401), "heaviness, churning stomach, [and] nausea" (p. 401) as effects of conducting trauma therapy. Counselors working with victims reported feeling "emotionally drained and at times physically exhausted" (p. 402) after sessions; they reported "more headaches, body tension, and illnesses" (p. 402). Counselors said they were afraid for clients' safety and felt powerless to keep clients safe or to make changes in society. Therapists working with sexual assault survivors (Steed & Downing, 1998) and childhood sexual abuse survivors (Benatar, 2000) reported that

working with trauma clients resulted in having less energy, more somatic and sleep problems, increased irritability, and negative effects on their sexuality.

Studies of child welfare workers (Dane, 2000) and rape victim advocates (Wasco & Campbell, 2002) also include reports of sadness, irritability, anxiety, sleeplessness, and fear. Wasco and Campbell's study of rape victim advocates revealed another emotional theme: anger. Advocates reported anger with perpetrators, the criminal justice system, and other community agencies that were insensitive to clients' needs. In their study of therapists, Illife and Steed (2000) also found reports of anger with the justice system. Thus, emotional and physical responses to working with trauma clients may include pain, horror, sadness, fear, anxiety, powerlessness, irritability, anger, sleeplessness, headaches, nausea, and increased illness.

Therapists have reported that working with trauma clients affects their work when they have difficulty setting boundaries, when they feel detached from clients, and when they doubt their effectiveness as therapists. Domestic violence counselors (Illife & Steed, 2000) reported that when they began doing domestic violence work, they took too much responsibility for their clients and that they occasionally continue to struggle with boundaries. Several studies revealed that counselors sometimes feel numb, callous or detached when working with trauma clients (Arnold et al., 2005; Illife & Steed; Lonergan et al., 2004). Some counselors reported that they needed to feel the clients' pain in order to be effective as a therapist, and others said they needed a degree of callousness in order to avoid burnout (Arnold et al.). Finally, counselors reported feelings of ineffectiveness with trauma clients (Arnold et al.; Illife & Steed; Steed & Downing, 1998). In a study of psychiatrists, social workers, and psychotherapists in the psychiatric department of a hospital, Marriage and Marriage (2005) also found reports of feeling ineffective with clients.

Outside work, trauma counselors reported intrusive thoughts and images of clients' trauma material (Arnold et al., 2005; Illife & Steed, 2000; Steed & Downing, 1998) and isolation from others (Benatar, 2000; Illife & Steed; Lyon, 1993). Counselors reported that friends, partners, and even colleagues who did not work with trauma clients did not want to hear about their work (Benatar), leaving them isolated even within the mental health community. Thus, qualitative studies have demonstrated the emotional

impact of conducting trauma counseling, the consequences for trauma counselors' work, and effects outside of work. The possible causes of these problems of pain, self-doubt, and isolation have been explored in the quantitative research.

### *Quantitative Studies*

Whereas qualitative studies have allowed researchers to explain the effects of working with trauma clients, in quantitative studies researchers have investigated what predicts these effects, especially examining what predicts intrusions and avoidance and maladaptive beliefs. Researchers have used versions of the Impact of Events Scale-Revised (IES-R; Weiss & Marmar, 1995) and the Compassion Fatigue Self-Test (CFST; Figley, 1995) as well as other adapted PTSD scales to measure intrusions and avoidance and versions of the Traumatic Stress Institute Belief Scale – Revision L (TSI-BSL; Pearlman, 1996) to measure maladaptive beliefs. Both contextual and individual variables have been examined.

*Contextual variables.* Contextual variables that may predict VT include exposure to clients' trauma material, experience in the field, training and education, type and setting of work, aspects of the work environment, and social support. Exposure to trauma material at work is usually measured by asking counselors what percentage of their caseload are trauma survivors or by asking police how many times in the past year they have been exposed to various trauma incidents (serious accident, homicide, seeing children abused). In almost all studies of vicarious traumatization, including studies of therapists (Bober & Regehr, 2006; Boscarino, Figley, & Adams, 2004; Brady, Guy, Poelstra, & Brokaw, 1999; Chrestman, 1999; Creamer & Liddle, 2005; Kassam-Adams, 1999; Schauben & Frazier, 1995), sex offender counselors (Ennis & Horne, 2003), firefighters (Wagner, Heindrichs, & Ehlert, 1998), and police (Violanti & Gehrke, 2004), researchers have found a significant relationship between amount of exposure to clients' trauma material and symptoms of PTSD. However, in one study of sex offender counselors in Australia (Steed & Bicknell, 2001), there was not a significant relationship between amount of sex offenders in the caseload and intrusions or avoidance.

The type of trauma suffered by the client may also affect the level of vicarious traumatization. Bober and Regehr (2006) found that among therapists working with victims of violence, higher intrusion and avoidance scores significantly correlated with

working with domestic violence, child abuse and child sexual abuse, sexual violence, and torture. Kassam-Adams (1999) found that, for sexual violence counselors, working with childhood traumas more strongly predicted PTSD symptoms than working with adult traumas. Thus, exposure to client trauma, especially childhood trauma and interpersonal trauma, appears to predict PTSD symptoms in most cases.

The relationship between exposure and maladaptive beliefs, however, is not as clear. Using the TSI-BSL to study vicarious traumatization, researchers have found mixed results about how exposure relates to beliefs. In two studies (Pearlman & Mac Ian, 1995; Schauben & Frazier, 1995) exposure to trauma material significantly predicted increased cognitive disruptions, especially having less esteem for others. In four studies there was no significant relationship between exposure and maladaptive beliefs (Bober & Regehr, 2006; Brady et al., 1999; Cunningham, 2003; van Minnen & Keijsers, 2000), and in one study, exposure was significantly related to fewer maladaptive beliefs (Baird & Jenkins, 2003).

In Cunningham's (2003) study, trauma counselors' percentage of sexual abuse clients in their caseload did not correlate significantly with beliefs; however, for oncology social workers, having a higher percentage of clients with cancer was significantly correlated with a greater sense of their own and others' safety. Sexual abuse counselors in this study had significantly less trust in others and less esteem for others than counselors working with cancer patients. Also in Bober and Regehr's (2006) study, rape counselors had significantly less belief in personal control and significantly more maladaptive beliefs overall than other counselors. Overall, though sexual violence counselors may experience more disrupted beliefs than others, the relationship between exposure and beliefs is yet unclear.

Originally, researchers assumed that having more experience as a trauma counselor would relate to more symptoms of vicarious trauma. Currently, however, new counselors appear to be most at risk. Several studies have found that less counseling experience is related to more intrusions and avoidance (Chrestman, 1999; Creamer & Liddle, 2005; Way, VanDeusen, Martin, Applegate, & Jandle, 2004). However, in their study of firefighters, Wagner et al. (1998) found that more experience as a firefighter correlated with having more PTSD symptoms, and in their study of sexual abuse



perpetrator counselors, Steed and Bicknell (2001) found a U-shaped relationship between experience and avoidance with new and very experienced counselors reporting more avoidance than counselors with moderate experience. Thus, for counselors of trauma victims, less experience may predict more symptoms, but for firefighters and sex offender counselors, other patterns may exist or patterns may be unpredictable.

Studies show somewhat mixed results for the relationship between experience and beliefs. Pearlman and Mac Ian (1995) found that newer trauma therapists had more disruptions in self-trust, self-intimacy, and self-esteem, and Cunningham (2003) found that newer trauma therapists had less self-safety and less other-esteem than more experienced trauma therapists. Baird and Jenkins (2003) found no significant correlations between experience and beliefs. Bober and Regehr (2006), however, found that more experienced trauma therapists had more maladaptive beliefs about intimacy with others than newer therapists. Qualitative studies (Illife & Steed, 2000; Lonergan et al., 2004) indicate that trauma therapists' development involves a period of cognitive disruptions then resolution to more stable and positive beliefs, though some views are permanently darker. Differences in quantitative results, then, may indicate changes over time, which are unique to how individual therapists adapt their beliefs to the traumatic experiences of clients.

Training, education, and type of work appear to predict vicarious traumatization. Counselors who had more training had fewer symptoms of PTSD (Chrestman, 1999; Gentry, Baggerly, & Baranowsky, 2004; Pearlman & Mac Ian, 1995) and fewer maladaptive beliefs (Pearlman & Mac Ian). Counselors with more education were found to have fewer PTSD symptoms (Chrestman, 1999) and fewer cognitive disruptions (Baird & Jenkins, 2003). Counselors working in a hospital setting had significantly more PTSD symptoms than those in other settings (Pearlman & Mac Ian); police had significantly more symptoms than counselors (Follette, Polusny, & Milbeck, 1994); and counselors had significantly more disrupted beliefs (in trusting others) than managers or supervisors (Bober & Regehr, 2006). Thus, education and training may help prevent some of the negative effects of working with trauma clients, but the setting and type of work also have an effect.

Having a supportive work environment, supervision, and social support also appear to be negatively correlated with VT. Supportive working environment (Boscarino et al., 2004; Ortlepp & Friedman, 2002) and salary (Adams et al., 2001; Chrestman, 1999) were negatively correlated with VT symptoms. Receiving supervision was negatively correlated with VT symptoms (Ennis & Horne, 2003) and with cognitive disruptions (Pearlman & Mac Ian, 1995). Quality of supervision, based on the working alliance perceived by the supervisee, was negatively correlated with cognitive disruptions but was not significantly correlated with VT symptoms (Dunkley & Whelan, 2006). In one study, social support from friends and family was not significantly correlated with trauma symptoms, but in three other studies social support from friends, family, and peers significantly and negatively correlated with VT symptoms (Ennis & Horne; Ortlepp & Friedman) and with cognitive disruptions (Adams et al., 2001).

Overall, contextual variables have an important impact on therapists' experience of VT. Vulnerability to VT is related to high exposure to clients' trauma, especially childhood sexual trauma and interpersonal trauma, to having less experience as a trauma counselor, less education and training, a less supportive work environment, lower salary, less supervision, and less social support from friends and family.

*Individual variables.* Individual variables have also been explored, including age, gender, race, culture, personal trauma history, personal therapy, attachment style, personal stress level, and coping strategies. Younger age has been correlated with more trauma symptoms (Adams et al., 2001; Bober & Regehr, 2006; Creamer & Liddle, 2005; Nelson-Gardell & Harris, 2003); however, since younger therapists typically have less experience conducting trauma therapy, these results may reflect a difference in experience. Bober and Regehr found that older therapists (and those with more experience) had more disruptions in other-intimacy. Baird and Jenkins (2003) found that age did not significantly correlate with cognitive disruptions. Thus, younger and less experienced therapists may have more symptoms of vicarious trauma, but the relationship with cognitive disruptions is not clear.

Gender and race are often unmentioned in studies of vicarious traumatization. In most studies, gender was not a significant predictor of trauma symptoms (Boscarino et al., 2004; Creamer & Liddle, 2005; Eidelson, D'Alessio, & Eidelson, 2003; Ennis &

Horne, 2003, Way et al., 2004) nor of cognitive disruptions (Adams et al., 2001). In Adams et al.'s study, females reported significantly more intrusions than males, and Kassam-Adams (1999) found that females reported significantly more intrusions and avoidance than males. However, in a study (Way, VanDeusen, & Cottrell, 2007) including victim and sex offender counselors (most sex offender counselors were male), males reported more disruptions in self-intimacy and self-esteem. Violanti and Gehrke (2004) found that type of trauma affects people by gender. In their study of police, female officers' risk of PTSD symptoms was significantly predicted by seeing abused children and by seeing someone die, but male officers' risk of PTSD symptoms was predicted by the shooting of a colleague, working on a homicide case, and to a small degree by seeing abused children. Race was mentioned in two studies (Adams et al., Boscarino et al.) as not being significantly correlated with trauma symptoms or with cognitive disruptions.

Though culture is also rarely mentioned in VT studies, research from different countries has shown similar results. Most studies were conducted within the United States, but others were conducted in Canada (Bober & Regehr, 2006), Israel (Hyman, 2004; Hyman, 2005), South Africa (Ortlepp & Friedman, 2002), Australia (Deville, Wright, & Varker, 2009; Dunkley & Whelan, 2006; Steed & Bicknell, 2001), and Germany (Wagner et al., 1998). Racanelli (2005) studied American and Israeli counselors working with victims of terrorism and found no significant differences in overall compassion fatigue scores; however, Israeli counselors did have significantly higher avoidance scores. Racanelli suggests Israeli counselors' avoidance may be a cultural response based on the culture being "formed by many years of threats and acts of terrorism" (p. 121).

Several researchers have hypothesized that counselors' personal trauma history may affect their experiences of VT. Some studies of trauma symptoms show a significant positive relation between personal trauma history and vicarious trauma symptoms of intrusions and avoidance (Follette, Polusny, & Milbeck, 1994; Hyman, 2004; Jenkins & Baird, 2002; Kassam-Adams, 1999; Nelson-Gardell & Harris, 2003; Pearlman & Mac Ian, 1995). In other studies, however, no significant difference was found (Bober & Regehr, 2006; Creamer & Liddle, 2005; Dunkley & Whelan, 2006; Way et al., 2004). Most studies of cognitive disruptions show no significant relation with personal trauma

history, but some show positive correlations with personal trauma history. In five studies no significant associations were found between personal trauma history and maladaptive beliefs (Adams et al., 2001; Bober & Regehr; Dunkley & Whelan; Jenkins & Baird, 2002; Schauben & Frazier, 1995), but in three studies trauma history positively and significantly correlated with cognitive disruptions (Cunningham, 1999; Pearlman & Mac Ian, 1995). In two studies (Bober & Regehr; Creamer & Liddle) researchers looked at trauma history along with history of receiving personal therapy, expecting to find that therapy may alleviate the effects of trauma. In both studies, they found that although trauma history did not correlate with intrusions and avoidance, receiving personal therapy did positively correlate with these symptoms and with disrupted cognitions. The researchers suggested that therapists who are significantly affected by their trauma, enough to seek counseling, may be more vulnerable than other therapists who experienced trauma.

Another possible explanation of these findings lies in the process of trauma recovery and healing. Many trauma survivors suppress memories of their traumas, living functional lives for some time without working through the traumatic experiences. Worell and Remer (2003) described this stage of recovery as a time when survivors need to feel in control, using “denial, suppression, and minimization” of the trauma (p. 217). They noted that survivors may stay in this stage for years. At a later time, PTSD symptoms may appear that motivate the survivors to seek therapy and begin the painful process of healing. Throughout the healing process, the trauma may seem fresh. For counselors, clients’ trauma material may trigger recollections of and reactions to the counselors’ own similar trauma material. For counselors who are trauma survivors in the denial stage, clients’ trauma material may not reach their suppressed experiences enough to trigger a traumatic reaction. Thus, differences in results regarding personal trauma history may reflect the counselors’ point in the healing process. The vast majority of VT research to date is cross-sectional, limiting the range of explanations that have been tested.

Theorizing that less secure attachment styles would make counselors more vulnerable to VT, Marmaras, Lee, Siegel, and Reich (2003) found that fearful-avoidant, preoccupied, and dismissive attachment styles significantly predicted intrusions and avoidance. Attachment styles accounted for 15% of the variance in intrusion and

avoidance in their sample of 375 female therapists of trauma survivors. The authors suggested that having a secure attachment style allows counselors to be comfortable with their relationship with trauma clients and to adequately cope with feelings that arise from the work.

Levels of personal stress and use of coping strategies may impact VT. Follette et al. (1994) found that intrusions and avoidance were positively correlated with reported levels of stress from counselors' personal lives. Intrusions and avoidance were negatively correlated with the use of negative coping strategies, (i.e., counselors' use of alcohol and other unhealthy ways of coping correlated with fewer VT symptoms). However, Way et al. (2004) found negative coping to positively correlate with intrusions and avoidance, and Dunkley and Whelan (2006) found negative coping predicted more cognitive disruptions. Positive coping by spending time in research activities was negatively correlated with trauma symptoms (Chrestman, 1999), and the positive coping style of dealing with problems was predictive of less cognitive disruption (Dunkley & Whelan). However, coping did not significantly predict intrusions, avoidance, or hyperarousal symptoms in Dunkley and Whelan's study. Bober and Regehr (2006) found that counselors who spent more time doing self-care reported more esteem for others, and those who spent more time in leisure activities had healthier beliefs overall, more self-intimacy and intimacy with others. However, in the same study, when hours per week working with trauma survivors was controlled, time spent using coping strategies did not significantly predict trauma symptoms. Thus, coping strategies may be effective when exposure is not too high.

Much has been learned through qualitative and quantitative studies about how counselors experience VT and about what might predict VT. Limitations of the extant research, however, prevent a rich understanding of the context of VT and of the benefits of conducting trauma counseling.

#### *Vicarious Posttraumatic Growth*

Much of the literature about trauma has focused on the negative sequelae of trauma, such as PTSD, depression, substance abuse, and relational problems. Some researchers, however, are beginning to note that trauma often results in positive changes for the survivor. In fact, the goal of trauma counseling is to help the victim manage the

negative effects and eventually develop a positive meaning for the trauma (Worell & Remer, 2003). Figley (1985) referred to this final step in the healing process as moving from victim to survivor. Positive change after trauma has been termed posttraumatic growth (PTG), defined as “the experience of significant positive change arising from the struggle with a major life crisis” (Calhoun, Cann, Tedeschi, & McMillan, 2000, p. 521). Tedeschi and Calhoun (1996) developed the Posttraumatic Growth Inventory (PTGI) to measure posttraumatic growth along the dimensions of relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. Research of PTG will be briefly described, and the scant research of vicarious PTG will be discussed.

*Theories Applied to Posttraumatic Growth*

Research of PTG draws on Taylor’s (1983) theory of cognitive adaptation and on Joseph and Linley’s (2005) organismic valuing theory. According to Taylor’s theory of cognitive adaptation, when confronted with a threatening experience, people adjust to the experience by making sense or meaning of it (similar to CSDT’s constructivist approach), by restoring their sense of control, and by maintaining self-esteem. Addressing how cancer patients cope, Taylor suggests that sense of control and self-esteem are often sustained through illusions about safety and self.

Joseph and Linley’s (2005) organismic valuing theory (OVT) and CSDT both draw on Janoff-Bulman’s (1992) work on how trauma shatters victims’ assumptive worlds, challenging the schemas by which experience is organized. In the midst of this shattering of assumptions, OVT suggests that there is an innate drive toward growth. Like CSDT, OVT views symptoms of intrusions and avoidance as adaptive attempts to cognitively and emotionally process the experience. Three possible outcomes of processing trauma are theorized: assimilation of the experience into current schemas, negative accommodation of schemas (resulting in cynical or negative views), and positive accommodation of schemas that leads to personal growth and well-being. These possible outcomes are similar to CSDT’s awareness that VT can result in isolated, burned-out, cynical therapists or can be processed in ways that lead to enhanced skill and rewards from trauma counseling (vicarious PTG).

The relationship between distress and PTG has been difficult to establish. Because PTG may be initiated by a shattering of assumptions, it might be expected to arise in the

midst of distress, but over time, according to the theories, distress should recede and PTG remain. In a meta-analysis of stress-related growth, Helgeson, Reynolds, and Tomich (2006) found that PTG was positively related to well-being and negatively related to depression; however, it was positively related to intrusions and avoidance. They suggested that intrusions and avoidance are signs of cognitive processing associated with PTG. In two recent studies, researchers have found a significant curvilinear relationship between PTG and PTSD symptoms. Levine, Laufer, Hamama-Raz, Stein, and Solomon (2008), in a study of Israeli adolescents exposed to terror, found that moderate levels of PTSD were associated with the most PTG. Lower levels of PTSD may not create enough distress to initiate the process of accommodation, and higher levels of PTSD may overwhelm the capacity for growth at that time. Similarly, Kleim and Ehlers (2009), in a study of physical and sexual assault survivors in Britain, found that moderate levels of PTG were associated with the most PTSD and depression symptoms. They interpreted the results by describing three groups: (a) those with low symptoms and low PTG who may not have enough distress to initiate the process of growth, (b) those with high symptoms and moderate PTG who may be currently processing the experience, and (c) those with low symptoms and high PTG who may have processed the trauma and achieved a PTG outcome.

Several researchers have investigated how cognitive processing leads to PTG. In a study of bereaved Japanese university students (Taku et al., 2008) models of rumination leading to PTG and PTSD symptoms were explored. Three models were tested to determine how intrusive and deliberate rumination affect outcomes and how rumination immediately after the event vs. recent rumination affects current outcomes. The model with the best fit (using SEM) indicated that intrusive rumination after the event was associated with recent intrusive rumination, and recent intrusive rumination was directly related to PTSD symptoms. Deliberate rumination after the event was directly related to PTG. Thus, cognitive processing of the stressful event led to both distress and growth, but different timing and kind of rumination affected the outcome. Taku et al. found that levels of distress remained present even when growth had occurred. They suggested that the loss involved was so central that some distress might always remain.

One criticism of the theory and research of PTG is that current studies have not been able to disentangle the *process* of growth from growth *outcomes* (Butler, 2007; Helgeson et al., 2006). In an effort to disentangle process from outcome, Park, Edmondson, Fenster, and Blank (2008) used causal modeling to test a path from meaning-making (process) to meanings made (outcome) to psychological well-being. In a sample of cancer survivors two to three years' post-treatment, they found that positive reframe coping (used here to measure meaning-making process) was associated with PTG and life meaning. Life meaning was negatively associated with violation of just world beliefs and was positively associated with psychological well-being. Thus, finding positive meaning and positive changes from surviving cancer was linked to well-being. Interestingly, the violation of just world beliefs was linked to repetitive thoughts or cognitive processing that was negatively associated with well-being. Edmondson et al. concluded that disruption of positive beliefs about the world leads to more cognitive processing that is accompanied by distress. However, they surmised that once the disruption in beliefs is resolved, the rumination and distress would cease and well-being would result.

Qualitative and mixed methods studies, however, reveal different end results from processing trauma. In one British study, Payne, Joseph, and Tudway (2007) found three themes that mapped onto OVT: adversarial trauma, attempts to assimilate, and drive to accommodation. Participants described their traumas as shattering their beliefs and creating cognitive dissonance. Some attempted to quickly reduce the dissonance by assimilating the trauma into their pre-trauma schemas, but these attempts involved negating or minimizing information from the trauma. Others accommodated their schemas in different ways (some negatively and some positively). Payne et al. also describe a mixed accommodation in which survivors reported feeling more alert and cautious since the trauma, but also having closer relationships.

Davis, Wohl, and Verberg (2007) interviewed and surveyed close family members of those killed in the Westray mine explosion in Canada, eight years after the event. They used quantitative measures to cluster the participants into groups, then qualitatively examined each group. One group appeared to have experienced a shattering of assumptions, processed the loss, made meaning of it and gained inner strength. A



second group also had assumptions shattered, but did not make meaning of the event and had a more negative philosophy of life after the event. The third group did not report shattered assumptions or positive change from the event and instead described not dwelling on the event. Although the authors did not label the groups using any theory, OVT appears to map onto their results, with groups representing positive and negative accommodation and assimilation through minimizing.

### *Predictors of Posttraumatic Growth*

Predictors of PTG confirm the theories of PTG and add to the understanding of it. In alignment with theory, severity of the stressor (Helgeson et al., 2006; Kleim & Ehlers, 2009) and rumination just after the event (Kleim & Ehlers; Taku et al., 2008) both positively predict PTG. Several demographic variables predict PTG: women report more PTG than men (Helgeson et al.), ethnic minorities report more PTG than Whites (Helgeson et al.; Kleim & Ehlers), younger age predicts PTG (Helgeson et al.), and education negatively predicts PTG (Grubaugh & Resick, 2007). Optimistic personality, religiousness (Helgeson et al.; Kleim & Ehlers), and positive coping (Park, Aldwin, Fenster, & Snyder, 2008) also predict PTG, although Helgeson et al. point out that religiousness may predict PTG partly because one domain of PTG relates specifically to spirituality.

In two studies, researchers examined the role of coping in PTG more specifically. In a study of reactions to the terrorist attacks of September 11, Park, Aldwin et al. (2008) found that anger and positive coping were associated with PTG while depression and negative coping were more strongly associated with PTSD symptoms. Comparing two causal models, with emotion leading to coping style and vice versa, the model with emotion leading to coping style had a better fit to the data. Anger was related to positive coping, which was related to PTG; depression was related to negative coping, which was related to PTSD. In another study to refine understanding of coping and PTG, social support coping was found to partially mediate the relationship between gender and PTG (Swickert & Hittner, 2009): since women use social support coping more than men and social support is associated with PTG, women report more PTG than men. Thus, positive coping, including using social support, is associated with higher levels of growth.

### *Studies of Vicarious Posttraumatic Growth*

At the time the PTGI (Tedeschi & Calhoun, 1996) was developed to measure PTG in trauma survivors, Stamm (2002) added a compassion satisfaction subscale to Figley's (1995) Compassion Fatigue Self Test, in order to assess the positive effects of working with trauma survivors. Stamm reasoned that in spite of the stress and difficulties of trauma work, most trauma workers continue to work with trauma survivors and are motivated to help others; therefore, conducting trauma work must have some intrinsic reward. Using the Compassion Satisfaction and Fatigue Test (CSFT) with Stamm's compassion satisfaction subscale, Racanelli (2005) found that counselors with more trauma counseling experience reported more compassion satisfaction than those with less. This finding about the role of experience coincides with PTG theory and research. In theory, time would be required for trauma survivors to process their experiences and reconstruct schemas. Helgeson et al. (2006) found that time since the trauma moderated the relationship between benefit finding and well-being, so that survivors who reported positive changes from trauma had more well-being and less depression with more time since the trauma. New trauma therapists may have less vicarious PTG than experienced therapists due to the time needed to accommodate clients' trauma material. Racanelli also found that having a supportive work environment and having social support positively correlated with compassion satisfaction. Thus, experience and support may allow counselors to process VT and experience vicarious PTG from their work.

In qualitative studies, researchers provide a rich description of the positive effects of trauma counseling. In these studies, counselors discussed feeling empowered by seeing their clients' healing from trauma, gaining increased empathy and compassion, and having enhanced competency and skills (Arnold, et al., 2005; Benatar, 2000; Lyon, 1993). On a personal level, counselors described feeling wiser or having a deepened spirituality, gaining an appreciation of the strength of the human spirit, and feeling a sense of gratitude or good fortune about their own lives (Arnold et al; Steed & Downing, 1998). Several counselors also reported that they had become involved in activism as a result of their work with trauma clients (Benatar; Illife & Steed, 2000).

Some effects found in qualitative studies were both positive and negative or were neutral. Counselors reported that they felt less safe generally and that they had become

more protective of their children; they also said, however, that this increased sense of vulnerability caused them to appreciate life more and want to live more fully (Marriage & Marriage, 2005; Steed & Downing, 1998; van Minnen & Keijsers, 2000). Awareness of the dark side of human existence was enhanced for trauma counselors, but they often interpreted this change positively (Benatar, 2000; Illife & Steed, 2000; Lyon, 1993): counselors reported being more sensitive to racism and sexism and feeling more prepared for negative life events. Some counselors said that seeing their clients' resilience had increased their optimism (Arnold et al., 2005). These reports by counselors mirror the results of Payne et al. (2007) who found a group of trauma survivors with mixed accommodation: survivors reported being more cautious since the trauma but also having closer relationships. Effects of trauma counseling appear to be temporarily negative (sadness or anger after a session) and perhaps permanently disillusioning, but positive in an enduring way.

Counselors reported evolving responses to trauma counseling as they gained more experience. Specifically, they reported that when they first began trauma counseling, they had a tendency to take too much responsibility for clients, not maintaining appropriate boundaries; they saw abuse everywhere; they struggled to balance presence and perspective in sessions; and they doubted their effectiveness with trauma clients (Illife & Steed, 2000; Lonergan et al., 2004; Marriage & Marriage, 2005). In a study specifically to assess trauma counselor development, Lonergan et al. found that counselors' view of therapy and their view of self changed. As counselors progressed, they trusted the process of therapy more, they understood their work as one small piece of clients' healing process, and they valued the therapeutic relationship over techniques. They also began to see their feelings as necessary rather than viewing them as a sign of weakness; they moved through a crisis of meaning to find that the work was hopeful; and they found ways to cope with the negative effects of trauma counseling. These qualitative studies support CSDT's emphasis on VT as adaptation (McCann & Pearlman, 1990) and fit well with feminist theory's emphasis on counselor development (Porter & Vasquez, 1997).

Focusing on the positive side of trauma counseling is also a way of valuing the multifaceted experiences of trauma counselors and recognizing their strengths. This

perspective opposes the push toward pathologizing counselors and opens up the view to consider the context of trauma counseling.

### *Considering Context*

Vicarious traumatization researchers have considered some aspects of support for trauma counselors' work and have generally found that support significantly predicts less VT. Other measures of context, however, have often been neglected. Sense of belonging and perceived racism and sexism in the workplace may also impact VT and vicarious PTG. The construct of sense of belonging, used most often in educational psychology research, may add to the picture of counselors' context by showing how much counselors feel accepted and respected in their workplace. Sense of belonging has been found to predict motivation, achievement, and better mental health. Additionally, feminist theory emphasizes the role of oppression in well-being (Worell & Remer, 2003). If subtle racism or sexism is present in the workplace, counselors may be more vulnerable to VT due to the underlying lack of support.

### *Counselor Support*

Studies of VT already summarized here show that social support from friends, family, and colleagues may help alleviate VT symptoms and add to vicarious PTG. In a qualitative study of trauma counselors, Sommer and Cox (2005) also found that counselors appreciated supervision that was specific to trauma counseling and that involved an acceptance and understanding of VT. Thus, trauma-specific supervision and support, especially from co-workers, may be important moderators of VT for counselors.

### *Sense of Belonging*

Counselors' sense of belonging in the workplace may impact their general well-being and the skillfulness of their response to clients' trauma material. Sense of belonging has been defined as a basic human need to have caring interactions with others (Baumeister & Leary, 1995) and as a sense of "psychological membership" (Goodenow, 1993) in an organization. Baumeister and Leary presented information indicating that a lack of belonging can result in stress, physical illness, mental illness, criminal activity, and suicide, and several studies found a positive relationship between sense of belonging and physical health (Krause & Wulff, 2005; Oldfield, McLaren, & McLachlan, 2003; Ross, 2002). Studies of sense of belonging in schools have demonstrated a relationship

between sense of belonging and well-being (Anderman, 1999; Roeser, Midgley, & Urdan, 1996), and studies of the workplace have found that sense of belonging correlates with job satisfaction and job performance (Godard, 2001; Griva & Joekes, 2003; Ilardi, Leone, Kasser, & Ryan, 1993; Spear, Wood, Chawla, Devis, & Nelson, 2004).

Most relevantly to trauma response, sense of belonging may impact mental health. In studies of sense of belonging and depression, sense of belonging moderated the effects of stress on depression (Choenarom, Williams, & Hagerty, 2005) and was a negative predictor of depression for gay men (McLaren, Jude, & McLachlan, 2008) and lesbians (McLaren, 2009). For aged persons, sense of belonging predicted more reasons for living (Kissane & McLaren, 2006). Sense of belonging also appears to predict fewer PTSD symptoms and more PTG. In two meta-analyses of PTSD studies (Brewin, Andrews, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2003), social support or sense of belonging was one of the strongest predictors of PTSD symptoms, with sense of belonging negatively predicting PTSD symptoms. In a recent study of PTSD and PTG related to terrorist bombings in Israel (Dekel & Nuttman-Shwartz, 2009), sense of belonging to the country predicted less PTSD and more PTG.

If sense of belonging mitigates the effects of stress and trauma, it may also moderate the effects of exposure to clients' trauma material. As a facilitator of well-being, sense of belonging may create the positive space necessary for counselors to process their trauma work. In this model, counselors do not suffer alone, but reach out for informal consultation with colleagues, share their responses with supervisors, and receive support for the developmental process of VT.

*Sense of belonging and attachment.* Sense of belonging may also create attachment security for trauma counselors that would provide them with better strategies for affect regulation. In their discussions of sense of belonging and relatedness, Baumeister and Leary (1995) and Deci and Ryan (2000) drew on Bowlby's (1988) early work on attachment theory. Bowlby believed that attachment was a basic need and that interactions with the primary caregiver in infancy can determine a person's attachment style (secure, fearful, or avoidant); that attachment style is then carried into adult relationships. When caregivers are responsive and emotionally warm, meeting the physical and emotional needs of the infant, the infant will develop a secure attachment

style, in which the person has a general sense that others will meet his or her needs and discomfort will be temporary. People with a secure attachment style also internalize the caregiver and so are able to soothe and comfort themselves. Without secure attachment, less healthy styles of relating are developed (Mikulincer, Shaver, & Pereg, 2003). If the caregiver meets needs sporadically and is not able to provide for the infant's needs as they arise, a fearful attachment style may develop, in which the person expresses distress in order to get needs met but never feels certain or trusting. Neglectful or emotionally distant care-giving can result in an avoidant attachment style, in which the person no longer expects needs to be met and so withdraws from others.

Although psychoanalytic theory generally holds that these attachment styles are fairly stable throughout life, Deci and Ryan (2000) argue that needs for attachment or relatedness can be met in one's current environment (that is, attachment style from infancy does not predestine one's sense of belonging). Their self-determination theory emphasizes how the needs of autonomy, competence, and relatedness are met in the "immediate social context" (p. 262), and they propose that attachment or relatedness varies for a single person across relationships. Baumeister and Leary (1995) also contend that people can have their needs for belonging met by different people, that if a significant relationship ends, another one is often quickly begun, so that sense of belonging is maintained even through death and divorce.

Attachment theorists posit that attachment style is not irrevocably set in childhood. In fact, with this framework, the main goal of therapy is "to restore a sense of attachment security and facilitate the formation of security-based strategies for affect regulation" (Mikulincer et al., 2003, p. 100). Therapists help restore security by providing a kind of holding environment in which the therapist empathically hears the client's pain and trauma without being overwhelmed. The therapist is able to contain the strong affect evoked by the client's stories and meet the client's needs for empathy, caring, and attachment. Attachment security then results in "positive expectations about others' availability and positive views of the self as competent and valued" (p. 79). These beliefs form the basis of strategies for regulating affect. Those with secure attachment will have optimistic beliefs about their own ability to cope with distress and will trust that others will help if they need external support. Positive coping strategies of expressing emotions

and seeking help from others are then successfully employed and distress is reduced without resorting to negative coping strategies.

*Vicarious traumatization and attachment.* When trauma therapists have secure attachments with other trauma therapists, the same benefits clients receive in relational therapy should be available to them. They would be able to talk about their strong reactions to client trauma material without overwhelming the other trauma therapists; their expressions of emotion would be held empathically, and they would receive appropriate support. More experienced trauma counselors may also be able to model specific positive coping and hopeful cognitive beliefs related to trauma work. This conceptualization of attachment presupposes both individual secure attachment style and an adequate level of relatedness of belonging in the current workplace context.

Interestingly, some of the positive beliefs associated with secure attachment are beliefs that are often challenged in the process of VT. McCann and Pearlman (1990) theorized that cognitive schemas affected by primary trauma and by VT involve beliefs about how much others can be trusted, how much control one has over one's life, and how much one is competent to handle problems. The findings of studies support McCann and Pearlman's theory (Adams et al., 2001; Baird & Jenkins, 2003; Cunningham, 2003; Pearlman & Mac Ian, 1995). In particular, working with rape victims and victims of sexual abuse appears to lower counselors' belief in personal control, in how much others can be trusted, and in the general goodness of others (Bober & Regehr, 2006). The implications are that trauma counseling can disrupt secure attachment beliefs. Thus, maintaining secure attachments may be important if trauma counselors are to maintain faith in their competence and in the availability of others. Having a sense of belonging in the workplace may facilitate secure attachments with colleagues and supervisors, thus enabling trauma counselors to hold the strong emotions they and their clients experience and to cope with the cognitive disruptions that accompany trauma counseling.

#### *Perceived Racism and Sexism in the Workplace*

Although no previous studies of VT have included measures of perceived racism or sexism in the workplace, these factors may greatly affect the experience of counselors. Counseling centers may not be thought of as places where racism and sexism are evident, but Tinsley-Jones' (2001) interviews with licensed psychologists led her to conclude that

“racism is in psychology’s midst” (p. 578). Specifically psychologists in her study reported subtle racism in their workplaces, such as being asked to serve as a representative for their race or feeling that they had to minimize signs of their ethnicity.

*Unintentional racism and sexism.* These more subtle forms of sexism and racism are coming to be understood as the most prevalent in our current era. Sue (2005) wrote that the image of the pathological white supremacist functions to keep average people from acknowledging their own unconscious racism. Through subtle acts of discrimination and through a failure to challenge systemic racism, privilege and oppression are maintained by ordinary well-intentioned people. Ridley (2005) wrote, “unintentional racism is perhaps the most insidious form of racial victimization” (p. 39).

In this climate of subtle racism and sexism, important information could be gained from measuring racism and sexism by asking about the general environment of the workplace and apparently-innocuous or unintended acts of discrimination. The usual approach to studying racism and sexism in the workplace is to survey the oppressed group and ask about their experiences. For example, Welsh (1999) reviewed the literature about sexual harassment in the workplace, summarizing findings that direct experiences of sexual harassment are associated with decreased job satisfaction, poorer relationships at work, anxiety, depression, headaches, nausea, and sleep disturbance. Some women quit or lose their jobs due to sexual harassment. These studies of sexism and racism are valuable in delineating the harms of overt oppression; however, studying more subtle forms of racism and sexism can begin to illuminate the context of specific acts of discrimination.

*Studies of racist and sexist work climate.* In studies of workplace climate or environment, researchers have found that having a sexist or racist workplace was associated with lower job satisfaction, lower sense of influence, and lower sense of belonging. Measuring perceived sexism in corporate settings with the Working Environment Scale (WES), Stokes, Riger, and Sullivan (1995) found that higher perceptions of sexism correlated negatively with workers’ intent to stay at their current jobs; this correlation was present for both men and women participants. Looking at job satisfaction in a study of non-faculty university employees, Bond, Punnett, Pyle, Cazeca, and Cooperman (2004) found that low perceived sexism predicted job satisfaction. In



these studies, a significant link was found between sexist climate and job satisfaction, but climate may also affect employees' sense of power or influence. In a study of women scientists, Settles, Cortina, Malley, and Stewart (2006) found that sexist climate negatively predicted job satisfaction and the degree of influence they felt they had in the department. Subtle racist climate in the workplace has been studied by Ormerod, Karageorge, Wiese, Cumberlander, Anderson, Remer, et al. (1998). Looking at occupational tolerance for racial and ethnic harassment (OTREH), Ormerod et al. found that OTREH correlated significantly and negatively with job satisfaction. The results of these studies support the conclusion that a climate of subtle racism and sexism in the workplace deteriorate workers' satisfaction with their work and their sense of influence at work.

These subtle forms of racism and sexism may also detract from employees' sense of belonging at work. In a study of 109 counselors, Hahn (2006) found that perceived sexism, perceived racism, and OTREH predicted counselors' sense of belonging in the workplace. Because the Hahn study influenced the measures used in the current study, I will discuss it in detail. Controlling for gender, part-time/full-time status, and years worked at the agency, perceived sexism uniquely predicted sense of belonging; the model accounted for 33% of the variance in sense of belonging at work. Controlling for race/ethnicity, part-time/full-time status, and years worked at the agency, perceived racism predicted sense of belonging; the model accounted for 22% of the variance in sense of belonging at work. A similar regression with OTREH accounted for 22% of the variance in sense of belonging, with OTREH significantly predicting sense of belonging at work. In this sample of counselors, subtle sexism and racism appeared to impact counselors' sense that they belonged in their workplaces. These results were significant for the total sample, which was 75% female and 36% people of color. People of color perceived slightly more racism than whites,  $F(1) = 7.51, p < .01, E^2 = .05$ .

Brief scales for sexism, racism, and sense of belonging in the workplace were adapted or developed in Hahn's (2006) study. To measure sexism in the workplace, the 15-item Working Environment Scale-Short Form (WES-SF; Stokes et al., 1995), which measures subtle gender discrimination, was adapted. To conform to counselor work settings, the word "office" was changed to "agency," and reverse scoring was changed so

that high scores indicate high perceived sexism. With the collected data, principle components analysis was then conducted, and the scale was shortened to eight items (see Appendix A for a more thorough explanation of scale development). Both the short and long forms of the WES were then used to develop items measuring perceived racism in the workplace. A 15-item scale was created, and principle components analysis was conducted, resulting in a brief, 9-item measure of subtle racism in the workplace: the Brief Perceived Racism in the Workplace scale (BRW; see Appendix B). Finally, to measure sense of belonging in the workplace, Goodenow's (1993) 18-item Psychological Sense of School Membership scale was adapted for the workplace, and principle components analysis was conducted to create a 9-item sense of belonging in the workplace scale (see Appendix C).

Interestingly, in Hahn's (2006) study, perceived racism, perceived sexism, and OTREH were highly and significantly correlated (racism and sexism,  $r = .69$ ; racism and OTREH,  $r = .70$ ; sexism and OTREH,  $r = .57$ , all  $p < .01$ ). These results indicate that an environment which permits racism may also be likely to permit sexism and vice versa. Stokes et al. (1995) suggested this conclusion in their study of sexism in corporate settings: "discrimination on the basis of gender may be part of a pattern of hostile treatment of all workers, indicating a pervasive dehumanization of people in an organization" (p. 546). Racism and sexism, in fact, are only two types of oppression among the many experienced by people in the workplace. Sanchez-Hucles and Hudgins (2001) wrote that treatment for trauma survivors should address "the ongoing trauma of sexism, racism, and economic, educational, and political disenfranchisement" (p. 1168). Research exploring how to foster growth in trauma counselors should also address sexism, racism, and other methods of subjugation in the workplace.

#### *Limitations of Previous Research*

Previous studies of VT have been limited by methodological considerations such as sampling methods, measures, and rigor of qualitative analyses. Researchers have also neglected the context of VT and the positive outcomes for trauma counselors.

#### *Limitations of Qualitative Research*

Sampling and methodological issues limit the generalizability and validity of qualitative studies. Much of the qualitative research of VT has been limited to women. In

most studies, female participants greatly outnumber males. For instance, in seven studies, a total of 90 women and 20 men were interviewed (Arnold et al, 2005; Bell, 2003; Benatar, 2000; Illife & Steed, 2000; Lonergan et al., 2004; Sommer & Cox, 2005; Steed & Downing, 1998). In only one qualitative study were the numbers of men and women relatively equal (Arnold et al.). This imbalance in proportion of participants could affect the pattern of findings. Most qualitative methods focused on themes common to several participants. Thus, men's perspectives of trauma counseling may not come through in the results. Similarly, participants' ethnicity is not mentioned in the qualitative studies, with the exception of Bell's study with 75% white, 23% Hispanic, and 3% African American participants. Results may reflect white trauma counselor perspectives, but ethnic minority counselors may have different perceptions to add to the understanding of VT. Although these proportions of participants may reflect the imbalance within the field of counseling, results should not be generalized to all trauma counselors.

The quality of research methods used varies considerably between studies. Some researchers are careful about confidentiality and inter-rater reliability and use established methods for coding and interpreting data, but other studies do not appear to be as thorough. One study presented data from interviews that were not confidential; interviews were videotaped to be used as training materials (Marriage & Marriage, 2005). Another study reported information gathered from hospital staff during supervision groups and training sessions over the course of a year (Lyon, 1993). The quality of the research methods, and hence the validity of the results, is inconsistent in qualitative studies of VT.

#### *Limitations of Quantitative Research*

The quantitative research of VT has been limited by both methodological issues and broader theoretical considerations. Methodologically, understanding of VT is limited by problematic measures, convenience sampling, and cross-sectional designs of studies. Researchers have studied intra-personal variables that predict VT but have neglected to study the interpersonal context of the workplace and the rewards of trauma counseling.

*Methodological limitations.* The quantitative VT research has several methodological limitations, including measurement issues, sampling strategies, and use of cross-sectional designs. Most studies of VT use established measures such as the Impact of Event Scale; however, some studies do not use these measures and instead

create their own questionnaires. To assess the impact of the September 11 attacks on therapists, one study used one item to assess increased work-stress, one item to assess increased positive feelings about work, and one item to assess increased negative feelings about work. Each item was considered an adequate measure of attitude (Eidelson et al., 2003). Another study used marital status as a measure of social support (Boscarino et al., 2004). Although these studies do yield interesting information, the strength of the results is compromised by weak measures. Established measures may also have problematic validity. The Compassion Fatigue Self-Test (CFST; Figley, 1995), for instance, has questionable content validity: the Compassion Fatigue subscale of the CFST is meant to measure risk for VT, but has more items related to primary trauma than items specifically related to vicarious trauma.

Sampling issues also weaken the results of VT studies. Most studies of VT use convenience sampling methods rather than random sampling, with a few exceptions (Adams et al., 2001; Brady et al., 1999; Cunningham, 2003). Use of random sampling ensures that some of the extraneous variables are controlled. With convenience sampling, measurement error is higher, and results must be interpreted with caution. As with qualitative studies, in quantitative research, men and minorities are under-represented. Some studies survey only women counselors (Marmaras et al., 2003), and others have 75% to 95% women participants (Kassam-Adams, 1999 and Jenkins & Baird, 2002, respectively). The overwhelming majority of participants are White. Thus, male and ethnic minority experiences of VT have not been adequately measured.

If VT is an experience that develops as counselors are exposed to trauma material, longitudinal studies would be most appropriate for measuring the course of VT. Only one study of VT in mental health workers has used a longitudinal design. Collins and Long (2003) assessed VT in a multidisciplinary trauma recovery team working to help survivors of the Omagh bombing in Ireland. VT was assessed several times throughout the 18 months the team was in place. Results indicated that VT rose in the year following the bombing and fell in the six months in which recovery was concluding. The pattern of increasing and then decreasing VT matches interpretations of research about trauma counseling experience; this particular study, however, measured VT in the context of a discrete trauma. For most trauma counselors, exposure to clients' trauma material may

occur regularly, clients are in different stages of healing, and some clients (domestic violence victims or abused children) may continue to be traumatized during the course of therapy. More longitudinal studies are needed to explore the development of VT in beginning trauma counselors.

Additionally, conclusions about what contributes to or alleviates VT cannot be supported by cross-sectional studies alone. Studies indicate that social support predicts low VT, but qualitative studies report that one effect of trauma counseling is isolation. Thus, social support may alleviate VT or high VT may cause counselors to withdraw socially and thus receive less social support. Longitudinal studies could aid in establishing the direction of effects.

*Putting vicarious traumatization in context.* Though a few studies have measured contextual predictors of VT, most continue to assess individual factors. When individual factors only are entered into regression analyses, results can be misleading. In Nelson-Gardell and Harris' (2003) study, participants attending a workshop about VT filled out a questionnaire about personal trauma and completed the CFST. Only demographic information and personal trauma history were entered into the regression to predict VT. No contextual variables were controlled. Results indicated that age significantly predicted VT and that a history of emotional or sexual abuse significantly predicted VT. In contrast to this study, Bober and Regehr (2006) measured time spent in coping strategies, personal trauma history, receiving therapy, and hours per week working with trauma survivors. Only weekly exposure to trauma clients significantly predicted VT. Although differences in results may be due to different samples or different measures, leaving out exposure and context can create a picture that appears to blame counselors for their experience of VT.

Qualitative studies reveal the positive effects of working with trauma clients, and studies using the Compassion Satisfaction and Fatigue Scale have measured the benefits counselors gain from their work. The bulk of studies of vicarious traumatization, however, have focused on the painful and negative aspects of VT. Just as trauma clients need to make positive meaning from their trauma, counselors need to access the rewards of their work if they are to continue as effective trauma counselors. Studies that assess the long-term gains of trauma counseling work can begin to acknowledge the strength of

trauma counselors and the rewards of the work. By measuring vicarious PTG, researchers can avoid pathologizing counselors and begin to see a more complex picture.

Finally, only one study of VT in counselors assesses the effectiveness of an intervention. Gentry et al. (2004) measured VT before and after a two-day didactic and experiential training that teaches the participants how to deliver a program to help people heal from VT. Mean scores did significantly decrease over the two days, and compassion satisfaction scores increased significantly. The study is limited in that it measures VT immediately after the training but does not provide a later follow-up to assess how robust the intervention was. More interventions should be evaluated for their effectiveness in reducing or preventing VT.

In sum, if counselors are not to be blamed for their empathic response to trauma clients, vicarious trauma must be studied in context, with attention to the workplace, and vicarious trauma should be understood as a process of both pain and growth. Studies of workplace context can eventually lead to policies and programs that buffer the pain of transformation and facilitate the development of effective counselors. Additionally, future studies of vicarious trauma could include more men and people of color, utilize valid measures and random sampling, and include longitudinal designs.

#### *The Current Study*

Taking into consideration the limitations of previous research, in the current study I attended primarily to the context of counselors' work in predicting VT and vicarious PTG. Efforts were made to use reliable sampling methods and measures, and CSDT and feminist theory were used to develop variables and analyses. Rather than use convenience sampling, I used stratified random sampling to recruit counselors from domestic violence and rape crisis centers, and I sent recruitment messages to all APA-approved internship and postdoctoral sites in the United States. Where established measures were available, they were used, and variables reflecting attitudes or internal experience were measured with two to three items.

In order to refine the measurement of exposure to clients' trauma material, exposure was divided into amount of exposure and intensity of exposure (similar to Brady et al.'s 1999 study measuring exposure to graphic detail), based on the theory of trauma and VT. Although hearing about clients' traumas may cause VT and eventually

vicarious PTG, hearing vaguely about trauma (i.e., that the client witnessed combat) versus hearing a fully detailed description of the trauma as part of exposure therapy may have very different effects on counselors.

Variables individual to the counselor and directly relevant to VT and vicarious PTG were also measured. Experience with trauma counseling, education level, and training for trauma counseling were measured. These variables described the individual counselor rather than the work setting, but in previous research they have been shown to buffer the experience of VT and may also affect vicarious PTG.

Variables describing the workplace context of counselors were of particular interest in this study. Several variables were measured to determine which contextual variables have the most impact on VT and vicarious PTG: work setting, amount of supervision, quality of supervision for VT, agency acceptance of VT reactions, support for VT at work, perceived sexism, perceived racism, and sense of belonging at work. Type of work setting was measured to determine if domestic violence/rape crisis centers differed from APA-approved internship and postdoctoral sites in predicting VT and vicarious PTG.

CSDT and theories of PTG describe the necessity of cognitively and emotionally processing traumatic material in order to move through VT and attain PTG. Because counselors are bound by client confidentiality, processing details of clients' stories is most appropriately done in supervision or with fellow counselors who are also bound by confidentiality. In this study, I measured four variables relevant to this process: amount of supervision, support for VT at work (the number of counselors in their agency with whom they felt comfortable sharing a reaction to clients' trauma material), quality of supervision for VT, and agency acceptance of VT reactions. Supervisor and agency acceptance of VT reactions may be important in the working through process. If counselors' reactions to client trauma are pathologized, they may be less likely to accept and process these reactions. These variables improve on past research that studied social support generally or support at work, but did not ask about support specifically for VT. Although CSDT is accepting of counselors' reactions to client trauma material, some psychologists and counselor workplaces may pathologize these reactions or consider processing these reactions as more appropriate for personal therapy rather than

supervision. Concerns may arise about counselors' boundaries, needs to "rescue" clients, or impairment. Because VT has been conceptualized differently as a disorder and as a normal developmental process, acceptance and support for VT may vary across supervisors and sites.

Several variables encompass the workplace climate and the individual's sense of belonging at work. Agency acceptance of VT reactions measures the workplace climate most relevant for VT, and perceived racism, perceived sexism, and sense of belonging at work also relate to the climate of the workplace for counselors. Feminist theory emphasizes the role of oppression in individuals' experiences, and counselors have reported some subtle racism and sexism in their workplaces (Hahn, 2006; Tinsley-Jones, 2001). Thus perceived racism and sexism were measured. Finally, sense of belonging in the workplace was measured to determine if sense of belonging might buffer VT or aid in vicarious PTG.

These variables were entered into two hierarchical regressions: one to predict VT symptoms and one to predict vicarious PTG. Variables were entered in blocks to determine how sets of variables added to the amount of variance explained, beyond the variance explained by previously-entered sets of variables. As exposure is considered the primary cause of VT and the initiating experience of PTG, amount of exposure and intensity of exposure were entered in the first step of the regressions. I was interested in determining if individual variables of experience with trauma work, education level, and training in trauma counseling would add to the variance beyond that explained by amount and intensity of exposure. These latter variables were entered in the second step of the regressions. If these individual variables added to the variance explained by exposure, they may buffer the experience of VT or aid in vicarious PTG. I was also interested in determining if workplace context variables would provide significant additional variance beyond that accounted for by exposure and individual variables. Workplace context variables were added in the third step of the regressions: work setting, amount of supervision, quality of supervision for VT, agency acceptance of VT reactions, support for VT at work, perceived sexism, perceived racism, and sense of belonging at work. If these variables contributed to the variance beyond that explained by previously-entered



variables, then workplace context would clearly be important in the prediction of VT symptoms and vicarious PTG.

I was especially interested in the role of sense of belonging in the workplace because of its theoretical significance for attachment and well-being. Sense of belonging in the workplace may be said to incorporate both the individual's attachment style or ability to perceive support and the actual presence of acceptance and support in that specific workplace. Both of these aspects of sense of belonging may impact the ability of individuals to work through VT and achieve vicarious PTG. Possibly, sense of belonging moderates the relationships between exposure and VT and between exposure and vicarious PTG; individuals with a greater sense of belonging may respond differently to exposure than those with lower sense of belonging. Thus, I tested the interactions of amount of exposure by sense of belonging and intensity of exposure by sense of belonging in two regressions predicting VT symptoms and vicarious PTG.

Although this study drew on previous empirical research of predictors of VT, it improved on previous studies by relying more on the theories of VT and PTG, and it was informed by feminist theory. Variables in this study were more specific to VT and the processing of trauma, and contextual variables necessary to allow for processing were examined rather than personal variables that may result in victim-blaming of therapists with VT reactions. Finally, this study was one of the few quantitative studies to measure vicarious PTG, thus acknowledging the positive outcomes of counseling trauma survivors.

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## Chapter 2: Research Design and Methods

In this cross-sectional study of counselors, features of the workplace context were measured to determine which contextual variables predict vicarious trauma symptoms and vicarious posttraumatic growth. In this chapter, I present information about the participants, measures, operational definitions of variables, hypotheses, study design, procedure, and statistical analyses.

### *Participants*

Participants were recruited from pre-doctoral internship sites, post-doctoral residency sites, and domestic violence and rape crisis centers in the United States (U.S.). Before recruiting, I calculated the number of participants I would need for the analysis. Using one of the most conservative methods for calculating number of participants, in order to conduct a hierarchical regression with a total of 13 independent variables, 260 participants would be needed (calculated by multiplying the number of independent variables by 20; from Mertler & Vannatta, 2005). Tabachnick and Fidell (2007) use a formula to calculate the appropriate ratio of cases to independent variables in a regression:  $N \geq 50 + 8m$  (where  $m$  is the number of independent variables) or, for testing individual predictors,  $104 + m$ . Calculating both (154 and 117, respectively) and taking the larger number, with 13 independent variables, 154 participants would be needed. When recruitment concluded, the total number of people who had accessed the survey was 347; however, only 278 had completed any items, and only 234 had completed the outcome measures. These 234 constituted the sample for this study.

The demographic profile of interns was expected to be similar to that obtained in a pilot study of a similar population. In that study (Hahn, 2006), 75% of the participants were female, 64% identified as White, 14% African American, 8% Latin American/Hispanic, 3% Multiracial, 2% Asian/Pacific Islander, and 9% as Other. However, in recruiting for the pilot study, I used list-servs specifically for people of color; thus, the current sample was expected to have a higher percentage of White participants. For counselors in rape crisis centers and domestic violence agencies, I anticipated that about 95% would be female. In another study of sexual assault and domestic violence counselors, Jenkins and Baird (2002) found the sample was 95% female and 77% White.

## *Measures*

Dependent and independent variables were operationalized through established scales and items based on prior research. The entire questionnaire used in the study is presented in Appendix D. Several extant measures have been adapted for use in this study. The original measures can be found in Appendices A through C. Additional items about sense of belonging and maladaptive beliefs were included in the questionnaire but were not analyzed for this study.

### *Demographic Information*

*Gender.* Participants were asked to report their gender.

*Age.* Participants were asked to provide their age in years.

*Race/ethnicity.* Participants were asked their race/ethnicity.

### *Independent Variables*

Exposure to client trauma material as well as contextual variables that may predict VT and vicarious PTG were measured.

*Amount of exposure to client trauma material.* Amount of exposure to client trauma material was conceptualized as the number of clients seen who are trauma survivors. Brady et al. (1999) measured exposure with five items: current number of trauma clients, current percentage of caseload representing trauma survivors, average number of trauma clients over the course of career, average percentage of caseload who were trauma survivors over the course of career, and level of graphic details of trauma shared. The fifth item appears to measure intensity of exposure rather than amount of exposure, and the fourth item (percentage of caseload over course of career) was not significantly related to VT in Brady et al.'s study. Thus, for this study, the first three items were used as a measure of amount of exposure to client trauma material. The items asked respondents how many hours per week they currently spend counseling trauma survivors, how many hours per week on average over the course of their career they have spent counseling trauma survivors, and what percentage of their current caseload are trauma survivors. After standardizing scores on these three items, due to the different scales used, the mean of these scores was used as a measure of amount of exposure to client trauma material. Because Brady et al. used each item as a separate measure, no reliability statistics for the scale were reported.

*Intensity of exposure to client trauma material.* Intensity of exposure to client trauma material was conceptualized as exposure to the graphic details of clients' traumatic events. A three-item scale was developed for this study, including one item used by Brady et al. (1999) and two newly-developed items. Participants were asked how much they have been exposed to the graphic details of their clients' traumatic events (from Brady et al.), how much of the sensory aspects of traumatic events their clients have shared with them, and how much they have been exposed to detailed descriptions of their clients' traumatic experiences. The mean of the three items was used as a measure of intensity of exposure to client trauma material.

*Education level.* Education level was conceptualized as amount of education received, including highest degree received and extra years of education. Participants were asked to record which category best represented the education they had achieved. Categories began with high school diploma or GED and progressed in roughly two-year increments: two years of college, bachelor's degree, master's degree, master's degree plus two years of additional coursework, and doctorate.

*Experience with trauma work.* Trauma work experience was conceptualized as the number of years participants had worked with trauma survivors.

*Training in trauma counseling.* Trauma counseling training was conceptualized as the amount of training received specifically for trauma counseling. Two items asked about trauma counseling training received from their current agency and outside of their agency. The total of these two items served as a measure of trauma counseling training.

*Work setting.* Work setting was the type of workplace. For this study, participants were recruited from domestic violence and sexual assault centers and from APA-accredited internship and post-doctoral sites. For internship and post-doctoral sites to receive APA accreditation, they must demonstrate a commitment to the supervision and training of interns and post-doctoral residents who are completing their clinical training before becoming licensed to practice independently. Sites range from university counseling centers to Veterans' Administration hospitals. The *Guidelines and Principles for Accreditation of Programs in Professional Psychology* (Committee on Accreditation, 2008) outline the importance of supervision and training, requiring internship sites to provide four hours of weekly supervision to interns, including two individual supervision

hours, and asserting that “training considerations take precedence over service delivery” (p. 21 for internship sites, p. 34 for post-doctoral residencies). The *Guidelines* also articulate the professional and scientific aspect of the internship and post-doctoral programs, as “psychological practice is based on the science of psychology” (p. 20 and p. 33), and training includes “socialization into the profession of psychology” (p. 21 and p. 33). Domestic violence and sexual assault centers, on the other hand, generally have a mission related to service to trauma survivors and education of the community. These centers typically developed out of grass-roots efforts to help survivors of violence, and their primary work is often responding to survivors in crisis, going to the hospital with rape survivors or providing shelter and crisis counseling for domestic violence survivors.

*Amount of supervision.* Counselors may receive both formal and informal supervision, talking about their clients with their clinical supervisors or with trusted colleagues. The sum of two items measuring formal and informal supervision received each month was used as a measure of amount of supervision.

*Quality of supervision for VT.* Quality of supervision for VT was conceptualized as how well clinical supervision helps counselors in their work with trauma clients and how well their formal supervision helps them accept and work through their own responses to clients’ trauma material. The mean of two items, answered on a five-point scale, was used to measure quality of supervision for vicarious trauma.

*Agency acceptance of VT reactions.* Agency acceptance of VT reactions was conceptualized as the level of acceptance and support in the agency culture or norms for counselors’ reactions to client trauma material. The mean of two items, answered on a five-point scale, was used to measure agency acceptance of VT reactions.

*Support for VT at work.* Support for VT at work was conceptualized as the availability of co-workers with whom the participant could process reactions to clients. To assess the amount of actual support available at work for vicarious traumatization, I originally intended to calculate a ratio of counselors at their site whom the participant could talk to about a reaction to clients’ trauma material. With this intention, participants were asked how many counselors work at their agency and with how many counselors at their agency they would feel comfortable sharing an emotional reaction to trauma clients’ material. To use a ratio as the measure, I would divide the second number by the first,

creating a proportion indicating how easy or difficult it is to receive support, with “1” indicating complete support and lower numbers indicating less than complete support. Once the data were collected, however, this measure was problematic. A few participants reported 0 for the second item, making a ratio impossible to calculate. The more significant problem, however, was that some participants work at large agencies or sites with as many as 100 counselors. In the case of large sites, the expectation would be that participants would not feel comfortable talking with a high percentage of these colleagues about their reactions to clients; thus, the ratio would not be a valid measure of support at work for VT. Therefore, I chose to use only the second item as a measure of support at work, indicating the number of counselors at their site with whom they feel comfortable sharing a reaction to clients’ trauma material.

*Perceived sexism.* Perceived sexism was conceptualized as subtle sexism in the workplace. Perceived sexism was measured with an eight-item scale, shortened from the WES-SF (Stokes et al., 1995) in a previous study (Hahn, 2006; see Appendix A). Both the original WES-SF, with a sample of corporate workers, and the shortened version, with a sample of counselors, had good internal consistency ( $\alpha = .93$  in Stokes et al.;  $\alpha = .88$  in Hahn). Items ask about equal treatment of men and women in the workplace. For instance, one item is, “In this agency, people pay just as much attention when women speak as when men speak.” Items were answered on a Likert-type scale from 1 to 5, with 1 indicating “do not agree at all” and 5 indicating “strongly agree.” The mean of all items was used as a single score for the scale, with some items reverse-scored so that higher scores indicate more perceived sexism at work.

*Perceived racism.* Perceived racism was conceptualized as the presence of subtle racism in the workplace. The Brief Perceived Racism in the Workplace Scale (BPR) is a nine-item scale created by adapting items from the WES so that they measure perceived racism rather than perceived sexism (see Appendix B). In a previous study of counselors, the scale showed good internal consistency ( $\alpha = .90$ ; Hahn, 2006). Items asked how much racism is perceived in the work environment. For example, one item is, “In general, this agency is a good place for minorities to work.” Items are answered on a five-point Likert-type scale ranging from 1, “do not agree at all” to 5, “strongly agree.” Some items were

reverse scored so that higher numbers indicate higher perceived racism in the workplace. The mean of item scores was calculated to measure perceived racism.

*Sense of belonging in the workplace.* Sense of belonging in the workplace is sense of membership at work, or how much one feels “personally accepted, respected, included, and supported by others” (Goodenow, 1993, p. 80) in the workplace. The brief measure of sense of belonging in the workplace used in this study includes nine items adapted from Goodenow’s Psychological Sense of School Membership scale (see Appendix C). In a previous study of counselors (Hahn, 2006), this brief version of the scale had good internal consistency,  $\alpha = .87$ . A sample item is, “I feel like a real part of this organization.” Participants endorsed statements on a scale from one to five, one being “not at all true” of their workplace and five being “completely true” of their workplace. The mean of all items was used as a measure of sense of belonging in the workplace.

#### *Dependent Variables*

In order to measure VT in a more holistic way, two measures were used to assess different facets of VT: a measure of VT symptoms and a measure of vicarious PTG.

*Vicarious trauma symptoms.* VT symptoms are symptoms of PTSD that occur as a result of working empathically with trauma clients. In order to measure symptoms of VT, the Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1997) was used, with instructions adapted to measure symptoms related to clients’ trauma material. This 22-item scale measures intrusion, avoidance, and hyperarousal resulting from a traumatic event. Participants are asked to indicate the degree of distress caused by particular symptoms in the past seven days, using a scale of 1, “not at all,” to 5, “extremely.” Total scores were calculated by summing the items.

Widely used to assess trauma symptoms, the IES-R has demonstrated reliability and validity. The IES-R had excellent internal consistency in a sample of survivors of motor vehicle accidents ( $\alpha = .95$ ; Beck et al., 2008) and in a sample of college students ( $\alpha = .94$ ; Adkins, Weathers, McDevitt-Murphy, & Daniels, 2008). It demonstrated adequate test-retest reliability ( $r = .76$ ; Adkins et al.). Convergent and discriminant validity have been demonstrated by high correlations with other measures of PTSD symptoms, low correlations with a measure of alcohol abuse, and moderate correlations with a measure of depression (Beck et al.; Weiss, 2004). Beck et al. found the IES-R able to differentiate

between participants with PTSD and those without PTSD, with diagnosis based on a structured clinical interview, and in a comparison with other measures of PTSD, Adkins et al. determined that the IES-R was one of the best measures for predicting sub-syndromal PTSD.

Although developed for use with primary trauma, the IES-R has been used in studies of VT (Marmaras et al., 2003; Steed & Bicknell, 2001). Instructions were adapted so that the traumatic event is phrased as “counseling work with trauma survivors.” In a sample of female therapists working with adult trauma survivors, Marmaras et al. found a significant correlation between IES-R scores and Traumatic Stress Institute Belief Scale scores,  $r = .58, p < .01$ , indicating the expected relation between VT symptoms and disrupted beliefs. An established measure of trauma response, the IES-R appears to be valid and reliable for measuring VT symptoms.

*Vicarious posttraumatic growth.* Vicarious PTG is conceptualized as positive changes resulting from counseling trauma clients. The 21-item Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), with instructions slightly modified, was used to measure vicarious PTG. In the PTGI, respondents are asked to endorse how much they have experienced specific positive changes as a result of a crisis. For the purposes of this study, the PTGI was adapted so that instructions focus on positive changes as a result of counseling work with trauma survivors. Dimensions of PTG measured include positive changes in relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. Participants answered on a six-point scale from 0, “I did not experience this change as a result of my work with trauma survivors,” to 5, “I experienced this change to a very great degree as a result of my work with trauma survivors.” A sample item is “Having compassion for others.” The total score will be used in this study, calculated by taking the sum of all items.

Studies using the PTGI indicate strong reliability and validity. Total score  $\alpha$ 's ranged from .89 to .95 in previous studies of bereaved parents (Engelkemeyer & Marwit, 2008; Polatinsky & Esprey, 2000), university students (Tedeschi & Calhoun, 1996) and a mixed sample from a university and a court jury pool (Smith & Cook, 2004), and test-retest reliability with university students was .71 (Tedeschi & Calhoun). PTGI total scores correlated significantly and positively with the personality traits of optimism,



religiosity, openness, conscientiousness, extraversion, and agreeableness (Tedeschi & Calhoun). Additionally, participants with a severe trauma had significantly higher scores on the PTGI than those without trauma (Tedeschi & Calhoun), indicating that the growth measured does result specifically from the experience of trauma. With a sample of undergraduate students and their significant others in Australia, Shakespeare-Finch and Enders (2008) tested the validity of the PTGI as a self-report measure; significant others reported similar changes in trauma survivors as the survivors' self-reports ( $r = .61, p < .001$ ). Thus, the PTGI appears to be a valid and reliable measure of PTG. No previous studies have used the PTGI to measure vicarious PTG.

### *Operational Definitions*

Variables were specifically operationalized as described in this section.

Demographic variables were assessed with single items, independent variables with items and scales, and dependent variables with established measures.

#### *Demographic Variables*

Demographic variables were measured for descriptive purposes only.

*Gender.* Gender was measured by one item in which participants reported their gender, coded as 0 = male, 1 = female.

*Age.* Age was measured by one open-ended item in which participants recorded their age in years.

*Race/ethnicity.* Race/ethnicity was measured by one item in which participants reported their race/ethnicity, with response possibilities of 1 = African-American/Black/African Origin, 2 = Asian-American/Asian Origin/Pacific Islander, 3 = Latino-a/Hispanic, 4 = American Indian/Alaska Native/Aboriginal Canadian, 5 = European Origin/White, and 6 = Bi-racial/Multi-racial, 7 = Other (Specify:\_\_\_\_\_).

#### *Independent Variables*

Independent variables were measured to determine which factors predict VT and vicarious PTG for counselors.

*Amount of exposure to client trauma material.* Amount of exposure to client trauma material was measured using three items that asked how many hours per week participants currently spend counseling trauma survivors, how many hours per week on average over the course of their career they have spent counseling trauma survivors, and

what percentage of their current caseload are trauma survivors. Due to the different scales of the items, answers were converted to  $z$ -scores, and the mean of the three  $z$ -scores was used as the measure of amount of exposure, with higher scores indicating more exposure.

*Intensity of exposure to client trauma material.* Intensity of exposure was measured with the mean of three items asking about how much the participant has been exposed to the graphic details of their clients' traumatic events, with answers from 1 = "not at all" to 5 = "very much," with higher scores indicating a greater intensity of exposure.

*Education level.* Education level was measured with one item in which participants reported their current education level, with categories in increments of roughly two years. Possible answers were 1 = "high school diploma or GED," 2 = "two years of college," 3 = "bachelor's degree," 4 = "master's degree," 5 = "master's degree plus 2 years of additional coursework," and 6 = "doctorate." Education level was used as a continuous variable in the regressions.

*Experience with trauma work.* Trauma work experience was measured with a single item in which participants reported how many years they have worked with trauma clients.

*Training in trauma counseling.* Trauma counseling training was measured with the sum of two items asking participants how many hours of training in trauma counseling they received in their agency and outside of their agencies.

*Work setting.* Work setting was assessed with a single item asking participants about their current work, with response choices of 1 = "counselor at domestic violence and/or sexual assault center" or 2 = "pre- or post-doctoral intern."

*Amount of supervision.* Two items assessed the amount of formal and informal supervision received. One item asked participants how many hours on average per month they receive formal individual or group supervision. The second item asked how many hours on average per month they spend in informal supervision with peers or supervisors. The total of these two items was used as a measure of the amount of supervision received, indicating hours per month the participant spends in formal and informal supervision.

*Quality of supervision for VT.* Quality of supervision for VT was measured by taking the mean of two items that asked participants how well the formal supervision helps them in their work with trauma clients and helps them work through their own responses to client trauma material. Answers ranged from 1 = “not at all” to 5 = “very much,” with higher scores indicating greater quality of supervision for trauma work.

*Agency acceptance of VT reactions.* Two items asked about the agency’s acceptance of VT reactions: how accepting is your agency about counselors having reactions to clients’ trauma material, and how supportive is your agency in helping counselors work through their responses to clients’ trauma material. Response choices ranged from 1 = “little support or acceptance” to 5 = “a lot of support and acceptance.” The mean of the two items was used as a measure of agency acceptance of VT reactions.

*Support for VT at work.* Support for VT at work was assessed with one item asking how many counselors in their agency the participant would feel comfortable talking with about a reaction to clients’ trauma material. Higher scores indicate more support for VT at work.

*Perceived sexism.* Perceived sexism was measured using an eight-item scale. Participants read statements and answered on a scale from 1 = “do not agree at all” to 5 = “strongly agree.” The mean of the items served as the measure of perceived sexism, with higher scores indicating more perceived sexism at work.

*Perceived racism.* Perceived racism was measured using the nine-item Brief Perceived Racism in the Workplace Scale (Hahn, 2006). Participants responded to statements, answering on a scale from 1 = “do not agree at all” to 5 = “strongly agree.” The mean of the items served as the measure of perceived racism, with higher scores indicating more perceived racism at work.

*Sense of belonging in the workplace.* Sense of belonging in the workplace was measured using a nine-item scale adapted from Goodenow’s (1993) Psychological Sense of School Membership scale. Participants endorsed statements on a scale from 1 = “not at all true” to 5 = “completely true.” The mean of the items served as the measure of sense of belonging with higher scores indicating a greater sense of belonging at work.

### *Dependent Variables*

Dependent variables were measured with established instruments, with instructions modified to measure vicarious trauma and vicarious PTG.

*Vicarious trauma symptoms.* VT symptoms were measured using Weiss and Marmar's (1995) 22-item Impact of Event Scale-Revised, with instructions slightly modified to measure vicarious trauma rather than primary trauma. Participants responded to statements about the effects of working with trauma survivors, endorsing the response that best represents how much the particular effect bothered them in the past seven days, with responses ranging from 1 = "not at all" to 5 = "extremely." The total score was calculated by summing the items, with higher scores indicating more VT symptoms.

*Vicarious posttraumatic growth.* Vicarious PTG was measured with the 21-item Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), with instructions slightly modified to measure growth from working with trauma survivors. Participants endorsed statements about changes in their lives on a scale from 0 = "I did not experience this change as a result of my work with trauma survivors" to 5 = "I experienced this change to a great degree as a result of my work with trauma survivors." The total score was calculated by summing the items, with higher scores indicated more vicarious PTG.

### *Hypotheses*

I investigated the hypotheses described in this section (see Table 2.1). Three purposes of the study were first, to investigate which variables uniquely predict VT symptoms and vicarious PTG, second, to determine if training and education variables and/or workplace context variables add to the prediction of VT symptoms and vicarious PTG, and third, to explore sense of belonging as a possible moderator. Specifically, the following individual variables were examined for their unique contribution to the prediction of VT symptoms and vicarious PTG: amount of exposure to client trauma material, intensity of exposure to client trauma material, education level, experience with trauma work, training in trauma counseling, work setting, amount of supervision, quality of supervision for VT, agency acceptance of VT reactions, support for VT at work, perceived sexism, perceived racism, and sense of belonging. Education, experience, and training were examined to determine if they added significantly to the variance explained by amount and intensity of exposure, and then the remaining variables related to

workplace context were examined to determine what additional variance they added to the models. Additionally, sense of belonging was explored as a variable that may moderate the relationships between (a) amount of exposure to client trauma material and VT symptoms, (b) amount of exposure and vicarious PTG, (c) intensity of exposure to client trauma material and VT symptoms, and (d) intensity of exposure and vicarious PTG.

### *Hypothesis 1*

Amount of exposure to clients' trauma material and intensity of exposure to clients' trauma material was hypothesized to positively predict VT symptoms and vicarious PTG.

*Hypothesis 1a.* Amount of exposure to clients' trauma material will significantly positively predict VT symptoms. The theory of VT posits that VT develops in response to empathic exposure to another's trauma (Figley, 1995) or as an effect of trauma counseling on the therapist (McCann & Pearlman, 1990). Studies have supported this theory, with amount of exposure to trauma clients related to VT (Bober & Regehr, 2006; Boscarino et al., 2004; Brady et al., 1999; Chrestman, 1999; Creamer & Liddle, 2005; Kassam-Adams, 1999; Schauben & Frazier, 1995).

$$H_0: \beta_{\text{AmtExp/VT}} = 0$$

$$H_1: \beta_{\text{AmtExp/VT}} > 0$$

*Hypothesis 1b.* Amount of exposure to clients' trauma material will significantly positively predict vicarious PTG. PTG is defined as positive changes resulting from a significant stressor (Calhoun et al., 2000); thus, exposure to a stressor would be expected to positively predict PTG. Supporting this theory, previous researchers found that severity of stressor was associated with PTG (Helgeson et al., 2006; Kleim & Ehlers, 2009).

$$H_0: \beta_{\text{AmtExp/PTG}} = 0$$

$$H_1: \beta_{\text{AmtExp/PTG}} > 0$$

*Hypothesis 1c.* Intensity of exposure to clients' trauma material will significantly positively predict VT symptoms. Exposure to the graphic details of clients' trauma material may also affect VT; Brady et al. (1999), in a national study of female

psychologists, found that exposure to graphic detail was significantly associated with VT.

$$H_0: \beta_{\text{IntExp/VT}} = 0$$

$$H_1: \beta_{\text{IntExp/VT}} > 0$$

*Hypothesis 1d.* Intensity of exposure to clients' trauma material will significantly positively predict vicarious PTG. Intensity of exposure represents one aspect of exposure to a stressor, and previous studies (Helgeson et al., 2006; Kleim & Ehlers, 2009) have demonstrated that severity of stressor is positively related to PTG.

$$H_0: \beta_{\text{IntExp/PTG}} = 0$$

$$H_1: \beta_{\text{IntExp/PTG}} > 0$$

### *Hypothesis 2*

As demonstrated in previous studies, it was hypothesized that education level, experience with trauma work, and training in trauma counseling would negatively predict VT symptoms and that education level would negatively predict vicarious PTG. Based on the theory of PTG, it was hypothesized that experience with trauma work and training in trauma counseling would positively predict vicarious PTG.

*Hypothesis 2a.* Education level will significantly negatively predict VT symptoms, with more education predicting fewer VT symptoms. In previous studies (Chrestman, 1999; Baird & Jenkins, 2003), counselors with more education had fewer VT symptoms.

$$H_0: \beta_{\text{Ed/VT}} = 0$$

$$H_1: \beta_{\text{Ed/VT}} < 0$$

*Hypothesis 2b.* Education level will negatively predict vicarious PTG, with less education predicting more vicarious PTG. Education level was negatively associated with PTG in a previous study (Grubaugh & Resick, 2007).

$$H_0: \beta_{\text{Ed/PTG}} = 0$$

$$H_1: \beta_{\text{Ed/PTG}} < 0$$

*Hypothesis 2c.* Experience with trauma work will significantly negatively predict VT symptoms, with more experience predictive of fewer VT symptoms. According to CSDT, VT is a developmental process that may be most salient for beginning trauma counselors. VT research has supported this aspect of the theory, as less experienced

trauma counselors have reported more VT symptoms (Chrestman, 1999; Creamer & Liddle, 2005; Way et al., 2004).

$$H_0: \beta_{\text{Exper/VT}} = 0$$

$$H_1: \beta_{\text{Exper/VT}} < 0$$

*Hypothesis 2d.* Experience with trauma work will significantly positively predict vicarious PTG, with more experience predictive of more vicarious PTG. The theory of PTG suggests that PTG occurs over time after a traumatic event, as survivors have time to process the trauma and reconstruct schemas that were disrupted. Since initial trauma counseling experiences may shatter counselors' assumptions, counselors would be expected to report less vicarious PTG with less trauma counseling experience and more vicarious PTG as experience increased. Racanelli (2005) found that counselors with more trauma counseling experience reported more compassion satisfaction.

$$H_0: \beta_{\text{Exper/PTG}} = 0$$

$$H_1: \beta_{\text{Exper/PTG}} > 0$$

*Hypothesis 2e.* Training in trauma counseling will significantly negatively predict VT symptoms, with more training predictive of fewer VT symptoms. In previous studies (Chrestman, 1999; Gentry et al., 2004; Pearlman & Mac Ian, 1995), counselors who had more training reported fewer VT symptoms.

$$H_0: \beta_{\text{Train/VT}} = 0$$

$$H_1: \beta_{\text{Train/VT}} < 0$$

*Hypothesis 2f.* Training in trauma counseling will significantly positively predict vicarious PTG, with more training predictive of more vicarious PTG. Training in trauma counseling should provide counselors with an understanding of the process of recovery from trauma which parallels the process of VT (Pearlman & Saakvitne, 1995). Understanding and accepting the trauma recovery process for clients may aid counselors in working through their own process of VT.

$$H_0: \beta_{\text{Train/PTG}} = 0$$

$$H_1: \beta_{\text{Train/PTG}} > 0$$

### *Hypothesis 3*

It was hypothesized that VT symptoms and vicarious PTG would be predicted by contextual variables in the current work environment, including work setting, amount of

supervision, quality of supervision for VT, agency acceptance of VT reactions, support for VT at work, perceived sexism, perceived racism, and sense of belonging.

*Hypothesis 3a.* Work setting will significantly predict VT symptoms, with internship and post-doc sites predictive of fewer VT symptoms, compared to rape crisis and domestic violence centers. Previous studies of work setting and VT symptoms have indicated that counselors working in hospitals may have more VT symptoms than those in other settings (Pearlman & Mac Ian, 1995), that police have more VT than counselors (Follette et al., 1994), and that counselors have more VT than administrators (Bober & Regehr, 2006). Taken together, these studies suggest that work settings involving more exposure and perhaps more crisis-oriented exposure may create more risk for VT.

$$H_0: \beta_{\text{WkSet/VT}} = 0$$

$$H_1: \beta_{\text{WkSet/VT}} < 0$$

*Hypothesis 3b.* Work setting will significantly predict vicarious PTG. Working in a rape crisis or domestic violence center may predict more vicarious PTG, due to having more exposure to trauma material. Alternatively, working at an internship site may predict more vicarious PTG as these sites may allow more time for client preparation, supervision, and training. Thus, this hypothesis is non-directional.

$$H_0: \beta_{\text{WkSet/PTG}} = 0$$

$$H_1: \beta_{\text{WkSet/PTG}} \neq 0$$

*Hypothesis 3c.* Amount of supervision will significantly negatively predict VT symptoms, with more supervision predictive of fewer VT symptoms. CSDT suggests that, like trauma survivors, trauma counselors need to process the traumatic material to which they are exposed. Supervision may be one venue for this processing, and previous studies indicate that receiving supervision was negatively associated with VT (Ennis & Horne, 2003; Pearlman & Mac Ian, 1995).

$$H_0: \beta_{\text{SupAmt/VT}} = 0$$

$$H_1: \beta_{\text{SupAmt/VT}} < 0$$

*Hypothesis 3d.* Amount of supervision will significantly positively predict vicarious PTG, with more supervision predictive of more vicarious PTG. Theories of VT and PTG both involve necessary processing of the traumatic event, and supervision may



provide a venue for processing which allows counselors to experience vicarious PTG.

$$H_0: \beta_{\text{SupAmt}/\text{PTG}} = 0$$

$$H_1: \beta_{\text{SupAmt}/\text{PTG}} > 0$$

*Hypothesis 3e.* Quality of supervision for VT will significantly negatively predict VT symptoms, with greater quality of supervision predicting fewer VT symptoms. Although supervision would ideally create a space for processing reactions to clients' trauma material, supervision that is accepting of VT and open to processing reactions would allow for counselors to process their reactions to clients' trauma material.

$$H_0: \beta_{\text{SupQual}/\text{VT}} = 0$$

$$H_1: \beta_{\text{SupQual}/\text{VT}} < 0$$

*Hypothesis 3f.* Quality of supervision for VT will significantly positively predict vicarious PTG, with greater quality of supervision predictive of more vicarious PTG. The quality of supervision for VT would impact a counselors' ability to process reactions to clients' traumas and experience vicarious PTG.

$$H_0: \beta_{\text{SupQual}/\text{PTG}} = 0$$

$$H_1: \beta_{\text{SupQual}/\text{PTG}} > 0$$

*Hypothesis 3g.* Acceptance of VT reactions will significantly negatively predict VT symptoms, with greater acceptance predicting fewer VT symptoms. Beyond the space of supervision, the overall agency culture regarding VT may affect counselors' acceptance of their reactions.

$$H_0: \beta_{\text{Accept}/\text{VT}} = 0$$

$$H_1: \beta_{\text{Accept}/\text{VT}} < 0$$

*Hypothesis 3h.* Agency acceptance of VT reactions will significantly positively predict vicarious PTG, with greater acceptance predicting more vicarious PTG. Agency acceptance of VT reactions would create a safe space for processing reactions and allow for counselors to experience vicarious PTG.

$$H_0: \beta_{\text{Accept}/\text{PTG}} = 0$$

$$H_1: \beta_{\text{Accept}/\text{PTG}} > 0$$

*Hypothesis 3i.* Support for VT at work will significantly negatively predict VT symptoms, with more support predicting fewer VT symptoms. According to CSDT, processing the reactions to clients' trauma material allows the counselor to rebuild new

schemas and move through the process of VT. Because of client confidentiality, counselors cannot discuss the details of their cases with family and friends but must rely on supervisors and fellow counselors. Having support for VT at work, colleagues that counselors feel comfortable talking to about their reactions, would allow cognitive and emotional processing that is essential to move through VT.

$$H_0: \beta_{\text{Spppt/VT}} = 0$$

$$H_1: \beta_{\text{Spppt/VT}} < 0$$

*Hypothesis 3j.* Support for VT at work will significantly positively predict vicarious PTG, with more support predictive of more vicarious PTG. Support for VT at work (i.e., feeling comfortable talking with a number of colleagues about reactions to clients' trauma material) would allow counselors to process their reactions and experience vicarious PTG.

$$H_0: \beta_{\text{Spppt/PTG}} = 0$$

$$H_1: \beta_{\text{Spppt/PTG}} > 0$$

*Hypothesis 3k.* Perceived sexism will significantly positively predict VT symptoms, with more perceived sexism predicting more VT symptoms. As a part of the overall environment of the workplace, perceived sexism may impact counselors' sense of belonging (Hahn, 2006) and may affect their willingness to discuss emotional reactions or to show vulnerability. Thus, workplaces with subtle sexism may prevent counselors from working through VT.

$$H_0: \beta_{\text{Sxsm/VT}} = 0$$

$$H_1: \beta_{\text{Sxsm/VT}} > 0$$

*Hypothesis 3l.* Perceived sexism will significantly negatively predict vicarious PTG, with less perceived sexism predicting more vicarious PTG. Similarly, perceived sexism at work may prevent counselors from working through VT and achieving vicarious PTG.

$$H_0: \beta_{\text{Sxsm/PTG}} = 0$$

$$H_1: \beta_{\text{Sxsm/PTG}} < 0$$

*Hypothesis 3m.* Perceived racism will significantly positively predict VT symptoms, with more perceived racism predicting more VT symptoms. Perceived racism has also been found to negatively predict sense of belonging at work for counselors

(Hahn, 2006). Subtle racism in the workplace may create barriers to counselors' willingness to process reactions, thus preventing them from working through VT.

$$H_0: \beta_{R_{csm}/VT} = 0$$

$$H_1: \beta_{R_{csm}/VT} > 0$$

*Hypothesis 3n.* Perceived racism will significantly negatively predict vicarious PTG, with less perceived racism predicting more vicarious PTG. As an important aspect of work climate, perceived racism at work may prevent counselors from working through VT and achieving vicarious PTG.

$$H_0: \beta_{R_{csm}/PTG} = 0$$

$$H_1: \beta_{R_{csm}/PTG} < 0$$

*Hypothesis 3o.* Sense of belonging at work will significantly negatively predict VT symptoms, with greater sense of belonging predictive of fewer VT symptoms. Sense of belonging has been found to be associated with job satisfaction and performance (Godard, 2001; Griva & Joeke, 2003; Iardi et al., 1993; Spear et al., 2004) and mental health. Specifically, sense of belonging was associated with less depression (Choenarom et al., 2005; McLaren, 2009; McLaren et al., 2008) and fewer PTSD symptoms (Brewin et al., 2000; Dekel & Nuttman-Schwartz, 2009; Ozer et al., 2003).

$$H_0: \beta_{B_{lng}/VT} = 0$$

$$H_1: \beta_{B_{lng}/VT} < 0$$

*Hypothesis 3p.* Sense of belonging at work will significantly positively predict vicarious PTG, with greater sense of belonging predictive of more vicarious PTG. Sense of belonging has been associated with well-being (Anderman, 1999; Roeser et al., 1996). Sense of belonging at work may create a space for safely for counselors to process reactions to clients' trauma material, allowing for the development of vicarious PTG.

$$H_0: \beta_{B_{lng}/PTG} = 0$$

$$H_1: \beta_{B_{lng}/PTG} > 0$$

#### *Hypothesis 4*

CSDT and theories of PTG postulate that exposure to clients' trauma material is the primary cause of VT and PTG. Other variables may then buffer or exacerbate the experience of VT and may hamper or aid in PTG. To study the contribution of other variables to VT and vicarious PTG, exposure was entered in the first step of the

regression, with other variables entered in additional blocks. It was hypothesized that variables added at each step of the hierarchical regression would add to the variance explained in VT symptoms and vicarious PTG. In other words, it was hypothesized that education level, experience with trauma work, and training in trauma counseling would add to the variance explained by exposure, and that workplace context variables (work setting, amount of supervision, quality of supervision for VT, agency acceptance of VT reactions, support for VT at work, perceived sexism, perceived racism, and sense of belonging) would further add to the explained variance.

*Hypothesis 4a.* The variables of education, experience with trauma work, and training in trauma counseling will significantly add to the variance in VT symptoms, beyond the variance accounted for by amount of exposure to client trauma material and intensity of exposure to client trauma material. Education (Chrestman, 1999; Baird & Jenkins, 2003), experience with trauma work (Chrestman; Creamer & Liddle, 2005; Way et al., 2004), and training (Chrestman; Gentry et al., 2004; Pearlman & Mac Ian, 1995) have been shown to be associated with fewer VT symptoms. Authors have suggested that these variables may buffer the effect of exposure to client trauma material.

$$H_0: \Delta R^2_{Step\ 2/VT} = 0$$

$$H_1: \Delta R^2_{Step\ 2/VT} > 0$$

*Hypothesis 4b.* The variables of education, experience with trauma work, and training in trauma counseling will significantly add to the variance in vicarious PTG, beyond the variance accounted for by amount of exposure to client trauma material and intensity of exposure to client trauma material. In previous studies, education level has been associated with PTG (Grubaugh & Resick, 2007), and experience with trauma work has been associated with vicarious PTG (Racanelli, 2005). These variables, along with training in trauma counseling, which the individual counselors bring to their work, may hamper or aid in the development of vicarious PTG.

$$H_0: \Delta R^2_{Step\ 2/PTG} = 0$$

$$H_1: \Delta R^2_{Step\ 2/PTG} > 0$$

*Hypothesis 4c.* Workplace context variables (work setting, amount of supervision, quality of supervision for VT, agency acceptance of VT reactions, support for VT at work, perceived sexism, perceived racism, and sense of belonging) will significantly add

to the variance in VT symptoms, beyond the variance accounted for by amount of exposure, intensity of exposure, education, experience, and training. According to CSDT and other trauma theories (Herman, 1992), a supportive context is essential to a positive resolution of trauma and VT. In accordance with the feminist principle to examine how the context impacts individuals, I theorized that contextual variables would add to the prediction of VT symptoms, beyond the variance accounted for by variables specific to the individual (exposure, education, experience, and training).

$$H_0: \Delta R^2_{Step\ 3/VT} = 0$$

$$H_1: \Delta R^2_{Step\ 3/VT} > 0$$

*Hypothesis 4d.* Workplace context variables (work setting, amount of supervision, quality of supervision for VT, agency acceptance of VT reactions, support for VT at work, perceived sexism, perceived racism, and sense of belonging) will significantly add to the variance in vicarious PTG, beyond the variance accounted for by amount of exposure, intensity of exposure, education, experience, and training. SDT suggests that a supportive environment is essential to a positive resolution of VT and to the reconstruction of schemas which often results in vicarious PTG. Using CSDT and feminist theory's emphasis on context, I theorized that contextual variables would add to the prediction of vicarious PTG, beyond the variance accounted for by variables specific to the individual (exposure, education, experience, and training).

$$H_0: \Delta R^2_{Step\ 3/PTG} = 0$$

$$H_1: \Delta R^2_{Step\ 3/PTG} > 0$$

*Hypothesis 5*

It was hypothesized that sense of belonging at work would moderate the relation between amount of exposure and VT symptoms, amount of exposure and vicarious PTG, intensity of exposure and VT symptoms, and intensity of exposure and vicarious PTG.

*Hypothesis 5a.* Sense of belonging at work will moderate the relation between amount of exposure to client trauma material and VT symptoms.

$$H_0: \beta_{AmtExpXBIng/VT} = 0$$

$$H_1: \beta_{AmtExpXBIng/VT} \neq 0$$

*Hypothesis 5b.* Sense of belonging at work will moderate the relation between amount of exposure to client trauma material and vicarious PTG.

$$H_0: \beta_{\text{AmtExpXBIng/PTG}} = 0$$

$$H_1: \beta_{\text{AmtExpXBIng/PTG}} \neq 0$$

*Hypothesis 5c.* Sense of belonging at work will moderate the relation between intensity of exposure to client trauma material and VT symptoms.

$$H_0: \beta_{\text{IntExpXBIng/VT}} = 0$$

$$H_1: \beta_{\text{IntExpXBIng/VT}} \neq 0$$

*Hypothesis 5d.* Sense of belonging at work will moderate the relation between intensity of exposure to client trauma material and vicarious PTG.

$$H_0: \beta_{\text{IntExpXBIng/PTG}} = 0$$

$$H_1: \beta_{\text{IntExpXBIng/PTG}} \neq 0$$

### *Study Design*

This study involved cross-sectional survey research of individual counselors working in pre- and post-doctoral internships and domestic violence/sexual assault centers.

### *Procedure*

Once approval was obtained from the University of Kentucky Institutional Review Board, I began recruiting participants. Using the Association of Psychology Postdoctoral and Intern Centers (APPIC) directory, I called training directors at all sites in the U.S. accredited by the American Psychological Association (APA) and then sent a follow-up message via e-mail that included a link to the on-line survey. In the telephone call and e-mail message, I asked directors to forward the message to their interns and post-doctoral residents. In total, I recruited from about 450 internship and post-doctoral residency sites.

To recruit a representative sample from domestic violence and rape crisis centers, I used a stratified random sampling method. Dividing the states by regions (using regions designated by the U.S. Census Bureau: West, Midwest, South, and Northeast), I used a random number calculator ([www.randomizer.org/form.htm](http://www.randomizer.org/form.htm)) to randomly select four states from each region. This process yielded 16 states from which to recruit: Arizona, Montana, Utah, Wyoming, Indiana, Iowa, Kansas, Ohio, Georgia, Kentucky, Tennessee,

West Virginia, Maine, Massachusetts, New Jersey, and Pennsylvania. I used websites (such as the U.S. Department of Justice Violence Against Women Act website) and on-line searches to generate contact information for domestic violence and rape crisis centers in these states. Some websites listed e-mail addresses and telephone numbers, but many states and center websites only provided a telephone number. I then called and spoke to or left messages for center directors, requesting that they forward my e-mail letter to counselors and advocates or (when I did not have their e-mail address) asking them to call me with their e-mail address. As I received e-mail addresses, I then sent the e-mail recruitment letter with the link to the online survey, requesting that they forward this to counselors and advocates at their sites. In total, I recruited from about 380 domestic violence and rape crisis centers.

The recruitment message provided a link to the on-line informed consent information. When participants went to the survey website and endorsed their consent, they were able to complete the on-line questionnaire. The questionnaire was anonymous and took approximately 30 minutes to complete. Data were analyzed using SPSS Statistics 17.0.

#### *Data Analyses*

Preliminary analyses were conducted to test assumptions for regression. Outliers were identified and removed, scales were checked for normality and transformed as necessary, and multicollinearity was assessed. The data were then analyzed using two hierarchical regressions to determine significant predictors of VT symptoms and vicarious PTG and two regressions to test for the moderation of sense of belonging. The first two regressions included the same 13 independent variables entered in three steps with VT symptoms as the dependent variable in the first regression and vicarious PTG as the dependent variable in the second regression. In the first step, two exposure variables were entered; in the second step, three preparation and training variables were entered; in the third step, eight workplace context variables were entered (see Table 2.2).

To test the moderating role of sense of belonging, two additional regressions were conducted with VT symptoms (third regression) and vicarious PTG (fourth regression) as the dependent variables (see Table 2.3). Following procedures advised by Frazier, Tix, and Barron (2004) for testing moderation with regression, the predictor variables of

amount of exposure and intensity of exposure were entered in the first step, the moderator variable of sense of belonging was entered in the second step, the two interaction terms (amount of exposure by sense of belonging, intensity of exposure by sense of belonging) were entered in the third step, and in the fourth step the covariate interaction (amount of exposure by intensity of exposure) was entered.



Table 2.1  
*Research Hypotheses*

Research Hypotheses	Statistical Hypotheses
1a. Amount of exposure will positively predict VT symptoms	$H_0: \beta_{AmtExp/VT} = 0$ $H_1: \beta_{AmtExp/VT} > 0$
1b. Amount of exposure will positively predict vicarious PTG	$H_0: \beta_{AmtExp/PTG} = 0$ $H_1: \beta_{AmtExp/PTG} > 0$
1c. Intensity of exposure will positively predict VT symptoms	$H_0: \beta_{IntExp/VT} = 0$ $H_1: \beta_{IntExp/VT} > 0$
1d. Intensity of exposure will positively predict vicarious PTG	$H_0: \beta_{IntExp/PTG} = 0$ $H_1: \beta_{IntExp/PTG} > 0$
2a. Education level will negatively predict VT symptoms	$H_0: \beta_{Ed/VT} = 0$ $H_1: \beta_{Ed/VT} < 0$
2b. Education level will negatively predict vicarious PTG	$H_0: \beta_{Ed/PTG} = 0$ $H_1: \beta_{Ed/PTG} < 0$
2c. Experience with trauma work will negatively predict VT symptoms	$H_0: \beta_{Exper/VT} = 0$ $H_1: \beta_{Exper/VT} < 0$
2d. Experience with trauma work will positively predict vicarious PTG	$H_0: \beta_{Exper/PTG} = 0$ $H_1: \beta_{Exper/PTG} > 0$
2e. Training in trauma counseling will negatively predict VT symptoms	$H_0: \beta_{Train/VT} = 0$ $H_1: \beta_{Train/VT} < 0$

Table 2.1 (continued)

2f. Training in trauma counseling will positively predict vicarious PTG	$H_0: \beta_{Train/PTG} = 0$ $H_1: \beta_{Train/PTG} > 0$
3a. Work setting will negatively predict VT symptoms	$H_0: \beta_{WkSet/VT} = 0$ $H_1: \beta_{WkSet/VT} < 0$
3b. Work setting will predict vicarious PTG	$H_0: \beta_{WkSet/PTG} = 0$ $H_1: \beta_{WkSet/PTG} \neq 0$
3c. Amount of supervision will negatively predict VT symptoms	$H_0: \beta_{SupAmt/VT} = 0$ $H_1: \beta_{SupAmt/VT} < 0$
3d. Amount of supervision will positively predict vicarious PTG	$H_0: \beta_{SupAmt/PTG} = 0$ $H_1: \beta_{SupAmt/PTG} > 0$
3e. Quality of supervision for VT will negatively predict VT symptoms	$H_0: \beta_{SupQual/VT} = 0$ $H_1: \beta_{SupQual/VT} < 0$
3f. Quality of supervision for VT will positively predict vicarious PTG	$H_0: \beta_{SupQual/PTG} = 0$ $H_1: \beta_{SupQual/PTG} > 0$
3g. Agency acceptance of VT reactions will negatively predict VT symptoms	$H_0: \beta_{Accept/VT} = 0$ $H_1: \beta_{Accept/VT} < 0$
3h. Agency acceptance of VT reactions will positively predict vicarious PTG	$H_0: \beta_{Accept/PTG} = 0$ $H_1: \beta_{Accept/PTG} > 0$
3i. Support for VT at work will negatively predict VT symptoms	$H_0: \beta_{Sppt/VT} = 0$ $H_1: \beta_{Sppt/VT} < 0$
3j. Support for VT at work will positively predict vicarious PTG	$H_0: \beta_{Sppt/PTG} = 0$ $H_1: \beta_{Sppt/PTG} > 0$

Table 2.1 (continued)

3k. Perceived sexism will positively predict VT symptoms	$H_0: \beta_{S_{xsm}/VT} = 0$ $H_1: \beta_{S_{xsm}/VT} > 0$
3l. Perceived sexism will negatively predict vicarious PTG	$H_0: \beta_{S_{xsm}/PTG} = 0$ $H_1: \beta_{S_{xsm}/PTG} < 0$
3m. Perceived racism will positively predict VT symptoms	$H_0: \beta_{R_{esm}/VT} = 0$ $H_1: \beta_{R_{esm}/VT} > 0$
3n. Perceived racism will negatively predict vicarious PTG	$H_0: \beta_{R_{esm}/PTG} = 0$ $H_1: \beta_{R_{esm}/PTG} < 0$
3o. Sense of belonging will negatively predict VT symptoms	$H_0: \beta_{B_{ing}/VT} = 0$ $H_1: \beta_{B_{ing}/VT} < 0$
3p. Sense of belonging will positively predict vicarious PTG	$H_0: \beta_{B_{ing}/PTG} = 0$ $H_1: \beta_{B_{ing}/PTG} > 0$
4a. In the prediction of VT symptoms, preparation variables (education, experience, and training) will significantly add to the variance explained by amount of exposure and intensity of exposure	$H_0: \Delta R^2_{Step\ 2/VT} = 0$ $H_1: \Delta R^2_{Step\ 2/VT} > 0$
4b. In the prediction of vicarious PTG, preparation variables (education, experience, and training) will significantly add to the variance explained by amount of exposure and intensity of exposure	$H_0: \Delta R^2_{Step\ 2/PTG} = 0$ $H_1: \Delta R^2_{Step\ 2/PTG} > 0$
4c. In the prediction of VT symptoms, workplace context variables (work setting, amount of supervision, quality of supervision, agency acceptance, support for VT, sexism, racism, and belonging) will significantly add to the variance explained by amount of exposure, intensity of exposure, and preparation variables	$H_0: \Delta R^2_{Step\ 3/VT} = 0$ $H_1: \Delta R^2_{Step\ 3/VT} > 0$

Table 2.1 (continued)

<p>4d. In the prediction of vicarious PTG, workplace context variables (work setting, amount of supervision, quality of supervision, agency acceptance, support for VT, sexism, racism, and belonging) will significantly add to the variance explained by amount of exposure, intensity of exposure, and preparation variables</p>	<p><math>H_0: \Delta R^2_{Step\ 3/PTG} = 0</math>  <math>H_1: \Delta R^2_{Step\ 3/PTG} &gt; 0</math></p>
<p>5a. Sense of belonging will moderate the relation between amount of exposure and VT symptoms</p>	<p><math>H_0: \beta_{AmtExpXBingVT} = 0</math>  <math>H_1: \beta_{AmtExpXBingVT} \neq 0</math></p>
<p>5b. Sense of belonging will moderate the relation between amount of exposure and vicarious PTG</p>	<p><math>H_0: \beta_{AmtExpXBingPTG} = 0</math>  <math>H_1: \beta_{AmtExpXBingPTG} \neq 0</math></p>
<p>5c. Sense of belonging will moderate the relation between intensity of exposure and VT symptoms</p>	<p><math>H_0: \beta_{IntExpXBingVT} = 0</math>  <math>H_1: \beta_{IntExpXBingVT} \neq 0</math></p>
<p>5d. Sense of belonging will moderate the relation between intensity of exposure and vicarious PTG</p>	<p><math>H_0: \beta_{IntExpXBingPTG} = 0</math>  <math>H_1: \beta_{IntExpXBingPTG} \neq 0</math></p>

Table 2.2

*Hierarchical Regressions for Variables Predicting Vicarious Trauma Symptoms and  
Vicarious Posttraumatic Growth*

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Step 1:

Amount of Exposure

Intensity of Exposure

Step 2:

Education Level

Experience with Trauma

Training in Trauma Counseling

Step 3:

Work Setting

Amount of Supervision

Quality of Supervision for VT

Agency Acceptance of VT Reactions

Support for VT at Work

Perceived Sexism

Perceived Racism

Sense of Belonging

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*Note.* Each step includes all variables from the previous steps.

Table 2.3

*Hierarchical Regressions for Testing the Interactions of Sense of Belonging x Amount of Exposure and Sense of Belonging X Intensity of Exposure*

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Step 1: Predictor Variables

Amount of Exposure

Intensity of Exposure

Step 2: Moderator Variable

Sense of Belonging

Step 3: Interactions

Amount of Exposure X Sense of Belonging

Intensity of Exposure X Sense of Belonging

Step 4: Covariate Interaction

Amount of Exposure X Intensity of Exposure

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*Note.* Each step includes all variables from the previous steps.

## Chapter 3: Results

Before conducting the regressions, preliminary analyses were run. Demographics were reviewed. Outliers were examined, normality of variables was established, the categorical variable of work setting was dummy-coded, bivariate correlations were examined, and collinearity diagnostics were checked. Two regressions to test for individual predictors of VT and vicarious PTG were conducted, and two regressions to test for interactions were conducted. Significant interactions were then plotted using regression equations.

### *Preliminary Analyses*

As expected, participants were mostly female (93.6%) and White (84.5%). The majority of participants worked at domestic violence or rape crisis centers (58.8%) and had at least a master's degree (56.6%). Ages ranged from 22 to 65 years with a mean of 36 years and standard deviation of 11 years. Overall demographics are listed in Table 3.1. One participant endorsed "Other" ethnicity/race and identified herself as "international." For work setting, 11 participants listed themselves as other than intern/post-doc or advocate/counselor in a shelter or rape crisis center (e.g., center director, legal advocate, community educator). Because this study is concerned with counselors and crisis advocates, these participants were removed from the analysis, reducing the sample to 223.

Scales were created. For perceived sexism, the mean of the items was used if six of the eight items were answered. For perceived racism and sense of belonging, the mean of the items was used if seven of the nine items were answered. If fewer than these were answered, the scale was not calculated and was treated as missing. For the hierarchical regressions, only cases with all of the variables were included in the analyses. For VT symptoms and vicarious PTG, since the item total was used as a measure, missing data were replaced with mean substitutions from the subscale items of the individual's answers, as recommended by van Ginkel, van der Ark, and Sijtsma (2007) and Hawthorne and Elliott (2005).

Univariate outliers (17 total) were identified using Tabachnik and Fidell's (2007) suggested critical value of  $z > 3.29$  or  $z < -3.29$ . Each case was reviewed to determine if the outlying values appeared valid. In all cases, the values appeared to be valid (e.g.,

there was no evidence of random answering). To test for outliers either creating or obscuring significance, after all other preparation for analysis was conducted, the two regressions to test for predictors of VT and vicarious PTG were run both with and without outliers. For the second regression, predicting vicarious PTG, no meaningful difference resulted (no difference in significance), regardless of the presence of outliers. However, for the VT regression, when outliers were removed, different variables contributed significantly. Specifically, with outliers removed, experience with trauma work, work setting, and perceived racism were no longer significant predictors. Also, with outliers removed, amount of exposure and sense of belonging were significant predictors, but with outliers present, they were not. Scatterplots were examined to explore the influence of outliers.

An examination of scatterplots indicated that outliers on several variables were creating or masking significance. Outliers on VT symptoms and outliers on experience with trauma work appeared to have been creating a significant negative linear relation between the variables (outliers with high VT symptoms had little experience, while outliers with 24-33 years of experience had low VT symptoms). Similarly, outliers on VT symptoms may have been creating a significant relation between work setting and VT symptoms, since outliers on VT symptoms were working at domestic violence or rape crisis centers. The scatterplot of perceived racism and VT symptom scores did not show a clear role for outliers, as outliers on VT symptoms reported varying scores on the perceived racism measure. VT symptom outliers appeared to mask the relation between sense of belonging and VT symptoms, as those reporting the most VT symptoms also reported very high sense of belonging. These outliers on VT symptoms also may mask the significant linear relationship between amount of exposure and VT symptoms, as outliers with high VT symptoms had low amount of exposure. Since outliers appeared to masking or creating significance, they were removed from the analyses, leaving 206 participants' records.

Scales were examined for reliability and normality. Cronbach's  $\alpha$ 's indicated adequate to excellent internal consistency (see Table 3.2). Normality was assessed for each scale. Five scales (experience with trauma work, training in trauma counseling, support for VT at work, perceived sexism, and VT symptoms) were positively skewed



above 1.0, and sense of belonging was negatively skewed below -1.0; vicarious PTG had a negative kurtosis value below -1. These scales were transformed for the analyses. Square root transformations were used for experience, perceived sexism, support for VT, VT symptoms, and vicarious PTG; a logarithm transformation was used for training; and the reflected square root transformation was used for sense of belonging (results will be interpreted in the opposite direction with the reflected variable). After transformation, all scales conformed to the assumption of normality. No multivariate outliers were detected.

The work type variable was dummy-coded with internship/post-doctoral site as the variable and domestic violence/sexual assault center as the comparison group (internship site coded as 1, compared to domestic violence/sexual assault center as 0). Results of the regression analyses for this variable indicate the contribution of internship/post-doc site compared to domestic violence/sexual assault center.

Descriptive statistics using non-transformed scales were examined (see Table 3.2). Participants reported high amount and intensity of exposure. Mean scores indicate that participants experienced a high amount of exposure with a mean of 68% of caseload as trauma survivors and a mean of 12-14 hours working with trauma survivors weekly. An examination of exposure by work setting (see Table 3.3 for demographics by work setting) also shows high exposure. Participants working in domestic violence and rape crisis centers had a mean of 92% of their caseloads in trauma survivors, counseling trauma survivors an average of 16-19 hours weekly, while those at internship and post-doctoral sites had a mean of 32% of their caseloads in trauma survivors, counseling them five to six hours weekly. Intensity of exposure was also rather high with a mean of 3.65 ( $SD = .96$ ) on a scale from 1 to 5, indicating that counselors were exposed to the graphic details of their clients' traumas "quite a bit."

Overall, participants reported having a range of education, experience with trauma work, and training in trauma counseling (see Table 3.2). The mean education level was master's degree, with the mode for counselors at crisis centers at the bachelor's degree level and the mode for counselors at internship sites at the level of master's degree plus 2 years of education. Experience with trauma work averaged 5 years with a reported range from 0 to 23 years. Training in trauma counseling varied widely, from 0 to 530 hours of training. The overall mean was 80 hours, with counselors at internship sites reporting a

mean of 34 hours and counselors at crisis centers reporting a mean of 110 hours of training.

Amount of supervision varied; the overall mean was 15 hours each month (see Table 3.2). Counselors at internship sites reported an average of 15 hours monthly of formal clinical supervision with additional informal supervision, and counselors at crisis centers reported an average of only 3 hours monthly of formal supervision with additional informal supervision. The mean for quality of supervision for VT was 3.25 ( $SD = 1.02$ ) on a scale from 1 to 5, indicating that supervision helped counselors specifically with trauma counseling and was accepting of their reactions to clients' trauma material to a moderate degree.

Other workplace context variables indicate that participants felt supported at work (see Table 3.2). Agency acceptance of VT was fairly high; the mean of 4.06 ( $SD = .89$ ) on a scale from 1 to 5 indicates that counselors perceived their agencies as "quite a bit" accepting and supportive of reactions to clients' trauma material. The mean for support for VT at work suggests that participants felt able to comfortably share reactions to clients' traumas with about 7 other counselors at their agency ( $SD = 6.25$ ), though reported values ranged from 0 to 30. Means of perceived sexism (1.57,  $SD = .58$ ) and perceived racism (1.72,  $SD = .66$ ) indicate the presence of a low level of subtle discrimination in counselors' work settings, and the mean of sense of belonging (4.22,  $SD = .67$ ) shows a relatively high sense of belonging at work among participants.

Participants reported experiencing some mild VT symptoms and moderate vicarious PTG (see Tables 3.2 and 3.3). VT symptom scores were re-coded to compare with other studies using answer choices of 0 to 4, and subscale scores were calculated for descriptive purposes. With a possible range of 0 to 88, the mean of VT symptoms was 10.75 ( $SD = 10.59$ ), with scores ranging from 0 to 45. Subscale scores (see Table 3.2) indicate participants experienced more intrusions ( $m = 4.32$ ,  $SD = 4.36$ ) and avoidance ( $m = 4.23$ ,  $SD = 4.47$ ) than hyperarousal ( $m = 2.21$ ,  $SD = 3.10$ ). The mean score for vicarious PTG was 48.15 ( $SD = 27.78$ ), with answers ranging over the full possible range of 0 to 105. Subscale means suggest that participants had the most vicarious PTG in the areas of appreciation of life and personal strength (see Table 3.2 for subscale means). Counselors

at crisis centers reported more VT symptoms and more vicarious PTG than those at internship sites (see Table 3.3).

Bivariate correlations showed a range of correlations between variables (see Table 3.4). The highest correlation was between work setting and education level,  $r = .76, p < .01$ , with counselors at internship sites reporting higher levels of education than participants working in rape crisis and domestic violence centers. Amount of exposure and intensity of exposure were significantly correlated with several variables. Participants with higher amount and intensity of exposure had significantly more experience and training in trauma work, less education, less supervision, and less support for VT at work. Amount of supervision was significantly negatively correlated with quality of supervision for VT, agency acceptance of VT reactions, and sense of belonging at work. Several workplace variables had significant correlations with each other: agency acceptance of VT reactions was positively correlated with quality of supervision for VT, support for VT at work, and sense of belonging at work, and it was negatively correlated with perceived sexism and racism. As in the pilot study (Hahn, 2006), perceived sexism and racism were significantly positively correlated with each other and negatively correlated with sense of belonging.

Several variables were significantly correlated with VT symptoms and vicarious PTG (see Table 3.4). Amount of exposure and intensity of exposure were significantly positively correlated with both VT symptoms and vicarious PTG, indicating that participants who had more exposure to client trauma material reported more VT and vicarious PTG. Experience with trauma work was significantly positively correlated with vicarious PTG: participants who had been counseling trauma clients for longer reported more vicarious PTG. Training in trauma counseling was significantly positively correlated with vicarious PTG: those with more trauma counseling training reported more vicarious PTG. However, training in trauma counseling was also significantly positively correlated with VT symptoms. This correlation may be partly due to latent relationships in the sample: counselors at crisis centers reported more training in trauma counseling than those at internship sites, and counselors at crisis centers had more exposure to client trauma material. Those with more education reported significantly fewer VT symptoms and less vicarious PTG. Supervision amount was significantly negatively correlated with

both; those with more supervision reported fewer VT symptoms but also less vicarious PTG. Participants at internship sites reported significantly less VT symptoms and vicarious PTG than those at domestic violence and rape crisis centers. Support for VT at work was significantly negatively correlated with VT symptoms: feeling comfortable sharing reactions to clients with more colleagues at work was associated with fewer VT symptoms. Finally, VT and vicarious PTG were significantly positively correlated with each other.

Diagnostics were checked for multicollinearity. Tabachnick and Fidell (2007) suggest that a condition index greater than 30 with at least two variance proportions over .50 on any one dimension indicates a serious problem. Although several dimensions had a condition index above 30, no dimensions had a high condition index *and* variance proportions over .50.

#### *Regressions for Individual Prediction*

To test the relative influence of individual variables on VT symptoms and vicarious PTG, two hierarchical regressions were conducted. Regressions were performed to assess whether workplace context variables significantly add to the variance after exposure and preparation variables are accounted for and to assess which individual and contextual variables contribute unique variance to the prediction of VT symptoms and vicarious PTG. Each regression was based on the same model, with exposure variables entered in the first step, individual variables of training and experience entered in the second step, and contextual variables entered in the third step. In Table 3.5, the findings by hypotheses are presented.

#### *Prediction of Vicarious Traumatization Symptoms*

Results of the regression to predict VT symptoms indicate that the model significantly predicted VT at each step. Overall, the variables accounted for 25% of the variance in VT symptoms (see Table 3.6). Both amount of exposure ( $t = 2.11, p < .05$ ) and intensity of exposure ( $t = 2.28, p < .05$ ) positively predicted VT symptoms; thus, Hypotheses 1a and 1c were supported. Although education level significantly and negatively predicted VT symptoms ( $t = -2.25, p < .05$ ) when it was entered in the regression, with the workplace context variables added, education level was no longer a significant predictor. Experience with trauma work and training in trauma counseling did

not significantly predict VT symptoms. Hypotheses 2a, 2c, and 2e were not supported. Variables of work setting, amount of supervision, quality of supervision, agency acceptance of VT reactions, support for VT at work, perceived sexism, and perceived racism did not significantly predict VT symptoms (Hypotheses 3a, 3c, 3e, 3g, 3i, 3k, and 3m were not supported), but sense of belonging at work significantly and negatively predicted VT symptoms ( $t = -1.92, p < .05$ ), supporting Hypothesis 3o.

Education level, experience in trauma work, and training in trauma counseling did not add significantly to the variance explained by amount of exposure and intensity of exposure, and workplace context variables did not add significantly to the variance explained by exposure variables, education, experience, and training. Thus, Hypotheses 4a and 4c were not supported. Variables predicting VT symptoms in the final model were amount of exposure, intensity of exposure, and sense of belonging at work.

#### *Prediction of Vicarious Posttraumatic Growth*

In the regression to predict vicarious PTG, the model significantly predicted vicarious PTG at each step. Overall, the model accounted for 24% of the variance in vicarious PTG (see Table 3.7). Originally, both amount of exposure ( $t = .89, p < .05$ ) and intensity of exposure significantly and positively predicted vicarious PTG; however, when education, experience, and training were added, amount of exposure was no longer significant. In the final model, intensity of exposure uniquely predicted vicarious PTG ( $t = 2.40, p < .01$ ). These results did not support Hypothesis 1b, but supported Hypothesis 1d. Similar to the VT symptom regression, education level significantly and negatively predicted vicarious PTG symptoms ( $t = -1.18, p < .05$ ) when it was entered in the regression, but with the workplace context variables added, education level was no longer a significant predictor; Hypothesis 2b was not supported. Experience with trauma work and training in trauma counseling did not significantly predict vicarious PTG, so Hypotheses 2d and 2f were not supported. Amount of supervision, quality of supervision, agency acceptance of VT reactions, perceived sexism, perceived racism, and sense of belonging did not significantly predict vicarious PTG (Hypotheses 3d, 3f, 3h, 3l, 3n, and 3p were not supported). Work setting significantly and negatively predicted vicarious PTG ( $t = -2.95, p < .01$ ), so that working at an internship site predicted less vicarious PTG than working at a domestic violence or rape crisis center; thus, Hypothesis 3b was

supported. Support for VT at work positively predicted vicarious PTG ( $t = 1.83, p < .05$ ); being comfortable talking about reactions to trauma clients with a greater number of colleagues at work predicted more vicarious PTG, thus supporting Hypothesis 3j. Variables predicting vicarious PTG in the final model were intensity of exposure, work setting, and support for VT at work.

Education level, experience in trauma work, and training in trauma counseling did not add significantly to the variance explained by amount of exposure and intensity of exposure (Hypothesis 4b was not supported). Workplace context variables did add significantly to the variance explained by exposure variables, education, experience, and training ( $\Delta R^2 = .09, p < .05$ ). Thus, Hypothesis 4d was supported.

#### *Tests of Moderation*

Two regressions were conducted to determine if sense of belonging moderates the relations between amount of exposure and VT symptoms, intensity of exposure and VT symptoms, amount of exposure and vicarious PTG, and intensity of exposure and vicarious PTG. The regressions were conducted following the guidelines of Frazier, Tix, and Barron (2004) for testing moderation. They recommend standardizing or centering variables before entry into a regression with interactions. Amount of exposure was already represented as a z-score; z-scores of intensity of exposure and sense of belonging (reflected square root of belonging) were created. Finally, the standardized or centered versions of these variables were multiplied to create interaction terms.

In the regression to test moderation, in the first step, the predictor variables of amount of exposure and intensity of exposure were entered; in the second step, the moderator variable of sense of belonging was entered; in the third step, the two hypothesized interactions (amount of exposure by belonging and intensity of exposure by belonging) were entered. Citing Cohen and Cohen (1983), Frazier et al. (2004) emphasize the importance of adding a final step when covariates are present to test for interactions between the covariates and other variables, “to determine whether covariates act consistently across levels of other variables” (p. 123). In the test of amount of exposure by belonging, intensity of exposure acts as a covariate, and in the test of intensity of exposure by belonging, amount of exposure acts as a covariate. Thus, in the fourth step, the interaction term of amount of exposure by intensity of exposure was entered.

A significant change in  $R^2$  for steps including interactions terms would indicate a significant interaction effect. Results indicate no significant interactions for VT symptoms (see Table 3.8), so sense of belonging did not moderate the relation between exposure variables and VT; Hypotheses 5a and 5c were not supported. In the vicarious PTG regression, the final step with the covariate interaction added was significant,  $\Delta R^2 = .02, p < .05$  (see Table 3.9). The interactions account for about 2% of the variance in vicarious PTG, which is a small effect size. Two interactions were significant: amount of exposure by belonging and amount of exposure by intensity of exposure. Sense of belonging moderated the relationship between amount of exposure and vicarious PTG. Thus, Hypothesis 5b was supported while Hypothesis 5d was not. Additionally, a significant interaction was found that had not been hypothesized: intensity of exposure moderated the relationship between amount of exposure and vicarious PTG.

Using procedures described by Aiken and West (1991), regression equations were used to understand the nature of the interactions:  $Y = (b_1 + b_3(Z)) X + (b_0 + b_2(Z))$ , where  $X$  is the predictor variable,  $Z$  is the moderator variable, and  $Y$  is the outcome variable. First the unstandardized beta coefficients were entered into the equation ( $b_0 = \text{Constant}$ ,  $b_1 = \text{predictor variable}$ ,  $b_2 = \text{moderator variable}$ ,  $b_3 = \text{interaction}$ ). For amount of exposure  $X$  belonging, the equation for predicted values of vicarious PTG was  $Y' = (.62 + 1.81(Z)) X + (6.87 + .12(Z))$ . Low and high values of the moderator variables were chosen for  $Z$ . For the low value, -1 was used to indicate 1 standard deviation below the mean of sense of belonging. For the high value, 1 was used to indicate 1 standard deviation above the mean. Thus,  $Z_{low} = -.56X + 6.75$ , and  $Z_{high} = 1.80X + 6.99$ . For  $X$ , observed values of the outcome variable are used. The mean of the vicarious PTG variable (square root) was 6.6 with a  $SD$  of 2.3. The values 4 and 9 were chosen to represent roughly one standard deviation above and below the mean. These values were inserted for  $X$  to plot the graph shown in Figure 3.1.

These results indicate that amount of exposure predicts vicarious PTG differently for different levels of belonging. Participants with low belonging at work reported less vicarious PTG when amount of exposure was high, whereas participants with high belonging reported more vicarious PTG when amount of exposure was high. In other words, as exposure increases, those with high belonging experience more growth from

working with trauma clients, whereas those with low belonging experience less growth as exposure increases.

To examine the interaction of amount of exposure by intensity of exposure, the same procedure was conducted. The equation with betas included was  $Y' = (.62 + .39(Z))X + (6.87 + .55(Z))$ . The same values of -1 and 1 were chosen as low and high values of intensity of exposure to represent one standard deviation below and above the mean. Thus,  $Z_{low} = 1.01X + 6.32$ , and  $Z_{high} = .23X + 7.42$ . Again, values of 4 and 9 were inserted for  $X$ , representing one standard deviation below and above the mean for vicarious PTG, and these points were plotted on the graph shown in Figure 3.2.

Results suggest that amount of exposure predicts vicarious PTG differently at different levels of intensity of exposure. For participants with low intensity of exposure, vicarious PTG increases with increased amount of exposure, but for those with high intensity of exposure, vicarious PTG only slightly increases with increased amount of exposure. In other words, participants who did not hear much graphic detail of their clients' traumas had increased vicarious PTG with seeing more trauma clients, whereas those with a high degree of exposure to graphic details did not have much increased vicarious PTG with more trauma clients. Thus, amount of exposure appears to be a more important factor in vicarious PTG for participants with low intensity of exposure. For the slope with high intensity of exposure, however, the amount of growth from exposure appears to be limited. When intensity and amount of exposure are high, little gain in vicarious PTG is seen above that achieved by the intensity.

#### *Summary of Results*

Results of the analyses indicated that exposure and contextual variables significantly predicted VT symptoms and vicarious PTG. Specifically, amount and intensity of exposure significantly positively predicted VT symptoms, and sense of belonging in the workplace significantly negatively predicted VT symptoms. Intensity of exposure and support for VT at work significantly positively predicted vicarious PTG, and work setting significantly predicted vicarious PTG, with counselors at domestic violence and rape crisis centers reporting more vicarious PTG than those at internship sites. Although amount of exposure did not significantly predict vicarious PTG, the relationship between amount of exposure and vicarious PTG was moderated by intensity



of exposure and by sense of belonging. Thus, workplace context, particularly sense of belonging, played a significant role in VT and vicarious PTG.

Table 3.1

*Sample Demographics*

	Frequency	Percent		Frequency	Percent
<u>Gender</u>			<u>Education</u>		
Female	218	93.6	H.S.	7	3.0
Male	13	5.6	2 yrs college	17	7.3
<u>Age</u>			Bachelor's	77	33.0
22-29	84	36.0	Master's	41	17.6
30-39	73	31.4	Master's + 2 yrs	66	28.3
40-49	31	13.4	Ph.D.	25	10.7
50-59	28	12.1	<u>Work Setting</u>		
60-65	8	3.4	DV/Rape Crisis	137	58.8
<u>Ethnicity/Race</u>			Intern/Post-doc	84	36.1
White	197	84.5	Other	11	4.7
Biracial	9	3.9			
Latina/o	9	3.9			
African American	5	2.1			
Asian American	5	2.1			
American Indian	3	1.3			
Other	1	0.4			

*Note.*  $N = 234$ .

Table 3.2

*Descriptive Statistics*

Variable	Mean	SD	Observed Range	$\alpha$
Amount Exposure (z-score)	-0.02	0.87	-1.33 – 2.04	.77
Current Hours/Week	11.91	10.78	0 – 42	
Past Hours/Week	13.87	11.72	0 – 60	
Percent Caseload	68.42	37.73	0 – 100	
Intensity of Exposure	3.65	0.96	1 – 5	.92
Education Level	3.97	1.27	1 – 6	
Experience (years)	5.55	4.83	0 – 23	
Training (hours)	80.39	94.99	0 – 530	
Amount of Supervision	15.33	10.34	0 – 45	
Quality of Supervision	3.25	1.02	1 – 5	.86
Agency Acceptance of VT	4.06	0.89	1.5 – 5	.89
Support for VT at Work	6.76	6.25	0 – 30	
Perceived Sexism	1.57	0.58	1 – 3.75	.77
Perceived Racism	1.72	0.66	1 – 3.86	.85
Sense of Belonging	4.22	0.67	2 – 5	.86
VT Symptoms	10.75	10.59	0 – 45	.93
Intrusions	4.32	4.36	0 – 21	
Avoidance	4.23	4.47	0 – 24	
Hyperarousal	2.21	3.10	0 – 17	
Vicarious PTG	48.15	27.78	0 – 105	.97
Relating to Others	2.28	1.39	0 – 5	
New Possibilities	2.08	1.49	0 – 5	
Personal Strength	2.52	1.51	0 – 5	
Spiritual Change	1.74	1.55	0 – 5	
Appreciation of Life	2.92	1.34	0 – 5	

*Note.* VT symptom scores were re-coded from a 1-5 scale to a 0-4 scale for the purpose of comparison.

*Note.* Vicarious PTG subscale scores were calculated with the mean of subscale items.

Table 3.3

*Descriptive Statistics by Work Setting*

Variable	Crisis Center	Internship Site
	Mean ( <i>SD</i> )	Mean ( <i>SD</i> )
Amount Exposure (z-score)	.43 (.73)	-.73 (.55)
Current Hours/Week	16.09 (11.20)	5.32 (5.65)
Past Hours/Week	18.78 (11.70)	6.03 (6.34)
Percent Caseload	92.10 (18.24)	32.22 (30.30)
Intensity of Exposure	3.99 (.76)	3.10 (.97)
Education Level	3.19 (.94)	5.18 (.59)
Experience (in years)	6.89 (5.36)	3.39 (2.77)
Training (in hours)	110.13 (103.31)	33.64 (45.55)
Amount of Supervision	10.60 (8.30)	22.46 (9.03)
Quality of Supervision	3.20 (1.07)	3.33 (.93)
Agency Acceptance of VT	4.04 (.93)	4.08 (.82)
Support for VT at Work	5.96 (6.20)	7.94 (6.22)
Perceived Sexism	1.62 (.64)	1.48 (.49)
Perceived Racism	1.71 (.72)	1.73 (.57)
Sense of Belonging	4.22 (.72)	4.20 (.60)
VT Symptoms	13.92 (11.30)	5.63 (6.56)
Intrusions	5.54 (4.69)	2.31 (2.66)
Avoidance	5.45 (4.84)	2.34 (3.05)
Hyperarousal	2.93 (3.40)	.98 (1.83)
Vicarious PTG	57.98 (25.00)	33.75 (25.24)
Relating to Others	2.65 (1.32)	1.69 (1.28)
New Possibilities	2.69 (1.27)	1.14 (1.27)
Personal Strength	3.02 (1.32)	1.75 (1.48)
Spiritual Change	2.19 (1.56)	1.03 (1.20)
Appreciation of Life	3.26 (1.29)	2.38 (1.26)

Table 3.3 (continued)

*Note.* VT symptom scores were re-coded from a 1-5 scale to a 0-4 scale for the purpose of comparison.

*Note.* Vicarious PTG subscale scores were calculated with the mean of subscale items.

Table 3.4

*Bivariate Correlations among Study Variables*

	IntExp	Ed	Exper	Train	WkSet	SupAmt	SupQl	Accept	Sppt	Sxsm	Rcsm	Blng	VT	vPTG
AmtExp	.50**	-.48**	.29**	.36**	-.65**	-.35**	-.14*	-.19**	-.25**	.10	-.07	-.14*	.44**	.33**
IntExp	--	-.30**	.28**	.36**	-.46**	-.23**	.05	-.00	-.17*	.01	-.14*	.08	.34**	.39**
Ed	--	--	-.23**	-.32**	.76**	.41**	.00	.02	.08	-.05	-.01	-.05	-.32**	-.30**
Exper	--	--	--	.50**	-.36**	-.19*	-.06	.04	-.07	.02	-.01	.09	.08	.29**
Train	--	--	--	--	-.41**	-.18*	.00	.02	-.03	.08	-.08	.03	.23**	.32**
WkSet	--	--	--	--	--	.56**	.06	.03	.16*	-.13	.01	-.02	-.39**	-.43**
SupAmt	--	--	--	--	--	--	.08	.06	.12	-.07	-.04	.10	-.17*	-.23**
SupQual	--	--	--	--	--	--	--	.51**	.13	-.16**	-.11	.35**	-.02	.12
Accept	--	--	--	--	--	--	--	--	.22**	-.29**	-.34**	.47**	-.13	.03
Sppt	--	--	--	--	--	--	--	--	--	-.02	.00	.08	-.17*	.01
Sxsm	--	--	--	--	--	--	--	--	--	--	.41**	-.39**	.05	-.05
Rcsm	--	--	--	--	--	--	--	--	--	--	--	-.40**	.07	.00
Blng	--	--	--	--	--	--	--	--	--	--	--	--	-.12	.13
VT	--	--	--	--	--	--	--	--	--	--	--	--	--	.31**

Note. AmtExp: Amount of exposure; IntExp: Intensity of exposure; Ed: Education level; Exper: Experience in trauma work; Training: Training in trauma counseling; WkSet: Work setting (1 = Internship site, 0 = Crisis center); SupAmt: Amount of supervision; SupQual: Quality of supervision for VT; Accept: Agency acceptance of VT; Sppt: Support for VT at work; Sxsm: Perceived sexism; Rcsm: Perceived racism; Blng: Sense of belonging; VT: VT symptoms; vPTG: vicarious PTG.

\* $p < .05$ , \*\* $p < .01$ , all one-tailed.

Table 3.5  
*Results of Hypothesis Testing*

Research Hypotheses	Statistical Hypotheses	Findings
1a. Amount of exposure will positively predict VT symptoms	$H_0: \beta_{AmtExp/VT} = 0$ $H_1: \beta_{AmtExp/VT} > 0$	1a supported
1b. Amount of exposure will positively predict vicarious PTG	$H_0: \beta_{AmtExp/PTG} = 0$ $H_1: \beta_{AmtExp/PTG} > 0$	1b not supported
1c. Intensity of exposure will positively predict VT symptoms	$H_0: \beta_{IntExp/VT} = 0$ $H_1: \beta_{IntExp/VT} > 0$	1c supported
1d. Intensity of exposure will positively predict vicarious PTG	$H_0: \beta_{IntExp/PTG} = 0$ $H_1: \beta_{IntExp/PTG} > 0$	1d supported
2a. Education level will negatively predict VT symptoms	$H_0: \beta_{Ed/VT} = 0$ $H_1: \beta_{Ed/VT} < 0$	2a not supported
2b. Education level will negatively predict vicarious PTG	$H_0: \beta_{Ed/PTG} = 0$ $H_1: \beta_{Ed/PTG} < 0$	2b not supported
2c. Experience with trauma work will negatively predict VT symptoms	$H_0: \beta_{Exper/VT} = 0$ $H_1: \beta_{Exper/VT} < 0$	2c not supported
2d. Experience with trauma work will positively predict vicarious PTG	$H_0: \beta_{Exper/PTG} = 0$ $H_1: \beta_{Exper/PTG} > 0$	2d not supported
2e. Training in trauma counseling will negatively predict VT symptoms	$H_0: \beta_{Train/VT} = 0$ $H_1: \beta_{Train/VT} < 0$	2e not supported

Table 3.5 (continued)

2f. Training in trauma counseling will positively predict vicarious PTG	$H_0: \beta_{\text{Train/PTG}} = 0$ $H_1: \beta_{\text{Train/PTG}} > 0$	2f not supported
3a. Work setting will negatively predict VT symptoms	$H_0: \beta_{\text{WkSet/VT}} = 0$ $H_1: \beta_{\text{WkSet/VT}} < 0$	3a not supported
3b. Work setting will predict vicarious PTG	$H_0: \beta_{\text{WkSet/PTG}} = 0$ $H_1: \beta_{\text{WkSet/PTG}} \neq 0$	3b supported
3c. Amount of supervision will negatively predict VT symptoms	$H_0: \beta_{\text{SupAmt/VT}} = 0$ $H_1: \beta_{\text{SupAmt/VT}} < 0$	3c not supported
3d. Amount of supervision will positively predict vicarious PTG	$H_0: \beta_{\text{SupAmt/PTG}} = 0$ $H_1: \beta_{\text{SupAmt/PTG}} > 0$	3d not supported
3e. Quality of supervision for VT will negatively predict VT symptoms	$H_0: \beta_{\text{SupQual/VT}} = 0$ $H_1: \beta_{\text{SupQual/VT}} < 0$	3e not supported
3f. Quality of supervision for VT will positively predict vicarious PTG	$H_0: \beta_{\text{SupQual/PTG}} = 0$ $H_1: \beta_{\text{SupQual/PTG}} > 0$	3f not supported
3g. Agency acceptance of VT reactions will negatively predict VT symptoms	$H_0: \beta_{\text{AcceptVT}} = 0$ $H_1: \beta_{\text{AcceptVT}} < 0$	3g not supported
3h. Agency acceptance of VT reactions will positively predict vicarious PTG	$H_0: \beta_{\text{AcceptPTG}} = 0$ $H_1: \beta_{\text{AcceptPTG}} > 0$	3h not supported
3i. Support for VT at work will negatively predict VT symptoms	$H_0: \beta_{\text{SpptVT}} = 0$ $H_1: \beta_{\text{SpptVT}} < 0$	3i not supported
3j. Support for VT at work will positively predict vicarious PTG	$H_0: \beta_{\text{SpptPTG}} = 0$ $H_1: \beta_{\text{SpptPTG}} > 0$	3j supported



Table 3.5 (continued)

3k. Perceived sexism will positively predict VT symptoms	$H_0: \beta_{S_{xsm}/VT} = 0$ $H_1: \beta_{S_{xsm}/VT} > 0$	3k not supported
3l. Perceived sexism will negatively predict vicarious PTG	$H_0: \beta_{S_{xsm}/PTG} = 0$ $H_1: \beta_{S_{xsm}/PTG} < 0$	3l not supported
3m. Perceived racism will positively predict VT symptoms	$H_0: \beta_{R_{csm}/VT} = 0$ $H_1: \beta_{R_{csm}/VT} > 0$	3m not supported
3n. Perceived racism will negatively predict vicarious PTG	$H_0: \beta_{R_{csm}/PTG} = 0$ $H_1: \beta_{R_{csm}/PTG} < 0$	3n not supported
3o. Sense of belonging will negatively predict VT symptoms	$H_0: \beta_{B_{ing}/VT} = 0$ $H_1: \beta_{B_{ing}/VT} < 0$	3o supported
3p. Sense of belonging will positively predict vicarious PTG	$H_0: \beta_{B_{ing}/PTG} = 0$ $H_1: \beta_{B_{ing}/PTG} > 0$	3p not supported
4a. In the prediction of VT symptoms, preparation variables (education, experience, and training) will significantly add to the variance explained by amount of exposure and intensity of exposure	$H_0: \Delta R^2_{S_{iept} 2/VT} = 0$ $H_1: \Delta R^2_{S_{iept} 2/VT} > 0$	4a not supported
4b. In the prediction of vicarious PTG, preparation variables (education, experience, and training) will significantly add to the variance explained by amount of exposure and intensity of exposure	$H_0: \Delta R^2_{S_{iept} 2/PTG} = 0$ $H_1: \Delta R^2_{S_{iept} 2/PTG} > 0$	4b not supported
4c. In the prediction of VT symptoms, workplace context variables (work setting, amount of supervision, quality of supervision, agency acceptance, support for VT, sexism, racism, and belonging) will significantly add to the variance explained by amount of exposure, intensity of exposure, and preparation variables	$H_0: \Delta R^2_{S_{iept} 3/VT} = 0$ $H_1: \Delta R^2_{S_{iept} 3/VT} > 0$	4c not supported

Table 3.5 (continued)

<p>4d. In the prediction of vicarious PTG, workplace context variables (work setting, amount of supervision, quality of supervision, agency acceptance, support for VT, sexism, racism, and belonging) will significantly add to the variance explained by amount of exposure, intensity of exposure, and preparation variables</p>	<p><math>H_0: \Delta R^2_{Sep.3/PTG} = 0</math>  <math>H_1: \Delta R^2_{Sep.3/PTG} &gt; 0</math></p>	<p>4d supported</p>
<p>5a. Sense of belonging will moderate the relation between amount of exposure and VT symptoms</p>	<p><math>H_0: \beta_{AmtExpXBingVT} = 0</math>  <math>H_1: \beta_{AmtExpXBingVT} \neq 0</math></p>	<p>5a not supported</p>
<p>5b. Sense of belonging will moderate the relation between amount of exposure and vicarious PTG</p>	<p><math>H_0: \beta_{AmtExpXBingPTG} = 0</math>  <math>H_1: \beta_{AmtExpXBingPTG} \neq 0</math></p>	<p>5b supported</p>
<p>5c. Sense of belonging will moderate the relation between intensity of exposure and VT symptoms</p>	<p><math>H_0: \beta_{IntExpXBingVT} = 0</math>  <math>H_1: \beta_{IntExpXBingVT} \neq 0</math></p>	<p>5c not supported</p>
<p>5d. Sense of belonging will moderate the relation between intensity of exposure and vicarious PTG</p>	<p><math>H_0: \beta_{IntExpXBingPTG} = 0</math>  <math>H_1: \beta_{IntExpXBingPTG} \neq 0</math></p>	<p>5d not supported</p>

Table 3.6

*Hierarchical Regression Predicting Vicarious Traumatization Symptoms*

	$\beta$	$\Delta R^2$	$\Delta F$
Step 1			
Amt Exposure	.38***		
Intensity Expos	.16*		
$\Delta R^2$		.23	24.10***
Step 2			
Amount Exposure	.31**		
Intensity Exposure	.19*		
Education	-.18*		
Experience	-.12		
Training	-.02		
$\Delta R^2$		.03	2.35
Step 3			
Amount Exposure	.22*		
Intensity Exposure	.19*		
Education	-.11		
Experience	-.12		
Training	-.02		
Work Setting	-.20		
Amount Supervision	.09		
Quality Supervision	.02		
Agency Acceptance	-.02		
Support for VT	-.04		
Perceived Sexism	-.09		
Perceived Racism	.10		
Sense of Belonging	-.17*		
$\Delta R^2$		.05	1.30
$R^2$ Total (adj.)		.25	

Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Note.  $N = 153$ .

Note. For the reflected transformed variable, Sense of Belonging, direction of coefficients has been adjusted to show the direction of relationship.

Table 3.7

*Hierarchical Regression Predicting Vicarious Posttraumatic Growth*

	$\beta$	$\Delta R^2$	$\Delta F$
Step 1			
Amount Exposure	.18*		
Intensity Exposure	.31***		
$\Delta R^2$		.18	17.43***
Step 2			
Amount Exposure	.08		
Intensity Exposure	.28***		
Education	-.15*		
Experience	.10		
Training	.01		
$\Delta R^2$		.03	1.95
Step 3			
Amount Exposure	.06		
Intensity Exposure	.21**		
Education	.15		
Experience	.08		
Training	-.06		
Work Setting	-.45**		
Amount Supervision	-.05		
Quality Supervision	.13		
Agency Acceptance	-.11		
Support for VT	.14*		
Perceived Sexism	-.11		
Perceived Racism	.10		
Sense of Belonging	.08		
$\Delta R^2$		.09	2.35*
$R^2$ Total (adj.)		.24	

Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Note.  $N = 150$ .

Note. For the reflected transformed variable, Sense of Belonging, direction of coefficients has been adjusted to show the direction of relationship.

Table 3.8

*Regression to Test the Moderation of Belonging for Vicarious Traumatization*

	B	$\Delta R^2$	$\Delta F$
Step 1			
Amt Exposure	.05***		
Intensity of Expos	.02**		
$\Delta R^2$		.23	29.65***
Step 2			
Amt Exposure	.05***		
Intensity of Expos	.03**		
Sense of Belonging	-.02		
$\Delta R^2$		.01	3.46
Step 3			
Amt Exposure	.05***		
Intensity of Expos	.03**		
Sense of Belonging	-.01*		
Amt X Belonging	-.02		
Intensity X Belonging	-.00		
$\Delta R^2$		<.00	.10
Step 4			
Amt Exposure	.05***		
Intensity of Expos	.03**		
Sense of Belonging	-.01*		
Amt X Belonging	-.02		
Intensity X Belonging	-.00		
Amt X Intensity	.00		
$\Delta R^2$		<.00	.01
$R^2$ Total (adj.)		.22	

*Note.* B's reported here are unstandardized coefficients.

*Note.*  $N = 196$

*Note.* Coefficients for the reflected square root of Sense of Belonging and the interactions have been adjusted to reflect the direction of the relation.

Table 3.9

*Regression to Test the Moderation of Belonging for Vicarious PTG*

	B	$\Delta R^2$	$\Delta F$
Step 1			
Amt Exposure	.49**		
Intensity of Expos	.71***		
$\Delta R^2$		.19	23.39***
Step 2			
Amt Exposure	.54**		
Intensity of Expos	.67***		
Sense of Belonging	.19		
$\Delta R^2$		.01	1.60
Step 3			
Amt Exposure	.59**		
Intensity of Expos	.68***		
Sense of Belonging	.12		
Amt X Belonging	-1.75*		
Intensity X Belonging	.68		
$\Delta R^2$		.02	2.60
Step 4			
Amt Exposure	.62**		
Intensity of Expos	.55**		
Sense of Belonging	.19		
Amt X Belonging	1.81*		
Intensity X Belonging	-.78		
Amt X Intensity	-.39*		
$\Delta R^2$		.02	4.65*
$R^2$ Total (adj.)		.22	

*Note.* B's reported here are unstandardized coefficients.

*Note.*  $N = 191$ .

*Note.* Coefficients for the reflected square root of Sense of Belonging and the interactions have been adjusted to reflect the direction of the relation.

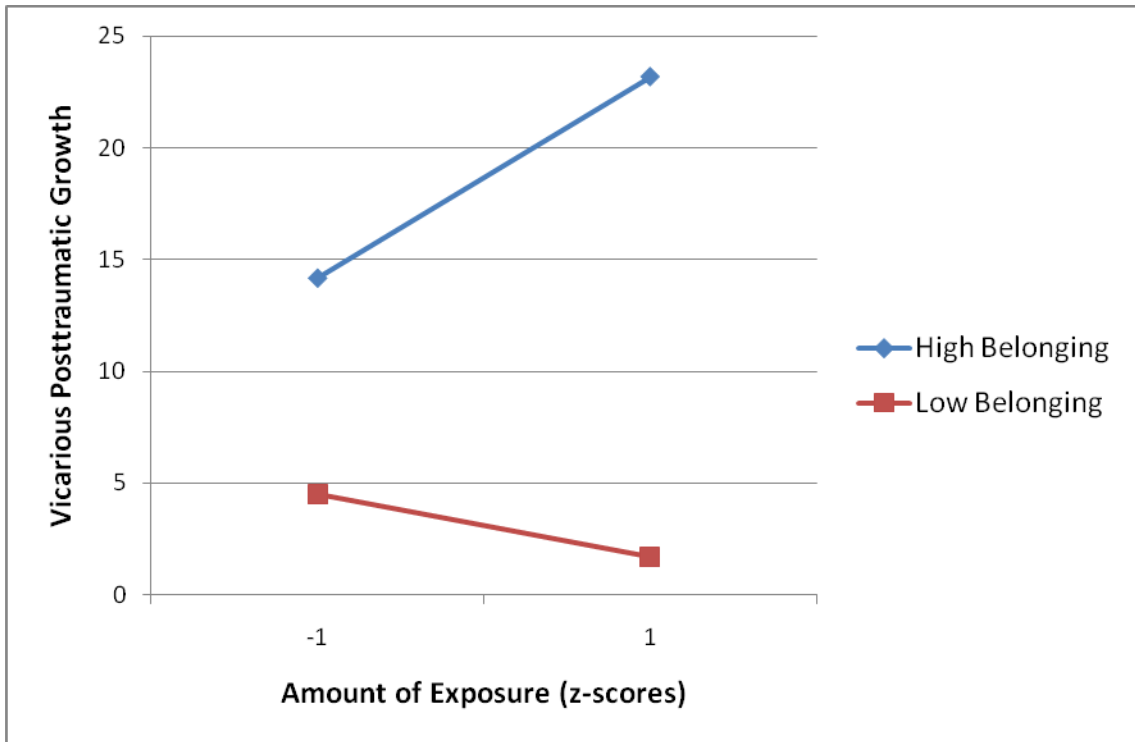


Figure 1. Interaction of amount of exposure by sense of belonging in the prediction of vicarious posttraumatic growth ( $Z_{low} = 4.51, 1.71$ ;  $Z_{high} = 14.19, 23.19$ ).

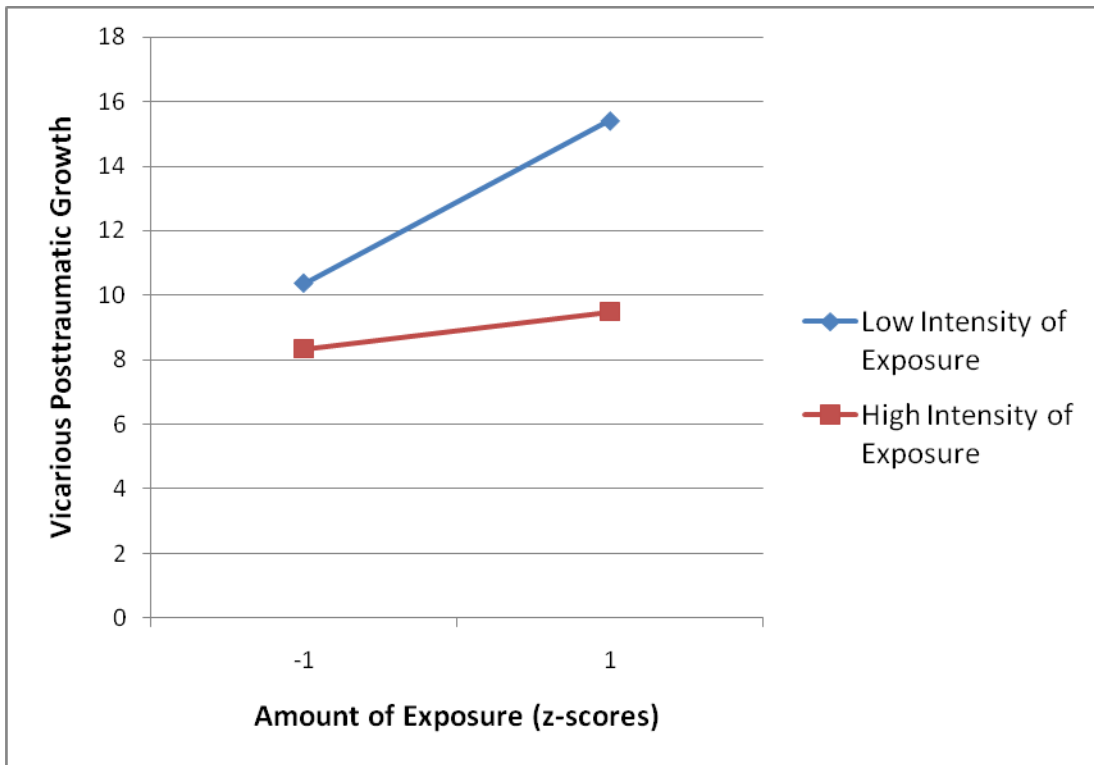


Figure 2. Interaction of amount of exposure by intensity of exposure in the prediction of vicarious posttraumatic growth ( $Z_{low} = 10.36, 15.41$ ;  $Z_{high} = 8.34, 9.49$ ).

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## Chapter 4: Discussion

Results generally supported the theory that contextual variables make a difference for counselors working with trauma clients. In addition, sense of belonging was found to play a significant role in buffering VT symptoms and in helping transform exposure into vicarious PTG. In this final chapter, all significant results will be summarized. Results relating to VT symptoms will be discussed followed by results relating to vicarious PTG; implications for theory, research, practice, and training will be explored; and the limitations and strengths of the study will be reviewed.

A number of significant findings resulted. As hypothesized, counselors with more exposure to client trauma material and greater intensity of exposure to client trauma material had more VT symptoms, and counselors with a greater sense of belonging at work had fewer VT symptoms. Regarding vicarious PTG, counselors with greater intensity of exposure to client trauma material, those working at crisis centers, and those with more support for VT at work reported more vicarious PTG. Contextual variables significantly added to the model and so may aid in transforming exposure into positive growth. Furthermore, sense of belonging at work moderated the relationship between amount of exposure and vicarious PTG, so that counselors with low sense of belonging at work experienced less vicarious PTG as exposure increased, while those with high sense of belonging at work experienced more vicarious PTG as exposure increased. Though not hypothesized, an additional finding emerged. Intensity of exposure moderated the relationship between amount of exposure and vicarious PTG. Counselors who were not exposed to much graphic detail of clients' traumas had more vicarious PTG when they saw more trauma clients, while those who heard more graphic details had only negligible additional growth as the number of trauma clients increased. Implications of these results will be discussed.

### *Vicarious Traumatization Findings*

Findings regarding VT symptoms will be discussed, including the levels of VT reported by participants, significant predictors of VT, and variables that did not significantly predict VT symptoms in this study.

### *Vicarious Traumatization Levels*

Counselors in this sample reported low to moderate levels of VT symptoms. Weiss and Marmar (1995) suggested that a cut-off score of 26 on any of the three subscales indicates clinically significant distress. When subscale scores were calculated, no participants had scores above 24. Adkins et al. (2008) suggested an optimal cut-off score for the total scale of 44 to indicate sub-syndromal PTSD (sub-syndromal PTSD was explained by Blanchard & Hickling, 1997). Only three participants (2%) reported VT symptoms at the level of sub-syndromal PTSD. These results are similar to scores reported in other studies of trauma counselors. In most studies of VT, scores for the IES or IES-R are not reported, and in some studies, other measures of VT were used, limiting the ability to compare VT levels. Though actual means were not reported, in a study of therapists belonging to trauma associations and marriage and family associations, Chrestman (1999) found sub-clinical levels of intrusions and avoidance. In two studies, mean scores were reported. In their study of 105 therapists who work with sex offenders, Carmel and Friedlander (2009) reported an overall mean score of 12.49 on the IES-R, similar to the mean for the current study (10.75). Steed and Bicknell (2001) reported scores for the IES-R with a sample of 67 therapists of sex offenders in Australia. No participants in their sample had clinically elevated scores, and, similar to the results of this study, their participants reported more intrusions and avoidance than hyperarousal. Mean subscale scores for the current study were comparable to Steed and Bicknell's findings.

Similar to previous research with counselors, these results suggest that counselors experience intrusions and avoidance related to their trauma counseling, but the majority of counselors report sub-clinical levels. Low to moderate levels of VT symptoms are consistent with CSDT's developmental understanding of VT, but longitudinal studies would be necessary to chart the trajectory of this developmental process. The sub-clinical levels of VT symptoms in this sample indicate that conceptualizing VT as a disorder may be inaccurate. Rather than interpret counselor reactions to client trauma material as potential impairment, supervisors can recognize that the VT symptoms most counselors experience are within the normal range.

### *Role of Exposure in Vicarious Traumatization*

Both amount and intensity of exposure significantly predict VT symptoms. These findings will be discussed.

*Amount of exposure.* As hypothesized, counselors who saw more trauma clients each week and had trauma clients as a greater percentage of their caseload reported more intrusions, avoidance, and hyperarousal (see Table 3.5 for summary of hypothesis-testing results). These findings are consistent with previous studies of counselors (Bober & Regehr, 2006; Boscarino et al., 2004; Brady et al., 1999; Chrestman, 1999; Creamer & Liddle, 2005; Kassam-Adams, 1999; Schauben & Frazier, 1995) finding a significant relationship between exposure to client trauma material and VT symptoms, and they support theories of VT that assert that exposure to client trauma material is the primary cause of VT.

Future research of VT should continue to measure amount of exposure to client trauma material. When exposure is not controlled in research designs, other variables may appear significant even though they would not be significant with exposure in the model. For instance, in Bober and Regehr's (2006) study, coping appeared significant in the prediction of VT, but when exposure was controlled, only exposure significantly predicted VT. Perhaps the most impactful intervention for VT would be to manage the amount of exposure to client trauma material that counselors experience.

This finding has important implications for counselors' workplaces and for training. Agencies can be thoughtful about managing counselors' amount of exposure to client trauma material. For many agencies, trauma survivor cases can be distributed among therapists so that no one or two therapists see most of the trauma clients. This systemic solution would necessitate that most counselors receive training in how to conduct trauma therapy. Trauma therapy is currently a specialization within psychology, but it should become a competency for which most counselors are trained. Some agencies provide services exclusively for trauma survivors. For PTSD programs at VA hospitals and for domestic violence and rape crisis centers, counselors may need to have significant time each week for responsibilities other than counseling. Even with this provision, counselors whose entire work is related to trauma may suffer from a skewed view of

human nature and the world. Though counselors may specialize in trauma therapy, they may benefit from having other work interests with less traumatic content.

*Intensity of exposure.* As hypothesized, counselors who heard more graphic details of their clients' traumas reported more VT symptoms. Only one previous study measured intensity of exposure: Brady et al. (1999) found that it was associated with more VT symptoms. In a qualitative study, Lyon (1993) also reported that those who heard detailed trauma stories reported intrusive images and nightmares. This finding indicates that VT is associated not only with hours spent with trauma survivors but also with how much detail counselors hear.

These findings about intensity of exposure support theories of VT. CSDT asserts that hearing about trauma can disrupt cognitive schemas and assumptions about the world. If the experience is not intense (i.e., if the therapist is not empathic or the client is not giving details about the trauma), the exposure may not be "traumatic" enough to disrupt schemas and create symptoms. Although counselors may work with numerous trauma survivors every week, they may not be conducting trauma therapy or hearing the details of traumatic events. Thus, intensity of exposure is an aspect of exposure that has been neglected in previous research, but adds an important facet of the theory to the empirical research. This study improved on the measurement of intensity of exposure by using three items. Future studies of VT should include such a measure of intensity of exposure.

The practical implications of this finding are complex. Limiting the intensity of exposure may be important for buffering VT, but the methods of trauma therapy shown to be most effective involve exposure to the details of the trauma, and therapist empathic openness to clients is a key tool in their healing. Both client and therapist are exposed in this process. In domestic violence and rape crisis centers, clients may share the details of their stories in less structured settings than therapy (over the telephone in a crisis call, during intake procedures at the shelter, or immediately after being raped). Depending on the type of therapy used or the situation, intensity of exposure may vary, and the effects of the exposure may also vary. Future studies should investigate the effects on the therapist of intensity of exposure in the context of structured exposure therapy versus the context of crisis counseling. In the meantime, in attempts to manage VT, counselors and

agencies should consider not only how much time is spent with trauma clients but the intensity of the exposure to trauma material.

*Primacy of exposure for vicarious traumatization.* In this sample, amount and intensity of exposure together accounted for 23% of the variance in VT symptoms. I expected to find that education and training as well as workplace context variables would significantly add to the variance in VT symptoms, beyond that explained by exposure. Although one other variable uniquely contributed to the model (sense of belonging at work), amount and intensity of exposure accounted for most of the prediction in VT symptoms. These results suggest that if exposure is too high, some VT symptoms may be inevitable (though this study and others have found VT symptoms to be at sub-clinical levels). This finding also supports CSDT's understanding of VT as natural and inevitable. Implications of this finding are that limiting exposure to client trauma material may be the most effective means of preventing VT. However, given the necessity of exposure for effective trauma therapy and the great need for trauma therapy (for victims of combat, abuse, rape, natural disasters), the best policy may be accepting that therapists will experience some degree of VT. With this understanding and the findings that most therapists experience VT at sub-clinical levels, supervisors and training programs should be careful that VT is presented as normal rather than pathological.

*Importance of Sense of Belonging for Vicarious Traumatization*

As hypothesized, counselors who felt a greater sense of belonging at work reported fewer VT symptoms. In other words, counselors who perceived their work environment as accepting and supportive of them and who felt a sense of psychological membership in their workplace had fewer VT symptoms. No previous studies have measured sense of belonging's relationship to VT, but studies of support and a study of belonging and PTSD had similar findings. Supportive work environment (Boscarino et al., 2004; Ennis & Horne, 2003; Ortlepp & Friedman, 2001) and social support have been negatively correlated with VT in previous studies, and sense of belonging to the country was found to predict less PTSD in a recent study in Israel (Dekel & Nuttman-Schwartz, 2009). Because sense of belonging and support at work are similar constructs, the similarity of findings is not surprising.

Sense of belonging, though, is a more specific construct that implicitly includes the individual's attachment style, the supportiveness of the environment, and the person-environment fit. For participants to report high sense of belonging at work, they must have secure enough attachment to recognize the support, have support available at work, and feel a sense of membership in the workplace. If VT is a developmental process for counselors beginning to conduct trauma therapy (as CSDT asserts), then having a sense of membership among other counselors or crisis workers creates a professional buffer for the experience of VT, as long as those other counselors are accepting of VT (indeed, acceptance of VT and sense of belonging were significantly correlated,  $r = .47$ ). As no other variables besides exposure uniquely contributed to VT symptoms, the results of this study indicate an important relationship between sense of belonging at work and VT.

In the future, researchers should investigate how sense of belonging at work is facilitated for counselors. In a previous study, Hahn (2006) found that subtle sexism, subtle racism, and organizational tolerance of racial/ethnic harassment predicted lower sense of belonging at work for counselors. Researchers studying sense of belonging in classrooms found that students report higher sense of belonging when teachers encourage student participation and mutual respect among students (Anderman & Freeman, 2004; Freeman et al., 2007). Thus, workplaces that are egalitarian and more collaborative may facilitate sense of belonging among employees. In the future, researchers could examine these and other possible predictors of sense of belonging at work for counselors.

For supervisors and administrators in counselor workplaces, sense of belonging should be considered as an aspect of a healthy workplace. Creating a workplace culture of respect, acceptance, and support may help buffer some of the stresses of working with trauma clients. Hahn's (2006) study indicates a further way to improve sense of belonging: by attending to subtle racism and sexism at work. Psychologists' proactive attention to microaggressions in the workplace may enhance the climate of respect and create greater sense of belonging.

The results of tests of moderation with sense of belonging and exposure variables did not indicate that different levels of belonging interact with exposure in the prediction of VT. In other words, sense of belonging has a simple negative relationship with VT symptoms, while amount and intensity of exposure are the primary predictors.

Counselors with exposure to client trauma material may inevitably experience VT, but should have fewer VT symptoms if they have a high sense of belonging at work.

#### *Other Variables*

Amount of exposure, intensity of exposure, and sense of belonging at work contributed uniquely to the variance in VT symptoms. Contrary to hypotheses, no other variables contributed uniquely in the final model. These other variables will be discussed.

*Education level.* Before contextual variables were added to the model, counselors with less education appeared to experience more VT symptoms; however, in the final model, the contribution of education level was no longer significant. Chrestman (1999) measured education of therapists by number of CEU and found that more education was associated with fewer VT symptoms. Differences in the results may be due to the different measurement of education. In this sample, education level and type of work setting were highly correlated, with crisis center workers reporting much less education (with a mode of bachelor's degree) than counselors at internship sites (with a mode of master's degree plus two years of education). Thus, the work setting variable may have subsumed the variance explained by education level. Alternatively, general education level may not buffer VT symptoms.

*Experience with trauma work.* In this study, experience with trauma work did not significantly predict VT symptoms. Although experience and VT symptoms were significantly negatively correlated in this study, when experience was included in the regression, it did not significantly contribute to the variance in VT symptoms. Thus, counselors with more experience may report fewer VT symptoms, but the difference may be due to other factors. In the future, researchers should investigate possible mediators of the relationship between experience and VT.

Theories and research of PTSD generally assume one traumatic event to which the person adapts (e.g., a hurricane) or one time in which trauma is experienced (e.g., exposure to combat during a tour of duty). For counselors who work with trauma survivors, however, their exposure is repeated and chosen as part of their work. Thus, counselors may adapt to the reality of the traumas to which they have been exposed, but as they are continually exposed to new stories with new details, VT may be a continuing process. The finding that experience did not predict VT symptoms challenges the simple

developmental conceptualization of VT. If counselors have VT symptoms regardless of how long they have been working with trauma survivors, then their schemas may not have been successfully reconstructed to hold new stories of trauma. In fact, in studies of VT measuring disrupted beliefs, researchers have found mixed results with the role of experience. Some found that newer trauma therapists had more disrupted beliefs (Cunningham, 2003; Pearlman & Mac Ian, 1995), Baird and Jenkins (2003) found no significant relationship, and Bober and Regehr (2006) found that, compared to newer trauma therapists, more experienced trauma therapists had more maladaptive beliefs about intimacy with others. All of these studies were cross-sectional in design, and the cross-sectional nature of the current study represents a severe limitation in testing the developmental aspect of CSDT. In future studies of VT, researchers should follow therapists who are beginning to work with trauma clients and track their beliefs and VT symptoms over the course of several years. Researchers could also use mixed methods with more experienced therapists to determine what events or types of exposure result in VT symptoms for experienced trauma therapists. Only longitudinal studies can further the field's understanding of the real nature of the "deep personal transformation" discussed by Pearlman (1999, p. 51) and eloquently described in qualitative studies.

*Training in trauma counseling.* Contrary to the hypothesis, training in trauma counseling did not negatively significantly predict VT symptoms. Although specific training in trauma counseling had not been measured in previous studies, general training had been found to be negatively related to VT symptoms (Gentry et al., 2004; Pearlman & Mac Ian, 1995). In this study, training in trauma counseling was measured with two items asking how many hours of training about trauma counseling participants had received from their current agency and from outside of their agency (from school or conferences, etc.). In spite of reporting less overall education, counselors at crisis centers reported much more training related to trauma than counselors at internship sites. The difference may be due to regular trainings for domestic violence and rape crisis center workers that all specifically cover aspects of working with trauma clients. Although counselors at internship sites may have more counseling training, their training in trauma counseling specifically was rather low (an average of 34 hours compared to an average 110 hours for crisis center workers). As counselors at crisis centers reported more



exposure and more VT symptoms than counselors at internship sites, the statistical insignificance of training in this sample may be partly due to the differences between counselors at crisis centers and those at APA-approved internship sites. In other words, for counselors with trauma clients as 92 percent of their caseload (the average for counselors at crisis centers), even 110 hours of trauma counseling training may not buffer VT symptoms.

*Work setting.* Numerous differences were found between counselors at the two types of work setting: the work setting variable was significantly correlated with all other variables in the regression except quality of supervision for VT, agency acceptance of VT, sexism, racism, and sense of belonging. In spite of these differences, work setting did not significantly predict VT symptoms. Looking at the means for VT symptoms between these groups (see Table 3.3), the counselors at crisis centers reported more than twice the VT symptoms as those at internship sites. Since exposure to client trauma material was entered as a covariate in the regression, these results support the theory that the primary cause of VT is exposure. That is, even with the differences between counselors at these two work settings, type of work setting did not significantly predict VT symptoms, but amount and intensity of exposure did.

*Amount and quality of supervision.* Neither amount of supervision nor quality of supervision for VT significantly predicted VT symptoms in this study. A few previous studies found that receiving supervision (Ennis & Horne, 2003; Pearlman & Mac Ian, 1995) and quality of supervision (Dunkley & Whelan, 2006) were associated with VT. Pearlman and Mac Ian and Dunkley and Whelan found that supervision was negatively associated with cognitive disruptions, and Ennis and Horne found that supervision was associated with VT symptoms. Dunkley and Whelan also measured VT symptoms but found no significant relationship between supervision and VT symptoms. In fact, the relation between supervision and VT may be complex and time-dependent. According to CSDT, moving through the transformation of VT would require processing cognitive disruptions. Once schemas are successfully reconstructed, VT symptoms would be reduced until another challenge to schemas arises. If the theory is accurate, amount of supervision and quality of supervision for VT may be related to *more* VT symptoms

while client trauma material is being processed. Once schemas have been changed to accommodate the trauma, supervision may be unrelated to VT.

*Agency acceptance of VT reactions.* Agency acceptance of VT reactions did not significantly predict VT symptoms in this sample. This variable had not been previously studied. Agency acceptance of VT was measured with two items asking participants how accepting their agency is of counselors' reactions to client trauma material and how supportive their agency is in helping counselors work through these reactions. Interestingly, agency acceptance of VT was significantly correlated with other workplace climate variables of sexism, racism, and sense of belonging. Since acceptance and support are included in the construct of sense of belonging, agency acceptance of VT reactions may be a more specific form of belonging for trauma counselors. However, in this study, this more specific variable was not predictive of VT, while sense of belonging was uniquely predictive. That is, counselors who felt a general sense of belonging at work reported fewer VT symptoms, but counselors who sensed acceptance of VT in the general agency climate did not report fewer VT symptoms. Related to sense of belonging, agency acceptance of VT may not have been as powerful as sense of belonging in the prediction of VT for this sample.

*Support for VT at work.* Support for VT at work did not significantly predict VT symptoms. Support for VT was measured by the number of counselors at their agency with whom the participants felt comfortable sharing a reaction to client trauma material. An examination of bivariate correlations reveals that counselors who reported more support at work for VT had a lower amount of exposure, less intense exposure, tended to work at internship sites, reported more agency acceptance of VT reactions, and had fewer VT symptoms. Further research of this variable would help discern how much support for VT at work might be helpful; for instance, perhaps having one or two people with whom to process reactions is enough to resolve VT symptoms.

*Perceived sexism and perceived racism.* Neither perceived sexism nor perceived racism significantly predicted VT symptoms. Though they have been demonstrated to predict a sense of belonging at work for counselors (Hahn, 2006) and in this study were correlated with sense of belonging and agency acceptance of VT, these aspects of the work environment did not significantly predict VT. The measurement of perceived

sexism may have been problematic in this sample, given that many domestic violence and rape crisis centers have very few men on staff, and the items asked about the differential treatment of women and men. Because a climate of subtle discrimination has been linked to lower sense of belonging for counselors (Hahn, 2006), and sense of belonging predicts VT symptoms, subtle discrimination should continue to be investigated as an important aspect of workplace climate.

### *Vicarious Posttraumatic Growth Findings*

Levels of vicarious PTG, significant predictors of vicarious PTG, moderating relationships, and variables that were not significant predictors of vicarious PTG will be discussed.

#### *Levels of Vicarious Posttraumatic Growth*

With the PTGI as a measure of posttraumatic growth, counselors answered how much they had changed in different ways as a result of working with trauma clients. Counselors reported a range of positive change from their work with trauma survivors. The mean vicarious PTG score for the sample indicated a moderate level of change, but individual scores ranged from no change to a very great degree of change. No previous studies have used the PTGI to measure growth from vicarious trauma. Compared to survivors of trauma, counselors in this study reported similar or only slightly lower levels of PTG. The mean for counselors in this study (48.15 overall; 57.98 at crisis centers; 33.75 at internship sites) was slightly higher than that of holocaust survivors ( $m = 43.21$ ; Lev-Wiesel & Amir, 2003) and lower than that in mixed samples of survivors ( $m = 57.38$ , Wild & Paivio, 2003;  $m = 76.5$ ; Calhoun et al., 2000), in female assault survivors ( $m = 64.04$ ; Grubaugh & Resick, 2007), and in bereaved parents ( $m = 82.27$ ; Polatinsky & Osprey, 2000). Interestingly, the vicarious PTG levels overlap with levels experienced by survivors of trauma. Hearing about another's trauma may initiate levels of posttraumatic growth that could occur from directly experiencing trauma. Supporting theories of VT and qualitative studies of VT, these results suggest that counselors' exposure to client trauma material has a powerful effect on the counselors. As counselors imagine their clients' trauma and work through the meanings of trauma, counselors gain a greater appreciation for life, a sense of their own personal strength, and closer connections with others.

### *Role of Exposure in Vicarious Posttraumatic Growth*

Amount and intensity of exposure both played a role in the prediction of vicarious PTG in this sample. Intensity of exposure uniquely contributed to vicarious PTG, while the relationship between amount of exposure and vicarious PTG was moderated by sense of belonging. Further, amount and intensity of exposure interacted in the prediction of vicarious PTG. These results will be discussed.

*Amount of exposure.* Results indicated that, when other variables were entered in the regression, amount of exposure did not significantly predict vicarious PTG. Amount of exposure did not appear to have a direct linear relationship with vicarious PTG. Instead, intensity of exposure and sense of belonging both moderated the relation between amount of exposure and vicarious PTG. These results suggest that counselors' amount of exposure may initiate the process leading to vicarious PTG, but amount of exposure alone does not lead to vicarious PTG. Counselors with high amount of exposure, but low intensity of exposure, reported more vicarious PTG than those with high amount and intensity of exposure. Sense of belonging appeared to be important in translating amount of exposure into vicarious PTG, as counselors with high belonging reported more vicarious PTG as amount of exposure increased while those with low belonging reported less vicarious PTG as amount of exposure increased. These results are important in developing the theory of PTG, and implications of the interactions will be further discussed.

*Intensity of exposure.* As hypothesized, how much counselors heard the details of their clients' traumas predicted vicarious PTG. Those who heard more detail reported more positive changes as a result of working with trauma clients. The PTGI has been widely used in studies of trauma survivors but has not been previously used with counselors in a study of VT. Thus, results will be compared with studies of primary trauma survivors. Previous studies of PTG with trauma survivors have found that the intensity of the stressor is important in predicting PTG. In a meta-analysis of 87 studies, Helgeson et al. (2006) found that more severe stressors, measured both objectively and subjectively, were related to more growth. This finding supports Joseph and Linley's (2005) organismic valuing theory that PTG occurs after cognitive schemas have been

shattered and reconstructed. The stressor or trauma must be severe enough to elicit a significant change in schemas.

However, intensity of exposure acted as a moderator in the relation between amount of exposure and vicarious PTG. Counselors with both high amount and high intensity of exposure reported less growth than counselors with high amount and low intensity of exposure. Although some intensity of exposure may be the initial event in a process leading to vicarious PTG, too much exposure may slow the process of growth.

Implications of these findings for practice involve managing exposure to client trauma material. Counselors hearing details of traumas (e.g., conducting intense exposure therapy or working in crisis centers) may benefit from having fewer trauma clients if growth is to result from trauma counseling. This interpretation fits with the theory that counselors need to cognitively and emotionally process trauma material. Detailed trauma material may require more processing to result in growth. Interestingly, counselors with lower intensity of exposure had more growth as amount of exposure increased, indicating that those working in ways that do not elicit details may grow more from more contact with clients. More research with intensity of exposure and vicarious PTG is needed to clarify the relation between amount and intensity of exposure and draw conclusions that add to theory.

*Sense of belonging at work as a moderator.* The relation between amount of exposure and vicarious PTG was also moderated by sense of belonging at work. Those with low sense of belonging reported less growth as amount of exposure increased, while those with high sense of belonging reported more growth as amount of exposure increased. No previous studies explored the role of sense of belonging in the workplace as a moderator in predicting vicarious PTG. However, in a recent study of terrorism survivors in Israel, Dekel and Nuttman-Shwartz (2009) found that sense of belonging to the country predicted less traumatic stress and more PTG. They point to the “role of social context in coping” and state that “communities help people to cope by reducing isolation, normalizing suffering and promoting healing disclosure” (p. 94). What is true for survivors of terrorism and other traumas also appears to be true for the counselors who work with them. Previous PTG research and theory focused more on the cognitive processing of trauma rather than the structures that make processing possible. Sense of

belonging may be an essential environmental support for transforming trauma into growth.

One advantage to researching individuals' sense of belonging is that the construct is specific to a particular space in individuals' lives (e.g., to the classroom, school, workplace, community, or country). Once research has determined how sense of belonging functions in different realms, interventions can be developed specifically for these areas. For counselors working with trauma clients, sense of belonging at work appears to buffer VT and help transform VT into vicarious PTG. Thus, supervisors and administrators at counselor workplaces should attend to counselors' sense of belonging, encouraging connections and providing an accepting and supportive workplace. In the future, researchers should examine how to enhance counselors' sense of belonging in the workplace. In this study, sense of belonging was significantly positively correlated with quality of supervision for VT and agency acceptance of VT reactions. It was significantly negatively correlated with perceived sexism and racism in the workplace. Thus, acceptance of reactions to client trauma material in supervision and in the agency generally as well as a lack of subtle discrimination in the workplace may enhance sense of belonging for counselors.

#### *Role of Support for VT at Work in Vicarious Posttraumatic Growth*

Counselors who could talk to more colleagues at work about their reactions to clients' traumas reported more vicarious PTG than those who could talk to fewer colleagues. This finding is consistent with theories of PTG and emphasizes a focus on the contextual supports that make processing trauma possible. Additionally, being able to share reactions with a number of colleagues may serve a normalizing function that leads to growth. This variable was somewhat different from other workplace context variables as it represents an actual number of colleagues who are available rather than the general perception of support. As such, it measures instrumental support available to the counselor.

#### *Role of Work Setting in Vicarious PTG*

Counselors at crisis centers reported more vicarious PTG than those at internship sites. Although this result might be expected, given the high amount and intensity of exposure at crisis centers, exposure was included as a covariate in this regression. Thus,

some aspects of the different work settings most likely contributed to this result. Though internship sites vary from college counseling centers to VA hospitals, they are committed to training and supervision and a professional model of psychological practice based in science. Crisis centers, on the other hand, focus on direct crisis services and often operate from a grass roots model of egalitarian empowerment of survivors. These results may indicate that crisis centers' approach to counseling trauma survivors leads to more growth. Possibly, the egalitarian approach encourages counselors to identify more with their clients and recognize that these traumas could happen to them, creating the need for schema accommodation and change. Additionally, crisis centers may place a high value on working with trauma survivors. Pearlman and Saakvitne (1995) suggested that organizations that do not value trauma therapy or that disrespect or misunderstand trauma survivors can create "strain and a sense of isolation" for trauma therapists (p. 303). Crisis centers generally use a model of egalitarian empowerment and provide training so that counselors have a thorough understanding of rape and domestic violence, including the cultural context of violence against women. Thus, a workplace culture of valuing and understanding trauma work may facilitate vicarious PTG.

Since most crisis centers serve trauma survivors exclusively, the work culture may also include an expectation that counselors will find their work rewarding. Thus, counselors may be implicitly or explicitly cued to reflect on how their work with trauma survivors has led to positive change in themselves. This interpretation of the data calls forth unresolved questions in the theory of PTG. Research to date has not been able to disentangle whether PTG is a coping mechanism like positive reframing or is an outcome of successful coping. In fact, PTG may represent both: reflecting on the rewards of trauma work may lead to real or lasting growth. In future longitudinal studies, researchers should explore which crisis center approaches lead to more vicarious PTG for counselors and how these strategies can be applied in other work settings.

#### *Other Variables*

Amount and intensity of exposure, sense of belonging in the workplace, and support for VT at work contributed directly or indirectly to the prediction of vicarious PTG. Unexpectedly, no other variables contributed in the final model. These other variables will be discussed.

*Education level.* In the final model, counselors' education level was not associated with vicarious PTG. When education level was entered into the regression, counselors with less education appeared to have more vicarious PTG; however, once workplace context variables were added, education no longer significantly predicted vicarious PTG. In a study of treatment-seeking trauma survivors, Grubaugh and Resick (2007) found that education significantly negatively predicted PTG. They suggested that those with less education may be more likely to use positive reframing as a coping mechanism. The difference in findings between their study and the current study may be due to variables controlled, differences between primary trauma and VT, or the level of education in each sample. In Grubaugh and Resick's study, only age, education, PTSD symptoms and depression symptoms were entered in the regressions; no contextual variables were included. Results of the regression in the current study indicate that education level did appear to significantly negatively predict vicarious PTG, but when contextual variables were entered, it was no longer significant. Thus, aspects of the context may be more important than education level in the prediction of PTG and vicarious PTG. Also, their sample had a much lower mean education level (two years of college) than the sample in the current study (master's degree). Perhaps education level is a more relevant factor in samples with less college and graduate education. Finally, because education level and work setting were highly correlated in this sample, they may share some variance in the prediction of vicarious PTG.

*Experience with trauma work.* Experience with trauma work did not significantly predict vicarious PTG. Having more experience trauma counseling was expected to be associated with more vicarious PTG because more experienced trauma counselors would have accommodated schemas and developed some growth from their work. The hypothesis was also related to studies of PTG with trauma survivors (Helgeson et al., 2006) in which time since the trauma was associated with more PTG. However, as with the prediction of VT symptoms in this sample, counselors working with trauma survivors are continuously exposed to trauma material rather than having a one-time exposure. Thus, future studies should investigate levels of VT symptoms and vicarious PTG over the longitudinal course of counselors' work.



*Training in trauma counseling.* Contrary to the hypothesis, training in trauma counseling did not significantly predict vicarious PTG. Training was expected to provide a kind of normalizing and educating support for VT that might allow counselors to develop growth from their work. Although a significant positive relationship between training and vicarious PTG was evidenced with the bivariate correlations, many other variables were accounted for in the regression. Thus, training may help counselors but does not appear to be as important as exposure, support, or work setting in the development of vicarious PTG.

The measurement of this variable may also be problematic for this study, given that counselors at crisis centers may have reported any training related to trauma while counselors at internship sites may have reported only training specific to trauma counseling techniques. Crisis center counselors may receive regular trainings related to the legal, economic, socio-cultural, and psychological issues confronted by survivors. Thus, depending on the work setting, participants may have answered training items differently.

*Amount and quality of supervision.* Neither amount of supervision nor quality of supervision for VT significantly predicted vicarious PTG. With other variables in the regression, supervision did not seem to make an important difference for counselors' growth. As discussed previously, supervision may be most important in the processing of traumatic material. Once vicarious PTG has been achieved as an outcome of processing, supervision may not be related to PTG. Longitudinal studies can clarify the role of supervision in vicarious PTG. Alternatively, supervision may play an indirect role in vicarious PTG if it enhances sense of belonging for counselors.

*Agency acceptance of VT reactions.* Agency acceptance of VT did not significantly predict vicarious PTG. Though agency acceptance may provide a normalizing function or be a more specific form of belonging for trauma counselors, it was not powerful enough to emerge as a unique predictor of vicarious PTG. Future studies can explore the role of different workplace context variables to determine which factors most influence how counselors work through VT.

*Perceived sexism and perceived racism.* Neither perceived sexism nor perceived racism significantly predicted vicarious PTG. These aspects of subtle discrimination were

correlated with other workplace climate variables of agency acceptance of VT reactions and sense of belonging; however, they did not uniquely predict vicarious PTG. Subtle discrimination may create a climate which reduces sense of belonging at work (Hahn, 2006) for counselors and thus have an indirect effect on vicarious PTG. Future studies should examine factors that facilitate sense of belonging for counselors, including sexism, racism, and other forms of subtle discrimination.

*Sense of belonging in the workplace.* Sense of belonging at work did not uniquely predict vicarious PTG; however, sense of belonging did moderate the relation between amount of exposure and vicarious PTG. Thus, its relation with vicarious PTG may be through interacting with amount of exposure. Counselors who did not see many trauma clients had similar amounts of vicarious PTG, regardless of their sense of belonging at work. However, for counselors who saw many trauma clients, sense of belonging at work made a difference in levels of vicarious PTG: those with high sense of belonging had more vicarious PTG. For counselors who have a lot of exposure to trauma clients, sense of belonging at work may be the key to transforming exposure into growth.

#### *Importance of Contextual Variables for Vicarious Posttraumatic Growth*

As hypothesized, contextual variables added significantly to the prediction of vicarious PTG. Together, the contextual variables accounted for 9 percent of the variance in vicarious PTG with amount and intensity of exposure accounting for 18 percent of the variance. Thus, contextual variables play an important role in the development of vicarious PTG for counselors. In previous studies of VT, researchers have typically investigated individual demographic variables of therapists, personal trauma history of therapists, and coping strategies. Bober and Regehr (2006) found that coping strategies were not significant predictors of VT once they controlled for exposure; they argued that future interventions for VT should focus on “advocacy for improved and safer working conditions” (p. 8). Rather than intervening with individual therapists or giving advice about how to cope, more systemic interventions can result in vicarious PTG. These interventions in the workplace should aim to create greater sense of belonging at work and the availability of support for VT.

### *Implications for VT and Vicarious PTG*

The results of this study have implications for the theories of VT and PTG, for future research, and for counselor training and workplaces. These implications will be discussed.

### *Theories of VT and PTG*

Results of this study supported CSDT's conceptualization of VT as inevitable and perhaps continuing. Findings supported CSDT's stance that VT is not a disorder and provided evidence that counselors experience positive change as a result of their work with trauma survivors. Finally, results suggested that contextual factors such as sense of belonging in the workplace and support for VT at work can buffer the experience of VT and help transform vicarious traumatic exposure into vicarious posttraumatic growth.

Vicarious traumatization may be inevitable and continuing for trauma therapists. Pearlman and Saakvitne (1995) theorized that VT was a "natural response to a very specialized kind of highly demanding work" (p. 280), and Figley (1995) also defined secondary trauma as "the natural consequent behaviors and emotions" from exposure to another's trauma (p. 7). Both theories of VT emphasize the role of exposure in the context of empathic engagement used by therapists. The primacy of exposure in the prediction of VT symptoms in this study supports the theory that VT is natural and inevitable for those empathically exposed to client trauma material.

CSDT suggests that VT may involve permanent changes in the self. Although this theory is referring to changes in beliefs and worldview, results of this study suggested that VT symptoms of intrusions, avoidance, and hyperarousal continued to be present even for more experienced therapists. If these symptoms are related to the struggle to accommodate schemas, then counselors who work with trauma survivors may have a time of initial schema accommodation and then have subsequent challenges to their schemas as they continue to work with trauma clients. Alternatively, schemas that retain a sense of hope and optimism (elements necessary for effective therapy) may be continually shaken by repeated exposure to stories of abuse and violence. In this scenario, counselors may use cognitive, spiritual, or social strategies to maintain a sense of hope for clients, even in the face of severe trauma. As one counselor in Lonergan et al.'s (2004) study stated, "people who have been doing trauma work for a long time . . . have a

sort of eternal hope. There are other people who can't find that and leave" (p. 358). Maintaining a sense of hope and optimism may require therapists to continue accommodating their schemas as clients present new trauma material.

The VT symptoms reported by therapists in this sample, as in most others, were sub-clinical, indicating that VT is not a disorder. In fact, the exposure to client trauma material that predicted VT symptoms also influenced vicarious posttraumatic growth, and VT symptoms and vicarious PTG were significantly and positively correlated in this sample. Thus, as described in qualitative studies of VT, counseling trauma survivors has both challenges and rewards. These findings support Pearlman's (1999) definition of VT as "deep personal transformation" that includes "personal growth, a deeper connection with both individuals and the human experience, and a greater awareness of all aspects of life" (p. 51). The significant positive correlation of VT symptoms and vicarious PTG in these results ( $r = .31, p < .01$ ) suggests the need for researchers to examine the relationship between VT and vicarious PTG for counselors. As PTG theories and CSDT suggest, VT symptoms may be signs that cognitive and emotional processing are occurring, and, as such, VT symptoms may be a normal part of the process toward vicarious PTG.

Organismic valuing theory of PTG and CSDT suggest that trauma can result in different outcomes, depending on how successfully the survivor accommodates schemas. For counselors, this study identified contextual supports for cognitive and emotional processing of VT. Sense of belonging in the workplace buffered VT and helped create vicarious PTG. Support for VT at work and work setting contributed to vicarious PTG, and workplace context variables significantly added to the prediction of vicarious PTG. Thus, context appears to be extremely important in helping counselors reach a positive accommodation of schemas and the emotional rewards of trauma work. These results evoke Herman's (1992) discussion of trauma as situated within a relational and social context. She wrote,

To hold traumatic reality in consciousness requires a social context that affirms and protects the victim and that joins victim and witness in a common alliance. For the individual victim, this social context is created by relationships with friends, lovers, and family. For the larger society, the social context is created by political movements that give voice to the disempowered. (p. 9)

For counselors who work with trauma survivors, their immediate context is the workplace, and they operate within the larger contexts of the field of psychology and society. In the current study, I examined workplace context factors that affect VT for counselors, but the work setting variable points to the larger social context. Domestic violence and rape crisis centers are perhaps the primary force in the social movement to raise awareness about interpersonal violence. Counselors working in these centers may experience a high level of support from colleagues for their work as part of this movement. They do not work in isolation. On the other hand, in the larger social context, their work may be devalued and misunderstood. Theories of VT and PTG should attend more to these contextual variables that deeply affect trauma counselors' work and well-being.

#### *Future Research of VT and Vicarious PTG*

Future research of VT and vicarious PTG should include measures of amount and intensity of exposure, should utilize longitudinal and non-linear designs, should improve our understanding of workplace context, should test interventions beyond individual coping, and should include more diverse samples of counselors. Because exposure to client trauma material is the primary predictor of VT, failing to include exposure in research can have misleading results. If therapists are working with trauma clients, exposure will always be present; thus, it should continue to be measured and included in future research to determine which factors influence VT and vicarious PTG beyond the influence of exposure. Intensity of exposure should also be measured, as it relates to the theory that graphic details lead to VT symptoms and it was shown to predict VT and vicarious PTG in this study. Given the unexpected significant interaction of amount of exposure by intensity of exposure in the prediction of vicarious PTG in this study, future studies should test this interaction to determine if it is present in other samples.

Both CSDT and PTG theories assume a longitudinal course beginning with exposure that leads to schema disruption and symptoms and then may resolve in PTG. Unfortunately, only a few longitudinal studies of PTG have been conducted, and no longitudinal studies of VT or vicarious PTG have yet been conducted. In the current study, I found that VT symptoms and vicarious PTG were present for both new and experienced trauma counselors, and previous studies have found that trauma survivors

reported simultaneous PTG and PTSD symptoms (Helgeson et al., 2006; Kleim & Ehlers, 2009; Levine et al., 2008). Future studies of trauma and VT should use longitudinal designs to investigate the trajectory of trauma response and growth.

Rather than focus on individual coping styles, researchers of VT and vicarious PTG should measure aspects of workplace context. Sense of belonging in the workplace, support for VT at work, and related variables of agency acceptance of VT and subtle discrimination should be emphasized in future research to determine their effect on trauma therapists. Sense of belonging in the workplace played a role in both VT and vicarious PTG in this study. Sense of belonging in the workplace is a separate and more specific construct than general social support and may be a more useful construct for the study of VT. In this study, for instance, sense of belonging was not significantly correlated with support for VT at work ( $r = .08, ns$ ). In future studies, researchers can examine how to create and enhance counselors' sense of belonging at work.

Previously developed interventions for VT suggested improving supervision and training for trauma counselors (Sommer, 2008; Wheeler, 2007), using humor (Moran, 2002), and treating individual therapists in five sessions of individual therapy to alleviate symptoms (Gentry, Baranowsky, & Dunning, 2002). Based the results of the current study, interventions should be developed at the level of the workplace, to enhance counselors' sense of belonging and create more support for VT among colleagues. Studies can then be conducted to test the efficacy of different interventions for alleviating VT symptoms and for enhancing vicarious PTG.

Future research is also needed to determine which aspects of domestic violence and rape crisis centers lead to greater vicarious PTG for counselors. Perhaps these strategies or approaches can be transferred to other counselor workplaces. For instance, if being part of the movement to empower trauma survivors is a protective aspect of crisis centers, then other clinical settings can find ways to advocate for social changes specifically helpful to the trauma survivors with whom they work.

In future studies, greater efforts should be made to study a more diverse sample of counselors. The sample for this study (94% female and 85% White) was somewhat representative of the population. Rape crisis and domestic violence centers have almost no male counselors, and psychology interns and postdoctoral residents are also

predominantly women. Using stratified random sampling of four U.S. regions, the following states were used for crisis center recruiting: Arizona, Montana, Utah, Wyoming, Indiana, Iowa, Kansas, Ohio, Georgia, Kentucky, Tennessee, West Virginia, Maine, Massachusetts, New Jersey, and Pennsylvania. In future studies, researchers should sample from states with greater populations of ethnic minorities and use other methods (e.g., ethnic minority and male psychology listservs) to encourage more men and ethnic minorities to participate.

#### *Implications for Training and the Workplace*

Education and training did not significantly predict either VT symptoms or vicarious PTG in this sample. Instead, the primacy of exposure was clear in the results. Thus, workplaces and training programs should not rely solely on education or VT workshops to alleviate VT for therapists. Instead, administrators and supervisors should attend to the distribution of trauma work within their agencies so that no one therapist is working with too much trauma. In the case of PTSD treatment programs and women's crisis centers, systemic changes may need to occur to ensure that therapists have non-trauma related work to balance the heavy emotional work of trauma therapy. The implications for training programs and for the field of psychology are that trauma therapy should not be conceptualized as an optional specialization, but instead should be taught to most counselors-in-training.

In addition to distributing trauma work, counselor workplaces can create an accepting, supportive work climate that enhances counselors' sense of belonging and ability to share trauma reactions with colleagues. If workplaces can reduce the isolation of trauma counselors by enhancing belonging at work, counselors should experience fewer VT symptoms and more of the rewards of trauma counseling. One important strategy for enhancing therapists' support for VT at work may be to normalize rather than pathologize VT reactions. Most counselors appear to experience sub-clinical levels of symptoms, and these symptoms may be a necessary part of understanding trauma. Furthermore, these symptoms are associated with positive changes from working with trauma clients. By normalizing counselor reactions to client trauma material, supervisors and educators may allow counselors to experience more vicarious PTG from their work. Educational psychology literature on sense of belonging (see Anderman and Freeman,

2004, for a thorough review) indicates that when teachers create a climate of mutual respect among students, encourage participation, and focus on mastery rather than performance, sense of belonging is enhanced. These results, along with Hahn's (2006) study of subtle discrimination and sense of belonging, suggest that administrators can enhance counselor belonging by creating more egalitarian workplaces with a climate of mutual respect, by encouraging counselors' involvement in some decision-making, and by focusing on the process of counselors' work rather than hours worked or productivity. In their self-determination theory, Deci and Ryan (2000) suggest that employees' sense of autonomy and competence are related to sense of belonging in the workplace. Thus, allowing some autonomy and ensuring that counselors feel competent to do their work may further enhance sense of belonging in the workplace and thus allow for fewer VT symptoms and more vicarious PTG.

#### *Limitations of the Study*

Limitations of the study include aspects of design, sample, and measurement. These limitations will be discussed.

#### *Design and Internal Validity*

Because the design of the study was correlational and cross-sectional, no claims can be made about what caused VT symptoms or vicarious PTG. The results should be viewed as providing further understanding of factors associated with VT and PTG. Studies with longitudinal designs will be better able to determine the direction of effects and clarify theories of VT and PTG.

Selection bias may have influenced the results of the study, as counselors with more time or who are more interested in vicarious trauma may have elected to complete the survey. Possibly due to the length of the survey, a number of participants began the survey but did not complete enough items to be included in the regression analyses. Also, counselors with extremely high levels of VT symptoms may not have elected to participate in the study. Some counselors who experienced high levels of VT may have discontinued their work as counselors and so would not have been recruited for this study. Thus, results should be generalized with caution.

Although differences in work setting were statistically accounted for in the regression analysis and multicollinearity diagnostics did not reveal problematic



collinearity, counselors at the different sites (crisis centers and internship sites) reported different levels of exposure, education, training, and supervision. These differences between participant groups may have influenced results. Future studies of specific work settings may clarify how VT and vicarious PTG operate similarly or differently by work setting. Also, some participants from domestic violence and rape crisis centers may have been part-time volunteers rather than full-time counselors. These differences could be accounted for in future studies.

Although a number of important variables were included in this study, some variables not measured may account for additional variance in VT and vicarious PTG. In previous studies, some researchers found evidence that counselors' previous history of personal trauma (Jenkins & Baird, 2002; Pearlman & Mac Ian, 1995) and individual attachment style (Marmaras et al., 2003) may predict VT. In other studies, the type of client trauma appeared to impact the levels of VT symptoms (Bober & Regehr, 2006; Kassam-Adams, 1999). Sites recruited from in this study most likely provide counseling for traumas including rape and domestic violence (crisis centers), military combat and military sexual trauma (Veterans Administration hospitals), and a variety of other traumas (college counseling centers, hospitals, community mental health centers), but type of client trauma was not measured or controlled in the analyses. Future studies could measure and control these variables in the prediction of VT and vicarious PTG.

#### *External Validity and Generalizability*

Because the sample included only counselors at APA-approved internship sites and at domestic violence/sexual assault centers in the United States, the results should be generalized with caution. For instance, results may not be generalizable to counselors who provide disaster relief or who work with survivors in countries with a history of terrorist attacks. Additionally, though the sample is fairly representative of the population of counselors, the sample was made up of mostly White (94%) and women (85%) counselors. Thus, the experiences of men and ethnic minority counselors may not be well represented by this data. Future studies could sample more broadly and intentionally recruit a more diverse sample of counselors.

### *Analyses and Statistical Power*

In order to be included in the regression analyses to test individual contributions of variables, participants had to complete almost all items in the survey. A number of participants did not complete enough items to be included, and the final numbers of participants in the prediction of VT symptoms ( $n = 153$ ) and the prediction of vicarious PTG ( $n = 150$ ) were just slightly below the number preferred for power (calculated as 154). Although it is unlikely that this small difference in the number of cases influenced the results, possibly with more power, some smaller effects would have been detected.

### *Measurement*

Constructs were all measured with self-report instruments; thus, results should be interpreted as dependent on the perceptions of the participants. This limitation is particularly relevant for the measurement of vicarious PTG since Taylor's (1983) cognitive adaptation theory suggests that some growth from trauma is illusory or self-deceptive. Future studies could ask colleagues or significant others to assess participants' vicarious PTG. Sense of belonging as a construct is also dependent on the individual's ability to perceive acceptance and support in the environment. Future research of the workplace might use multilevel designs like hierarchical linear modeling to determine the overall sense of belonging in workplaces and compare individuals' sense of belonging within those workplaces.

The measurement of training in trauma counseling and of perceived sexism may have been problematic in this sample. All participants were asked how many hours of training in trauma counseling they had received. In spite of having much higher education than counselors at crisis centers, those at internship sites reported relatively little training. Counselors at internship sites may have reported only training related to specific trauma counseling techniques or treatments (clinical training) while counselors at crisis centers may have reported all training related to trauma survivors, including education about legal, social, and economic issues for trauma survivors. Thus, the items may have been measuring different types of training depending on the work setting of the participant. The measurement of sexism may have been affected by the near-absence of male employees in domestic violence and rape crisis centers. These participants may have had

difficulty answering items about the differential treatment of men and women if only women were present in the workplace.

### *Strengths of the Study*

In the current study, I improved on previous research by using established measures of VT and PTG, developing measures of new variables, and using a feminist framework.

### *Measurement and Analyses*

Dependent variables were measured with established scales. To further develop the study of VT, variables were drawn from theory and items were developed to measure these in accordance with theory. Measures showed good internal consistency in this sample. Many previous studies reported the results of bivariate correlations only, but in the current study, hierarchical regressions were used to control for variables and determine the most important predictors of VT symptoms and vicarious PTG.

### *Feminist Framework*

Although CSDT provides a complex understanding of trauma and VT, it principally emphasizes the individual psychodynamics of VT; theories of PTG also focus on the individual's cognitive processing. Adding a feminist framework to the study of VT, this study expanded the exploration to the context of VT and to the rewards of trauma counseling. By using the PTGI to measure vicarious PTG, the study added quantitative evidence to the qualitative reports of counselor growth. Results support feminist theory's insistence on the power of context to influence individuals' well-being. Results also suggest a shift in the definition of VT from a possible pathology that needs treatment to a normal and generally sub-clinical level of empathic response that can be buffered by the environment.

### *Sense of Belonging in the Workplace*

Previously, researchers have studied social support as a contextual variable related to VT; however, sense of belonging as a construct may be more useful to the study of VT. Social support has been defined and measured differently, with little consistency across studies. Some researchers measure social support as perceived support from friends and family; other researchers ask more specifically about perceived social support at work. In contrast, sense of belonging is a well-defined construct. Examining

sense of belonging in schools, Goodenow (1993) defined sense of belonging as “psychological membership in the school or classroom, the extent to which students feel personally accepted, respected, included, and supported by others in the school environment” (p. 80). In each study measuring sense of belonging, the environment or space of belonging is defined (sense of belonging in the classroom, school, workplace, community, or country), and sense of belonging is usually measured with a version of Goodenow’s original PSSM scale. The nine items used in this study to measure sense of belonging clearly tap into a deeper construct than social support. For instance, “I feel like a real part of this organization” and “I can really be myself here” ask participants about their sense of membership and acceptance in their workplaces. Thus, sense of belonging involves a kind of community membership and personal acceptance from co-workers that extend beyond general evaluations of support.

Further, sense of belonging as a construct is considered a basic human need in the theories of Baumeister and Leary (1995) and Deci and Ryan (2000). These theorists place sense of belonging among other basic needs that either enhance or detract from well-being. In their self-determination theory, Deci and Ryan examine the particular environments of schools and workplaces to determine how the basic needs of autonomy, competence, and belonging affect motivation and performance. Thus, sense of belonging as a construct is grounded in theories that link it to mental health and motivation for work. As counselor VT and vicarious PTG are bound up in counselors’ psychological health and work motivation, sense of belonging appears to be a more appropriate and specific variable than social support.

Confidentiality agreements with clients require that counselors only talk about specifics of client trauma material with other counselors or supervisors, usually in their agency, and only for the purposes of enhancing their work with the client. Counselors may talk to their family and friends in a general way about their own reactions to their work (i.e., feeling particularly sad or having dealt with a crisis that taxed their emotional reserves), but for processing their reactions to specific client trauma material, the environment of the workplace is the most appropriate space. Thus, feeling accepted, included, and valued in the workplace has more relevance to VT than general social support. Sharing reactions to client trauma material may also require feeling safe enough

to show vulnerability to supervisors and colleagues. Sense of belonging may be a more robust construct in allowing this kind of safety than generally feeling supported at work. In this study, for instance, support for VT at work did not significantly predict VT symptoms, but sense of belonging was a unique and significant predictor. Counselors with greater sense of belonging in the workplace reported fewer VT symptoms. Sense of belonging in the workplace should continue to be studied as a predictor of VT and vicarious PTG, and researchers should investigate ways to enhance counselors' sense of belonging in the workplace.

### *Conclusions*

Vicarious traumatization is not a disorder but is an inevitable and perhaps continuing aspect of hearing stories of trauma. If recovery from trauma necessitates a healing environment, working with trauma clients also requires a holding space. The immediate context of trauma counseling is the workplace, and it is the workplace that may be able to modulate therapists' exposure to trauma material and provide the support of colleagues and sense of belonging that allow therapists to hold the traumas of their clients and grow from the experience.

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Appendix A  
Development of Scale to Measure Perceived Sexism

### Development of Scale to Measure Perceived Sexism

The brief perceived sexism scale used in this study was adapted in several steps from the Working Environment Scale—Short Form (WES-SF; Stokes et al., 1995). Stokes et al. developed both a long (40 items) and short form (15 items) of the WES to measure everyday acts of subtle discrimination based on gender. These scales measure the dimensions of dual standards and opportunities, sexist attitudes and comments, informal socializing, balancing work and personal obligations, remediation policies and practices, and general discrimination. Internal consistency of the WES-SF in the original study (Stokes, et al.) was good,  $\alpha = .93$ . To adapt the WES-SF, first, in a previous study of counselors (Hahn, 2006), the wording was adapted slightly: to conform to counselor work settings, the word “office” was changed to “agency.” Reverse scoring was also changed so that high scores indicated high perceived sexism. This adapted scale included 15 items and had good internal consistency,  $\alpha = .87$ . Second, the scale was shortened using principle components analysis of data from the previous study of counselors. Principle components analysis with varimax rotation resulted in four components, based on eigenvalues (see table below). The first two components together (ten items) accounted for 47.6% of the variance. Eight of the ten items in these two components refer to the equal treatment of women and men in the workplace. The other two items did not fit conceptually with the others, as they pertained to men and women’s interests and socializing patterns. Thus, these two items were excluded from the final scale. The resulting eight-item scale had good reliability ( $\alpha = .88$  in the pilot study;  $\alpha = .77$  in the current study). Although the number of participants in the analysis is lower than desirable for principle components analysis ( $n = 86$ ), this method of shortening the scale seemed preferable to others. Dimensions measured in the resulting 8-item scale include dual standards and opportunities, remediation policies and practices, and general discrimination.

## Working Environment Scale-Short Form (WES-SF)

Indicate the number that corresponds with your rating of each statement as it applies to your workplace. Use a scale from 1 to 5, where 1 is “DO NOT AGREE AT ALL” and 5 is “STRONGLY AGREE.”

Please keep in mind that we want your perceptions and opinions about the actual situation at your workplace, not what you think the situation should be. Also, some of the statements refer to mentors. By “mentor,” we mean an experienced person in your organization whom you trust and feel comfortable talking with about career plans, and who provide you with support and information that enables you to succeed.

1. High visibility assignments or tasks are assigned without regard to gender (that is, similarly qualified men and women would be equally likely to receive this assignment).
2. Compared to men, women in this office are appointed to less important committees and task forces. (R)
3. Employees who raise concerns about balancing family and career usually are supported by upper management.
4. People here seem more comfortable socializing with others of the same sex rather than with those of the opposite sex. (R)
5. People who raise issues about the treatment of women in this company find themselves ignored by other employees. (R)
6. Some men in this agency refer to some women in this agency as honey, cutie, sweetheart, or other “endearing” terms. (R)
7. In this office, men are not as comfortable serving as a mentor to a woman as they are to a man. (R)
8. In general, this company is a good place for women to work.
9. If an employee in this office told a joke that was degrading to women, someone would be likely to criticize them.
10. “Small talk” in the office is geared more to men’s interest than to women’s interest. (R)
11. Promotions are given in this company without regard to gender (that is, men and women are treated equally if they are equally qualified).
12. Men and women are treated differently in this company. (R)



13. In general, supervisors in this company are understanding when personal or family obligations occasionally take an employee away from work.

14. In this office, people pay just as much attention when women speak as when men speak.

15. The people who run this company are serious about treating women and men equally.

(R) indicates reverse scoring.

From Stokes, et al. (1995).

*Principle Components Analysis of Working Environment Scale—Short Form*

	Loading	Eigenvalue	% Variance
Component 1		5.59	37.23
Item 1	.841		
Item 12	.774		
Item 11	.724		
Item 15	.711		
Item 4		.325	
Component 2		1.55	10.35
Item 5	.694		
Item 2	.652		
Item 10	.606		
Item 8	.580		
Item 14	.563		
Component 3		1.17	7.83
Item 13	.746		
Item 3	.715		
Item 7	-.445		
Component 4		1.01	6.71
Item 6	.765		
Item 9	.722		

## Appendix B

### Development of the Brief Perceived Racism in the Workplace Scale

### Development of the Brief Perceived Racism in the Workplace Scale

The perceived racism scale was also developed in two steps. First, the WES and WES-SF (Stokes et al., 1995) were consulted and adapted to create a 15-item scale measuring perceived racism (Hahn, 2006). Those items on the WES-SF which could be easily adapted to measure racism rather than sexism were changed accordingly (by replacing the word “men” with “white employees” and “women” with “minority employees,” for instance). However, five items from the WES-SF could not be easily adapted to measure racism, so items from the long form of the WES (see below) were adapted to replace these. For instance, on the WES-SF, one item reads, “In general, managers in this office are understanding when personal or family obligations occasionally take an employee away from work.” Although the item may serve to measure sexism as part of the balancing work and personal obligations dimension, it cannot be made to measure racism by changing a few words. Thus, another item from the long form was adapted for race, resulting in the following item: “Informal socializing (i.e. lunch, drinks after work) among people in this agency tends to include mixed groups of different races.” An effort was made to retain each of the dimensions measured in the WES with the exception of the balancing work and personal obligations dimension. Additionally, the reverse scoring was changed from the original WES so that high scores indicate high perceived racism. These adaptations resulted in a 15-item scale measuring perceived racism in the workplace, with very good internal consistency,  $\alpha = .92$ .

Second, in order to create a brief version of the scale for this study, data from the previous study was analyzed using principle components analysis. This analysis with varimax rotation resulted in three components, using eigenvalues (see table below). The first component explained almost 50% of the variance (49.44) and measures social integration and fair treatment in the workplace. All nine items of the first component loaded at a .5 level or above, and the reliability of the nine items as a scale is quite good,  $\alpha = .90$  (.85 in the current study). Thus, the Brief Perceived Racism in the Workplace Scale (BPR) consists of these nine items. The number of participants ( $n = 86$ ) in the data set used was not ideal for principle components analysis. However, this method of choosing items seemed preferable to others. In the final scale, the dimensions of dual

standards, informal socializing, remediation practices, and general discrimination were included in the measure.

### Working Environment Scale (WES)

Indicate the number that corresponds with your rating of each statement as it applies to your workplace. Use a scale from 1 to 5, where 1 is “DO NOT AGREE AT ALL” and 5 is “STRONGLY AGREE.”

Please keep in mind that we want your perceptions and opinions about the actual situation at your workplace, not what you think the situation should be. Also, some of the statements refer to mentors. By “mentor,” we mean an experienced person in your organization whom you trust and feel comfortable talking with about career plans, and who provide you with support and information that enables you to succeed.

1. In general, supervisors in this company are understanding when personal or family obligations occasionally take an employee away from work. F/C
2. High visibility assignments or tasks are assigned without regard to gender (that is, similarly qualified men and women would be equally likely to receive this assignment). DS
- 3.\* Informal networks and friendships in this office tend to be among people of the same sex. (R) INF
4. Men and women in this organization are comfortable socializing with each other outside the office. INF
5. In this office behavior from a man that is seen as tough and aggressive is labeled “bitchy” when it comes to a woman. (R) DS
- 6.\* Informal socializing (i.e. lunch, drinks after work) among people in this office tends to include mixed groups of both men and women. INF
7. In this office, men are not as comfortable serving as a mentor to a woman as they are to a man. (R) DS
8. People who raise issues about the treatment of women in this company are supported by other employees. REM
9. Men and women are treated differently in this company. (R) G
10. Few people in top positions in this company are willing to be mentors to women. (R) DS

11. Company-sponsored social events generally appeal to both the male and female employees. INF
12. A woman can expect some resentment from her coworkers or upper management if she takes more than a typical maternity leave. (R) F/C
- 13.\* People in this office are careful not to say anything that could sound sexist or degrading to women. SEX
14. Upper management does not really understand the difficulty many employees have in balancing work and family/personal life. (R) F/C
- 15.\* If an employee in this office told a joke that was degrading to women, someone would be likely to criticize them. SEX
16. This company has made a sincere effort to accommodate working mothers. F/C
17. People who raise issue about the treatment of women in this company find themselves ignored by other employees. (R) REM
18. Jokes that are demeaning or degrading to women are told occasionally in this office. (R) SEX
19. In general, this company is a good place for women to work. G
20. Part-time work or alternate career paths are available in this company to women who want to spend more time with their families. F/C
21. In this office people interrupt women more often than they interrupt men. (R) DS
22. Men in this office are as likely to discuss business issues with a female colleague as with a male colleague. DS
23. Employees who raise concerns about balancing family and career usually are supported by upper management. F/C
24. In this office two co-workers of the opposite sex are as likely to have lunch together as two co-workers of the same sex. INF
25. The people who run this company are serious about treating women and men equally. G
26. A woman in this company who complained about sex discrimination would get support from her co-workers. REM

27. People here seem more comfortable socializing with others of the same sex rather than with those of the opposite sex. (R) INF

28. People in this company can take a leave of absence for childcare and return with minimal disruption to their careers. F/C

29. Promotions are given in this company without regard to gender (that is, men and women are treated equally if they are equally qualified). DS

30. Some men in this office refer to some women in this office as honey, cutie, sweetheart, or other “endearing” terms. (R) SEX

31. “Small talk” in the office is geared more to men’s interest than to women’s interests. (R) INF

32. Compared to men, women in this office are appointed to less important committees and task forces. (R) DS

33. In this office, people pay just as much attention when women speak as when men speak. DS

34.\* Sex discrimination is a big problem in this company. (R) G

Instructions: For the next set of items, please circle the number that best corresponds with your rating of how likely comments like these are to be made at your workplace. Use a scale from 1 to 5, where 1 is “Not at all likely” and 5 is “Very likely.”

35. “He really likes having good-looking women working for him.” (R) SEX

36. “Now that she is married, I am not sure we can count on her being here for long.” (R) DS

37. “Some of you may think this joke is sexist, but I think it is funny.” (R) SEX

38. “Did you see the body on that woman who just walked by?” (R) SEX

39. “My boss really hit the roof yesterday when I had to leave early to take my child to the doctor.” (R) F/C

40. “Do you know if she is planning to get pregnant? This is not an assignment for someone who is going to leave in a year.” (R) F/C

(R) indicates reverse scoring.

\* indicates use in the Perceived Racism in the Workplace Scale.

### Subscales

DS: Dual Standards  
G: Global Items  
REM: Remediation  
INF: Informal Socializing  
F/C: Balance of Family and Career  
SEX: Sexist Attitudes/Comments

From Stokes' et al. (1995).

### *Principle Components Analysis of Work Environment Scale—Race*

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	Loading	Eigenvalue	% Variance
Component 1		7.42	49.44
Item 4	.814		
Item 13	.795		
Item 3	.742		
Item 14	.707		
Item 8	.610		
Item 2	.608		
Item 15	.605		
Item 7	.588		
Item 5	.569		
Component 2		1.34	8.90
Item 11	.836		
Item 1	.816		
Item 12	.807		
Item 10	.529		
Component 3		1.13	7.51
Item 6	.835		
Item 9	.700		

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## Appendix C

### Development of Brief Scale to Measure Sense of Belonging



### Development of Brief Scale to Measure Sense of Belonging

The brief scale of sense of belonging in the workplace used in this study was developed in two steps from Goodenow's (1995) Psychological Sense of School Membership scale (PSSM). First, in a previous study of counselors (Hahn, 2006), the wording of the PSSM was adapted to measure belonging in the workplace rather than belonging in school. Freeman, Anderman, and Jensen's (2007) adaptation of the PSSM for the classroom was also consulted. The resulting 18-item measure of belonging in the workplace was used in the pilot study of counselors,  $\alpha = .93$ .

Second, using the data set from that study, principle components analysis was conducted to determine which items to retain in a brief scale. Principle components analysis with varimax rotation extracted four components (see table below). The first two components appeared to measure the sense of being accepted and included generally in the workplace; the two components differ as the items in the second component are negatively worded. The third component measured belonging among co-workers, and the fourth measured the relationship with the supervisor. Thus, items from the first two components (accounting for 55% of the variance) form a scale that measures general belonging in the workplace. One item from the second component was excluded because it measured the relationship with the supervisor, and another item from the second component was excluded due to loading below the .5 level. Thus, the sense of belonging measure used in this study was a nine-item scale with good internal consistency,  $\alpha = .87$  in the previous study (in the current study,  $\alpha = .86$ ).

### Psychological Sense of School Membership Scale (PSSM)

Choose the number that corresponds with your rating of each statement as it applies to your school. Use a scale from 1 to 5, where 1 is "NOT AT ALL TRUE" and 5 is "COMPLETELY TRUE."

1. I feel like a real part of (name of school).
2. People here notice when I'm good at something.
3. It is hard for people like me to be accepted here. (R)
4. Other students in this school take my opinions seriously.
5. Most teachers at (name of school) are interested in me.
6. Sometimes I feel as if I don't belong here. (R)
7. There's at least one teacher or adult in this school I can talk to if I have a problem.

8. People at this school are friendly to me.
9. Teachers here are not interested in people like me. (R)
10. I am included in lots of activities at (name of school).
11. I am treated with as much respect as other students.
12. I feel very different from most other students here. (R)
13. I can really be myself at this school.
14. The teachers here respect me.
15. People here know I can do good work.
16. I wish I were in a different school. (R)
17. I feel proud of belonging to (name of school).
18. Other students here like me the way I am.

(R) indicates reverse scored items.

From Goodenow (1993).

*Principle Components Analysis of Belonging in the Workplace Scale*

	Loading	Eigenvalue	% Variance
Component 1		8.59	47.72
Item 17	.822		
Item 16	.746		
Item 1	.635		
Item 10	.625		
Item 15	.538		
Item 13	.520		
Component 2		1.36	7.56
Item 12	.729		
Item 3	.686		
Item 6	.579		
Item 9	.570		
Item 8	.485		
Component 3		1.25	6.94
Item 4	.818		
Item 11	.605		

Item 18	.570		
Item 2	.533		
Component 4		1.03	5.73
Item 5	.836		
Item 7	.794		
Item 14	.714		

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Appendix D  
Complete Questionnaire by Instrument Type

### **Demographics**

1. Are you male or female?

- 0 Male
- 1 Female

2. What is your age?

3. What is your ethnicity/race?

- 1 African-American/Black/African Origin
- 2 Asian-American/Asian Origin/Pacific Islander
- 3 Latino-a/Hispanic
- 4 American Indian/Alaska Native/Aboriginal Canadian
- 5 European Origin/White
- 6 Bi-racial/Multi-racial
- 7 Other (Specify: \_\_\_\_\_)

### **Amount of Exposure**

4. How many hours per week do you currently spend counseling trauma survivors?

5. Over the course of your career, how many hours per week on average have you spent counseling trauma survivors?

6. What percentage of your current caseload are trauma survivors?

### **Intensity of Exposure**

7. How much have you been exposed to the graphic details of your clients' traumatic events?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

8. How much of the sensory aspects of traumatic events have your clients shared with you (images, sounds, scents, etc.)?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

9. How much have you been exposed to detailed descriptions of your clients' trauma experiences?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

### **Education**

10. Which category best describes the education you have completed?

- 1 High school diploma or GED
- 2 Two years of college
- 3 Bachelor's degree
- 4 Master's degree
- 5 Master's degree plus 2 years of additional coursework
- 6 Doctorate

### **Trauma Work Experience**

11. How many years have you been working with clients who are trauma survivors (survivors of rape, intimate partner violence, natural disaster, combat, or other traumatic events)? You may use decimals in your answer (e.g., if you have worked with trauma survivors for about 2 and a half years, you may answer "2.5").

### **Trauma Counseling Training**

12. How many hours of training about trauma counseling have you received from your current agency?

13. How many hours of additional training about trauma counseling have you received outside of your agency (from school or conferences, etc.)?

### **Work Setting**

14. Which of the following describes you best?

- 1 Counselor at domestic violence and/or sexual assault center
- 2 Pre- or post-doctoral intern
- 3 Other (Please describe: \_\_\_\_\_)

15. What is the name of your agency? \_\_\_\_\_

### **Amount of Supervision**

16. How many hours each month on average do you receive clinical supervision (individual or group)?

17. About how many hours each month do you spend receiving informal supervision (discussing your client cases with peer and/or supervisors in unscheduled consultation)?

**Quality of Supervision for Trauma Counseling**

18. How well does your formal supervision help you specifically in your counseling of trauma survivors?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

19. How well does your formal supervision help you accept and work through your own responses to clients' trauma material?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

**Agency Acceptance of VT**

20. In general, how accepting is your agency about counselors having reactions to clients' trauma material?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

21. How supportive is your agency in helping counselors work through their responses to clients' trauma material?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

**Support for VT at Work**

22. How many counselors are there in your agency?

23. If you had an emotional reaction to a client's trauma material, with how many counselors in your agency would you feel comfortable sharing this response?

## Perceived Sexism and Racism in the Workplace

Indicate the number that corresponds with your rating of each statement as it applies to your workplace. Use a scale from 1 to 5, where 1 is “DO NOT AGREE AT ALL” and 5 is “STRONGLY AGREE.”

Please keep in mind that we want your perceptions and opinions about the actual situation at your workplace, not what you think the situation should be. Also, some of the statements refer to mentors. By “mentor,” we mean an experienced person in your organization whom you trust and feel comfortable talking with about career plans, and who provide you with support and information that enables you to succeed.

1. High visibility assignments or tasks are assigned without regard to gender (that is, similarly qualified men and women would be equally likely to receive this assignment).
2. Compared to men, women in this agency are appointed to less important committees and task forces.
3. People who raise issues about the treatment of women in this agency find themselves ignored by other employees.
4. In general, this agency is a good place for women to work.
5. Promotions are given in this agency without regard to gender (that is, men and women are treated equally if they are equally qualified).
6. Men and women are treated differently in this agency.
7. In this agency, people pay just as much attention when women speak as when men speak.
8. The people who run this agency are serious about treating women and men equally.
9. Compared to white employees, minority employees in this agency are appointed to less important committees and task forces.
10. Informal networks and friendships in this agency tend to be among people of the same race.
11. People here seem more comfortable socializing with others of the same race rather than with those of other races.
12. People who raise issues about the treatment of minorities in this agency find themselves ignored by other employees.



13. In this agency, white employees are not as comfortable serving as a mentor to a minority employee as they are to a white employee.

14. In general, this agency is a good place for minorities to work.

15. Informal socializing (i.e. lunch, drinks after work) among people in this agency tends to include mixed groups of different races.

16. In this agency, people pay just as much attention when minority employees speak as when white employees speak.

17. The people who run this agency are serious about treating white and minority employees equally.

### **Belonging in the Workplace**

Choose the number that corresponds with your rating of each statement as it applies to your workplace. Use a scale from 1 to 5, where 1 is “NOT AT ALL TRUE” and 5 is “COMPLETELY TRUE.”

1. I feel like a real part of this organization.
2. It is hard for people like me to be accepted here.
3. Sometimes I feel as if I don't belong here.
4. I am included in lots of activities here.
5. I feel very different from most of my co-workers.
6. I can really be myself here.
7. People here know I can do good work.
8. I wish I were in a different organization.
9. I feel proud belonging to this organization.

### **Vicarious Trauma Symptoms**

Instructions: Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you DURING THE PAST SEVEN DAYS with respect to your counseling work with trauma survivor clients. How much were you distressed or bothered by these difficulties?

0 = Not at all; 1 = A little bit; 2 = Moderately; 3 = Quite a bit; 4 = Extremely

1. Any reminder brought back feelings about it.
2. I had trouble staying asleep.
3. Other things kept making me think about it.
4. I felt irritable and angry.
5. I avoided letting myself get upset when I thought about it or was reminded of it.
6. I thought about it when I didn't mean to.
7. I felt as if it hadn't happened or wasn't real.

8. I stayed away from reminders of it.
9. Pictures about it popped into my mind.
10. I was jumpy and easily startled.
11. I tried not to think about it.
12. I was aware that I still had a lot of feelings about it, but I didn't deal with them.
13. My feelings about it were kind of numb.
14. I found myself acting or feeling like I was back at that time.
15. I had trouble falling asleep.
16. I had waves of strong feelings about it.
17. I tried to remove it from my memory.
18. I had trouble concentrating.
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.
20. I had dreams about it.
21. I felt watchful and on guard.
22. I tried not to talk about it.

### **Vicarious Posttraumatic Growth**

Instructions: Indicate for each of the statements below the degree to which this change occurred in your life as a result of your counseling work with trauma survivor clients, using the following scale.

- 0 = I did not experience this change as a result of my work with trauma clients.
- 1 = I experienced this change to a very small degree as a result of my work with trauma clients.
- 2 = I experienced this change to a small degree as a result of my work with trauma clients.
- 3 = I experienced this change to a moderate degree as a result of my work with trauma clients.
- 4 = I experienced this change to a great degree as a result of my work with trauma clients.
- 5 = I experienced this change to a very great degree as a result of my work with trauma clients.

1. My priorities about what is important in life.
2. An appreciation for the value of my own life.
3. I developed new interests.
4. A feeling of self-reliance.
5. A better understanding of spiritual matters.
6. Knowing that I can count on people.
7. I established a new path for my life.
8. A sense of closeness with others.
9. A willingness to express my emotions.
10. Knowing I can handle difficulties.
11. I'm able to do better things with my life.
12. Being able to accept the way things work out.

13. Appreciating each day.
14. New opportunities are available which wouldn't have been otherwise.
15. Having compassion for others.
16. Putting effort into my relationships.
17. I'm more likely to try to change things which need changing.
18. I have a stronger religious faith.
19. I discovered that I'm stronger than I thought I was.
20. I learned a great deal about how wonderful people are.
21. I accept needing others.

**Additional Questions (to be analyzed for another study)**

**Belonging**

I am interested in your sense of belonging in your workplace. Belonging is defined as your sense of "psychological membership" in the agency, or how much you feel "personally accepted, respected, included, and supported by others" (Goodenow, 1993) in the agency.

1. In your agency, what helps you feel more belonging there?
2. What causes you to feel less belonging in your agency?

**Maladaptive Beliefs**

This questionnaire is used to learn how individuals view themselves and others. As people differ from one another in many ways, there are no right or wrong answers. Please indicate the number next to each item which you feel most clearly matches your own beliefs about yourself and your world. Try to complete every item. Use the following response scale.

- 1 = Disagree Strongly
- 2 = Disagree
- 3 = Disagree Somewhat
- 4 = Agree Somewhat
- 5 = Agree
- 6 = Agree Strongly

1. I believe I am safe.
2. Even when I am with friends and family, I don't feel like I belong.
3. I never think anyone is safe from danger.
4. I can trust my own judgment.
5. People are wonderful.
6. I feel like people are hurting me all the time.
7. Some of my happiest times are with other people.
8. I could do serious damage to someone.
9. When I am alone, I don't feel safe.

10. Most people ruin what they care about.
11. I don't trust my instincts.
12. I feel close to lots of people.
13. I can't stop worrying about others' safety.
14. I would never hurt myself.
15. I often think the worst of others.
16. I can control whether I harm others.
17. The world is dangerous.
18. I have a hard time making decisions.
19. I feel cut off from people.
20. The important people in my life are in danger.
21. I can keep myself safe.
22. People are no good.
23. I worry about what other people will do to me.
24. I like people.
25. Even if I think about hurting myself, I won't do it.
26. I don't feel much love from anyone.
27. I have good judgment.
28. I feel threatened by others.
29. When I am with people, I feel alone.
30. The world is full of people with mental problems.
31. I can make good decisions.
32. I am afraid of what I might do to myself.
33. When people I love aren't with me, I believe they are in danger.
34. I feel safe when I am alone.
35. I often doubt myself.
36. Most people are good at heart.
37. I believe that someone is going to hurt me.
38. I do things that put other people in danger.
39. No one really knows me.
40. I don't respect the people I know best.
41. I can usually figure out what's going on with people.
42. I have physically hurt people.
43. I am afraid I will harm myself.
44. I feel left out everywhere.

Appendix E  
Complete Participant Questionnaire

### **Counseling Experience**

1. How many hours per week do you currently spend counseling trauma survivors?
2. Over the course of your career, how many hours per week on average have you spent counseling trauma survivors?
3. What percentage of your current caseload are trauma survivors?
4. How much have you been exposed to the graphic details of your clients' traumatic events?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

5. How much of the sensory aspects of traumatic events have your clients shared with you (images, sounds, scents, etc.)?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

6. How much have you been exposed to detailed descriptions of your clients' trauma experiences?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

7. How many years have you been working with clients who are trauma survivors (survivors of rape, intimate partner violence, natural disaster, combat, or other traumatic events)? You may use decimals in your answer (e.g., if you have worked with trauma survivors for about 2 and a half years, you may answer "2.5").

8. How many hours of training about trauma counseling have you received from your current agency?

9. How many hours of additional training about trauma counseling have you received outside of your agency (from school or conferences, etc.)?

10. Which of the following describes you best?
- 0 Counselor at domestic violence and/or sexual assault center
  - 1 Pre- or post-doctoral intern
  - 2 Other (Please describe: \_\_\_\_\_)
11. What is the name of your agency? \_\_\_\_\_
12. What is the location of your agency (city and state)? \_\_\_\_\_
13. How many hours each month on average do you receive clinical supervision (individual or group)?
14. About how many hours each month do you spend receiving informal supervision (discussing your client cases with peer and/or supervisors in unscheduled consultation)?

### **Supervision and Demographics**

1. How well does your formal supervision help you specifically in your counseling of trauma survivors?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

2. How well does your formal supervision help you accept and work through your own responses to clients' trauma material?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

3. In general, how accepting is your agency about counselors having reactions to clients' trauma material?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

4. How supportive is your agency in helping counselors work through their responses to clients' trauma material?

- 1 Not at all
- 2 Only a little bit
- 3 A moderate amount
- 4 Quite a bit
- 5 Very much

5. How many counselors are there in your agency?

6. If you had an emotional reaction to a client's trauma material, with how many counselors in your agency would you feel comfortable sharing this response?

7. Are you male or female?

- 0 Male
- 1 Female

8. What is your age?

9. What is your ethnicity/race?

- 1 African-American/Black/African Origin
- 2 Asian-American/Asian Origin/Pacific Islander
- 3 Latino-a/Hispanic
- 4 American Indian/Alaska Native/Aboriginal Canadian
- 5 European Origin/White
- 6 Bi-racial/Multi-racial
- 7 Other (Specify: \_\_\_\_\_)

10. Which category best describes the education you have completed?

- 1 High school diploma or GED
- 2 Two years of college
- 3 Bachelor's degree
- 4 Master's degree
- 5 Master's degree plus 2 years of additional coursework
- 6 Doctorate



## **Work Environment**

Indicate the number that corresponds with your rating of each statement as it applies to your workplace. Use a scale from 1 to 5, where 1 is “DO NOT AGREE AT ALL” and 5 is “STRONGLY AGREE.”

Please keep in mind that we want your perceptions and opinions about the actual situation at your workplace, not what you think the situation should be. Also, some of the statements refer to mentors. By “mentor,” we mean an experienced person in your organization whom you trust and feel comfortable talking with about career plans, and who provide you with support and information that enables you to succeed.

1. High visibility assignments or tasks are assigned without regard to gender (that is, similarly qualified men and women would be equally likely to receive this assignment).
2. Compared to men, women in this agency are appointed to less important committees and task forces.
3. People who raise issues about the treatment of women in this agency find themselves ignored by other employees.
4. In general, this agency is a good place for women to work.
5. Promotions are given in this agency without regard to gender (that is, men and women are treated equally if they are equally qualified).
6. Men and women are treated differently in this agency.
7. In this agency, people pay just as much attention when women speak as when men speak.
8. The people who run this agency are serious about treating women and men equally.
9. Compared to white employees, minority employees in this agency are appointed to less important committees and task forces.
10. Informal networks and friendships in this agency tend to be among people of the same race.
11. People here seem more comfortable socializing with others of the same race rather than with those of other races.
12. People who raise issues about the treatment of minorities in this agency find themselves ignored by other employees.
13. In this agency, white employees are not as comfortable serving as a mentor to a minority employee as they are to a white employee.

14. In general, this agency is a good place for minorities to work.
15. Informal socializing (i.e. lunch, drinks after work) among people in this agency tends to include mixed groups of different races.
16. In this agency, people pay just as much attention when minority employees speak as when white employees speak.
17. The people who run this agency are serious about treating white and minority employees equally.

### **Workplace Belonging**

Choose the number that corresponds with your rating of each statement as it applies to your workplace. Use a scale from 1 to 5, where 1 is "NOT AT ALL TRUE" and 5 is "COMPLETELY TRUE."

1. I feel like a real part of this organization.
2. It is hard for people like me to be accepted here.
3. Sometimes I feel as if I don't belong here.
4. I am included in lots of activities here.
5. I feel very different from most of my co-workers.
6. I can really be myself here.
7. People here know I can do good work.
8. I wish I were in a different organization.
9. I feel proud belonging to this organization.

### **Counseling Work**

Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you **DURING THE PAST SEVEN DAYS** with respect to your counseling work with trauma survivor clients. How much were you distressed or bothered by these difficulties?

0 = Not at all; 1 = A little bit; 2 = Moderately; 3 = Quite a bit; 4 = Extremely

1. Any reminder brought back feelings about it.
2. I had trouble staying asleep.
3. Other things kept making me think about it.
4. I felt irritable and angry.
5. I avoided letting myself get upset when I thought about it or was reminded of it.
6. I thought about it when I didn't mean to.
7. I felt as if it hadn't happened or wasn't real.
8. I stayed away from reminders of it.
9. Pictures about it popped into my mind.
10. I was jumpy and easily startled.
11. I tried not to think about it.

12. I was aware that I still had a lot of feelings about it, but I didn't deal with them.
13. My feelings about it were kind of numb.
14. I found myself acting or feeling like I was back at that time.
15. I had trouble falling asleep.
16. I had waves of strong feelings about it.
17. I tried to remove it from my memory.
18. I had trouble concentrating.
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.
20. I had dreams about it.
21. I felt watchful and on guard.
22. I tried not to talk about it.

### **Changes in Life**

Indicate for each of the statements below the degree to which this change occurred in your life as a result of your counseling work with trauma survivor clients, using the following scale.

- 0 = I did not experience this change as a result of my work with trauma clients.
- 1 = I experienced this change to a very small degree as a result of my work with trauma clients.
- 2 = I experienced this change to a small degree as a result of my work with trauma clients.
- 3 = I experienced this change to a moderate degree as a result of my work with trauma clients.
- 4 = I experienced this change to a great degree as a result of my work with trauma clients.
- 5 = I experienced this change to a very great degree as a result of my work with trauma clients.

1. My priorities about what is important in life.
2. An appreciation for the value of my own life.
3. I developed new interests.
4. A feeling of self-reliance.
5. A better understanding of spiritual matters.
6. Knowing that I can count on people.
7. I established a new path for my life.
8. A sense of closeness with others.
9. A willingness to express my emotions.
10. Knowing I can handle difficulties.
11. I'm able to do better things with my life.
12. Being able to accept the way things work out.
13. Appreciating each day.
14. New opportunities are available which wouldn't have been otherwise.
15. Having compassion for others.
16. Putting effort into my relationships.
17. I'm more likely to try to change things which need changing.

18. I have a stronger religious faith.
19. I discovered that I'm stronger than I thought I was.
20. I learned a great deal about how wonderful people are.
21. I accept needing others.

### **Belief Scale**

This questionnaire is used to learn how individuals view themselves and others. As people differ from one another in many ways, there are no right or wrong answers. Please indicate the number next to each item which you feel most clearly matches your own beliefs about yourself and your world. Try to complete every item. Use the following response scale.

- 1 = Disagree Strongly
- 2 = Disagree
- 3 = Disagree Somewhat
- 4 = Agree Somewhat
- 5 = Agree
- 6 = Agree Strongly

1. I believe I am safe.
2. Even when I am with friends and family, I don't feel like I belong.
3. I never think anyone is safe from danger.
4. I can trust my own judgment.
5. People are wonderful.
6. I feel like people are hurting me all the time.
7. Some of my happiest times are with other people.
8. I could do serious damage to someone.
9. When I am alone, I don't feel safe.
10. Most people ruin what they care about.
11. I don't trust my instincts.
12. I feel close to lots of people.
13. I can't stop worrying about others' safety.
14. I would never hurt myself.
15. I often think the worst of others.
16. I can control whether I harm others.
17. The world is dangerous.
18. I have a hard time making decisions.
19. I feel cut off from people.
20. The important people in my life are in danger.
21. I can keep myself safe.
22. People are no good.
23. I worry about what other people will do to me.
24. I like people.
25. Even if I think about hurting myself, I won't do it.
26. I don't feel much love from anyone.
27. I have good judgment.

28. I feel threatened by others.
29. When I am with people, I feel alone.
30. The world is full of people with mental problems.
31. I can make good decisions.
32. I am afraid of what I might do to myself.
33. When people I love aren't with me, I believe they are in danger.
34. I feel safe when I am alone.
35. I often doubt myself.
36. Most people are good at heart.
37. I believe that someone is going to hurt me.
38. I do things that put other people in danger.
39. No one really knows me.
40. I don't respect the people I know best.
41. I can usually figure out what's going on with people.
42. I have physically hurt people.
43. I am afraid I will harm myself.
44. I feel left out everywhere.

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Belonging is defined as your sense of "psychological membership" in the agency, or how much you feel "personally accepted, respected, included, and supported by others" (Goodenow, 1993) in the agency.

1. In your agency, what helps you feel more belonging there?
2. What causes you to feel less belonging in your agency?

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Vita

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**Education**

Counseling Psychology University of Kentucky, Lexington, KY  
Ph.D., expected December 2009.  
Ed.S., May 2007.  
M.S., January 2001.

English Literature  
M.A., August 1996. University of Cincinnati, Cincinnati, OH  
B.A., Cum Laude, May, 1994. Asbury College, Wilmore, KY

**Professional Experience**

Psychology Resident.  
The Counseling Center, Oberlin College, Oberlin, OH

Psychology Intern.  
The Counseling Center, University of Akron, Akron, OH

Lecturer. Personality Assessment.  
Cleveland State University, Cleveland, OH

Practicum Counselor.  
Counseling and Psychological Services, Southern Methodist University, Dallas, TX

Career Counselor.  
Career Services Center, Centre College, Danville, KY

Practicum Counselor.  
Counseling Psychology Services Center, Lexington, KY

Instructor. Learning and Human Development.  
University of Kentucky, Lexington, KY

Intake Clinician and Mental Health Associate.  
Ridge Behavioral Health System, Lexington, KY

Domestic Violence Counselor.  
YWCA Spouse Abuse Center, Lexington, KY

## **Empirical Research Presentations**

- Hahn, K. J. (2009, November). *Vicarious trauma for counselors: Workplace context and belonging*. Paper presented at the annual meeting of the International Society for Traumatic Stress Studies, Atlanta, GA.
- Shukla, S., Hahn, K. J., & Allen, J. L. (2008, March). *High school absenteeism and its relation with perceived social support, socio-economic status and student ethnicity*. Poster presented at the annual meeting of the American Educational Research Association, New York, NY.
- Hahn, K. J. (2007, August). *Counselors' workplaces: How racism and sexism erode belonging*. Poster presented at the annual convention of the American Psychological Association, San Francisco, CA.
- Hahn, K. J., Allen, J. L., Shukla, S., & Anderman, L. H. (2007, April). *Racism and reverse racism: Predictors of belonging in high school students*. Poster presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Hahn, K. J., Taylor, M., Allen, J. L., Remer, R., & Remer, P. (2006, August). *Sexual assault: Men and women as victims and perpetrators*. Poster presented at the annual convention of the American Psychological Association, New Orleans, LA.
- Hahn, K. J., Wallpe, M., Taylor, M., Remer, R., & Remer, P. (2005, August). *Effectiveness of a feminist date rape prevention program*. Poster presented at the annual convention of the American Psychological Association, Washington, D.C.

## **Professional Activities**

### Society for the Psychology of Women (Division 35)

Representative to APAGS.

Member, Feminist Professional Training and Practice Committee.

Member, Task Force on Incorporating Social Class in the Psychology Curriculum.

### Society of Counseling Psychology (Division 17)

Member, Early Professionals Committee.

Student Reviewer, Program Committee.

### American Psychological Association of Graduate Students (APAGS)

Convention Committee Member.

### Psychology of Women Quarterly

Student Advisory Reviewer.