Effect of Feedback on Levels of Secondary Traumatization of Workers at Battered Women's Shelters across the United States

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Dissertation submitted to the Faculty of the

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

in

Psychology

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April 9, 1999
Blacksburg, Virginia

Keywords: Secondary Trauma, Domestic Violence, Feedback and Intervention

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(Abstract)

This study investigated the impact of working with domestic violence victims on domestic violence shelter workers. Recent research has shown that working with trauma victims may have a profound impact on the worker, including levels of intrusive and avoidant PTSD symptoms as well as distorted beliefs about the self and others. This was the first study to examine secondary traumatization in the domestic violence worker population. Results suggested that domestic violence workers are experiencing levels of secondary traumatization slightly higher than sexual assault counselors, a group used for comparison due to their similar job demands and client population. Though this study attempted to ameliorate symptom levels by providing feedback, and feedback with suggestions for improvement to two treatment groups, no significant effects were found post-treatment. Various reasons were offered for this lack of effect, including the lack of adequate sample size at follow-up. Overall, several predictors of secondary traumatization were confirmed, the most notable of which was social support. Individuals with high levels of social support tended to have less symptoms of secondary traumatization, and individuals with high levels of social avoidance tended to have more symptoms of secondary traumatization. For this sample, trauma history was not found to predict secondary traumatization symptoms. These findings were discussed in relation to the vicarious traumatization model of indirect trauma. Clinical implications and implications for future research were also offered.

This study was supported in full by the Agency for Healthy Care Policy and Research Grant for Health Service Dissertation Award, number R03 HS10036-01.

Acknowledgements

First, I would like to thank the participants in this study for their hard work and personal contributions about a very difficult subject.

Second, I would like to thank my family for their constant support of my endeavors throughout graduate school, as well as during this last year of managing the demands of a military residency and my doctoral dissertation.

Third, I would like to thank my chair, George Clum, Ph.D., for his support and instruction in both my clinical and research pursuits. George was instrumental in teaching me concrete skills as well as reminding me that I could succeed when I questioned my ability to do so. I would also like to acknowledge my committee, Richard Eisler, Ph.D., Jane Keppel-Benson, Ph.D., Cynthia Lease, Ph.D., and Ellie Sturgis, Ph.D., each member of which has had a significant impact on my development as a professional.

Finally, I would like to thank my future husband, James Hanauer, and my dog Penelope for providing daily support in the nature of computer trouble-shooting, ongoing patience, and affection, without which I would never have been able to finish my degree.

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Chapter 1

INTRODUCTION

Studies of traumatic stress have shown that those individuals who consistently come into close contact with traumatized individuals often begin to experience the painful and difficult symptoms of trauma themselves (Figley, 1993; Figley, 1995; McCann & Pearlman, 1990a, 1990b; Pearlman & Saakvitne, 1995). This process has commonly been called secondary or vicarious traumatization. Secondary traumatization (STS) has been studied in populations such as survivors of homicide (Amick-McMullan et al., 1989), spouses and family members of veterans (Rosenheck & Nathan, 1985; Solomon et al., 1992), emergency responders (Andersen, Christensen & Peterson, 1991) and therapists of traumatized clients (McCann & Pearlman, 1990a, 1990b; Pearlman & MacIan, 1995). Increasing attention is being focused on health care workers and public service professionals, for whom it is thought that the symptoms of secondary trauma are often compounded by the increased risk of emotional and physical stress, as well as exhaustion that may result from difficult work conditions inherent to these occupations (Farber, 1983; Freudenberger & Richelson, 1980; Pines & Aronson, 1981).

Recent research has shown that health care workers, such as nurses, surgeons, psychiatrists and other psychotherapists, are experiencing moderate levels of STS while working with their clients (Joenpelto & Vanhanen, 1981, cited in Leppanen & Olkinuora, 1987). Preliminary evidence has suggested that, of these workers, the symptom levels appear to be strongest in therapists treating victims of physical and sexual abuse, especially child abuse and recent assault (Cunningham, 1996; Kassam-Adams, 1996; Simonds, 1996). Abuse victims bring horrific descriptions of traumatic events as well as deep feelings of anger, fear and mistrust to their relationship with their therapists. It is thought that the continual exposure of the therapists to these images and emotions challenges the therapists' views of the world as a benevolent and safe place to live. The resultant effect is the assumption of symptoms and distorted beliefs shared by the victims.

The presence of secondary trauma symptoms in these workers has been associated

with what some researchers have called a "negative clinical response" (Follette, Polusny, & Milbeck, 1994). For therapists, this behavior pattern is characterized by inattentiveness or dissociating during session, lack of empathy, and feelings of guilt related to limitations as a professional. Other potential problems suggested throughout the literature (Courtois, 1988; Dutton & Rubinstein, 1995; Guy, 1987; Raphael & Wilson, 1994; Yassen, 1995) are diffusion of boundaries with clients leading to ineffective treatment and provision of services, inappropriate anger, and withdrawal and/or avoidance of expression of emotion with the client. Personal effects on the individual are assumed to be just as detrimental, given the well-documented suffering of victims of direct traumatization (e.g., Foy, 1992).

It is has been suggested that the effect of this process of traumatization on therapists is moderated by aspects of the environment in which therapists work, as well as individual strengths and weaknesses that the therapist brings to her career (e.g., Pearlman & Saakvitne, 1995). Within the work setting, most therapists have varied opportunities to receive help processing their reactions to clients (commonly called "debriefing"), such as supervision, case conferences, workshops, therapist support groups, and personal therapy. For instance, a survey of clinical psychologists noted that 70% reported that they have a moderate to strong network of professional associates to call upon for support (Farber, 1990). These sources of support likely decrease the effects of traumatization on the therapist. It is also thought that specific styles of coping behaviors, social support, and humor mitigate the risk of developing STS. Therefore, simply working with trauma victims does not necessarily lead to the development of STS.

One population of workers known for intensive work with victims of physical and sexual abuse are workers at battered women's shelters. Each year approximately 1.8. million women are battered by their partners (Okun, 1986). Across the United States over a thousand battered women's shelters have been formed to provide protection and resources to these victims of abuse. The women (and their children) who seek services at the shelters are typically engaged in ongoing abusive relationships or are running for safety from a sudden incident of physical or sexual assault. As a result, the women are

often greatly traumatized by their recent experiences. Estimates of the prevalence of posttraumatic stress disorder (PTSD) in women at shelters have ranged from 40% to 84% (Astin, Lawrence, & Foy, 1993; Astin et al., 1995; Cimino & Dutton, 1991, Gleason, 1993; Houskamp & Foy, 1991; Kemp, Green, Hovanitz, & Rawlings, 1995; Kemp, Rawlings & Green, 1991; Saunders, 1994). Given the recent findings on STS, it follows that the shelter workers, who spend a minimum of 8 hours a day interacting with these trauma victims, are at high risk of becoming traumatized themselves. The fact that many of these workers are not formally trained as psychotherapists nor do they necessarily have the formal support system common to many psychotherapists puts them at further risk of STS. Yet, to date, no research has investigated the prevalence of STS among battered women's shelter workers nor sought to offer suggestions for prevention or intervention.

The goals of this paper are twofold. First, this study sought to measure the prevalence of STS of workers at battered women's shelters across the United States. Second, the domestic violence shelters were engaged in a feedback intervention design such that delayed feedback, immediate feedback, or feedback with suggestions for improvement were given to each of these shelters regarding levels of STS and process variables (i.e., coping) of their workers. The shelters were then followed up two months from the point of initial assessment to assess any change in symptom levels and compare effectiveness of feedback across the three conditions. It was expected that feedback with and without intervention would have a positive effect on the shelter workers by (a) calling attention to their level of STS and (b) educating workers regarding self-protective strategies aimed at decreasing risk of STS. The following review of the literature explains the rationale for predicting that shelter workers may be experiencing STS and why a simple feedback intervention may be effective in alleviating these symptom levels. Though prior data were based mostly on studies of therapists of sexual assault victims, parallels were drawn demonstrating the similar working conditions of sexual assault therapists and domestic violence shelter workers to support the argument that shelter workers are likely experiencing similar difficulties.

Chapter 2

REVIEW OF THE LITERATURE

Concern over the deleterious effects of the stresses of human service occupations has long been an issue in the field of psychology. Research has attempted to address effects of stress and adaptation to difficult work demands for several decades. Only recently has exposure to trauma victims been conceptualized as a particularly salient stressor that must be included in this area of study. The following review of literature will outline the development of research investigating effects of stress on human service workers. The concepts of traumatic stress and secondary traumatic stress will be delineated along with a brief explanation of process variables thought to mitigate the relationship between witnessing trauma and developing STS. Finally, research regarding effects of survey feedback will be reviewed to suggest a mechanism for assessment and intervention of secondary traumatic stress in battered women's shelter workers.

Traumatic Stress

Traumatic stress is defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994) as the reaction to direct exposure or witnessing of an extreme traumatic stressor that involves actual or threatened death, serious injury, or a threat to physical integrity. A person experiencing PTSD develops symptoms of disturbance for more than one month following the traumatic stressor. This disturbance is characterized by the following symptom pattern: First, the individual re-experiences the event via intrusive thoughts, recurring dreams, flashback experiences, and and/or emotional and physiological arousal to environmental cues associated with the event. Second, the individual engages in efforts to avoid thoughts, feelings, conversations, activities, and places associated with the event and may experience an inability to recall parts of the event, diminished interest in activities, feelings of detachment, restricted range of affect, and a sense of foreshortened future. Third, the individual experiences increased arousal characterized by difficulty sleeping, irritability, difficulty concentrating, hypervigilance and/or exaggerated startle response.

The prevalence of PTSD varies greatly by the severity of the stressor. For instance, less than 20% of adults experiencing marital distress meet criteria for PTSD (Astin et al., 1995); however, estimates of battered women meeting criteria for PTSD range from 40% to 84% (Astin, Lawrence, & Foy, 1993; Astin et al., 1995; Cimino & Dutton, 1991, Gleason, 1993; Houskamp & Foy, 1991; Kemp, Rawlings & Green, 1991; Lenau, 1990; Saunders, 1994). Rates of PTSD in sexual assault victims have been estimated at 11.1% for victims of molestation and 57% for victims of rape (Kilpatrick et al., 1987). These rates are similar to those of combat veterans, estimated at rates as high as 50% (Foy, 1992).

Effects of abuse on battered women are not limited to the diagnostic criteria for PTSD. Battered women also suffer from significant changes in cognitive functioning and relational disturbances. Repeated exposure to violence from an individual who originally pledged to protect her results in gradual changes in the woman's beliefs of trust, safety and control regarding people and events in their lives (Foa, Steketee, & Rothbaum, 1989; Janoff-Bulman & Frieze, 1983). Specifically, battered women experience loss of the assumption of personal safety, loss of the view of the world as meaningful, perceptions of futility and decreased alternative options, negative beliefs about the self, increased acceptance of abusive behavior from others, and tolerance of the cognitive inconsistency of abuse in an intimate relationship (Dutton, 1992). These changes are associated with emotional distress and decreased ability to protect the self.

Relational disturbances are also a factor in PTSD. Battered women tend to gradually develop suspicion and distrust of others as well as increased dependence on those already in their lives (often the batterer). In addition, they often tend to experience difficulty setting appropriate boundaries in relationships and become less assertive over time. Battered women learn that assertiveness is dangerous in the abusive relationship and learn to be nonassertive as a protective mechanism. This lack of assertiveness often generalizes to other relationships. In future relationships, battered women often see

emotional and sexual intimacy as costing too much and withdraw before the relationship can develop. Though these reactions have been described specifically in terms of battered women, cognitive and relational disturbances are typically associated with all sufferers of PTSD.

Secondary Traumatic Stress

The focus of this investigation is on the propensity for domestic violence shelter workers to experience traumatic stress, due not to personal traumatization, but to the repeated witnessing of traumatic stress in shelter residents with whom they have consistent and often intense relationships. The concept of secondary traumatic stress is relatively new in the literature but is gaining strength as a unique and valid construct describing a condition in public service professionals that merits a great deal of concern. A full explanation of the definition and phenomenology of secondary traumatic stress follows.

Definition of Secondary Traumatic Stress

The concept of secondary traumatic stress (STS) was first explicitly defined by Charles Figley in his examination of families reacting to trauma (1983). Figley suggested that people who come into close contact with trauma victims may become emotionally upset and gradually become indirect victims of trauma themselves. The repeated and prolonged exposure to victims of severe trauma serves as a chronic stressor that eventually leads to distress and impairment in the nonvictim's life. It has been hypothesized that nonvictims may identify so closely with the victims that they begin to internalize the victims' internal imagery of the traumatic event. In that way, the nonvictim then begins to experience trauma independently of the victim and becomes an indirect trauma victim (Solomon et al., 1992). This process has been previously described in such populations as survivors of homicide (Amick-McMullan et al., 1989), children of Vietnam veterans (Rosenheck & Nathan, 1985), children and spouses of

Holocaust survivors (Davidson, 1980), and wives of Israeli combat veterans (Solomon et al., 1992). Figley (1995) recently termed secondary traumatic stress of psychotherapists "compassion fatigue," emphasizing that therapists are at risk of developing STS via their relationship with clients and the intense empathy and identification involved in this relationship. The exact prevalence of this phenomenon in the population of health care workers is not known. Currently there is no standard method of assessment of STS, and cutoff scores to differentiate impairment from nonimpairment have not yet been determined for the instruments that have recently been developed to measure this phenomenon.

Phenomenology

The phenomenology of STS appears to be somewhat similar to that of PTSD. Figley (1995) offered an organization of STS that parallels DSM-IV (APA, 1994) PTSD diagnostic criteria. McCann and Pearlman (1990b) have modified this conceptualization of STS to include subtle changes in cognitive schemas that result from repeated exposure to threatening and often horrifying traumatic material. Their broader conceptualization is referred to as vicarious traumatization. For purposes of this paper, the two terms will be used interchangeably to refer to both sets of phenomenology. Within this framework, Dutton and Rubinstein (1995) have organized the totality of STS reactions into three broad categories of dysfunction that will be discussed as follows: psychological distress, cognitive shifts, and relational disturbances.

Psychological Distress

Similar to PTSD, the psychological distress that results from STS can be characterized by (a) emotional distress related to the re-experiencing of trauma symptoms characterized by intrusive thoughts and feelings, (b) avoidance of trauma related material, and (c) increased physiological arousal related to the traumatic material.

Re-experiencing Symptoms Similar to victims of direct traumatization, secondary victims may also re-experience thoughts, images and feelings related to the traumatic situation. For example, often secondary victims take in horrific images conveyed to them by trauma victims and re-experience them as intrusive thoughts and nightmares. Prior to the investigation of STS of health care workers, re-experiencing symptoms had been noted in other populations, such as wives of Israeli combat veterans (Waysman, Mikulincer, Solomon and Weisenberg, 1993) and passenger ferry workers who witnessed a ferry capsize, killing 193 passengers and co-workers (Dixon, 1991). It has been hypothesized that in both of these cases, these individuals were at risk of STS because of the strong identification with those who died.

It is thought that the psychotherapist's strong empathy for the client leads to an identification with the client that increases the therapist's risk of taking on traumatic imagery. Recent research (Courtois, 1988; Herman, 1992; McCann and Pearlman, 1990b) has described cases in which therapists have begun to re-experience imagery that has been conveyed to them from trauma victims. These images seem to appear without particular context or meaning, similar to flashbacks experienced by sufferers of PTSD. In some cases, therapists reported that they began to have the same nightmares that had been conveyed to them by their clients. Studies utilizing the Impact of Events Scale (IES; Horowitz, Wilner, & Alvarez, 1979) have noted moderate levels of re-experiencing symptoms in psychotherapists thought to be a product of the repeated exposure to traumatic material presented by the clients (Kassam-Adams, 1995; Lee, 1995; Munroe, 1990; Schauben & Frazier, 1995). Though there are no known reports of levels of re-experiencing symptoms in domestic violence shelter workers, the similar nature of their work likely puts them at a similar risk level.

Avoidance Victims of STS may also show signs of avoidance of stimuli related to the trauma that has been conveyed to them. Avoidance is difficult to measure in health care workers due to the career obligation that they have to maintain proximity to the source of the traumatic material in their lives. Many informal research studies have

observed avoidance symptoms in trauma workers such as sleepiness, boredom and preoccupation, and dissociation during the session (Colarin and Steele, cited in Hollingsworth, 1993). Other reports have mentioned that therapists will begin to purposely avoid discussing traumatic material during the session, coming late to appointments, or missing appointments totally (Yassen, 1995). Many therapists reported increased isolation from family friends and colleagues who they thought would not understand their reactions. Recent empirical evidence has shown that there is a moderate to strong relationship between working with trauma victims and displaying avoidance behaviors in the professional setting (e.g., Danieli, 1988; Kassam-Adams, 1995; Lee, 1995; Pearlman & MacIan, 1995).

Physiological Arousal Few studies have investigated increased arousal and somatization in health care workers and other public service professionals. Addressing this lack of data, Simonds (1996) developed the Secondary Traumatization Questionnaire (STQ) to assess symptoms of STS as outlined by the DSM-IV (APA, 1994) PTSD criteria. Simonds found that a significant percentage of sexual abuse counselors report moderate to severe increases in physiological arousal related to their work. Specifically, arousal as measured by the DSM-IV criteria was significantly and positively related to inventory scores reflecting number of details described by the trauma client in therapy, the number of flashbacks the client has while in therapy, the extent to which the client reports being purposefully cruel to others, and the extent to which the client treats the therapist as the perpetrator of the traumatic event. When this information was grouped into subscales, Simonds found that graphic material, cruelty (to and from others), reenactment in session, and total exposure (all items) were significantly and positively related to arousal on the part of the therapist. This information provides preliminary support for the notion that therapists do react with increased arousal to experiencing trauma secondarily, in a similar but more mild manner than do those individuals who are directly traumatized. It also gives support to the notion that domestic violence shelter workers are at increased risk of developing STS due to the similar nature of their work.

Cognitive Beliefs Recent research (McCann & Pearlman, 1990b; Pearlman & MacIan, 1995) has suggested that the indirect traumatization of therapists goes beyond the simple model of STS derived from diagnostic criteria for PTSD to include shifts in cognitive beliefs as well. The basic premise of the constructivist self-development theory of vicarious traumatization (McCann & Pearlman, 1990b) is that individuals have cognitive schemas (assumptions, beliefs and emotions) that underlie all of their interactions with other people. These schemas are constructed over time through interaction with others in their environment and determine the meaning ascribed to life events. McCann and Pearlman note that adaptation to trauma is a complex interplay between aspects of the event and the developing self that includes resources and needs at that time, identity, cognitive schemas, and self-capacities. Therefore, these authors suggested that reaction to a traumatic event or series of events (1) is mitigated by the individual's cognitive schemas and (2) will alternately affect the individual's schemas.

McCann and Pearlman (1990b) categorized their schemas into 5 areas of beliefs about self and others: safety, trust, esteem, intimacy and control and created the Traumatic Stress Institute Belief Scale (Pearlman and MacIan, 1993) to measure disruptions in these schemas. In a sample of self-identified trauma therapists, Pearlman and MacIan (1995) found that, for those therapists with a trauma history, the more survivors the therapists had in their caseloads, the less they experienced distorted beliefs of self-trust, self-intimacy and self-esteem. For those therapists without a trauma history, there were not significant correlations between percentage of survivors in caseload and levels of distorted beliefs. Similar results were found for length of time doing trauma work, with one exception. The no trauma history group demonstrated positive correlations such that the longer the therapists did trauma work, the more likely they were to have distorted beliefs of self-intimacy and other-esteem. This might reflect a process in which the previously traumatized therapists uses therapy with others to resolve personal difficulties and improve her cognitive outlook on herself and others; whereas the therapist without a trauma history loses previously held faith in herself and others as she is exposed to more and more disturbing events outside of her control.

In contrast to the above findings, Cunningham (1996) found that those therapists who had been sexually abused in the past had significantly more distorted beliefs of self-safety and self-esteem than those therapists without a sexual abuse history, and that therapists working with trauma victims were at higher risk of STS than therapists working with cancer patients. In addition, Simonds (1996) found that, for all therapists in her sample, exposure to details of the traumatic experience within the therapy sessions with survivors of childhood sexual abuse increases the therapist's risk of developing distortions in cognitive beliefs, especially beliefs about safety for others. Similarly, Van De Water (1996) also showed that the higher the percentage of trauma survivors in a therapist's caseload, the more concern the therapist evidences for the safety of others. Though there are likely self-selection factors that may have confounded these results, it seems that, overall, working with sexually abused clients and discussing their trauma increases the risk for developing distorted beliefs about self and others.

Given the above research, it can be deduced that workers at domestic violence shelters are at particular risk of experiencing these shifts in cognitive beliefs for several reasons. First, they are exposed to graphic descriptions and reenactments of physical, sexual and emotional assault on a regular basis, increasing risk of STS. Second, they are often exposed to the perpetrators of these assaults, which directly elicits a reality based fear response in them. Third, a large percentage of domestic violence workers were either victims of violence themselves, or children of victims of domestic violence, which likely has had adverse effects on their cognitive schemas about self and others. Fourth, as noted earlier, victims of domestic violence who meet criteria for PTSD (similar to sexual assault victims) typically have experienced significant cognitive distortions including reductions of self and other esteem and reductions of of feelings of safety (e.g., Frieze, 1979). Shelter workers' exposure to these cognitive distortions likely puts the workers at increased risk of assuming these distorted beliefs themselves.

Relational Disturbances The final area of dysfunction expected of health care

workers experiencing STS is disturbances in professional and personal relationships. For example, research has suggested that trauma therapists often begin to withdraw from family, friends and colleagues, possibly out of the belief that no one could understand their distressed response to their work (Dutton and Rubinstein, 1995), and crisis workers commonly report changes in social interaction after witnessing extreme death and mutilation (Taylor and Frazer, 1982). Moreover, rescue workers have been found to experience marital discord at higher rates than that of the general population (Dunning & Silva, 1980). Briere (1989) reported that of his sample of therapists treating adults sexually molested as children, many therapists reported increased difficulties in personal relationships. Together, these studies suggest that exposure to trauma puts trauma workers at somewhat of an increased risk of experiencing relationship difficulties.

Researchers have also proposed that health care workers working with trauma victims may begin to experience increased difficulty working with their clients. Courtois (1988) has indicated that very often trauma workers tend to either overidentify with the client or distance from the client. Dutton and Rubinstein (1995) have suggested that distancing may lead to avoidance behaviors on the part of the trauma worker or may cause the worker to identify with the perpetrator and adopt blaming or intolerant attitudes towards the victim. In support of this notion, Follette, Polusny, & Milbeck (1994) found a significant positive correlation between working with sexually abused clients and having a negative clinical response to clients (inattentiveness or dissociating during session, lack of empathy, and feelings of guilt related to limitations as a professional).

To the contrary, overidentification with the client may, in effect, overwhelm the trauma worker. Dutton and Rubinstein (1995) suggested that the worker may be paralyzed by his own reaction to the client or assume excessive responsibility for the client. Trauma workers who overidentify with clients are less effective and, at the extreme, may cause the client to change roles with the worker, adopting a care-giving rather than care-taking role. Though the above information focuses mostly on therapists working with trauma victims, it is assumed that domestic violence shelter workers are at

similar risk of these difficulties, mainly because all shelter workers (regardless of their occupational role) are continually exposed to traumatic material and required to offer empathy, crisis intervention and support to the shelter residents.

Implied Process Due to the similarity in phenomenology, most researchers have turned to a description of the process of direct traumatization to explain STS. Though it has been proposed that psychic trauma is simply contagious (Crothers, 1995; Terr, 1986 in Cunningham 1996), more elaborate processes may be at hand. Psychodynamic theories (e.g., Freud, 1920; Van der Veer, 1992) as well as information processing theories of psychic trauma (e.g., Creamer, 1995; Green, Wilson & Lindy, 1985; Horowitz, 1975) share the conceptualization that the trauma overwhelms the pre-existing internal structure in the mind (e.g., ego or cognitive network), causing the individual distress. The individual then re-experiences events of the trauma until the ego masters the conflict, or the existing cognitive schemas accommodate and/or assimilate the new experience. The individual defends herself from constant distress by repressing or avoiding these re-experiencing symptoms. This repression or avoidance causes further psychosocial complications in the individual's life. To reduce the distress caused by this dissonance, the trauma workers change their schemas to more pessimistic views. In a sense, these views protect them from further distress at hearing similar traumatic material in the future. However, the process of changing views is difficult because the trauma worker must challenge fundamental beliefs from which many facets of her personality, views of herself and others, and hopes for the future are based. Moreover, many domestic violence workers may have strong affect tied to these schemas that is a result of prior experience in domestic violence situations. Therefore, vicarious traumatization can be conceptualized as an internal transformation that has potentially profound effects upon the psychosocial condition of the shelter worker.

Fortunately, not every trauma worker develops STS symptoms. STS appears to be mitigated by several factors of both the individual and the work environment. Preliminary research has shown that individual coping behaviors such as active coping,

emotional support, planning, instrumental support, and humor are related to lower levels of STS (Schauben & Frazier, 1995). Self reports have also indicated that consultation with colleagues, education of self and others about abuse, and assistance and support from others are also helpful (Follette et al., 1994). In addition, many anecdotal reports claim that spiritual outlets and leisure activities are particularly helpful to trauma workers.

Aspects of the work environment may also mitigate the risk of developing STS. It has been hypothesized that supervisor support and cohesion in the workplace may be strong buffers to the development of STS, though no data is available to address this issue. In addition, trauma workers have reported that participating in debriefing sessions at work helps to relieve symptoms of STS (Robinson & Mitchell, 1993). Unfortunately, there are no known studies comparing debriefing to a wait-list control. Personal therapy and/or group therapy with other therapists has also been prescribed to relieve symptoms of STS; however, currently there is no data on its effectiveness. In sum, there are likely many opportunities at the organizational level to decrease risk of developing STS; however further research is needed to clarify (a) the relationship of these variables to STS and (b) the effectiveness of instituting change at the organizational level.

Summary of Traumatic Stress and Secondary Traumatic Stress

PTSD can be differentiated from STS in trauma workers. A trauma worker does not have to experience traumatic material directly to begin to experience intrusive thoughts, avoidance behaviors and physiological arousal to that material. However, when this happens, the severity of the symptoms are typically less than for those individuals who experienced the trauma directly. In addition, characteristics of the trauma worker's professional setting may also contribute to the risk of developing STS. For instance, most trauma workers (e.g., counselors and therapists) are required to identify and empathize with their clients rather than dissociate from the client's affect. This process requires that they imagine the actual experiencing of the trauma as well as the affective response to that trauma. This repeated exposure to traumatic material and imaginal reliving of the

client's response to the trauma greatly increases the risk of the worker becoming traumatized herself. Therefore, it appears that STS is similar to PTSD in symptom pattern but differs in severity and maintaining factors.

Finally, it has become apparent that, due to certain mitigating factors, not every trauma worker develops STS. For example, factors such as certain coping behaviors, the use of humor, spirituality and professional and personal social support serve to buffer the worker from developing STS. For this reason, it is expected that levels of STS can be diminished by interventions designed to institute or enhance these factors in the trauma workers' lives.

Review of Feedback Intervention Literature

The use of standard assessment procedures to elicit change in individuals is a relatively new notion in psychology. Within clinical settings, many have held the belief that assessment results and diagnostic findings should be kept from the client to protect the client from undue distress. A literature search in clinical research yields limited data examining the effects of feedback on psychopathology. Only recently have clinicians followed organizational psychologists' lead in providing assessment results as a means of initiating change in individual behaviors.

Preliminary evidence has suggested that simply providing assessment with feedback may initiate behavior change. For example, one study demonstrated that those individuals presenting for counseling may benefit from learning results of MMPI-2 personality assessment. Finn and Tonsager (1992) administered the MMPI-2 to 29 students awaiting counseling at a university counseling center along with measures of self-esteem, symptomatic psychological distress, private and public self-consciousness, subjective impressions of test feedback and hope in improvement. The assessment group showed no differences from the control group at initial assessment; however, at follow-up group differences were noted. At follow-up the assessment group showed less symptomatic distress and higher self-esteem and hopefulness than the control group. The

authors suggested that these results counter the notion that feedback is frightening and disheartening. To the contrary, the authors proposed that the collaborative nature of the feedback gave subjects greater perceived control and initiated self-change.

Drinking research has also demonstrated that clinical interview combined with direct feedback may have a therapeutic effect. Miller, Sovereign and Krege (1988) found that administering the Drinker's Check-Up (Miller & Sovereign, 1989), a two hour assessment and feedback intervention administered in a motivational interviewing style, was related to significant reductions in drinking for a group of problem drinkers. This reduction was greater than that demonstrated by a control group and was maintained at 18 months follow-up.

A study investigating effects of feedback on nurse burnout in a private medical hospital also demonstrated a positive clinical effect (Eastburg et al., 1994). Nurses and their supervisors were first measured for burnout. Then nursing supervisors were divided into two groups (feedback and no feedback). The feedback group was given information regarding rates of burnout in the nurses at the hospital and suggestions for decreasing burnout. At follow-up the group of nurses whose supervisors received the feedback demonstrated significantly less emotional exhaustion than those whose supervisors did not receive the feedback.

Feedback intervention has been widely studied in the organizational setting. Most studies examine feedback on task performance. Studies in this area are too numerous to review here; however, a recent meta-analysis summarized major findings in this area. Kluger and DeNisi (1996) considered approximately 3,000 papers investigating the effects of feedback intervention on some type of performance. Past studies have found inconsistent results in this area--some suggesting that feedback always increases performance, others suggesting that feedback is sometimes detrimental to performance. The 131 studies included in the meta-analysis included articles that examined feedback interventions as "actions taken by an external agent to provide information regarding

some aspect of one's task performance" (p. 255). The authors found an overall effect size of .4 of a SD. However, variability was large; one third of the studies included produced a negative effect size.

Kluger and DeNisi (1996) examined the effects of several moderator variables to explain the discrepant findings regarding effect sizes. The most significant finding was that feedback aimed at meta-task processes (looking at the self, personality variables, personal motivation, etc.) attenuated effects on performance. To the contrary, feedback aimed at task-motivation or task-learning processes augmented performance. The authors suggested that this finding reflects suggestions made by social psychologists indicating that praise and punishment decreases task performance by focusing attention on the self, rather than aspects of the task at hand. Moreover, feedback studies that provided the correct solution to increasing task performance were more likely to show positive effect sizes. In addition, feedback related to goal setting also appears to enhance task performance.

Additional research has noted that the source of feedback may also affect outcome. For example, Smith (1995) measured staff performance at an institution providing care to adults and children with developmental disabilities. Four staff members participated in a multiple baseline design involving four phases (baseline, checklist/no feedback, checklist/trainer feedback, and checklist/supervisor feedback). Participants were first rated for the degree to which they were performing a variety of specific job skills. They then completed checklists assessing performance on these skills. During the third phase, they completed the questionnaires and received verbal feedback from a trainer. Then, during the final phase, they again completed the questionnaire and received verbal feedback from their own supervisor. The subjects did not show noticeable improvement until the third (checklist/feedback from trainer) phase. Across the board, the subjects showed greatest improvement from the final (checklist/feedback from supervisor) phase. This study showed that feedback has a much greater effect than that accounted for by simple reactivity to assessment, and that supervisor feedback may be

more potent than consultant feedback. In addition, because the design of this study provided supervisor feedback at increasing lengths across time for the four subjects, the sudden increase in performance after supervisor feedback for the three subjects still in the study at this time can not be attributed to a simple process of learning over time.

Organizational literature (Golembiewski & Hilles, 1979) has suggested that feedback interventions are effective because they work through six pressures of experimentation and change from within organizations (Mahler, 1974). These sources of pressure are outside influences, superior, staff, colleague or peer, subordinates, and the self. Golembiewski and Hilles (1979) pointed out that an individual can easily dismiss feedback from any one of these sources. For instance, suggestions from the supervisor are often taken in a defensive manner or assumed to be motivated more by concern for productivity rather than personal concern for the worker. Moreover, suggestions from peers may be interpreted as ways for the peers to get a competitive edge against the individual. However, when an organization is involved in global surveying, public results produce pressure to change from all levels of the organization. Moreover, each individual has data in front of him that specifies his individual contribution to the organization's performance. This physical display of data is hard to dismiss, thus increasing the individual's acceptance of his current performance level and increasing his chance of initiating positive behavior change.

In summary, research suggests that feedback intervention can have a positive effect both in clinical and organizational settings if the feedback intervention is conducted appropriately. In particular, feedback intervention should be given with feedback specifically focused on the problem at hand rather than more global aspects of the individual's personality. Feedback should also include more adaptive behaviors that may be readily adopted by the individual--a prescription for change. Finally, feedback may be given either by independent consultant or supervisor, though supervisor involvement will likely produce more positive results.

Chapter 3

PRESENT STUDY

The above findings lend support for the idea that STS may be an inherent risk to working with victims of domestic violence. Little attention has been paid to this population of workers who are constantly on the front line when it comes to secondary exposure to traumatic material. There is a need to investigate this phenomenon to determine (a) the prevalence of STS and, (b) factors that mitigate the development of STS. This information can then be used extensively to protect our domestic violence workers from the debilitating effects of STS. The present study will test the following hypotheses:

Hypothesis 1: Symptom levels of secondary traumatization in the population of domestic violence shelter workers are comparable to that reported for sexual assault counselors.

Hypothesis 2: Controlling for initial individual group differences, after the feedback intervention, groups of shelter workers receiving feedback demonstrate lower levels of STS than a control group that received no intervention. Of the two intervention groups, at post-treatment the group receiving suggestions for change demonstrates significantly lower levels of STS than the group receiving feedback only.

Chapter 4

METHODS

Sample Obtainment and Description

Participants in the initial sample were 267 full and part-time paid workers at domestic violence shelters across the United States. Five hundred forty-four domestic violence shelters were chosen from the national directory by selecting every third shelter with a minimum of ten beds and contacting the shelter by phone to ascertain the name of the shelter director. At this point, any shelter whose phone number had changed or whose workers refused to offer the director's name, etc., was no longer contacted. The remaning shelters on this list were mailed a letter of invitation. This letter included (a) information regarding the phenomenon of secondary traumatization and why shelter workers may be at risk, (b) a short description of the study, including a sample feedback report, (c) a description of the benefits of participating in the study, and (d) notification that the researcher would call the shelter director personally to answer any questions and confirm permission to send study materials. A postcard was included to indicate the shelter director's interest in the study. Fifty five shelters responded positively to both the initial letter of inquiry and a follow-up phone call, and these shelters were included in the study. The sheltor directors indicated the number of workers they thought would participate, and 1,005 pre-assessment packets were sent to these workers. At this time, the shelters were also randomly assigned to either the control group (CG), the feedback only group (FG), or the feedback intervention group (FIG).

The 267 domestic violence shelter workers in the initial sample of this study were recruited by mail invitation as described in in this chapter. The mean age of participants was 36 years ($\underline{M}$ = 35.65, SD = 11.45). Ninety-three percent of the participants were female; most were Caucasian (78%), and smaller percentages were African American (8%), American Indian (2%), Hispanic (10%), and other (1%). None of the participants endorsed Asian ethnicity. Thirty-eight percent of the participants were married, 36% were single, 4% were separated, 16% were divorced, and 2% were widowed. Fifty

percent of the participants answered yes to the question, “Are you currently living with a partner or very close other (spouse, if you are married)?”

Participants were also asked about education and professional training. The workers predominantly possessed a Bachelors’ degree (49%), 18% completed high school only, 11% had an Associates degree, 3% had licensing beyond the Bachelors’ degree, 11% held Masters’ degrees, 3% held a Doctorate, and .4% (1 participant) completed postdoctorate education. Thirty percent of the participants had been out of school for 2 years or less, and 31% had been out of school for 10 years or more. The average number years working in the shelter was 3.62 years (SD = 3.07). Thirty-one percent of the participants reported that their primary role in the shelter was domestic violence counselor, 2% were sexual assault counselors, 1% were human resource specialists, 13% were victim witness advocacy workers, 17% were directors or program coordinators, 2% were teachers, 3% were community education specialists, 8% were night or weekend managers, 4% were administrative assistants, and 16% were “Other.” Sixty-one percent of the participants reported working mainly with adults, 14% mainly with children, and 20% with about equal numbers of adults and children. Most commonly, the workers endorsed working between 40 and 50 hours per week (47%). Two percent worked 0 to 10 hours per week, 6% worked 10 to 20 hours per week, 11% worked 20 to 30 hours per week, 24% worked 30 to 40 hours per week, 4% worked 50 to 60 hours per week, and 2% worked more than 60 hours per week.

Participants also indicated whether they had experienced any type of previous trauma in their lives. Eighty-one percent indicated that they had been a victim of at least one type of traumatic event. Sixty-five percent indicated that they were a victim of either child or adult interpersonal violence (including, physical abuse, verbal abuse, sexual abuse, or “domestic violence”). More specifically, 26% of the participants indicated that they were the victim of domestic violence as a child, and 42% of the participants indicated that they were a victim of domestic violence as an adult. See Figure 1 for the frequencies of all types of trauma history.

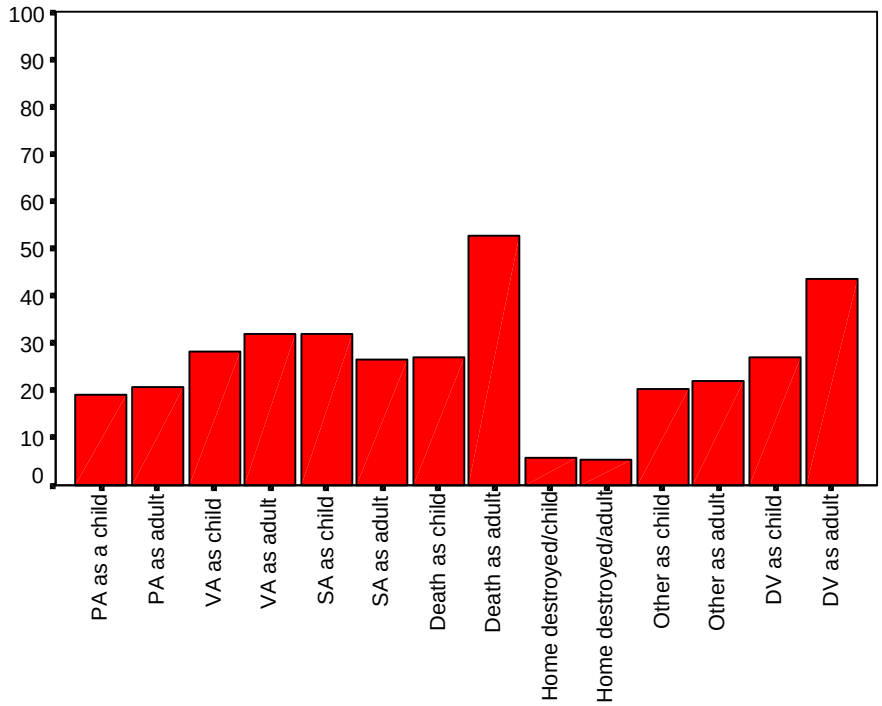

Figure 1: Trauma Histories of Participants in Initial Sample.

Note: PA = physical abuse; VA = verbal abuse; SA = sexual abuse; Death = death of immediate family member; Home destroyed = home destroyed by natural diaster; Other = other similarly traumatic experience; DV = domestic violence

Data Collection Procedures

Once the reply was received, the researcher sent the director a packet of survey instruments for each worker at the shelter. Each assessment packet included (a) a letter to the worker, (b) a consent form and address return card with sealable envelope for privacy, and (c) a series of questionnaires printed on OPSCAN forms (response forms that can be scored by computer). The shelter was given a large return envelope for all the OPSCANs. The single large return envelope was given to reinforce the director's instructions to provide the assessment packets at a single group meeting.

Each worker was instructed to first read the introductory letter, which explained the purpose and benefits of the study as well as the safeguards to confidentiality. The letter also explained that the feedback received by the shelter director did not include *any* identifying information. Not only was directly identifying information such as name and age excluded from this feedback, but indirectly identifying information, such as degree, occupational role, etc., was also excluded. The director was simply presented with a range of scores, global interpretive information, and comparative information to other shelters across the United States.

After reading the cover letter, the worker was requested to complete a consent form explaining the rights of the participant. The worker was then requested to complete the assessment instruments as printed on OPSCAN forms. All OPSCANs in the packet were coded by a participant number assigned by the researcher prior to assessment. After completing the OPSCAN forms, the worker then completed a reply card that asked for the participant's number as well as name and a private address to which individual results would be sent. This reply card was designed to allow the participant to choose the most convenient and private method of receiving results, thus ensuring confidentiality. At the end of the pre-assessment, 79 CG packets, 94 feedback only packets and 94 feedback intervention packets were returned. Though a deadline was given, researchers did not construct means and standard deviations to construct feedback reports for an additional four weeks after the return deadline. At this point, when approximately 230 participants had responded, descriptive statistics were completed and a three week process of writing all reports was completed by the research team.

The third phase of the study involved feedback to the director and workers. The CG received no feedback at this point but were notified that they were randomly assigned to the CG and would receive reports at the end of the study. The feedback and FIGs received individual reports as well as director reports. Individual workers in the FIG also received a list of suggestions designed to ameliorate secondary traumatic stress by increasing postive coping skills and by following some general recommendations offered

by leaders in the field. See Appendices A, B, and C for the format of the suggestions for change sheet and the feedback reports.

Feedback to the individual shelter worker (Appendix A) was similar in that each scale was defined and the individual's score on the scale was reported. An interpretative statement told the worker if her performance in each area measured by the scales was below average, average, or above average in each of these domains as compared to the other workers in the sample. For example, from the feedback report, a worker might have learned that, compared to other shelter workers, she was experiencing more re-experiencing symptoms than the average worker, she was utilizing problem-solving type coping at an above average rate; however, her social support was below average. This feedback process was completed by using a template on a word processing program and comparing the individual's score to the grand mean of scores achieved by all shelter workers included in the study.

The group receiving suggestions for improvement (Appendix B) received a standardized report that addressed all areas that were addressed in the assessment battery. Workers were instructed that they could either study the entire handout, or simply refer to those areas for which their feedback suggested they might benefit from improvement. Each area synopsis included statements reflecting the meaning of below average scores and specific suggestions of how these scores might be increased.

Feedback to the shelter director (Appendix C) included the following information: Definitions of what each inventory measures as well as means and standard deviations of scores achieved by the shelter workers on each inventory. The feedback also included comparative information indicating, for each measure, whether the shelter was functioning below average, average, or above average, on each of these measures as compared to other domestic violence shelters across the United States.

Two months following the mailing of individual reports, each shelter was sent a

second set of assessment packets addressed to the 267 workers who completed the first assessment. The participants were also given lottery tickets to win one of two $100 cash prizes. These packets contained similar instructions, the same OPSCAN survey sheets, and instructions to call the Psychological Services Center if they had lost their participant number. In place of the demographics questionnaire, the packet included a follow-up questionnaire investigating any major changes that the worker might have made to decrease STS, such as beginning therapy for this reason, or attending an intensive training workshop on the topic. The procedure for completing and returning the assessment packet was the same. Forty-three members of the CG (6 shelters), 15 members of the FG (3 shelters) and 12 members of the FIG (4 shelters) completed the follow-up assessment.

At this point, all shelters received feedback to both the shelter director and the individual. The feedback was of the same format as before. The individual feedback reports were again sent to the address specified by the worker. The shelter director was instructed to make comparisons across assessment times. Members of the CG received large envelopes with all reports and a letter thanking them for their patience.

Instrumentation

The following scales were included in the assessment packet.

Demographics and Trauma history (Appendix D). The demographics questionnaire requested information such as age, gender, occupation and level of education. It also assessed for presence of personal trauma history. In addition, the questionnaire investigated additional training in the area of physical and sexual assault/domestic violence.

Impact of Events Scale (IES; Horowitz, M. J., Wilner, N., & Alvarez, W., 1979). This fifteen item scale assessed the intrusive and avoidant symptoms characteristic of PTSD. The items were scaled in a 4-point Likert style format. Respondents were asked

to indicate the frequency with which they experience stressors ranging from "not at all" to "often." The scale has been used to assess for traumatic reactions to a variety of life events and its three factors appear to be consistent across various samples. The scale has been used to discriminate traumatized from nontraumatized populations (Zilberg, Weiss, & Horowitz, 1982) and has also been used successfully to show decreases in trauma symptomatology after treatment (Horowitz et al, 1979; Zilbert et al., 1982). Recently, this scale has been commonly used to assess for STS of psychotherapists (e.g., Cunningham, 1996; Kassam-Adams, 1994; Pearlman & MacIan, 1995). Test-retest reliability has been reported by the authors at $\underline{r} = .87$ for a one week interval. Alpha coefficients for the subscales with a sample of sexual assault and cancer therapists are reported at .86 for intrusion, .85 for avoidance, and .90 for the entire scale (Cunningham, 1996). A benefit to this scale is that it will allow for direct comparisons to previous studies that used the IES to investigate STS in other populations of trauma workers.

Modified PTSD Symptom Scale (PSS; Falsetti, Resnick, Resick, & Kilpatrick, 1993) The Modified PTSD Symptom Scale is a seventeen item scale outlining the DSM-III-R criteria for PTSD. The scale was originally derived to assess PTSD in rape victims (PTSD Symptom Scale; Foa et al., 1993) but was later modified by Falsetti et al. (1993) to be more appropriate for general populations of trauma victims. For purposes of this study, wording has been changed slightly to make the questions appropriate for shelter workers experiencing STS. The PTSD symptom scale has demonstrated internal consistency in respect to both the overall scales and the symptom cluster scales. In addition, the scale is highly correlated with the Impact of Events Scale and the Rape Aftermath Symptom Test (Kilpatrick, 1988), demonstrating concurrent validity. The benefit of including this scale pertains to its coverage of symptoms of physiological arousal symptoms as well as re-experiencing and avoidance.

Traumatic Stress Institute Belief Scale (Revision L) (TSI; Pearlman, L. A., & Mac Ian, P. S., 1993). The 80 questions on the TSI assessed beliefs or schemas about self and others (safety, trust, esteem, and intimacy) that may have changed as a result of vicarious

exposure to traumatic material. Respondents were asked to endorse the extent to which they agree or disagree with statements about how trauma affects them. Responses were scored on a 6 point Likert style scale ranging from disagree strongly to agree strongly. The higher the score, the more cognitive distortions the person held. Explicit written permission was given by the authors to use their instrument in the present study.

The authors (Pearlman, L. A., & MacIan, P. S., 1993) administered their scale to a sample of 200 trauma therapists, 320 college students, 60 therapy outpatients and a group of chronically mentally ill inpatients. Preliminary results showed that trauma therapists with a history of trauma had higher scores than the other groups. In general, students scored lowest, then trauma therapists with or without trauma history, outpatient adults, and finally, inpatient adults. Reliability estimates were reported at: safety, .76-.85; self-trust, .78-.89; other-trust, .79-.85; self-esteem, .81-90; other-esteem, .76-.89; self-intimacy, .70-.84; other-intimacy, .76-.84; self-control, .75, and other-control, .57. The alpha coefficient for the whole scale is .95.

The TSI subscales measure the following cognitive beliefs (Pearlman & MacIan, 1993):

Self Safety: the need to feel one is reasonably invulnerable to harm inflicted by oneself or others.

Other Safety: the need to feel that valued others are reasonably invulnerable to harm inflicted by oneself or others.

Self Trust: the need to manage one's feelings and behaviors in interpersonal situations.

Other-Trust: the need to rely upon others to meet one's needs.

Self Control: the need to manage one's feelings and behaviors in interpersonal situations.

Other Control: the need to exert control over others in interpersonal situations

Self Intimacy: the need to feel connected to oneself.

Other Intimacy: the need to feel connected to others.

Self Esteem: the need to feel valued by oneself and others

Other Esteem: the need to value others

Coping Strategies Inventory (CSI; Tobin, D. L., Holroyd, K. A., Reynolds, R. V., & Wigal, J. K., 1989). The CSI is a 72-item inventory constructed by hierarchical factor analysis that measured specific coping skills, including problem solving, cognitive restructuring, social support, expressing emotions, problem avoidance, wishful thinking, social withdrawal, and self-criticism. The primary factors were also grouped into secondary factors predictive of better coping (problem and emotion engagement and disengagement) and tertiary factors (engagement and disengagement). The authors reported that alpha coefficients for the subscales ranged from .71 to .94, and test-retest reliability coefficients ranged from .67 to .83. The authors reported initial studies that show that the scale is sensitive to different types of samples and different types of stressful situations. Specifically, in samples of sexual assault survivors (Ergood, Holroyd, Frank, Pikonis, & Anderson, 1984) and battered wives (Malloy, Appel, Pukish, 1988) the use of engagement coping strategies has been associated with better adaptation to the stressful situation.

Assessment of Coping with Traumatic Stress (ACTS; Clum, Jeffrey, Nelson, Hirai, Graves, & Guillamaut, 1997). The ACTS is a 45 item inventory assessing the frequency with which trauma victims implement coping skills that are thought to ameliorate symptoms of PTSD. The inventory has been designed to use as a process variable that would be particularly helpful in tracking treatment progress in PTSD patients. The inventory is experimental at this point in time. The authors will soon begin the process of collecting reliability and validity data and analyzing its factor structure.

Chapter 5

RESULTS

Significant differences between the initial and followup samples, alpha reliability information regarding several of the measures, and descriptive statistics concerning key variables in the study are first described in this chapter. Next, results of the analyses designed to test the research hypotheses are presented. Finally, additional exploratory analyses are presented.

Follow-up Sample

The follow-up sample was comprised of the 72 participants who completed both the initial and follow-up assessments. The group of workers who completed the follow-up assessment ("completers") did not differ from those did not participate in the follow-up assessment ("noncompleters") on most demographic variables, including age, $\underline{t}(251) = .80$, $\underline{p} = .42$, gender, $\underline{t}(251) = .00$, $\underline{p} = 1.00$, ethnic make-up, $X^2(2, \underline{N} = 70) = 3.39$, $\underline{p} = .18$, and marital status, $X^2(1, \underline{N} = 70) = .47$, $\underline{p} = .49$. The two samples did not differ on work variables either, including , education, $X^2(2, \underline{N} = 68) = 5.18$, $\underline{p} = .08$, primary role in the shelter, $X^2(1, \underline{N} = 70) = 1.91$, $\underline{p} = .17$, type of client worked with (adult, child, both), $X^2(2, \underline{N} = 68) = 5.74$, $\underline{p} = .06$, and total number hours worked per week, $\underline{t}(254) = .67$, $\underline{p} = .50$. The groups differed on only two demographic variables, including death of an immediate family member as a child and present living arrangements. Thirty-five percent of the completers versus 22% of the noncompleters witnessed the death of a family member as a child, $X^2(1, \underline{N} = 69) = 5.80$, $\underline{p} < .05$, and 60% of the completers versus 45% of the noncompleters were living with a very close other, $X^2(1, \underline{N} = 69) = 4.19$, $\underline{p} < .05$.

Follow-up Groups

Few demographic differences were noted among the three follow-up groups (control, feedback only, and feedback intervention). The FG differed significantly from the CG on the variable of education. Thirty-three percent of the participants in the CG were high school educated, 51% were college educated, and 14% were graduate school educated, compared to 7%,

60%, and 33% respectively, X^2 (2, N = 15,) = 7.16, p < .05 in the FG. Both the feedback and FIGs differed significantly from the CG on the variable of "with whom do you work?" Within the CG, 67% of the participants worked mainly with adults, 2% of the participants worked mainly with children, and 30% of the participants worked with equal numbers of adults and children. Within the FG, 71% worked mainly with adults, 14% worked mainly with children, and 14% worked with equal amounts of adults and children, X^2 (2, N = 14) = 9.94, p < .01. Within the FIG, 64% worked mainly with adults, 18% worked mainly with children, and 18% worked with equal numbers of adults and children, X^2 (2, N = 11) = 12.60, p < .01). The three groups also differed on the variable of sexual abuse/asault as a child. Of the CG, 44% indicated that they experienced sexual abuse or assault as a child. Of the FG, 7% indicated they were sexually abused as a child, X^2 (1, N = 15) = 9.49, p < .01, and of the FIG, 17% indicated that they were sexually abused as a child, X^2 (1, N = 12) = 4.25, p < .05.

Alpha Reliabilities

To assess the internal consistency of the measures used in this study for this particular sample, alpha reliabilities were computed for the following measures and their scales: the Impact of Events Scale (IES); the Posttraumatic Stress Scale (PSS); the Traumatic Stress Institute Belief Scale (TSI); and the Coping Strategies Inventory (CSI). Alpha reliability coefficients for these measures and their subscales, computed for both the initial and follow-up sample, are reported in Table 1. The self-safety (alpha = .46) and self-trust (alpha = .58) scales of the TSI and the PSS intrusion scale (alpha = .54) should be interpreted with caution. Based on assessment of adequate internal consistency, each of the IES and CSI scales as well as the remaining TSI subscales were included in further analyses.

Table 1
Alpha Reliability Coefficients

Measures	Initial Sample r
IES Total	.90
IES Intrusion	.86
IES Avoidance	.81
PSS (frequency scored)	
PSS Total	.86
PSS Intrusion	.54
PSS Avoidance	.70
PSS Arousal	.74
PSS (severity scored)	
PSS Total	.90
PSS Intrusion	.70
PSS Avoidance	.77
PSS Arousal	.81
TSI Total	.94
TSI Self-safety	.46
TSI Other-safety	.63
TSI Self-trust	.58
TSI Other-trust	.79
TSI Self-esteem	.83
TSI Other-esteem	.70
TSI Self-intimacy	.76
TSI Other-intimacy	.82
TSI Self-control	.73
TSI Other-control	.66
CSI Positive Coping	.98
CSI Negative Coping	.94
Problem-Solving	.93
Cognitive Restructuring	.93
Social Support	.94
Emotional Expression	.91
Problem Avoidance	.82
Wishful Thinking	.84
Social Avoidance	.83
Self-Blame	.87

Note: IES = Impact of Event Scale; PSS = Modified Posttraumatic Stress Scale; TSI = Traumatic Stress Institute Belief Scale; CSI = Coping Strategies Inventory

Impact of Events Scale

Each participant in the study completed the IES in reference to feelings about working with domestic violence victims. Table 2 lists average scores for each of the IES scales. Horowitz, Wilner and Alvarez (1979) offered cutoffs for levels of clinical distress as measured by the IES Total Score. Low scores range from 0 to 8 and indicate no reason for concern. Medium scores range from 9 to 19 and indicate a condition that warrants concern. High scores in the range of 20 and above indicate symptoms that merit concern and appropriate treatment. Of the initial sample, 18.4% scored in the low range, 24.2% scored in the medium range, and 56.7% scored in the high range.

Table 2
Impact of Event Scale scores

	Initial Sample	Follow-up Sample	
		Time 1	Time 2
Scale	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
Total	31.77 (9.61)	26.59 (15.84)	24.31 (14.58)
Intrusion	15.51 (5.04)	13.84 (8.31)	11.35 (7.52)
Avoidance	16.21 (5.31)	12.77 (8.55)	12.96 (8.63)

Modified PTSD Symptom Scale

The PSS was included in the study to determine whether analysis of arousal symptoms (not measured by the IES) would add meaningful information to the examination of STS. The traditional scoring of the PSS is to utilize the 4-point Likert scale according to frequency, similar to the DSM-III-R criteria. Unfortunately, the internal consistency of this scale scored by frequency in the present sample is questionable. Therefore, the PSS will not be considered a reliable criterion variable in the present study. See Table 3 for PSS scores.

Table 3
Modified Post-Traumatic Stress Scale scores

	Initial Sample		Follow-up Sample			
			Time 1		Time 2	
Scale	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)
PSS Total	9.08	(7.67)	10.86	(8.17)	11.01	(9.19)
PSS Intrusion	2.10	(1.86)	2.43	(1.91)	2.44	(2.12)
PSS Avoidance	2.94	(3.21)	3.60	(3.68)	3.87	(4.25)
PSS Arousal	4.07	(3.72)	4.83	(3.75)	4.69	(3.80)

Note: PSS = Modified Posttraumatic Stress Scale

Traumatic Stress Institute Belief Scale

Pearlman and MacIan (1993) have not defined cutoff scores for the TSI. The authors provide total score and subscale norms for samples of students, professionals and patients. The total TSI score is the grand sum of all 80 items scored on a 6 point Likert scale. Thus, the total score ranges from 0 to 480, with higher scores suggesting more extreme levels of cognitive distortions. The subscale scores are average scores of all items on the subscale. Therefore, subscale scores range from 1 to 6. Table 4 contains the present sample's scores on the TSI.

Table 4
Traumatic Stress Institute Belief Scale scores

	Initial Sample		Follow-up Sample			
			Time 1		Time 2	
Scale	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)
Total TSI	182.23	(40.79)	189.08	(41.89)	179.43	(45.45)
Self-Safety	2.29	(.50)	2.35	(.63)	2.33	(.65)
Other-Safety	2.37	(.61)	2.42	(.60)	2.31	(.63)
Self-Trust	2.33	(.89)	2.43	(.78)	2.16	(.80)
Other-Trust	2.40	(.72)	2.42	(.61)	2.35	(.76)
Self-Esteem	1.80	(.70)	1.89	(.75)	1.78	(.68)
Other-Esteem	2.27	(.60)	2.34	(.59)	2.32	(.63)
Self-Intimacy	2.27	(.80)	2.32	(.75)	2.26	(.77)
Other-Intimacy	2.28	(.84)	2.48	(.86)	2.22	(.83)

Table 4 (Cont.)
Traumatic Stress Institute Belief Scale scores

	Initial Sample		Follow-up Sample			
			Time 1		Time 2	
Scale	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)
Self-Control	2.47	(.79)	2.61	(.90)	2.38	(.80)
Other-Control	2.36	(.69)	2.43	(.71)	2.36	(.74)

Note: TSI = Traumatic Institute Stress Belief Scale

Coping Strategies Inventory

The CSI contains two global scales, positive coping and negative coping, and 8 subscales. Positive coping is comprised of the subscales problem-solving, cognitive restructuring, emotional expression, and social support. Negative coping is comprised of problem avoidance, wishful thinking, self-blame, and social avoidance. Each subscale is comprised of 9 items scored on a 5 point Likert scale, with item values ranging from 0 to 4. Therefore, subscale scores may range from a minumum of 0 to a maximum of 36. The positive and negative coping scales may range from a minumum of 0 to a maximum of 144. Higher scores on the positive coping skill scores indicate greater frequency use of positive coping skills. Higher scores on the negative coping skill scores indicate greater frequency use of negative coping skills. CSI scores are listed in Table 5.

Table 5
Coping Strategies Inventory scores

	Initial Sample		Follow-up Sample			
			Time 1		Time 2	
Scale	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)
Positive Coping	39.02	(32.65)	29.72	(26.22)	68.13	(22.68)
Negative Coping	13.96	(16.31)	9.33	(12.03)	27.13	(18.57)
Problem-Solving	10.27	(8.64)	18.01	(6.38)	8.01	(6.38)
Cog Restr.	9.60	(9.04)	16.25	(6.20)	6.25	(6.20)
Emot. Expression	8.03	(7.78)	18.25	(9.16)	5.62	(7.04)
Social Support	11.12	(9.57)	15.62	(7.04)	8.25	(9.16)

Table 5 (Cont.)
Coping Strategies Inventory scores

	Initial Sample		Follow-up Sample			
			Time 1		Time 2	
Scale	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)
Problem Avoidance	3.90	(5.04)	2.65	(4.54)	8.43	(5.25)
Wishful Thinking	4.75	(5.62)	3.26	(3.64)	8.33	(6.31)
Self-Blame	3.55	(4.66)	2.70	(4.22)	2.58	(4.24)
Social Avoidance	1.76	(3.54)	.72	(1.66)	7.91	(6.53)

Hypothesis One

Hypothesis 1: Symptom levels of secondary traumatization in the population of domestic violence shelter workers are comparable to that reported for sexual assault counselors.

T-tests were conducted to compare means of IES and TSI scores between the present study and those scores reported for samples of other trauma and sexual assault counselors. These samples were chosen for comparison because there is no prior data on domestic violence workers. Like domestic violence workers, sexual assault counselors also experience an ongoing exposure to graphic stories of traumatic interpersonal incidents. Pearlman and MacIan (1995) reported scores for 188 self-identified trauma therapists recruited from a professional trauma organization and New England area clinical training programs. T-tests indicated that scores on the present sample of domestic violence workers were significantly higher than all scores presented by these authors with the exception of other-esteem. On the variable of other-esteem, the trauma therapists scored significantly higher than domestic violence workers. See Table 6.

Table 6
Comparisons between domestic violence workers and self-identified trauma therapists

Measures	Domestic Violence Workers[a]			Trauma Therapists[b]			t
	n	M	SD	n	M	SD	
IES Total[c]	261	31.77	9.61	185	13.40	4.46	30.86***
Intrusion[c]	266	15.51	5.04	183	6.78	4.06	28.27***
Avoidance[c]	262	16.21	5.31	183	6.62	4.86	29.22***
TSI Belief Scale[d]							
Self-Safety[e]	267	2.29	.50	185	2.14	.78	4.78***
Other-Safety[e]	267	2.37	.61	185	2.14	.78	6.18***
Self-Trust	267	2.33	.89	185	1.76	.67	10.43***
Other-Trust	267	2.40	.72	183	1.86	.62	12.40***
Self-Esteem	267	1.80	.70	185	1.37	.54	9.98***
Other-Esteem	267	2.27	.60	183	3.05	.59	21.45***
Self-Intimacy	267	2.27	.80	185	1.62	.56	13.29***
Other-Intim.	267	2.28	.84	183	1.74	.82	10.54***

Note:[a] Present Study; [b] Pearlman and MacIan (1995); [c] Scores were adjusted to match scoring procedures from Pearlman and MacIan (1995); [d] Pearlman and MacIan (1995) did not provide scores for Total, Self-Control, or Other-Control due to the use of an earlier form of the test (Revision F); [e] Version F only provides one overall safety score.
IES = Impact of Events Scale; TSI = Traumatic Stress Institute Belief Scale
*** $p < .001$

Kassam-Adams (1995) reported scores for a sample of 100 therapists working in outpatient mental health settings who claimed to treat varying numbers of sexual assault clients. T-tests indicated that the domestic violence workers scored higher on all indices of the IES scale than the sexual assault counselors. See Table 7.

Cunningham (1996) reported TSI scores for her sample of 151 Masters level social workers who were members of the International Society of Traumatic Stress Studies (ISTSS). T-tests indicated that scores for the present study on all but one measure of the TSI were significantly higher than those of the ISTSS members. There was no difference between the present sample and Cunningham (1996) on the variable of other-esteem. See Table 8. Therefore, hypothesis one has been rejected on all but one count (other esteem). Overall, scores of the present sample are significantly higher (clinically worse) than those reported for other

samples of trauma and sexual assault counselors.

Table 7
Comparisons between domestic violence workers and therapists who see sexual assault clients

Measures	Domestic Violence Workers[a]			Sexual Assault Therapists[b]			t
	n	M	SD	n	M	SD	
IES Total	261	23.9	15.25	100	20.7	11.0	3.39***
Intrusion	266	12.09	8.24	100	10.7	6.1	2.75**
Avoidance	262	11.74	8.31	100	10.1	6.5	3.19**

[a] Present Study; [b] Kassam-Adams (1995)
** p < .01; *** p < .001

Table 8
Comparisons between domestic violence workers and self-identified trauma therapists

Measures	Domestic Violence Workers[a]			Trauma Therapists[b]			t
	n	M	SD	n	M	SD	
Total TSI	267	182.23	40.79	32	163.15	33.6	7.64***
Self-Safety	267	2.29	.50	32	1.83	.55	14.92***
Other-Safety	267	2.37	.61	32	2.26	.48	2.98**
Self-Trust	267	2.33	.89	32	1.97	.52	6.58***
Other-Trust	267	2.40	.72	32	2.25	.66	3.52***
Self-Esteem	267	1.80	.70	32	1.64	.54	3.71***
Other-Esteem	267	2.27	.60	32	2.20	.57	1.78
Self-Intimacy	267	2.27	.80	32	1.89	.40	7.79***
Other-Intim.	267	2.28	.84	32	2.06	.61	4.31***
Self-Control	267	2.47	.79	32	2.11	.58	7.51***
Other-Control	267	2.36	.69	32	2.23	.56	3.03**

Note: TSI = Traumatic Stress Institute Belief Scale; [a] Present Study; [b] Cunningham (1996)
** p < .01 *** p < .001

Hypothesis Two

Hypothesis 2: It was hypothesized that, controlling for pre-test individual group differences, the two groups of shelter workers receiving feedback would demonstrate lower levels of STS post-test than a control group that received no intervention. Of the two intervention groups, at post-

test the group receiving suggestions for change was hypothesized to demonstrate significantly lower levels of STS than the group receiving feedback only.

A multivariate analysis of variance was conducted to determine any pre-treatment group differences on the dependent variables (IES total score, IES intrusion, IES avoidance, PSS re-experience, PSS avoidance, PSS arousal, PSS Total, and TSI Total Score) among the three treatment groups. Results indicated no statistically significant difference among the three groups, Wilk's $\Lambda = .94$, F (12, 496) = 1.26, $p = .24$. Therefore, the groups were assumed to be equivalent on the dependent variables at pre-test. Post-test differences were analyzed using a one-way multivariate analysis of variance. Results of the post-test multivariate analysis of variance indicated that there were no statistically significant differences among the groups post-treatment, Wilks' $\Lambda = .93$, F, (6,122) = .70, $p = .65$. Therefore, the null hypothesis, that the groups were equal at post-treatment, has been accepted.

Exploratory Analyses

Repeated measures analyses of variance were conducted to explore any possible differences from pre- to post-test on the dependent variables. Using total IES, IES intrusion, IES avoidance, total TSI, and all of the TSI subscales as dependent variables, and group as the between subjects variable, no statistically significant time by group interactions were found. Therefore, though there were various differences among the groups on the dependent variables, they can not be attributed to the feedback intervention given to the workers. See Table 9.

Exploratory repeated measures analyses of variance were also conducted to determine any differential effect of coping skills across groups. Using each of the 8 CSI subscales as dependent variables and group as the between subjects variable, no statistically significant time by group interactions were found. An examination of the data suggests that scores on both positive and negative coping skills increased somewhat in all three conditions (Table 9). Therefore, as above, differences across the groups can not be attributed to the feedback intervention given to the workers. Moreover, with no significant coping skills by time effects, further factorial analyses

using coping skills as the independent variable or degree of coping skill change as predictors of outcome can not be conducted

Table 9
Impact of Event Scale, Traumatic Stress Institute Belief Scale, and Coping Strategies Inventory Scores by Group at Pre- and Post-assessment

	Group1		Group 2		Group 3	
	Time 1 Mean (S.D.)	Time 2 Mean (S.D.)	Time 1 Mean (S.D.)	Time 2 Mean (S.D.)	Time 1 Mean (S.D.)	Time 2 Mean (S.D.)
IES Total	23.01 (14.41)	24.65 (13.51)	24.45 (16.40)	22.47 (13.56)	24.09 (14.88)	26.33 (20.60)
IES Intrusion	11.85 (7.84)	12.21 (7.13)	12.35 (9.03)	8.33 (5.79)	12.03 (7.82)	12.17 (10.58)
IES Avoidance	11.23 (7.80)	12.44 (8.30)	11.86 (8.89)	14.13 (8.66)	12.04 (8.20)	14.17 (10.62)
TSI Total	188.41 (44.10)	181.96 (46.14)	184.30 (41.83)	177.64 (52.75)	174.95 (35.90)	176.24(39.71)
Self-Safety	2.37 (.58)	2.34 (.66)	2.32 (.51)	2.47 (.70)	2.18 (.39)	2.20 (.57)
Other-Safety	2.34 (.59)	2.34 (.60)	2.43 (.62)	2.38 (.83)	2.33 (.63)	2.24 (.50)
Self-Trust	2.41 (.75)	2.13 (.64)	2.28 (.81)	2.29 (1.17)	2.31 (1.06)	2.04 (.79)
Other-Trust	2.43 (.71)	2.44 (.82)	2.50 (.74)	2.08 (.61)	2.29 (.69)	2.45 (.73)
Self-Esteem	1.88 (.74)	1.78 (.73)	1.86 (.76)	1.84 (.67)	1.67 (.60)	1.77 (.58)
Other-Esteem	2.28 (.63)	2.32 (.68)	2.29 (.61)	2.36 (.62)	2.23 (.56)	2.34 (.51)
Self-Intimacy	2.39 (.89)	2.29 (.80)	2.29 (.86)	2.31 (.91)	2.16 (.65)	2.18 (.54)
Other-Intimacy	2.44 (.91)	2.28 (.91)	2.26 (.82)	1.98 (.63)	2.17 (.78)	2.25 (.83)
Self-Control	2.65 (.88)	2.42 (.78)	2.46 (.74)	2.37 (.89)	2.33 (.73)	2.24 (.83)
Other-Control	2.44 (.91)	2.43 (.74)	2.39 (.76)	2.14 (.78)	2.26 (.60)	2.37 (.69)
Pos Coping	24.19 (22.70)	66.33 (20.94)	42.58 (33.52)	68.14 (24.54)	48.31 (34.86)	73.55 (29.29)
Neg Coping	6.52 (9.55)	27.74 (18.24)	18.28 (19.36)	26.38 (13.51)	16.04 (15.54)	26.73 (26.78)
Problem Solving	6.35 (6.32)	17.43 (6.47)	11.59 (9.03)	17.50 (6.75)	12.33 (8.93)	20.55 (5.97)
Cog Restructuring	5.39 (6.60)	15.74 (5.77)	11.07 (9.44)	16.21 (6.80)	11.78 (9.29)	17.91 (7.66)
Emotional Expression	4.92 (5.66)	14.86 (6.45)	8.49 (7.92)	17.79 (8.27)	10.26 (8.41)	15.82 (8.32)
Social Support	7.52 (6.99)	18.31 (8.13)	11.43 (9.87)	16.64 (10.38)	13.93 (10.27)	19.27 (12.04)
Problem Avoidance	1.68 (3.12)	8.52 (5.60)	5.21 (5.95)	8.43 (3.69)	4.51 (4.80)	8.45 (6.25)
Wishful Thinking	2.47 (3.29)	8.69 (5.66)	6.05 (6.62)	8.00 (7.90)	5.41 (5.57)	8.09 (7.37)
Self-Blame	1.80 (3.11)	2.64 (3.77)	4.64 (5.50)	2.36 (3.13)	3.96 (4.46)	2.73 (7.16)
Social Avoidance	0.57 (1.59)	7.88 (6.56)	2.38 (4.07)	8.31 (5.42)	2.18 (3.94)	7.45 (8.50)

Regression Analyses

A series of regression analyses were conducted on the initial sample (N = 267) to explore the contributions of individual variables to the expression of STS symptoms. See Table 10 for the correlation matrix corresponding to these analyses.

Hierarchical Regression on Total IES score

A block hierarchical regression analysis was conducted to determine the contribution of trauma history; age; years experience at domestic violence shelters; social support and relevant coping skills; counselor and noncounselor exposure; the interactions

of trauma history and counselor exposure with social support and coping skills; and total TSI in predicting total IES score. See Table 11.

Surprisingly, trauma history, as measured by a composite score of several trauma categories that could have been endorsed by the participants, accounted for 0% of the variance in predicting IES total score. Age and years experience at the shelter were not significantly correlated with total IES, and did not contribute to the prediction of total IES.

Social support and other coping skills, as a block, accounted for an additional 11% of the variance in predicting total IES. One measure of social support was taken from the demographic question, "Are you currently living with a close other?" Of the 8 subscales of the CSI, four were significantly correlated with total IES score and were then included in the present regression analysis: social support, wishful thinking, social avoidance, and self-blame. Two variables in this block of the hierarchical regression, social support and wishful thinking, were significantly correlated with total IES.

The next two blocks of variables were entered into the regression as rough estimates of patient contact. Counselor contact represents hours worked in the shelter for domestic violence and sexual assault counselors. This variable accounted for an additional 1% of the variance in predicting total IES. Noncounselor contact represents hours worked in the shelter for noncounselors. This variable was entered following counselor contact because it was suspected that noncounselor contact with domestic violence victims would not contribute significantly beyond the proportion of variance accounted for by counselor contact, which is likely more intense exposure to the domestic violence victims. Noncounselor contact, entered as the last block, actually decreased the proportion of variance accounted for by the above variables by 1%.

Trauma history by coping skill and social support interactions were entered into the analysis next. These variables were computed by multiplying the value of trauma

history by the values of (a) social support, and (b) positive coping minus negative coping. Two additional interaction variables were entered into the next block. These interactions were computed by multiplying the values of counselor exposure with (a) social support, and (b) positive coping minus negative coping. None of these interactions contributed additional variance to the prediction of total IES.

The final variable included in this regression analysis was total TSI. Though research has considered distorted beliefs the result of exposure to traumatic material, inadequate coping skills, and possibly other environmental variables, some have suggested that distorted beliefs, in turn, contribute to PTSD symptoms (eg., Janoff-Bulman, 1989; Walton, 1997. The addition of this variable increased the amount of variance accounted for by 6%, totalling 17% with the previous variables. See Table 11 for results.

Hierarchical Regression on Total TSI score

A block hierarchical regression analysis was conducted to determine the contribution of trauma history; age; years experience at domestic violence shelters; social support and relevant coping skills; counselor and noncounselor exposure; and the interactions of trauma history and counselor exposure with social support and coping skills in predicting total TSI score (Table 12). The first block consisted of the trauma history variable, as described above. Trauma history was not significantly correlated with the criterion variable, and accounted for 0% of the variance in predicting total TSI score. The second block, comprised of age, added 1% to the variance beyond trauma history, and was significantly correlated to total TSI score. The third block, comprised of years experience, did not account for any additional variance beyond trauma history and was not significantly correlated with the criterion variable. The fourth block, comprised of social support and coping skills variables, including problem-solving, cognitive restructuring, emotional expression, social avoidance, self-blame and wishful thinking, accounted for an additional 28% of the variance in predicting total TSI. Within this block, social support, wishful thinking, and social avoiance were significantly correlated

with the criterion variable.

The fifth block, comprised of counselor contact, and the sixth block, comprised of noncounselor contact, were not significantly correlated with the criterion variable, nor did they conribute any additional variance to the criterion variable. The seventh block, made of the trauma by coping and trauma by social support interaction variables described above, did not contribute to additional variance, nor were its variables significantly correlated with the criterion variable. The eighth block, comprised of the counselor contact by coping skills and counselor contact by social support interaction variables described above, did not contribute to additional variance, nor were its variables significantly correlated with the criterion variable. See Table 12.

Table 10
Correlations for Predictor and Criterion Variables

	AGE	YRS	LIV	SS	PROBS	COGRE	EMOTEX	WISH	SOC AVOID	BLAME	CNSLRHR	NCNSLRHR	TRBYSS	TRBYCOP	CNSLRBYS	CNSLRBYC	IES	TSI
TRHX	.30***	.21**	.01	-.03	.08	.09	-.01	.01	.04	.05	-.01	.02	.58***	.57***	-.08	-.08	.11	.04
AGE	*	.43***	-.02	-.03	.04	.06	-.07	-.06	.01	.08	-.03	.01	.09	.12	-.01	-.03	-.04	-.15*
YRS	*	*	-.02	-.12	-.03	-.03	-.11	-.08	-.04	.02	-.05	.18**	-.01	.01	-.04	-.04	.06	-.09
LIV	*	*	*	-.06	-.06	-.06	-.06	-.08	.04	-.01	-.03	.02	.02	-.02	-.04	-.05	..02	.10
SS	*	*	*	*	.78***	.79***	.89***	.54***	.36***	.40***	.03	.07	.61***	.53***	.51***	.49***	-.13*	-.32***
PROBS	*	*	*	*	*	.89***	.79***	.60***	.50***	.48***	.04	-.02	.57***	.57***	.33***	.36***	-.05	-.19**
COGRE	*	*	*	*	*	*	.81**	.58**	.53**	.44**	.01	.02	.59***	.60***	.33***	.37***	-.09	-.24***
EMOTEX	*	*	*	*	*	*	*	.56***	.42***	.45***	.16*	-.14*	.56***	.52***	.51***	.51***	-.11	-.24***
WISH	*	*	*	*	*	*	*	*	.63***	.67***	-.07	.11	.39***	.17**	.13*	.06	.19**	.17**
SOC AVOID	*	*	*	*	*	*	*	*	*	.59***	-.02	.05	.28***	.08	.07	-.02	.18**	.21**

	AGE	YRS	LIV	SS	PROBS	COGRE	EMOTEX	WISH	SOCAVOID	BLAME	CNSLRHR	NCNSLRHR	TRBYSS	TRBYCOP	CNSLRBYS	CNSLRBYC	IES	TSI
BLAME	*	*	*	*	*	*	*	*	*	*	-.01	.04	.25***	.03	.14*	.08	.13*	.15*
CNSLRHR	*	*	*	*	*	*	*	*	*	*	*	.87***	.03	.00	.72***	.67***	.03	.10
NCNSLRHR	*	*	*	*	*	*	*	*	*	*	*	*	-.05	-.05	.61***	-.57***	.00	.06
TRBYSS	*	*	*	*	*	*	*	*	*	*	*	*	*	.90***	.21**	.00	-.02	.07
TRBYCOP	*	*	*	*	*	*	*	*	*	*	*	*	*	*	.19***	.22***	-.11	-.24***
CNSLRBYS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	.95***	-.04	-.24***
CNSLRBYC	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	-.09	-.28***
IES	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	.38***

Note: TRHX = trauma history; AGE = age of workers; YRS = years of experience working at domestic violence shelters; LIV = living with a close other; SS = social support subscale of the Coping Strategies Inventory; PROBS = problem solving subscale of the Coping Strategies Inventory; COGRE = cognitive restructuring subscale of the Coping Strategies Inventory; EMOTEX = emotional expression subscale of the Coping Strategies Inventory; WISH = wishul thinking subscale of the Coping Strategies Inventory; SOCAVOID = social avoidance subscale of the Coping Strategies Inventory; BLAME = self-blame subscale of the Coping Strategies Inventory; CNSLRHR = number hours exposure to clients by counselors; NCNSLRHR = number hours exposure to clients by noncounselor staff members; TRBYSS = Trauma history times social support (measured by Coping Strategies Inventory); TRBYCOP = Trauma history times (positive coping minus negative coping; Coping Strategies Inventory); CNSLRBYS = number hours exposure to clients by counselor times social support score (Coping Strategies Inventory); CNSLRBYC = number hours exposure to cliens by counselor times (positive coping minus negative coping; Coping Strategies Inventory); IES = total score on the Impact of Events Scale; TSI = total score of the Traumatic Stress Institute Belief Scale.

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

Table 11

Summary of Blockwise Regression For Components Predicting Impact of Event Scale Total Score

Component	Variable	B	SE B	F	df	Adj. R-Squared
Trauma History				**1.87**	**[1,226]**	**.00**
	TRHX	.09	.21			
Age				**2.33**	**[2,225]**	**.01**
	Age	-.12	.29			
Years of Experience				**1.92**	**[3,224]**	**.01**
	YRS	.08	.23			
Coping				**4.53**	**[8,219]**	**.11**
	SS	-.31***	.08			
	LIV	.03	1.21			
	WISH	.29**	.18			
	SOCAVOID	.13	.18			
	BLAME	.03	.24			
Counselor Contact				**4.37**	**[9,218]**	**.12**
	CNSLRHR	.11	.29			
Noncounselor Contact				**3.92**	**[10,217]**	**.11**
	NCNSLRHR	.01	.55			
Trauma History Interactions				**3.36**	**[12,215]**	**.11**
	TRBYSS	-.00	.03			
	TRBYCOP	-.13	.01			
Counselor Interactions				**2.89**	**[14,213]**	**.10**
	CNSLRBYS	.11	.06			
	CNSLRBYC	-.13	.02			
Distorted Beliefs				**4.10**	**[15,212]**	**.17**
	TSI	.32***	.02			

Note: TRHX = trauma history; YRS = years of experience working at domestic violence shelters; SS = social support subscale of the Coping Strategies Inventory; LIV = living with a close other; WISH = wishul thinking subscale of the Coping Strategies Inventory; SOCAVOID = social avoidance subscale of the Coping Strategies Inventory; BLAME = self-blame subscale of the Coping Strategies Inventory; CNSLRHR = number hours exposure to clients by counselors; NCNSLRHR = number hours exposure to clients by noncounselor staff members; TRBYSS = Trauma history times social support (measured by Coping Strategies Inventory); TRBYCOP = Trauma history times (positive coping minus negative coping; Coping Strategies Inventory); CNSLRBYS = number hours exposure to clients by counselor times social support score (Coping Strategies Inventory); CNSLRBYC = number hours exposure to cliens by counselor times (positive coping minus negative coping; Coping Strategies Inventory); TSI = Traumatic Stress Institute Belief Scale total score.

** $p < .01$ *** $p < .001$

Table 12

Summary of Blockwise Regression For Components Predicting Traumatic Stress Institute Belief Scale Total Score

Component	Variable	B	SE B	F	df	Adj. R-Squared
Trauma History				**.641**	**[1,230]**	**.00**
	TRHX	.05	.88			
Age				**3.62**	**[2,229]**	**.02**
	Age	-.18*	1.18			
Years Experience				**2.46**	**[3,228]**	**.02**
	YRS	-.03	.93			
Coping Skills				**9.93**	**[11,220]**	**.30**
	SS	-.50***	.55			
	LIV	.06	4.44			
	PROBS	.08	.61			
	COGRE	-.22	.61			
	EMOTEX	.02	.70			
	WISH	.31**	.66			
	SOCAVOID	.21**	.70			
	BLAME	.10	.89			
Counselor Contact				**9.11**	**[12,219]**	**.30**
	CNSLRHR	-.03	1.10			
Noncounselor Contact				**8.57**	**[13,218]**	**.30**
	NCNSLRHR	-.16	2.03			
Trauma History Interactions				**7.61**	**[15,216]**	**.30**
	TRBYSS	.29	.13			
	TRBYC	-.25	.05			
Counselor Interactions				**6.73**	**[17,214]**	**.30**
	CNSLRBYS	.16	.22			
	CNSLRBYC	-.08	.08			

Note: TRHX = trauma history; YRS = years of experience working at domestic violence shelters; SS = social support subscale of the Coping Strategies Inventory; LIV = living with a close other; PROBS = problem solving subscale of the Coping Strategies Inventory; COGRE = cognitive restructuring subscale of the Coping Strategies Inventory; EMOTEX = emotional expression subscale of the Coping Strategies Inventory; WISH = wishul thinking subscale of the Coping Strategies Inventory; SOCAVOID = social avoidance subscale of the Coping Strategies Inventory; BLAME = self-blame subscale of the Coping Strategies Inventory; CNSLRHR = number hours exposure to clients by counselors; NCNSLRHR = number hours exposure to clients by noncounselor staff members; TRBYSS = Trauma history times social support (measured by Coping Strategies Inventory); TRBYCOP = Trauma history times (positive coping minus negative coping; Coping Strategies Inventory); CNSLRBYS = number hours exposure to clients by counselor times social support score (Coping Strategies Inventory); CNSLRBYC = number hours exposure to cliens by counselor times (positive coping minus negative coping; Coping Strategies Inventory);
*$p < .05$ ** $p < .01$ ***$p < .001$

Stepwise Regression on total IES score

To examine the relationship between cognitive schemas and PTSD symptoms, a stepwise regression was conducted, entering the 20 TSI subscales as predictors and IES total score as the criterion variable. Results of the analysis indicated that the best predictors of PTSD symptoms were other-intimacy and other-safety with a multiple R of .41, $p < .001$. These predictors accounted for 16% of the variance in PTSD scores. Because the subscales of the TSI are intercorrelated, tolerance and variable inflation factors were computed to test for potential adverse effects of multicollinearity. Both factors (Tol = .904; VIF = 1.106) were found to be within acceptable ranges. No other predictors accounted for a significant increment in the amount of explained variance. See Tables 13 and 14.

Table 13

Correlations betwen Predictor Variables and IES for Stepwise Regression

	SELF SAFE	OTH SAFE	SLF TRUST	OTH TRUST	SELF EST	OTH EST	SELF INTIM	OTH INTIM	SELF CTRL	OTH CTRL	IES
SELF SAFE	*	.48***	.28***	.29***	.37***	.40***	.23***	.34***	.35***	.31***	.18**
OTH SAFE	*	*	.25***	.39***	.31***	.41***	.33***	.33***	.39***	.40***	.27***
SELF TRUST	*	*	*	.39***	.51***	.38***	.44***	.51***	.44***	.38***	.18**
OTH TRUST	*	*	*	*	.51***	.60***	.50***	.57***	.53***	.56***	.25***
SELF EST	*	*	*	*	*	.48***	.60***	.71***	.64***	.55***	.27***
OTH EST	*	*	*	*	*	*	.46***	.54***	.44***	.48***	.20**
SELF INTIM	*	*	*	*	*	*	*	.53***	.49***	.50***	.27***
OTH INTIM	*	*	*	*	*	*	*	*	.68***	.63***	.37***
SELF CTRL	*	*	*	*	*	*	*	*	*	.63***	.35***
OTH CTRL	*	*	*	*	*	*	*	*	*	*	.33***
IES	*	*	*	*	*	*	*	*	*	*	*

Note: SELFSAFE = self-safety subscale of the Traumatic Stress Institute Belief Scale (TSI); OTHSAFE =

other-safety subscale of the TSI; SELFTRUST = self-trust subscale of the TSI; OTHTRUST = other-trust subscale of the TSI; SELFEST = self-esteem subscale of the TSI; OTHEST = other-esteem subscale of the TSI; SELF-INTIM = self-intimacy subscale of the TSI; OTHINTIM = other-intimacy subscale of the TSI; SELFCTRL = self-control subscale of the TSI; OTHCTRL = other-control subscale of the TSI; IES = Impact of Events Scale.
*p < .05 **p < .01 ***p < .001

Table 14
Summary of Stepwise Regression For Distorted Beliefs Predicting Impact of Events Scale Score

Component	Variable	B	SE B	F	df	Adj. R-Squared
Step 1						
	OTHINTIM	.38***		42.81	(1,259)	.14
Step 2						
	OTHSAFE	.16**		25.35	(2,258)	.16

Note: OTHINTIM = Other-intimacy subscale of the Traumatic Stress Institute Belief Scale; OTHSAFE = other-safety scale of the Traumatic Stress Institute Belief Scale.
**p < .01 ***p < .001

Chapter 6

DISCUSSION

Summary of Research Design

The overarching goal of this study was an examination of secondary traumatization (STS) in domestic violence workers, a population that has been previously ignored in this area of the literature. Specifically, this study was designed to determine whether levels of STS, as measured by PTSD symptoms and distorted beliefs about self and others, are similar to those of sexual assault and other trauma therapists, and to determine whether providing domestic violence workers with feedback would initiate change in STS symptom levels.

The current model, based on the works of Figley (1995), McCann and Pearlman (1990b) and Pearlman and MacIan (1995) with trauma counselors, assumed that exposure to traumatic material is directly related to development of STS; however, STS is mitigated by several individual factors, such as age, education, experience in the field, social support, and coping skills. Other studies have reported conflicting results, particularly in regards to the contributions of trauma history and exposure to the development of STS. Therefore, with the large initial sample size contained in this study, this model was tested by computing regression analyses on the two main outcome variables, PTSD symptoms (total IES score) and distorted beliefs (total TSI score). Results of the present study only partially supported this model. Both significant contributions to this model and aspects of the model that were not supported are reviewed and limitations are discussed. Finally, recommendations for future research are offered and practical implications are discussed.

Substantive Analyses

Hypothesis One

Results of analyses related to Hypothesis One indicated that domestic violence victims do not have levels of STS comparable to trauma and assault workers, their

symptoms levels are actually worse than this population. Though it is impossible to determine the origin of this difference when comparing across samples, population differences point to several reasonable hypotheses. First, social support may be stronger in the sexual assault samples. The percentage of married participants in the domestic violence sample (38%) was markedly lower than that in the trauma samples, which ranged from 61% to 71%. Both the present study, and prior research (e.g., Van de Water, 1996) have demonstrated that being married or living with a close other is negatively related to the presence of STS.

Second, age has been shown to be negatively correlated with distorted beliefs. The current sample is comprised of somewhat younger workers (M = 35.65 years, SD = 11.45) than the three sexual assault counselor samples, whose mean ages were 40 (Kassam-Adams, 1996), 43 (Pearlman & MacIan, 1995), and 45 (Cunningham, 1996). It is possible that increased age brings a seasoning effect that protects the workers. Perhaps greater work experience or general wisdom acquired with age instills greater confidence in the self and others, protecting workers from experiencing feelings of disillusionment with the self and others. It is also possible that a selection factor has contributed to these findings. Perhaps the workers who are less equipped to cope with the stresses of trauma work leave the profession early; therefore, the older workers are by selection, a particularly healthier group of workers.

A third difference between the present sample and the sexual assault counselor samples was that the assault counselors appeared to have more experience working in their fields, (ranging from 9 to 16 years) than the domestic violence workers, who averaged 4 years "experience at domestic violence shelters." The domestic violence workers had received their last degree (predominantly Bachelor's) an average of 5.40 years previously (SD = 3.73), as opposed to averages of 9 to 14 years since receiving the last degree for the 3 samples of trauma workers (Cunningham, 1996; Kassam-Adams, 1996; Pearlman & MacIan, 1995). Therefore, the domestic violence workers may again be considered less seasoned to the field of trauma work. Previous research has

consistently shown that therapists with the least years professional experience show the most distress (Chrestman, 1995; Cunningham, 1996; Pearlman & MacIan, 1995), presumedly because they have not learned the most appropriate coping strategies for the stresses of their work.

Results of the present study suggest that domestic violence shelter workers are experiencing moderate levels of secondary traumatization that are slightly more severe than sexual assault counselors. Though this difference may be due to insufficient protective factors, such as less social support, younger age, and less experience in the field, future research is necessary to determine other likely salient factors for this population. Overall, this finding merits concern because domestic violence workers have historically been an understudied and underserved population. The following quotation reflects the intensity of STS that some domestic violence workers may be experiencing.

> I often have nightmares related to the stories [I] hear. In addition, I am constantly aware that as a single female living alone, I'm vulnerable to my clients [batterers], especially if they choose to target me. I have 2 dogs and sleep with a gun under my bed. My phone number is unlisted, I have caller ID, and am always aware of what I say so I give out NO personal information to them.

Hypothesis Two

Results of post-test analyses of variance indicated that, in the present sample, providing feedback to domestic violence workers did not lead to reduced levels of PTSD symptoms or distorted beliefs two months later. However, these findings should be considered inconclusive due to the low number of participants who remained in the study for the follow-up assessment. An examination of the data shows a slight trend of decreased symptom levels in the FG, though the FIG scores did not seem to change at all. See Table 9. Given the low number of participants, it is impossible to know whether, with more time and participants, symptoms may have decreased further. It is also unwise

to generalize the finding of no treatment effect in the FIG from a group of 12 workers to the entire population of domestic violence workers. Several of those 12 workers came from the same shelter. Therefore, there is great potential that unique characteristics of the shelters involved may have lessened susceptibility to treatment.

The low N size in the present study may have been caused by several factors. First, the participants complained that answering the number of questionnaires included in the assessment package was too time consuming. This feedback is likely an interaction of the actual length of the assessment package and the fact that the questions were quite intrusive and somewhat difficult to answer. The following quote was written by one worker in response to completing the assessment battery:

> This survey was extremely stressful to fill out. I try so hard to not feel and to block out the emotions related to D.V. To fill this out and think hard about the answers was very difficult.

Second, feedback from the directors noted that, in many cases, workers who originally participated in the study were no longer employed at the shelter at the time of follow-up. Third, though one might hypothesize that many workers receiving feedback may have been disappointed to learn that they had been adversely affected by their work, and may have demonstrated avoidance by not completing the follow-up, avoidance symptom levels between completers and noncompleters for those who received initial feedback were not significantly different. Given this information, the low response rate might have been a reflection of the avoidance symptoms present in the entire sample. Another worker offered the following comment:

> I feel that I am immune to becoming emotionally overwhelmed by client stories of abuse. Almost dissociating myself.

Regardless, the sample sizes of the FG and FIG were too small to afford the power

necessary to detect group differences. This unfortunate low response rate coupled with the notable difference between participation rate predicted by the director, and actual participation rate suggests that this type of intervention appears to the shelter management to be needed, but may not be wanted by the workers. This is an important finding for those who plan to conduct future research with this population.

Despite randomly assigning shelters to research groups, initial group differences appeared in the FG and the FIG. The CG was significantly less educated and participants had experienced a higher frequency of sexual assault as a child than workers in the two treatment groups. Moreover, the mean IES score at time 1 for the FG ($\underline{M}$ = 22.07) was markedly lower than that of the FIG ($\underline{M}$ = 35.75). This difference approached statistical significance, $\underline{F}$ (2, 65) = 2.85, $\underline{p}$ = .07, and may have been significant had the sample size been much larger. It is unknown what effect the interaction of these initial group differences might have on susceptibility to treatment. All of these methodological flaws must be corrected before it can be concluded that the treatment was not effective.

In addition to the above methodolical problems, it is possible that providing general instructions for improving coping skills is simply not motivating and informative enough to affect STS symptoms. As discussed earlier, feedback is more likely to be effective when it provides for specific strategies and reinforces attainment of goals related to these strategies (e.g., Kluger & DeNisi, 1996). Perhaps, had the information been provided in a more collaborative, individualized format, the effect may have been stronger. Future research is necessary to determine if this consultation style model would be more effective for ameliorating STS symptoms in domestic violence workers as well as all other trauma worker populations.

Exploratory Analyses

Group Differences Repeated measures analyses of variance were conducted to explore any possible differences from pre- to post-test on all possible dependent variables and their subscales. Scores on the IES avoidance scale increased significantly from pre- to post-test, while score on the IES intrusion scale decreased significantly from pre- to post-test in the FG group. No change was noted within the FIG. Though this may simply be random error, this phenomenon questions whether providing feedback without guidance has a beneficial or harmful effect on the workers. IES intrusion and avoidance symptoms are typically positively and significantly correlated with another, such that if intrusion symptoms decrease, avoidance symptoms will decrease as well (Horowitz et al., 1979).

It is possible that the workers were engaging in rumination about their clients that contributed to elevated intrusion scores on the IES. When given feedback that they were experiencing STS symptoms, but not told what to do about the symptoms, the workers may have begun to make concerted efforts to stop worrying about their clients and think about something else. This purposeful distraction would then lead to increases in avoidance scores and decreases in intrusion scores. If the intrusive memories measured by the IES were indeed ruminative in nature, this change may have had a positive effect on the workers.

It is also possible that when the workers in the FG condition were given feedback that they have STS symptoms that likely originated from their chosen profession, but were not told what to do about these symptoms, they became somewhat distressed. Perhaps this feedback elicited feelings of frustration and helplessness. Moreover, the domestic violence workers, whose existence depends on teaching others effective coping skills, may have experienced decreased self-efficacy and adverse affective reactions to the news that their coping skills may benefit from some improvement. It is then reasonable to deduce that feelings of such frustration and decreased self-efficacy may have led to increases in avoidance behaviors in these workers. Kluger and DeNisi (1996), in their

meta-analysis and review of feedback intervention literature, concluded that feedback aimed at the personality, without specific information on improving task performance, can be detrimental because it tends to cause a narrowing of the individual's focus to negative aspects of the person rather than possible mechanisms of improvement. It is important to note that affective reactions to feedback were not measured in the present study. Therefore this hypothesis may not be considered conclusive for this population until replicated with a larger sample and methods designed to measure cognitive and affective reactions to receiving feedback of this nature.

Regression Analyses Regression analyses were conducted to explore the contribution of several variables postulated to contribute to STS: trauma history, age, years experience at domestic violence shelters, social support and other coping skills that were found earlier to be significantly correlated with STS, contact with clients, the interactions of trauma history and coping skills, the interactions of counselor contact with coping skills, and total score on the TSI. The totality of these variables only accounted for 17% of the variance in predicting PTSD symptoms. Of these criterion variables, social support was negatively and significantly related to the criterion and wishful thinking and distorted beliefs were positively and significantly related to the criterion. The findings regarding social support and wishful thinking (a form of withdrawal) are not surprising, as their contributions to PTSD symptoms are well-documented in the literature (e.g., Dutton & Rubinstein, 1995; Foy, 1992; Taylor & Fraser, 1982; Van de Water, 1996; Valentiner et al, 1996).

Trauma history, even when entered within the first block of the regression, was not a significant predictor. Other studies in this area have found similar results. For example, Lee (1995), Schauben and Frazier (1995) and Follete et al. (1994) did not find a significant relationship between overall trauma history and STS. Simonds (1996) reported that, for her sample of 138 attendees at a conference on the treatment of abuse and trauma, therapists with a history of sexual trauma did not show more STS therapists without history of sexual trauma. To the contrary, Price (1998) found that the presence of

trauma in therapists' pasts is a significant predictor of PTSD symptoms with a small to moderate effect size. Moreover, Kassam-Adams (1996) found that, for her sample, overall trauma history is related to avoidance phenomena and childhood trauma history is related to intrusion phenomena. Results of this study are questionable, though, because they have not been replicated and the author may have biased her findings by simultaneously entering gender into her regression equations at the same time as trauma history. At first glance, these findings are puzzling, given that the common thought is that prior trauma history is predictive of the development of PTSD at future exposure to traumatic events. However, for samples of trauma workers, the findings may be explained by a tendency of some trauma workers to resolve the effects of their initial trauma through their work with victims. These findings may also reflect a selection factor indicating that those who resolve a prior history of trauma are more likely to enter the field to help others recover. More and more research in this area is beginning to suggest that trauma history alone predicts little to none of the variance in current PTSD symptoms as measured in the context of therapists' current work.

The variables of counselor contact alone and the interactions of counselor contact with coping skills and social support did not contribute significantly to the prediction of PTSD symptoms. These variables were included as measures of exposure to traumatic material and interactions of exposure with potential buffering variables. The lack of significant effect may be interpreted to mean that degree of exposure to clients is not predictive of PTSD symptoms in those experiencing secondary traumatization. This lack of findings may also indicate a measurement problem suggested by Lee (1995). It is likely that the global measurement of time spent in contact with clients is not as important as the actual amount of graphic detail conveyed from the clients to the workers. For various reasons, some workers may be more likely than others to invite open discussion of graphic details, thus increasing their vulnerability to STS beyond other workers who have the same overall exposure to clients but do not discuss traumatic events in detail. Further research is necessary to explicate the effects of exposure on the development of STS.

The final block in this regression analysis was comprised of the total TSI score, measuring levels of distorted beliefs about self and others. This score was found to be significantly and positively related to the criterion of total IES score (PTSD symptoms) and contributed an additional 7% of the variance over previous variables. This variable was entered last in conjunction with Janoff-Bulman (1989) and McCann and Pearlman's (1990) theoretical framework of PTSD and STS. These researchers proposed that an individual's basic assumptions about the world will determine how one will respond to trauma. Traumatic events can have an impact on how one sees the world; thus, influencing how an individual reacts to the world. Thus, the interplay between beliefs and reaction to trauma is complex. Results of this regression analysis support this theory.

The second hierarchical regression analysis also indicated that trauma history was not a significant predictor of distorted beliefs about the self and others. In this model, age was significantly and negatively related to the criterion, as suggested by prior research (Simonds, 1996). The notable difference in the prediction of distorted beliefs, as compared to the prediction of PTSD symptoms, is the large and significant contribution of social support, social avoidance and wishful thinking. These three variables contributed an additional 28% of the variance. These coping skills in conjunction with trauma history, age, and years experience, accounted for 30% of the variance in predicting distorted beliefs. These results make it more apparent that, for trauma workers, the development of distorted beliefs is, to a large degree, the product of inadequate social interaction. In conjunction with these findings, a large number of study participants wrote that a strong support network at work was the most helpful factor in decreasing their stress levels. This information is hopeful, indeed, because much prior thought had focused on static risk factors, such as age and years experience, that can not be targeted for intervention. Recent findings of the importance of social interaction in offsetting unhealthy beliefs provide an easy target for prevention and intervention with this population.

A final exploratory stepwise regression indicated that other-safety and other-intimacy significantly predict PTSD symptoms (See Table 14). This analysis was conducted to compare results to Walton (1997). Working on the premise that cognitions (distorted beliefs) influence behavior (PTSD symptoms), Walton found that deterioration in self-control predicted PTSD symptoms for her sample of 165 members of the International Society of Traumatic Stress Studies. This finding is congruent with PTSD research indicating that external locus of control is positively correlated with PTSD symptoms in combat veterans (Frye & Stockton, 1990). These findings suggest that general trauma workers are more at risk of PTSD symptoms when they feel powerless to control their thoughts and feelings, yet domestic violence victims are more at risk when they fear for the safety of close others, or feel disconnected and isolated from others. In line with the findings above, these results point to the importance of effective social support for this sample in decreasing risk of distorted beliefs and, consequently, PTSD symptoms.

Features and Limitations of the Study

Features The sample in the present study was randomly chosen from all moderate to large sized domestic violence shelters in the United States. Therefore, the initial data set was drawn from all regions of the country and represented a variety of ethnic and cultural backgrounds. The response rate of the initial sample was comparable to other studies completed by mail. The large N size of the initial sample and adequate range on most scales allowed for a variety of statistical analyses. Moreover, this study was the first in this area to establish the extent of STS in domestic violence shelter workers.

Another positive feature of this study was the instrumentation. The IES and PSS were both used to measure PTSD symptoms, and results of the more reliable measure, the IES, may be compared to other studies in this area. The TSI was used to measure distorted beliefs, and results are directly comparable to more recent studies in this area that have also begun to use this inventory. This normed scale is a substantial improvement over the prior group of studies using non-validated lists of questions

derived by the researchers.

Limitations This study had several limitations. First, the response rate of the follow-up assessment was less than expected. Compared to the CG, workers in the feedback and FIG were not as motivated to complete the follow-up. It is not clear whether the workers decided that the feedback was not useful at all, or if repeated feedback was not worth the time required to complete the assessment battery. As discussed above, the low rate may also be a reflection of the avoidance symptoms present in most workers.

This study was also limited by its lack of a reliable measure of PTSD arousal symptoms. A new version of the Impact of Event Scale, Impact of Event Scale Revised (IES-R; Weiss & Marmar, in press), will soon be released which has been updated specifically to provide a reliable and valid measurement of arousal symptoms of PTSD.

Another limitation that became apparent to this study was the lack of data on work environment. Though the researcher initially planned to include the Work Environment Scale (Moos, 1981), the instrument was deleted because the assessment battery was already painfully long. Had this data been collected, not only could a more complete model have been developed and tested, but environmental differences among shelters could have been examined.

An additional potential limitation in this study was the difficulty insuring confidentiality and open responding. Workers may have felt uncomfortable answering such private questions about themselves, especially given that their director would receive feedback about the staff as a whole. Though efforts were made to diminish this anxiety by providing samples of director feedback reports ahead of time to demonstrate the safeguards to confidentiality, the researchers were complete strangers to the workers and may not have been perceived as trustworthy.

An obvious limitation to all research in this area is the difficulty partialling out effects of past trauma and effects of present trauma. Trauma workers often are also trauma victims. Therefore, the researchers are never quite sure whether the instruments designed to measure PTSD symptoms are measuring symptoms caused by direct trauma, symptoms of secondary traumatization at work, or even symptoms of secondary traumatization related to a myriad of daily experiences outside of work (e.g., witnessing a bad car accident). A related methodological difficulty pertains to the potential influence of co-workers on an individual's distorted beliefs. Social psychology has long taught that beliefs may change relative to the influence of close others (e.g., Lott & Lott, 1961). Therefore, it is unclear the extent to which workers experience greater levels of distorted beliefs from exposure to traumatic material from trauma victims as opposed to exposure to influential co-workers with unhealthy beliefs.

Implications for Future Research

The present findings suggest that a more comprehensive model is necessary to explain the development of STS. Additional individual variables likely moderate the effect of coping skills on symptom levels. Self-efficacy is an example of one such variable. In addition, work environment variables may also have a large impact of the development of STS. For instance, coworker support and cohesion, well-defined job roles, physical safety, financial secuirty, and clear physical boundaries between worker and client space likely all impact risk of STS. These variables and more need to be examined across samples of trauma workers.

With the addition of more pertinent variables, research should begin to focus on more complex relationships among the variables. With recent standardization of criterion variables, research in this area has just moved from purely descriptive to correlational in nature. The next step will be to develop a multidirectional path analytic model that can shed light on the complexity of the phenomenon of STS. With greater knowledge of the impact of the interactions of pertinent variables, researchers will gain in ability to identify

early risk factors and appropriate points of intervention per individual worker.

Finally, it is recommended that future research examining methods of ameliorating STS symptoms focus on direct, intensive interventions in which the workers must focus all attention and are not able to utilize avoidance. Interventions might focus on having workers design and implement goals of increasing individual social networks and communicating needs to others in such a way that allows for emotional expression, but is not overwhelming to others outside of the domestic violence shelter environment. Interventions might also focus on making the shelter environment safer and more conducive to healthy beliefs and coping styles.

Implications for the Field

Domestic violence workers are experiencing mild to moderate levels of distress related to the demands of being exposed to traumatic material on a regular basis. This distress may be a primary factor propelling workers to leave the field, contributing to a population of workers with less education and less work experience than other specialized trauma workplaces. These workers are, in turn, at increased risk of STS. Therefore, it is imperative that trauma workers increase their awareness of the somewhat insidious process of secondary traumatization by learning early warning signs and having a safe environment in which to communicate concern to each other.

Organizations may consider implementing protective safeguards such as structured supervision, trauma work support groups, or required regular attendance at workshops designed to alleviate STS. One study participant wrote to say that one of ways she feels the staff at her shelter address this issue successfully is to bring in a therapist from another agency once a month to debrief the workers. As discussed earlier, supervision should be aimed at providing task-oriented prescriptions for healthy change, rather than focusing on individual flaws. Supervisors should be sensitive not to provide any negative or threatening feedback in isolation. Feedback should always be paired with

specific information/teaching designed to improve the work performance. Moreover, supervisors should be on the alert for workers who spend large numbers of clinical contact hours with trauma victims, do not appear to have a mode of emotional expression, are limited in social support, or appear to be all out avoiding social interaction. In house trainings might also address the importance in finding the balance between healthy imagination and escapes (e.g., watching movies periodically) and harmful wishful thinking (e.g., always focusing on the what ifs to the neglect of the current situation). Furthermore, education may be provided for the spouses/close others of the trauma workers in a similar vein to the programs designed to debrief spouses of trauma victims. Social contact is only helpful if it is, in fact, supportive to the individual's needs.

Training environments at all educational levels should begin to address the process of STS. As graduate funding at universities becomes more scarce and more strongly tied to the production of research, there is a risk that universities may no longer find the ongoing time to convey (and model) to the students the importance of taking the time for adequate self-care. Furthermore, with increasingly larger numbers of therapists and trauma workers in the field now who have a positive history of trauma, training programs should consider offering education and counseling to assist all students in resolving any personal trauma related issues.

Every year large numbers of domestic violence victims benefit from the difficult and engaging work of these front line warriors. Moreover, many trauma workers feel that their work has been beneficial to their personal growth and strength as a human being. Therefore, the potential remains for this type of work to be healthy and mutually beneficial to both client and worker. The focus, then, needs to expand from protection of the victims to protection of the workers as well. Once we fully identify these protective factors, we will need to create an environment, organizationally and societally that allows domestic violence workers a safe place to undergo intense examination of their personal contributions to their work. This safety can only be achieved when workers feel that they will be protected and supported physically, financially, and emotionally from their

communities. Consider the following comments from workers:

> ...Feeling that you are still nothing more than a band-aid when facing the reality of our political system.

> Many times working with victims is less traumatic than dealing with other agencies that are for the supposed benefit of the victim.

A more experienced worker wrote:

> There are many rewards of this work, including seeing social policy change, seeing societal views change, seeing individual women recognize their inner strength, and seeing many women find life again.

Though society has come a long way from the days in which domestic violence workers were considered heretics for endorsing separation of violent partners, a very noble battle is still being fought by these workers to insure the rights and priveleges of their clients and themselves. It is an unnatural burden to carry a sword in one hand and a box of tissues in the other. Further research and attention to this field must focus on the development of a safe and healthy environment for domestic violence workers, so shelter workers may facilitate victim healing with minimal risk of harm to themselves.

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Appendix A

SECONDARY TRAUMATIZATION FEEDBACK REPORT

This report contains personalized feedback from your responses to the Secondary Traumatization Assessment that you completed. This feedback compares your scores with those of other shelter workers across the U.S. on (1) symptoms of secondary traumatization, and (2) coping strategies that you reported using that may affect these symptoms. Remember that secondary traumatization is the process of taking on trauma symptoms due to repeated exposure to trauma victims. This process occurs frequently among trauma workers.

SYMPTOMS OF SECONDARY TRAUMATIZATION

Re-experiencing Symptoms: Traumatized individuals often re-experience thoughts, feelings, or images that are strongly related to the traumatic material. This re-experiencing commonly takes the form of intrusive thoughts, flashbacks, or nightmares.

- *Your symptoms of re-experiencing such as intrusive thoughts and feelings tend to be more severe compared to other domestic violence workers across the country.*

Avoidance Symptoms: Avoidance symptoms include any attempts to avoid thoughts or feelings associated with the traumatic material in order to decrease anxiety associated with these thoughts. In professionals, some examples of this behavior may be avoidance of discussion of traumatic material with a shelter resident, coming to work late, or daydreaming often while at work.

- *Your symptoms of avoidance seem to be about average compared to other domestic violence workers across the country.*

Physiological Arousal: Traumatized individuals often begin to show signs of elevated physiological arousal such as feeling overly alert or jumpy, having difficulty concentrating and/or sleeping, and experiencing an elevated startle response.

- *Your symptoms of physiological arousal seem to be less severe compared to other domestic violence workers across the country.*

Shifts in Cognitive Beliefs: Traumatized individuals may also undergo gradual shifts in beliefs characterized by decreases in feelings of safety, trust, intimacy and control of the self and others.

- *You do not evidence shifts in cognitive beliefs related to traumatization in the areas of safey, trust, esteem, intimacy, and control compared to other shelter workers.*

Coping Strategies

We commonly use many different strategies for dealing with difficult situations. Though different strategies work best for different people, a number of positive coping strategies exist, which if employed consistently and frequently, are thought to protect you from risk of developing secondary traumatization. Thus, the more of these positive strategies you use, the less likely you are to experience traumatization. To the contrary, the use of negative coping strategies may increase the risk of developing secondary traumatization. The following feedback describes the types of coping strategies that you have been using to cope with exposure to traumatic material at work.

POSITIVE COPING STRATEGIES

1. *When coping with exposure to traumatic material, you appear to have been using more problem solving, such as making a plan of action and taking small steps to follow it, compared to other domestic violence workers.*
2. *You have been using more changing thoughts about events (e.g., looking at things in a new or different way) than other shelter workers.*
3. *You tend to seek social support, such as contact with friends and family members, more than other domestic violence workers.*
4. *You are about as likely to express emotions to others than other shelter workers.*

NEGATIVE COPING STRATEGIES

1. *You appear to be avoiding dealing with problems about the same as other shelter workers.*
2. *You appear to be engaging in wishful thinking, such as daydreaming about what you would rather be doing, about the same as other shelter workers.*
3. *You appear to be engaging in social withdrawal, such as pulling away from friends and colleagues, more than other shelter workers.*
4. *You appear to be engaging in forms of self-criticism, such as blaming yourself for problems and mistakes, about the same as other shelter workers.*

USING THIS REPORT

This report can be used to help you to better understand symptoms of secondary traumatization as well as coping strategies that may increase or decrease your risk of developing secondary traumatization. If your feedback indicates that you are experiencing symptoms of secondary traumatization, you may wish to study the feedback about your coping strategies to see if there are changes you can make in your life to increase your well-being.

Appendix B

SPECIFIC SUGGESTIONS FOR CHANGE

INSTRUCTIONS: The following suggestions are offered to help you relieve feelings of distress related to the repeated exposure to traumatic material at work. You can approach this information in one of two ways. First, you may prefer to read all of the information and try to make improvements in all areas. Second, you may prefer to only focus on those sections in which you may not be doing as well as other shelter workers. At the end of this handout are other suggestions made by trauma workers that you might find helpful.

Problem Solving: Sometimes, taking the time to use a more systematic approach to solving problems can significantly reduce stress. If your results indicate that you are not using this strategy very frequently, consider trying the following:

1. Identify the problem--What is really causing me to feel bad?
2. Identify a desired outcome--How do I want to feel, or what do I want to happen?
3. Generate options for solving the problem--Is there another way I can try to do this? Is there someone who can help me come up with ideas to solve the problem?
4. Choose the most appropriate option-- Which option will work the best, is the least stressful, or is the most likely to produce the outcome that I want?
5. Act on the option--Try the option under number 4. If that doesn't work, try another option until the problem is solved. Get help from a coworker if necessary

Helpful Hints: Sometimes working through this process with another person, or writing down responses to each of these steps can make problem solving much easier.

Changing Thoughts about Events: Changing thoughts involves making yourself see things in a different light. When things are going really badly, try to think about something that is going right. When something frustrates you, tell yourself that your goal is not being blocked, you are simply being challenged-- when you overcome this challenge, you will be a better, stronger person. Catch yourself making negative comments and try to match each negative statement with a positive one about the same situation. A counselor or good friend may be helpful in making these changes.

Social Support: Studies have shown that just feeling like you have emotional support from close others may protect you from health risks. Sometimes, when we are tired or under stress, we tend to pull away from others. Unfortunately, this usually serves to make us feel worse, rather than better. Try to talk to colleagues, friends, and family members about your self--about both positive and negative aspects of your life. Strive to develop friendships outside of the workplace that may help you keep perspective on your work situation. If you do not feel motivated to make these changes, you might consider making a verbal agreement with a friend or colleague that will ensure that you spend at least an hour a week being with another person in a relaxed setting outside of work and the home.

Expressing Emotions: Hiding or squelching emotions can cause a great deal of undue stress and anxiety. It may also limit the depth of your relationships with others. If your assessment results indicate that you may be doing this, try to practice making statements to close others beginning with "I feel..." rather than "I think..." These statements will force you to share your emotions with others. Usually, when we do this, we receive attention and support from those around us. Often this support quickly reduces feelings of sadness and anxiety. The following are some "feeling" type words that you might use to describe your emotions about your work with domestic violence victims:

happy	**relieved**	**distracted**	**bored**
sad	**pressured**	**confused**	**resentful**
scared	**ashamed**	**annoyed**	**jealous**
frustrated	**guilty**	**energetic**	**fortunate**
worried	**angry**	**exhausted**	**concerned**
anxious	**enraged**	**overwhelmed**	**unworthy**
uncertain	**embarrassed**	**disgusted**	**vulnerable**

Problem Avoidance: Often when we feel overwhelmed or tired, we tend to avoid dealing with things. Sometimes just the fear of not being able to fix a problem causes us to shrink away from that problem. Unfortunately, this causes more stress in our lives, rather than relieving the stress that we already have. If you find yourself doing this, try to engage in active problem solving (described at the top of this sheet) or try going to a colleague or supervisor for help with the problem.

Wishful Thinking: Wishful thinking in itself is not harmful if it leads to feelings of optimism and generation of alternative options for problem-solving. However, wishful thinking in the absence of any other action can be extremely frustrating and lead to increased stress. Individuals who daydream about how they would like things to be, and draw negative comparisons to their life at the present time experience unhappiness and distress. If you find yourself engaged in this process, try to ask yourself if the wishful thoughts that you are having are realistic, and whether they are something that you are likely to experience or achieve in the near future. If you answer yes to these questions, try to formulate a realistic plan to achieve these goals. If you answer no to these questions, you might consider talking to someone else to figure out if there is some other goal that you might work towards that will make you happier.

Social Withdrawal: As discussed above in the social support section, we often tend to withdraw when we are fatigued or stressed. However, in general, this lack of social connection may be harmful to us. If your feedback indicated that you are at an above average level of social withdrawal, consider making a more active approach to forming and or maintaining relationships, especially outside the work setting. Easy ways to do this are to join a group, club or class that meets regularly or to find a partner with whom you will vow to do something outside your home and work once a week. In addition, try to focus on activities that require interaction (e.g., taking walks, reading groups, etc.)

rather than activities that can be done in total silence (e.g., seeing a movie).

Self-Criticism: Some individuals have a strong tendency to consistently take responsibility for things that go wrong and induce feelings of failure, blame, guilt, or shame. If your scores indicated that you have a tendency toward self-blame, try to take some time to think about those things that have gone wrong and led to your feeling bad. What other things might have caused this event? Was anyone else involved? If you have difficulty with this, try to talk to a supervisor about some of these feelings. Your supervisor may help you to sort out your contribution to this event and help you find ways to prevent this thing from happening again later. If these feelings are related to difficulty helping shelter residents, remember that domestic violence is a complex and frustrating situation, and sometimes no matter how hard we try, the victim's situation may not readily improve.

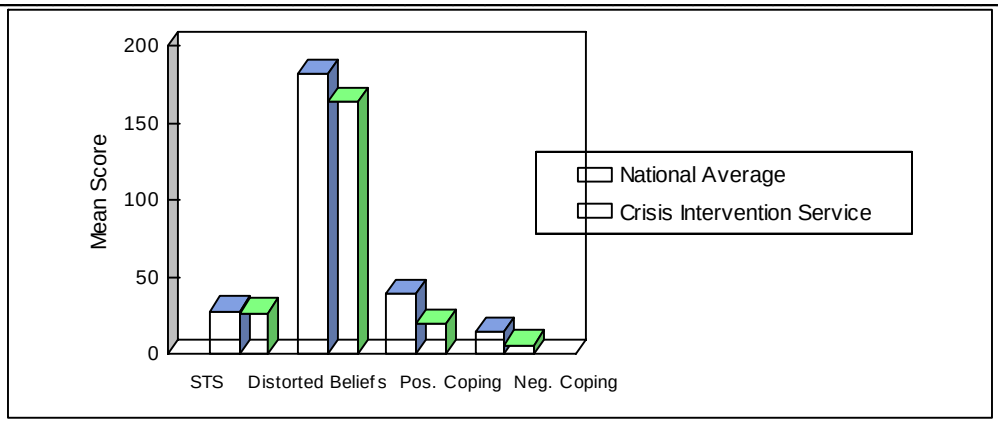
OTHER SUGGESTIONS FROM LEADERS IN THE FIELD OF TRAUMA WORK:

1. EAT A BALANCED DIET EVERY DAY.
2. IMPLEMENT A REGULAR EXERCISE ROUTINE; EVEN SOMETHING AS SIMPLE AS TAKING A WALK EVERY DAY MAY BE EXTREMELY HELPFUL. CONSIDER AN ACTIVITY THAT GIVES YOU GREATER FEELINGS OF CONTROL OVER YOUR BODY, SUCH AS YOGA OR MARTIAL ARTS.
3. BE SURE TO GET THE BEST AMOUNT OF SLEEP *FOR YOU*. SOME PEOPLE FEEL BEST AT 8 HOURS, OTHERS FEEL BEST AT 5 HOURS. HAVE A REGULAR SLEEP SCHEDULE THAT MAKES YOU FEEL GOOD.
4. TAKE TIME TO YOURSELF EACH DAY TO UNWIND. DON'T BE AFRAID TO SPECIFY A LIMITED PERIOD OF TIME IN WHICH YOU *WILL NOT* ANSWER THE PHONE, E-MAIL, FAX MACHINE, BEEPER, ETC.
5. REWARD YOURSELF WITH A PLEASURABLE ACTIVITY AFTER HANDLING A PARTICULARLY DIFFICULT OR STRESSFUL SITUATION.
6. USE YOUR SENSE OF HUMOR EVERY DAY.
7. SEEK A SPIRITUAL OUTLET OF SOME SORT, WHETHER IT IS RELIGIOUS, MEDITATIVE, OR AN INTEREST IN THE ARTS.
8. SPEND TIME WITH CHILDREN AND/OR PETS. THEY OFTEN HAVE AN IMMEDIATE HEALING EFFECT ON DISTRESSED INDIVIDUALS.
9. OCCASIONALLY ENGAGE IN ESCAPES LIKE READING A GOOD BOOK, SEEING A MOVIE, OR SPENDING A DAY AWAY FROM HOME.
10. PERIODICALLY SEEK HELP FROM PROFESSIONALS OUTSIDE YOUR AGENCY. CONSIDER IT A HEALTH MAINTENANCE PROGRAM.

Appendix C

DIRECTOR'S FEEDBACK REPORT

INSTRUCTIONS: This report can be used to help you better understand symptoms of secondary traumatization in shelter workers as well as coping strategies that may increase or decrease workers' risk of developing secondary traumatization. If the first section of the report indicates that workers are experiencing symptoms of traumatization, you may wish to study the results of the coping strategies section of this report to see if there are strategies that you might suggest to your workers or implement in your organization to help workers feel healthier, happier, and more satisfied with their job. The chart below briefly summarizes your shelter's scores based on the _____ workers who participated.



SYMPTOMS OF SECONDARY TRAUMATIZATION

Overall Symptoms: Overall, the assessment results did provide evidence of mild secondary traumatization in your workers compared to other shelters in the United States.

Reexperiencing Symptoms: Traumatized individuals often reexperience thoughts, feelings, or images related to the traumatic material. This commonly takes the form of anxiety producing and intrusive thoughts, flashbacks, or nightmares.

The workers at your shelter achieved a mean score of 13. The standard deviation for this score is 12, indicating that 68% of your workers scored between 1 and 25. This mean score indicates that your workers are experiencing about the same amount of reexperiencing symptoms compared to other shelter workers across the United States.

Avoidance Symptoms: Traumatized workers may try to avoid thoughts or feelings associated with the traumatic material to avoid the anxiety associated with these thoughts. Workers may find themselves avoiding discussing traumatic material with a shelter resident, coming to work late, or daydreaming often while at work.

The workers at your shelter achieved a mean score of 11. The standard deviation for this score is

13, indicating that 68% of your workers scored between 0 and 24. This mean score indicates that your workers are experiencing the same amount of avoidance symptoms compared to other shelter workers across the United States.

Physiological Arousal: Traumatized individuals often begin to show signs of elevated physiological arousal such as feeling overly alert or jumpy, having difficulty concentrating and/or sleeping, and experiencing an elevated startle response.

The workers at your shelter achieved a mean score of 2. The standard deviation for this score is 3, indicating that 68% of your workers scored between 0 and 5. This mean score indicates that your workers are experiencing about the same amount of physiological arousal symptoms compared to other shelter workers across the United States.

Shifts in Cognitive Beliefs: Traumatized individuals may also undergo gradual shifts in beliefs such as decreases in feelings of safety, trust, esteem, intimacy and control of the self and others.

The workers at your shelter achieved a mean total score of 164. The standard deviation for this score is 37, indicating that 68% of your workers scored between 127 and 201. This mean score indicates that your workers are experiencing about the same amount of cognitive shifts compared to other shelter workers across the United States.

POSITIVE COPING STRATEGIES

Problem solving involves taking an action oriented approach to coping with any difficult situation. This approach is most effective when the individual (a) identifies the problem, (b) identifies the desired outcome to the problem, (c) generates options for the problem, (d) chooses the most appropriate option, and (e) acts on the option.

The workers at you shelter achieved a mean score of 19. The standard deviation of that score was 10, which means that 68% of your workers scored between 9 and 29. This score is significantly higher compared to scores of other shelter workers across the United States.

Changing thoughts about events involves the ability to see difficult events in a different, more positive light.

The workers at your shelter achieved a mean score of 4. The standard deviation of that score was 3. indicating that 68% of your workers scored between 1 and 7. This score is about the same compared to scores of other shelter workers across the United States.

Social support involves seeking and utilizing connections with others to cope with difficult situations.

The workers at your shelter achieved a mean score of 6. The standard deviation of that score was 6, indicating that 68% of your workers scored between 0 and 12. This score is about the same compared to scores of other shelter workers across the United States.

Expressing emotion refers to the workers' practice of expressing emotions to others when they feel upset or distressed. Emotional expression to close others often elicits attention and support from others, which can be particularly helpful to distressed workers.

The workers at your shelter achieved a mean score of 4. The standard deviation of that score was 3, indicating that 68% of your workers scored between 1 and 7. This score is about the same compared to scores of other shelter workers across the United States.

NEGATIVE COPING STRATEGIES

Problem avoidance involves hiding from difficult situations or denying that things are a problem. Problem avoidance may feel better in the short run, but may contribute to greater problems and distress in the workers in the long run.

The workers at your shelter achieved a mean score of 1. The standard deviation of that score was 2, indicating that 68% of your workers scored between 0 and 3. This score is about the same compared to scores of other shelter workers across the United States.

Wishful thinking involves excessive daydreaming about how the worker wishes things could be. This is a dangerous coping strategy if it is not coupled with realistic goals and actions to achieve those desired goals. In this type of situation, wishful thinking often leads to frustration, anger, and/or depression in the individual.

The workers at your shelter achieved a mean score of 2. The standard deviation of that score was 2, indicating that 68% of your workers scored between 0 and 4. This score is about the same compared to scores of other shelter workers across the United States.

Social withdrawal involves pulling away from others in times of stress. This decreased social connection can be harmful to the individual by exacerbating feelings of isolation, and lack of support.

The workers at your shelter achieved a mean score of 3. The standard deviation of that score was 4, indicating that 68% of your workers scored between 0 and 7. This score is about the same compared to scores of other shelter workers across the United States.

Self-criticism involves excessive blaming of the self for others' difficulties or situations in which things went wrong. This can be especially harmful in a job situation, such as working at a domestic violence shelter, in which client gains are slow and characterized by great fluctuation.

The workers at your shelter achieved a mean score of 0. The standard deviation of that score was 1, indicating that 68% of your workers scored between 0 and 1. This score is about the same compared to scores of other shelter workers across the United States.

Appendix D

Demographics Questionnaire

Please answer these questions by recording answers on the green and white electronic OPSCAN sheet entitled "Demographics."

1 Age
16 - 20 years = 1
21 - 25 years = 2
26 - 30 years = 3
31 - 35 years = 4
36 - 40 years = 5
41 - 45 years = 6
46 - 50 years = 7
51 - 55 years = 8
56 - 60 years = 9
60+ years = 10

2. Gender Male = 1 Female = 2

3. Ethnic Origin: African American = 1 American Indian = 2 Asian = 3 Caucasian = 4 Hispanic = 5 Other = 6

4. Marital Status: Single = 1 Married = 2 Separated = 3 Divorced = 4 Widowed = 5

5. Are you currently living with a partner or very close other (spouse, if you are married)?
Yes = 1 No = 2
(If married, leave this response blank)

6. Highest Professional Degree:
High school diploma = 1
Associate's Degree: = 2
Bachelor's Degree = 3
LPC or equiv. = 4
Masters Degree = 5
Doctorate = 6
Postdoctorate education = 7

7. Length of time (in years) holding that degree
(if less than one year, please mark "1")
(if more than ten years, please mark "10")

8. Degree Discipline: Mental Health = 1 Medical = 2
Human Resources = 3 Business = 4
Law = 5 Management = 6
Other = 7

9. Years experience at domestic violence shelters:
(if less than one year, please mark "1")
(if more than 10, please mark "10")

10. Number of domestic violence conferences attended

(if answer is zero, please leave mark "1")

11. Number of domestic violence workshops attended
(if answer is zero, please mark "1")

12. Number of additional certifications in the field of domestic violence
(if answer is zero, please mark "1")

13. Your primary role in the shelter: *(though you likely have many diverse roles, please choose the one role in which you spend most of your time)*

Domestic Violence Counselor = 1
Sexual Assault Counselor = 2
Human Resource Specialist = 3
Victim witness/advocacy = 4
Director/Program Coordinator = 5
(This may be for volunteers, counselors, or other areas)
Teacher = 6
Community Education Specialist = 7
Night/Weekend Manager = 8
Administrative Assistant = 9
Other = 10

14. With whom do you work?

mainly adults = 1
mainly children = 2
equal numbers of adults and children = 3

Thinking of the past month, please estimate...

15. Total work hours per WEEK:

0 to 10 hours = 1
10 to 20 hours = 2
20 to 30 hours = 3
30 to 40 hours = 4
40 to 50 hours = 5
50 to 60 hours = 6
60+ hours = 7

16. What percentage of your workday is spent physically inside of the domestic violence shelter?

< 10 % = 1
10% to 30% = 2
30% to 60% = 3
60% to 80% = 4
80% to 100% = 5

So we may control for the effect of past trauma in our research, please answer this last set of questions about your trauma history.

In your life, have you ever experienced the following:

YES = 1 NO = 2

17. consistent physical abuse/maltreatment as a child
("consistent" refers to > 1 incident)

18. consistent physical abuse as an adult

19. consistent verbal abuse as a child

20. consistent verbal abuse as an adult

21. any incident of sexual abuse or assault as a child

22. any incident of sexual abuse as an adult

23. death of an immediate family member as a child

24. death of an immediate family member as an adult

25. home destroyed by natural disaster as a child

26. home destroyed by natural disaster as an adult

27. other similarly traumatic experience as a child

28. other similarly traumatic experience as an adult

Though this may be redundant to the questions above, please indicate whether you were ever a victim of domestic violence.

29. as a child

30. as an adult

Thank you for responding to our demographics questionnaire. The hardest part of this survey is now over. The remainder of the survey is printed on additional green and white electronic OPSCAN forms.

VITA

Allison Clifford Jeffrey

Post-Doctoral Position **(1999-2002)**
Staff Psychologist, United States Air Force

Current Position:
Clinical Psychology Resident **1998-1999**
Malcolm Grow Medical Center, Andrews AFB MD

Education:
Doctor of Philosophy, Psychology (Clinical) **1996-1999**
Virginia Polytechnic Institute and State University

Dissertation Title: Effects of Feedback on Levels of Secondary Traumatization of Workers at Battered Women's Shelters across the United States.
Defended: April 9, 1999
Major Professor: George A. Clum
Honors: Winner of 1998 USDHHS Agency for Health Care Policy and Research Grant for Health Services Dissertation Research

Preliminary Examination Title: An Examination of the Construct of Secondary Traumatization in Health Care Workers Working with Trauma Victims
Defended: May 2, 1997
Major Professor: George A. Clum, Ph.D.

Masters of Science, Psychology (Clinical) **1994-1996**
Virginia Polytechnic Institute and State University

Thesis Title: Predictors of Male Violence in Dating Relationships
Defended: December 16, 1996
Major Professor: Ellie T. Sturgis, Ph.D.

Graduate Student Representative
to the Psychology Department 1995-1996
Clinical Psychology Student Representative 1995-1996

Bachelor of Arts, Psychology and Music **June 1994**
Furman University, Greenville, SC 1990 - 1994

Honors: Furman Honor Scholarship 1990 - 1994
Psi Chi 1993 - 1994
Allport Award for Excellence in Psychology 1994

Timmons Music Scholarship 1990 - 1994
Hartness String Quartet Scholarship 1990 - 1994

Professional Affiliations:

Student affiliate, Association for the Advancement of Behavior Therapy
Student affiliate, American Psychological Association

Publications:

Rasmussen, P. R., Jeffrey, A. C., Willingham, J. T., & Glover, T. L. (1994). Implications of the true score model in assessment of mood state. Journal of Social Behavior and Personality, 9, 107-118.

Rasmussen, P. R., & Jeffrey, A. C. (1995). Assessment of mood states: Biases in single-administration assessments. Journal of Psychopathology and Behavioral Assessment, 17, 177-184.

Publications in Review:

Jeffrey, A. C., & Clum, G. A. (1999). An empirical review of research examining secondary traumatization among trauma workers.

Presentations:

Paper, "Assessment of Trauma Coping Skills," presented as part of the Symposium, Advances in the Assessment of Anxiety Disorders, Annual Convention of the Southeastern Psychological Association (1999).

Poster, "Predictors in Dating Relationships," presented at the Association for Advancement of Behavior Therapy 30th Annual Convention, New York City (1996).

Poster, "Self-Esteem, stability, and somatic complaints among men and women," presented at the 16th Annual Scientific Sessions of the Society of Behavioral Medicine (1995).

Paper, "Implications of Repeated Assessment of Mood State using the Profile of Mood States Questionnaire," presented at the National Conference for Undergraduate Research, Kalamazoo, MI (1994).

Poster, "Parenting Styles and Need for External Validation," presented at the Southeastern Psychological Association Conference, New Orleans, LA (1994).

Externship, Third Year **February - August 1997**
(20 hours/week: Approximately 450 hours)

Conducted long-term individual therapy with a variety of patients admitted to the long term unit at Southwestern Virginia Mental Health Institute in Marion, VA. Majority of patients seen were admitted to the hospital when found not guilty for reasons of insanity and/or were released from prison due to psychological illness.

Other duties included writing treatment plans, participating in treatment reviews, attending recommitment hearings, and intellectual and risk assessment.
Supervisor: Colin Barrom, Ph.D.

Summer Externship at the National Crime Victim Research and Treatment Center (NCVC), Medical University of South Carolina
(40 hours/week: Approximately 230 hours) May 20 - June 27, 1996

Observed individual therapy to victims of crime and other traumatic experiences. Conducted psychological assessment and initial screenings of victims. Assisted in psychological assessment of perpetrators of crime. Acted as co-therapist to the inpatient cognitive behavioral therapy group at the Institute of Psychiatry. Assisted in legal evaluation of crime victims. Assisted and observed evaluation of physical and sexual abuse of children. Conducted follow-up interviews of victims of sexual assault and caregivers of children who had previously been physically or sexually abused. Attended case conferences, NCVC and community case staffing meetings, psychiatric seminars and grand rounds. Supervised by Connie Best, Ph.D., licensed clinical psychologist.

Women's Shelter Volunteer 1995 - 1997
(approximately 3 hours/week; > 300 hours total)

I volunteered weekly at the Women's Resource Center shelter for abused women. On a regular basis, I:
(a) answered a crisis line, offering empathy, problem-solving and suicide prevention to a variety of anonymous callers;
(b) managed the women's shelter during evenings, weekend afternoons, and overnight shifts, providing support and crisis counseling to the shelter residents;
(c) facilitated the use of community resources by victims of domestic violence (e.g., helped women report child abuse to social services, filed assault reports with the police, etc.).
Supervisor: Mary Forti, M.Ed.

Teaching Experience:

Teaching Assistant Fall 1997, Spring 1998, Summer 1998
Abnormal Psychology
Department of Psychology
Virginia Polytechnic Institute and State University

Teaching Assistant Spring 1998
Personality Assessment
Department of Psychology
Virginia Polytechnic Institute and State University

Teaching Assistant **Summer 1997**
Social Psychology
Department of Psychology
Virginia Polytechnic Institute and State University

Teaching Assistant **Spring 1997**
Personality Research Lab
Department of Psychology
Virginia Polytechnic Institute and State University

Teaching Assistant **Fall 1996**
Intellectual Assessment
Department of Psychology
Virginia Polytechnic Institute and State University

Teaching Assistant **1994-1996**
Teaching Assistant to Introductory Psychology
Department of Psychology
Virginia Polytechnic Institute and State University

Teaching Assistant **1992-1994**
Department of Psychology
Furman University
Supervised by Charles L. Brewer, Ph.D.

References:

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Virginia Polytechnic Institute and State University
Blacksburg, VA 24060
(540) 231-5701

Ellie T. Sturgis, Ph.D.
Associate Professor of Psychology
Associate Dean of College of Arts and Sciences
Virginia Polytechnic Institute and State University
Blacksburg, VA 24061
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Cynthia A. Lease, Ph.D.
Research Professor of Psychology
Virginia Polytechnic Institute and State University
Blacksburg, VA 24061
(540) 231- 9381