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Assessing the Frequency and Influences of Secondary Traumatic Stress Symptoms Among Crisis Intervention Workers

Mark F. Lepore

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ASSESSING THE FREQUENCY AND INFLUENCES OF SECONDARY
TRAUMATIC STRESS SYMPTOMS AMONG CRISIS INTERVENTION WORKERS

by

Mark Lepore

Submitted in partial fulfillment of the requirements

for the degree

Doctor of Education

Executive Counselor Education and Supervision Program

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Abstract

This study examined the differences in secondary traumatic stress symptomatology in crisis intervention workers by their field of work (job title), level of experience, level of participation in stress reducing activities, and perception of having received adequate training to meet the challenges of disaster and trauma work. The purpose of the study was to contribute to developing a better understanding of factors that influence crisis intervention workers' experience of secondary traumatic stress. Analysis of variance (ANOVA) was used to study 206 crisis intervention workers drawn from four different crisis intervention fields (personal care/nurses' aides, disaster relief workers, police officers, and professional counselors). Evidence of STS symptoms was determined by scores on the Compassion Fatigue (CF) subscale of the Compassion Satisfaction and Fatigue Test (CSF; Stamm & Figley, 1998). Demographic variables such as field of work, level of experience, participation in stress-reducing activities, and training were assessed on the Demographic/Trauma Work Questionnaire. No statistical significance was found to indicate a difference in the level of STS symptomatology in crisis intervention workers in relation to the variables studied. Because past research seems to support the idea that adequate self-care, greater experience, and adequate training reduce the level of STS symptoms in crisis intervention workers, the results were unexpected. Within the sample population, there existed substantial groups scoring at both ends of the spectrum (very low and very high risk for CF). This investigation was not able to determine what accounted for the difference between the high and low risk individuals. However, it was noted that a significantly larger portion of the personal care/nurses' aides group scored in the very-high risk for CF range than did the other groups. It may have been possible to determine the reason for this with more in-depth querying of the individual respondents. Future research might consider a more comprehensive and specific questionnaire to gain better insights into the personal and professional life experiences of these individuals that may impact STS symptom development.

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CHAPTER I

INTRODUCTION

Efforts to help others can provide great rewards for crisis intervention workers when they are successful. However, when they are unsuccessful or overwhelmed, crisis intervention workers may follow primary victims in suffering themselves (Valent, 2002). Researchers have consistently demonstrated the existence of a phenomenon known as secondary traumatic stress (STS; Figley, 2002; Figley, 1995a, 1995b; Marmar, Weiss, Metzler, Ronfeldt, & Foreman, 1996). In the last two decades it has become clear people can be affected secondarily by the sufferings of others. STS is most often associated with the “cost of caring” about and for traumatized people; it is the emotional residue of exposure to working with the suffering, especially those who have been victimized by the consequences of serious events (Figley, 2002; Figley, 1995a).

Two main groups of people typically are impacted by STS: (a) those who aid trauma survivors in a professional capacity (Valent, 2002), referred to in this investigation as crisis intervention workers; and (b) family and friends of trauma survivors (Beaton & Murphy, 1995; Gentry, Baranowsky, & Dunning, 2002). The current study focuses on workers from a variety of crisis intervention fields and crisis environments who are subject to developing STS. Those especially vulnerable to STS, because of their exposure to trauma victims, include emergency care workers, police officers, fire-fighters, counselors, psychologists, social workers, medical doctors and nurses, clergy, advocate volunteers, and human service workers (Gentry, Baranowsky & Dunning, 2002; Friedman, 2000; Dunning & Silva, 1980; Follette, Polusny, & Milbeck,

1994; Joinson, 1992; Paton & Violanti, 1996; Riordan, & Saltzer, 1992; Robinson, Sigman, & Wilson, 1997; Schauben & Frazier, 1995). In the course of responding to the personal and community needs triggered by disasters, crisis intervention workers risk exposure to demands of an atypical nature that may result in their experiencing intense and often-persistent traumatic stress reactions (Gentry, Baranowsky & Dunning, 2002; Paton, 1997). The more profound and personal the care provided, the more vulnerable the crisis intervention worker is to developing STS (Gentry, Baranowsky & Dunning, 2002; Cornille & Meyers, 1999). Crisis intervention workers who attend to the needs of suffering people must contend with their own personal feelings for traumatized victims, in addition to their own life stressors (Myers & Wee, 2002b; Schauben & Frazier, 1995). Their work can take place in a context in which the usual support mechanisms of family, partner, or close friends are absent. Furthermore, the culture in the humanitarian community—which may be one of bravado and competition in emergency situations—often does not allow the space for discussing issues such as psychological stress (Salama, 1999). As a result, many crisis intervention workers report STS and eventually consider seeking another career (Sexton, 1999; Chrestman, 1995; Hodgkinson & Shepherd, 1994). Although not all crisis intervention workers report STS, the potential frequency of its occurrence among crisis intervention workers is sufficient to justify further investigation into this complex phenomenon (Valent, 2002; Beaton & Murphy, 1995).

Researchers (e.g., Beaton & Murphy, 1995; Dunning & Silva, 1980; Dyregrov & Mitchell, 1992; Gersons, 1989; Hodgkinson & Shepherd, 1994; Lundin, 1995; O'Rear, 1992) have yet to determine who is most vulnerable to STS. However, empathy is one

factor that appears consistently linked to STS in the literature. Because empathy (i.e., the ability to relate to another person's experience) is a major therapeutic tool to assess and treat trauma, it might also play a key role in the appearance of STS in these workers (Figley, 1995a). There seem to be risks in empathetic engagement with trauma victims. Crisis intervention workers who are repeatedly exposed to accounts of others' fear, pain, injury, and suffering might, in turn, experience anxiety and/or a loss of their own "sense of self" because of their empathetic engagement with others who have experienced a traumatic event (Cornille & Meyers, 1999; Figley, 1995a).

The concept of STS has received increasing attention in the professional literature and has been linked to other similar phenomena (Figley, 2002; Cornille & Meyers, 1999). Diverse nomenclature for STS includes "secondary victimization," "compassion stress," "compassion fatigue," and "vicarious traumatization" (Stamm & Figley, 1998; Figley, 2002). Experiences commonly reported by crisis intervention workers are similar to those related to stress reactions and posttraumatic stress disorder (PTSD). Symptomology may or may not rise to the level of pathology (Valent, 2002; Stamm, 1999). In the literature the term compassion stress is used interchangeably with STS, and compassion fatigue with secondary traumatic stress disorder (STSD). STS or compassion stress is defined as the natural behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other—the stress resulting from helping or wanting to help a suffering or traumatized individual (Baranowsky, 2002; Figley, 1999). STSD (Figley, 1995c), or compassion fatigue is a syndrome of symptoms nearly identical to PTSD (APA, 1994), except exposure to a traumatizing event experienced by one person

becomes a traumatizing event for the second person (Baranowsky, 2002). STSD describes experiences that are so stressful and place such a high demand on the person for change the person's psychosocial resources are challenged sufficiently to create pathology. (Baranowsky, 2002; Figley, 1999; Stamm, 1999).

It should be noted STS is not the same as "burnout," which is commonly associated with daily stress and hassles (Figley, 1999; Faber, 1983; Gentry, Baranowsky & Dunning, 2002). Commonality exists in the symptoms of burnout and STS. Both may result in depression, insomnia, loss of intimacy with friends and family, and both are cumulative (Valent, 2002; Gentry, Baranowsky & Dunning, 2002; Arvay & Uhlemann, 1996). The key difference lies in the cause of the symptoms. STS is the direct result of exposure to the traumatic material of clients, whereas burnout can result from being overwhelmed by work with any client group (Iliffe & Steed, 2000; O'Halloran & Linton, 2000). STS differs from burnout in the extent and nature of its strain, which primarily is due to listening and "absorbing" the cumulative or individual trauma of others (Figley, 2002; Miller, Stiff, & Ellis, 1988). As such, STS manifests in any of a number of ways, some of which include nightmares, avoidance, numbing, a startle response, emptiness, and hypervigilance (Figley, 2002).

This investigation focused on symptoms of STS among crisis intervention workers from four different fields of crisis intervention work: personal care/nurses' aides, disaster relief workers, police officers, and professional counselors. These categories of crisis intervention workers represent a cross section of workers as discussed above who may be vulnerable to the development of STS symptomology (Valent, 2002).

Disaster relief workers are volunteer workers who are trained to handle crisis in acute emergencies. They respond locally or nationally to disasters caused by fires, floods, hazardous materials, or weather emergencies. Their exposure to crisis is intense but usually of short duration. In the course of responding to the personal and community needs triggered by disasters, disaster relief workers risk exposure to demands whose atypical nature may result in their experiencing intense and often-persistent traumatic stress reactions (Paton, 1997).

Police Officers are a group increasingly subject to the effects of STS. Whereas a few years ago police officers concerned themselves mainly with instrumental crimes such as theft, robbery, and assault, today they additionally deal with a multitude of expressive kinds of crime, where individuals pose a serious threat to themselves or others because of their own anger, fear, vulnerability, depression, or other precipitant lack of emotional control (Gilliland & James, 2001). It has been estimated police officers typically spend 80-90% of their work time on order-maintenance activities, many involving crisis intervention (Gilleg, Dumaine, Stammer, Hillard, & Grub, 1990; Luckett & Slaikeu, 1990; Winter, 1991). The changing role of the police officer to include all kinds of crisis calls means the responding officer can never be sure of the situation he or she may encounter (Gilleg et al., 1990; Gilliland & James, 2001; Luckett & Slaikeu, 1990; Winter, 1991).

Personal Care/Nurses' Aides include professionals who work with severely ill or dying patients who require 24-hour care. Personal care aides and nurses' aides are separate job classifications, however they perform very similar duties and are considered

as one group for purposes of this study. These workers may have a vicarious experience similar to that of their patient, coping with the psychological aspects of adjustment and adaptation to disability (Stebnicki, 2000). Personal Care/Nurses' Aides frequently see themselves as involved in one of the most stressful of the crisis intervention professions. These health care providers who work with the dying experience many stressors unique to the specialty, but also many which are common to other health care workers. Included in these are chronic anticipatory grief and loss and the need to grieve and come to closure repeatedly (Fitzgerald, 2002; Riordan & Saltzer, 1992).

Professional counselors work with individuals experiencing the effects of trauma in settings as diverse as schools, corporations, and community agencies. These counselors increasingly are being called upon to assist survivors of violent crime, natural disasters, childhood abuse, torture, and acts of genocide, as well as refugees and war-trauma victims (Brill & Levine, 2002; Sexton, 1999). Professional counselors who listen to reports of trauma and extreme loss can be overwhelmed and may begin to experience feelings of fear, pain, and suffering similar to that of their clients. They may come to need help with healing others trauma experiences (Figley, 2002; Valent, 2002; Pearlman & Saakvitne, 1995a; Wilson & Lindy, 1994b).

Statement of the Problem: Theoretical Rationale

Crisis intervention workers who are trained to care for others often overlook the need for personal self-care and do not apply to themselves the techniques prescribed for their clients (O'Halloran & Linton, 2000). Recommendations for crisis intervention workers to address the potentially debilitating result of working with traumatized clients

have focused on coping strategies or secondary prevention (i.e., early identification and treatment) of traumatic stress more frequently than primary prevention (i.e., preventing the disorder from occurring). In the literature, professional counselors and others who work with trauma victims have been reminded to maintain supervision and a personal support system (Myers & Wee, 2002b; Perlman, 1999), utilize debriefing, monitor caseload for numbers of PTSD clients, and focus on clients' resilience and strengths (Myers & Wee, 2002b; Iliffe & Steed, 2000). Engaging in creative endeavors, rest, and physical and social activities have also been recommended (Valent, 2002; Pearlman, 1995). When used for prevention or wellness, such methods can assist these workers in maintaining their psychological and physical health while treating traumatized individuals. Self-care techniques can reduce the likelihood of STS symptoms developing to harmful proportions (O'Halloran & Linton, 2000). Sawyer (2001), in a survey of 163 team members who participated in traumatic event group psychological debriefings found as self-care activities increased, symptoms of STS decreased. As self-awareness increased, symptoms of STS decreased and as age increased STS symptoms decreased. These results suggest integrating positive self-care behaviors in one's lifestyle, being aware of one's behaviors, thoughts, and emotions, and being older mitigates the effects of being exposed to STS.

Studies in various settings have shown untrained, poorly briefed staff suffer most from stress-related illness (Rowe, 2000; Ursano & McCarroll, 1994). Disaster relief workers do not usually have the advantage of being in a well trained, tightly knit unit with a clear command structure. In addition, training and briefing, particularly with

regard to psychological issues, are generally inadequate. This is particularly pertinent for those organizations that deploy a high proportion of first assignment volunteers. Disaster relief workers are often called upon to perform duties outside their realm of professional competency and experience (Salama, 1999). Traditional mental health training does not address many issues found in disaster-affected population (Federal Emergency Management Agency [FEMA], 1998; Figley, 2002). Training must be designed to prepare staff for the uniqueness of disaster mental health approaches (Myers, 1994). Disaster mental health training should help staff to understand the impact of disaster on individuals and the community. It should provide information about the complex systems and resources in a postdisaster environment; as well as to aid staff in learning about effective community based approaches (Myers & Wee, 2002b). Training for crisis intervention workers should help workers become aware of the phenomenon of STS and provide information on self-care strategies for STS prevention and treatment (Gentry, Baranowski & Dunning, 2002).

A growing body of research supports a modest yet consistent relationship between stress, psychosocial variables, and organizational outcomes in employed men and women (Salama, 1999; Ganellen & Blaney, 1984). Stressors including inadequate training have been strongly associated with low productivity and health problems (Rowe, 2000; Green & Nowack, 1993). An important component of disaster mental health training involves education about potential STS, burnout, stress management, and self-care, which helps to create a work environment in which secondary stress responses are recognized as a

common component of this work so detection and intervention can be facilitated (Dutton & Rubinstein, 1995; Figley, 2002).

STS has become widely recognized, yet efforts to conceptualize it have taken place relatively recently. A great variety of symptoms have been described as well as a great variety of treatments (Valent, 2002). However, there is an absence of empirical data to describe the effectiveness of various proposed means of treatment and prevention (Figley, 1999; Munroe, 1999; Gentry, Baranowsky, & Dunning, 2002; White, 2002). Thus, more research is needed to develop a greater understanding of the causes of STS and to determine the most effective prevention and treatment strategies.

Purpose of the Study

The purpose of this study is to examine differences in STS levels as measured by the compassion fatigue (CF) scores across selected variables related to crisis intervention workers. The variables to be studied include those related to the field (job title) of crisis intervention, the level of experience of the crisis intervention worker, the participation of the crisis intervention worker in stress reducing activities, and the perception of the crisis intervention worker that they have been adequately trained for their particular role in crisis intervention work.

Significance of the Study

The present study is important for developing a better understanding of the factors influencing the experience of STS among crisis intervention workers. Whereas the literature concerning STS in crisis intervention workers is building, it remains in need of additional scientific research (Cornille & Meyers, 1999). Since 1992, the majority of

papers focused on theory of indirect exposure. Two major groups identified as susceptible to developing STS are emergency services personnel and health care/social service providers (Stamm, 1999). This study helps to determine what field of crisis intervention work leaves one most vulnerable to developing STS symptoms (Figley, 2002). It is with the comparison of STS symptoms in demographically diverse crisis intervention workers that this study breaks new ground.

The current research also contributes to the identification of factors that may contribute to protecting the crisis intervention worker from the development of STS symptoms. The analysis of participant responses to questions regarding their years of experience, participation in stress-reducing activities, and their perception of being adequately trained to meet the challenges of their roles, relative to their measured level of STS symptomology, help to identify whether these factors have an effect on the crisis intervention workers' level of STS. The results of this study will contribute to the identification of factors that need to be addressed in the development of STS prevention and treatment programs for crisis intervention workers.

Definitions

The following alphabetical listing is provided to clarify and operationalize the meaning of key terminology used in this study.

Crisis Intervention Workers: Those who aid trauma survivors in a professional capacity, including emergency care workers, police officers, fire-fighters, counselors, psychologists, social workers, disaster relief workers, medical doctors and nurses, clergy, advocate volunteers, and human service workers

Disaster Relief Workers: Volunteer workers trained to handle crises in acute emergencies. They respond locally or nationally to disasters caused by fires, floods, hazardous materials, or weather emergencies. The sample population for this group in this study consisted of members of the Red Cross organization.

Police Officers: Police officers who have general law enforcement duties including maintaining regular patrols and responding to calls for service. They may direct traffic at the scene of a fire, investigate a burglary, or give first aid to an accident victim, etc. They typically spend 80-90% of their work time on order-maintenance activities, many involving crisis intervention.

Perception of adequate training: The perception of the crisis intervention worker that they have been trained adequately to meet the challenges of their particular field of crisis intervention work as reported by worker on the Demographic Disaster/Trauma Work Questionnaire (Appendix D).

Personal Care/Nurses' Aides: Workers in long-term care facilities who are exposed to chronic trauma from their work with severely ill or dying patients who require 24-hour care.

Professional Counselors: Professional counselors having an educational background of at least a master's degree and a license or certification and work with individuals experiencing the effects of trauma. They work in settings as diverse as schools, corporations, and community agencies.

Secondary traumatic stress (STS): The natural behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other—the stress

resulting from helping or wanting to help a suffering or traumatized individual (Figley, 1995a) but not reaching the proportions of clinical pathology. Used interchangeably with: Compassion Stress: Another term for “secondary traumatic stress”

Summary

Researchers increasingly have become aware of a phenomenon that has come to be known as STS (Figley, 2002; Figley, 1995a, 1995b; Marmar, Weiss, Metzler, Ronfeldt, & Foreman, 1996). They have demonstrated people can be secondarily affected by the sufferings of others. Professionals who repeatedly are exposed to accounts of others' fear, pain, injury, and suffering might, in turn, experience anxiety and/or a loss of their own “sense of self” because of their ability to empathize with the plights of others. Workers from a variety of crisis intervention fields and crisis environments are subject to developing STS. Those vulnerable to STS include emergency care workers, police officers, fire-fighters, counselors, psychologists, social workers, medical doctors and nurses, clergy, advocate volunteers, and human service workers (Gentry, Baranowsky & Dunning, 2002; Friedman, 2000; Dunning & Silva, 1980; Follette, Polusny, & Milbeck, 1994; Joinson, 1992; Paton & Violanti, 1996; Riordan, & Saltzer, 1992).

This investigation focused on symptoms of STS among crisis intervention workers from four different fields of crisis intervention work: personal care/nurses' aides, Disaster relief workers, police officers, and professional counselors. The study contributes to developing a better understanding of factors influencing the experience of STS among crisis intervention workers. The results of this study will contribute to the

identification of factors that need to be addressed in the development of STS prevention and treatment programs for crisis intervention workers.

The following review of the literature includes: (a) a review of current research into STS and related phenomena; (b) a review of psychological theories about the nature of trauma, anxiety reactions, and stress-related behaviors; and (c) a review of etiologies and available treatments for STS and related phenomena. All works and studies within these areas have been cited, and all references are included at the end of this paper.

CHAPTER II

LITERATURE REVIEW

This chapter presents a review of the literature regarding Secondary Traumatic Stress (STS) in crisis intervention workers. It includes a review of the development of the understanding of this phenomenon, related concepts, prevalence, and implications for coping with STS.

The purpose of this study was to contribute to developing a better understanding of factors that influence crisis intervention workers' experience of secondary traumatic stress. This study examined the differences in secondary traumatic stress symptomatology in crisis intervention workers by their field of work (job title), their level of experience, their level of participation in stress reducing activities, and their perception of whether they have been adequately trained for their particular role in crisis intervention work.

A Normal Response to Abnormal Circumstances

Secondary traumatic stress (STS) is a developing construct in the field of traumatology—the scientific study of the consequences of traumatic events on humans and society (Figley, 2002; Figley, 1988, 1995a; McCann & Pearlman, 1990a, 1990b; Wilson & Lindy, 1994a, 1994b). Soon after the recognition of traumatization in the late 1970s and early 1980s, it became clear crisis intervention workers can become secondarily affected as a result of their exposure to primary trauma victims (Valent, 2002). Figley (1995a) proposed the concept of STS to describe this phenomenon. STS is defined as the "natural consequent behaviors and emotions resulting from knowing about

a traumatizing event experienced by a significant other and the stress resulting from helping or wanting to help a traumatized or suffering person" (Figley, 1995c, p. xiv). In other words, STS refers to why and how crisis intervention workers, although not directly traumatized, nonetheless become "secondary victims" of their clients' traumas. The phenomenon of STS is most often a result of caring for others who are in emotional pain (Figley, 2002; Cornille & Meyers, 1999; Figley, 1995a, 1995b; Marmar et al., 1996).

STS is expected fatigue and stress that comes from assisting adversely affected or suffering persons (Figley, 1995b; Gentry, Baranowsky & Dunning, 2002). Crisis intervention workers can begin to have feelings of pain, anxiety, depression, and suffering similar to those of their clients. These workers can experience similar trauma symptoms, such as intrusive thoughts, nightmares, and avoidance. They undergo changes in their interactions with the world, themselves, and their family, and can require help and assistance to cope with hearing others' trauma experiences (Figley, 1995a; Pearlman & Saakvitne, 1995a, 1995b; Wilson & Lindy, 1994b; Gentry, Baranowsky & Dunning, 2002; Valent, 2002).

Crisis intervention workers (e.g., counselors, psychologists, psychiatrists, social workers, physicians, disaster relief workers, nurses, police, firefighters, etc.) are especially prone to experiencing STS due to their empathy, integrity, personal sensitivity, and humanistic perspectives—that is, the qualities that make an effective "helper" (Friedman, 2000; Figley, 1995b). It is their natural "helping" values, outlook, and beliefs that are broken by overexposure to victimized persons as well as an absence of relief from the stresses of professional compassion such as not having adequate social support,

clinical resources, and training (Figley, 1995a; Stamm, 1999; Rosenbloom, Pratt, & Pearlman, 1999; Baranowsky, 2002). STS is a normal reaction to an abnormal situation.

Because crisis intervention workers in their roles as helpers and advocates can be indirectly traumatized as a result of compassion for those in harm's way (Figley, 1995b; Baranowsky, 2002), they can easily develop STS. In such cases, they might experience a range of STS symptoms, including intruding images and nightmares, avoidance or numbing of efforts to deal with the traumas, diminished interest in significant activities, detachment, estrangement from others, difficulty falling or staying asleep, irritability or outbursts of anger, difficulty concentrating, hypervigilance, or exaggerated startle response (Figley, 1995c; Figley 2002). These effects pervade both crisis intervention workers' professional and personal life (Pearlman & Saakvitne, 1995b; Figley, 2002). In short, crisis intervention workers are vulnerable to being traumatized by the suffering of others (Danieli, 1988a, 1988b, 1994; McCann & Pearlman, 1990b; Figley, 2002).

A number of other terms are used to describe the phenomenon of STS. Some of the more popular descriptors are vicarious traumatization (McCann & Pearlman, 1989; Pearlman & Saakvitne, 1995a; Valent, 2002; Baranowsky, 2002), secondary victimization (Figley, 1985), co-victimization (Harsough & Myers, 1985), compassion fatigue, compassion stress (Figley, 1989b; Stamm, 1995, Figley, 1999), and secondary survivor (Remer & Elliott, 1998a, 1998b). Miller et al. (1988) used the term "emotional contagion" to describe an affective process in which an individual observing another experiences emotional responses parallel to that person's actual or anticipated emotions.

Conceptualizations

Included in this section is background of the development of the concept of STS, and defines concepts and theories related to the development of understanding of this complex phenomenon. These include empathy and exposure, posttraumatic stress disorder (PTSD), vicarious traumatization, transference and countertransference, and burnout.

Background

The recognition of traumatization and the need for early help for victims took place in the 1970s and early 1980s, with a major milestone in 1980, the inclusion of the diagnosis of posttraumatic stress disorder (PTSD) in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (APA, 1980; Figley, 1995c). This brought order to research in traumatology and since that time the body of literature has grown significantly. However, nearly all of the hundreds of reports focusing on traumatized people lack conceptual clarity, do not adopt the current PTSD nomenclature, and exclude those who were traumatized indirectly or secondarily (Figley, 1999) despite the fact that descriptions of what constitutes a traumatic event indicate mere knowledge of another person's trauma can be traumatizing (APA, 1994). STS is the least studied and understood aspect of traumatic stress (Figley, 1999).

Although the concept of STS has become widely recognized, researchers do not yet understand the exact mechanism for symptom formation (Valent, 2002). In order to make sense of the wide variety of STS symptoms and treatments described over the years, various attempts made within this relatively new literature to conceptualize STS

have enumerated such mechanisms as empathy and exposure, unresolved trauma of the worker, and the provocative nature of children's traumata (Figley, 1999; Figley, 2002). Crisis intervention workers who are survivors of previous traumatic events may harbor unresolved traumatic conflicts. These issues may be provoked as a result of the traumatic experiences of a client (Figley, 1995b; Yassen, 1995; Myers & Wee, 2002b). Children's traumata are provocative for crisis intervention workers. Crisis intervention workers report they are most vulnerable to STS when dealing with the pain of children (Beaton & Murphy, 1995; Figley, 1999; Meyers & Cornille, 2002).

Empathy and Exposure

Empathy, or the ability to relate closely to another person's experience, is suspected to be the most likely cognitive-emotional platform upon which STS develops (Cornille & Meyers, 1999; Figley, 1995a; Figley, 2002). Figley (1995a) theorized that empathy and exposure were at the heart of the reason why some people develop STS. If individuals were not empathetic or were not exposed to the traumatized there would be little concern for STS. Crisis intervention workers are susceptible to STS in part because they are exposed on a regular basis to the extreme intensity of trauma-inducing facts by virtue of the work they do (Figley, 1999). Empathic engagement when working with victims of trauma is needed for effective psychotherapeutic processes to occur (Figley, 2002). At the same time, empathic engagement also makes crisis intervention workers vulnerable to the detrimental effects of STS (Figley, 1999; Baranowsky, 2002). Whereas empathy is necessary in any form of counseling or psychotherapy, it is both more difficult and important to maintain over the course of crisis or trauma work. This is due to

the profound quality of emotional reactions typically elicited in such work (Wilson & Lindy, 1994b).

Posttraumatic Stress Disorder and STS

STS is a syndrome of symptoms nearly identical to PTSD except that exposure to a traumatizing event by one person becomes a traumatizing event for the second person. STS sufferers can experience the full range of intrusive, arousal, and avoidance symptoms that are typical of PTSD sufferers (Figley, 1999; Valent, 2002). The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (*DSM IV*; APA, 1994) clearly explained PTSD is only diagnosable under conditions in which a client has been traumatized either directly (i.e., in harm's way), or indirectly, as a witness to such an event, or learning about such an event experienced by a family member or other close associate. Because STS refers to a transformation in the crisis intervention worker's inner experience resulting from empathic attachment to clients' traumatic material, vulnerability to STS's psychological and physiological effects would seem to preclude a label of PTSD, except by inference (Figley, 1995c). Figley (1999) suggested PTSD should stand for Primary Traumatic Stress Disorder rather than Post Traumatic Stress Disorder, and STSD as Secondary Traumatic Stress Disorder. STS can involve a rapid onset of PTSD-like symptoms, as well as feelings of confusion, helplessness, and isolation from supporters (Figley, 1995a; Figley, 2002). Because STS is a syndrome of symptoms nearly identical to PTSD, the following information about PTSD is provided.

Whereas psychological reactions to trauma have been recognized for centuries and labeled under such diverse names as "combat neurosis," "combat fatigue," and "shell

shock” (Shalev, Bonne, & Eth, 1996), it is only since 1980 that PTSD has been formally recognized as a type of anxiety disorder (Matsakis, 1994). Subsequently, research into PTSD has increased at an exponential rate (Wilson & Lindy, 1994b). According to the APA’s *DSM-IV-TR (1994)* PTSD can result from many types of shocking occurrences. The focus of PTSD is usually one life-threatening event or threat to integrity that transcends the person’s usual experience, but symptomatology can also arise from the accumulation of several less severe incidents rather than a single primary incident. Examples of events that might trigger PTSD in susceptible persons include chronic verbal abuse, physical abuse, sexual abuse, personal violation, bullying, stalking, harassment, domestic battering, rape and torture, exposure to horrific scenes at accidents or fires (e.g., those endured by emergency medical personnel, such as horribly disfigured, mutilated, burnt, or dismembered bodies of children or adults); being the victim of serious crime or violence; learning of the untimely and painful death of a significant other; being a prisoner of war and natural disasters, like floods, earthquakes, and volcano explosions (APA, 1994).

PTSD symptoms may develop in response to “learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associates” (APA, 1994, pp. 424-427). PTSD-like symptoms similar to that of a trauma victim can be experienced in crisis intervention workers as a result of exposure to a traumatizing event of the primarily traumatized person (Baranowsky, 2002).

Vicarious Traumatization

From a slightly different perspective, McCann and Pearlman (1990a) indicated that when crisis intervention workers are unable to comprehend and work through their own responses to “injured” clients, they themselves could become vicarious victims. Vicarious traumatization is the cumulative transformation in the inner experience of the crisis intervention worker that comes about as a result of empathic engagement with the client’s traumatic material (Pearlman & Saakvitne, 1995a; Gentry, Baranowsky & Dunning, 2002). Vicarious traumatization is a constructivist theory in which the individual’s inner experience and worldviews are changed as a direct result of secondary exposure to trauma through his or her work (Pearlman & MacIan, 1995; Baranowsky, 2002). Constructivism is a school of psychology which holds that learning occurs because personal knowledge is constructed by an active and self-regulated learner who solves problems by deriving meaning from experience and the context in which that experience takes place (Corey, 2001). McCann & Pearlman (1996) further identified several essential mental health needs threatened by working with traumatized clients: esteem, safety, intimacy, trust/dependency, independence, frame of reference, and power. They proposed that the unique reactions of professionals are affected by the salience or centrality of the cognitive schemas to themselves. Crisis intervention workers might, for instance, apperceive an enhanced sense of vulnerability, as well as awareness of the fragility of life and/or feelings of powerlessness, despair, or despondency when working intensively with trauma victims (McCann & Pearlman, 1990a).

Countertransference and Transference

Countertransference is connected with psychodynamic theory and is defined as an emotional reaction by a therapist to a client (Freud, 1959). Corey (1991) defined countertransference as the process of seeing oneself in the client, of over-identifying with the client, or of meeting needs through the client. Johansen (1993) suggested a view of countertransference that includes all of the emotional reactions of a therapist toward a patient, irrespective of the source. In empathic engagement with the client, the crisis intervention worker is in attunement and reverberates with client signals and needs in order to evoke adaptive survival strategies that fortify victims. STS responses are evoked in crisis intervention workers through identification with the victim when the crisis intervention worker's survival strategies are insufficient to resolve victim stresses (Valent, 2002). Thus, it could be argued that STS includes, but is not limited to, this view of countertransference. However, it is assumed countertransference happens only in the context of psychotherapy, is a reaction to the transference reactions clients, and is a negative consequence of therapy that should be prevented. STS is a natural consequence of caring between two people, a natural by-product of caring for traumatized people (Figley, 1999; Figley, 2002). Additionally, countertransference applies more generally to working with people with all kinds of problems, not only working with people who have been traumatized (Stamm, 1999).

Burnout

Burnout, or cumulative stress, is the state of physical, emotional, and mental exhaustion caused by a depletion of ability to cope with one's environment resulting from

our responses to the on-going demand characteristics (stress) of our daily lives. It is a process that begins gradually and becomes progressively worse (Maslach, 1982; Gentry, Baranowsky & Dunning, 2002). Burnout is the result of frustration, powerlessness, and inability to achieve work goals. It is characterized by some psychophysiological arousal symptoms, including sleep disturbance, headaches, irritability, and aggression, yet also physical and mental exhaustion. Burnout can result from the noxious nature of work stressors themselves or from hierarchical pressures, constraints, and lack of understanding (Valent, 2002). High levels of cumulative stress in the lives of crisis intervention workers negatively affects their resiliency therefore making them more susceptible to STS (Gentry, Baranowsky & Dunning, 2002).

In contrast to burnout which develops gradually, STS can emerge suddenly and without much warning and implies a specific effect of trauma on the crisis intervention worker, akin to the intrusion and avoidance phenomena of post-traumatic responses in direct trauma survivors, and distinct from “burnout” or other forms of occupational stress (Figley, 1999). In addition, Figley (1995c) notes STS includes a sense of helplessness and confusion; a sense of isolation from supporters; and the symptoms are disconnected from real causes.

The Prevalence of Secondary Traumatic Stress

There is limited research on the prevalence of STS. However, studies conducted to date indicate those who work with the suffering also suffer themselves as a result of their work.

Cornille and Meyers (1999) assessed the prevalence and harshness of STS symptoms among a sample of southern child protection service workers, who ranged in age from 23 to 60 years (mean of 37.6 years). Using the Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1997) and a survey research design, the authors found as many as 37% of the participants reported experiencing clinical levels of psychological distress associated with STS. Moreover, the amount of work-induced personal trauma was found to be positively correlated with the presence of secondary stress symptoms.

In a research study, based on the data analysis of 132 Marriage and Family Therapists (MFT), drawn from those listed in a national association's directory, Lee (as cited in Figley, 2002) found a statistically significant relationship ($r = .20$) between Compassion Fatigue scores (CF) and caseload dissatisfaction. The results indicate CF was significantly correlated with caseload dissatisfaction. The results also indicated MFT professionals experienced Compassion Fatigue higher than medical students but lower than PTSD stress clients did. MFT professionals in the sample reported an average of 63% of their client load was traumatized. However, MFT professionals, as a group, are experiencing only a moderate level of Compassion Fatigue, as measured by the Impact of Events Scale (IES; Horowitz, Wilner, Kaltreider & Alvarez, 1980). The study predicted and found a strong relationship ($r = .34$) between Compassion Fatigue and various cognitions associated with general morale in one's personal and professional life. These results support the relationship between these two variables. There is growing, indirect evidence that perceptions about self-worth (personally and professionally) and the value

of family, friends, community, and other social resources are related to general morale and may impact susceptibility to STS (Figley, 2002).

A study of crisis counselors providing services to persons affected by the Oklahoma City bombing reported the highest proportion of disaster mental health workers with some degree of severity for stress disorder compared to other studies reported in the literature (Myers & Wee, 2002a). Levels of risk for STS in the disaster mental health workers increased with the number of months worked with bombing survivors. This suggests there may be a relationship between the quantity of disaster mental health work performed and STS. It also suggests the need for further research of the impact of disaster crisis counseling on workers providing the counseling, as well as the need for serious attention to be paid to developing effective stress management and prevention programs for these workers (Myers & Wee, 2002a).

Beaton and Murphy (1995) asserted that emergency or first responders and crisis workers may absorb some of the traumatic stress of those they help. By doing so, they are at risk for experiencing STS. Among the negative consequences often not linked to their work include substance abuse and relationship conflicts. This is consistent with the findings of McCammon and Jackson (1995) who reviewed the emergency medical professionals.

Although there is limited research on the prevalence of STS, these studies indicate those who work with the suffering can also suffer themselves as a result of their work. These studies strongly suggest the need for further research of the impact of crisis intervention work on the workers providing services to traumatized individuals, as well

as the need for developing effective stress management and prevention programs for these workers.

Implications for Coping with Secondary Traumatic Stress

According to Figley's (1995a) secondary traumatic stress theory, persons who work directly with or have direct exposure to trauma victims can experience traumatic stress symptoms and disorders. Persons are more likely to suffer from STS when exposed to victim's traumatic material on a regular basis; and persons exposed to children's traumata are especially vulnerable to the noxious side effects of STS (Meyers & Cornille, 2002).

Since the 1970s, professional publications in the field of mental health emergency services have abounded with reports and studies on the effects of trauma intervention on responders (Myers & Wee, 2002a). The high risk for the development of STS in these workers highlights the need for developing effective stress management and prevention programs for these workers (Myers & Wee, 2002a).

Goals of therapy for STS should focus on assisting the crisis intervention worker to process the trauma, come to terms with it, dispute irrational cognitive schemas about the trauma, control bodily and cognitive responses, see the trauma within the larger perspective of one's life, and remain cognizant of and avoid collusive resistance with clients (Beaton & Murphy, 1995; Harris, 1995; Gentry et al., 2002; Myers & Wee, 2002b).

Munroe et al. (1995) emphasized prevention in their team treatment model. These authors recommended a principal factor in preventing STS is strengthening social

networks at work and at home. Developing and maintaining a network of people who can give support during trauma-related work is absolutely imperative (Danieli, 1994; Pearlman & Saakvitne, 1995b; Gentry, Baranowsky & Dunning, 2002). Teamwork is also highly desirable because it offers opportunities for reflection, sharing, and mutual support (Comas-Diaz & Padilla, 1990; Munroe, 1990; Myers & Wee, 2002b). In this way, teams function as a social network for the crisis intervention workers, providing each other with time to work through STS via supportive relationships and emotional validation. As well, teams are able to “absorb” individuals’ trauma by dispersing it among team players as all demonstrate comprehension of individuals’ experiences.

Crisis intervention workers need to realize their own tolerance threshold for exposure to traumatic material, while also keeping confident that any powerfully aversive feelings will eventually subside. Such understanding can assist crisis intervention workers in maintaining empathic engagement, instead of resorting to defensive or resistant countertransference responses (Danieli, 1994; Gentry, Baranowsky & Dunning, 2002).

Another important duty of crisis intervention workers’ professional accountability and self-care is to schedule regular consultation or supervision, irrespective of their level of education or experience (Cerney, 1995; Pearlman & MacIan, 1995; Myers & Wee 2002b). From an ethical perspective, crisis work is far too exacting to continue to do in the absence of supervision. One-on-one and group supervision provides occasions to accept and work through destructive reenactments, appalling accounts, and graphic imagery that are inherent in this type of work (Cerney, 1995). Supervision also provides a

confidential and supportive relationship within which crisis intervention workers are able to process these difficult issues (Pearlman & MacIan, 1995; Myers & Wee, 2002b). If supervision is not available at the work site, off-site arrangements will have to be made (Pearlman & Saakvitne, 1995a; Yassen, 1995).

Crisis intervention workers should be aware their personal history of trauma and other unresolved conflicts are likely to interact harmfully with clients' traumatic material (Danieli, 1994; Meyers & Cornille, 2002). They should also acknowledge that other primary life stressors will make them more susceptible to the consequences of STS (Figley, 1995a; Myers & Wee, 2002). Keeping a personal sense of humor, hope, and realistic optimism in light of clients' traumatic experiences is surely hard, but an essential aspect of being an effective crisis intervention worker (McCann & Pearlman, 1990b; Munroe, 1990; Pearlman & Saakvitne, 1995b; Moran, 2002).

Several authors in the field have also suggested it is important for crisis intervention workers to rely upon their spirituality as a way of handling STS (Follette et al, 1994; Pearlman, 1995). The rationale is faith counteracts the damage STS does to an individual's sense of meaning, hope, and relatedness (Myers & Wee, 2002; Pearlman & Saakvitne, 1995b; Rosenbloom et al., 1995; Yassen, 1995).

Finally, remembering the value, importance, and meaning of working with various populations of trauma survivors can be very restorative. Crisis intervention workers need to remind themselves of why they do this work and how it can benefit the lives of trauma survivors (Pearlman & Saakvitne, 1995b). Attempting to ameliorate the suffering of those who have been victimized in some way can be very satisfying. This

satisfaction serves to sustain crisis intervention workers in their noble work (Comas-Diaz & Padilla, 1990; Miller et al., 1988; Neumann & Gamble, 1995; O'Rear, 1992; Pearlman & Saakvitne, 1995a; Stamm, 2002).

Summary

This chapter presented a review of important literature on STS as it relates to crisis intervention workers. The background of theories and concepts related to the development of the understanding of this complex phenomenon as well as contrasts between STS and other concepts were discussed. Examples of research to date regarding the prevalence of STS among crisis intervention workers were reviewed; and implications for the treatment and prevention of STS symptoms in these workers were discussed. Chapter three presents the methodology and procedures employed to conduct this study.

CHAPTER III

METHOD

This chapter reviews the purpose and design of the study. The research questions and hypotheses are presented. The participants, materials, instruments, procedures, and data analysis are described.

The purpose of this study is to determine whether differences exist in secondary traumatic stress (STS) symptomology of crisis intervention workers in relation to their: (a) field of work, (b) years of experience, (c) participation in stress reducing activities, and (d) perception that they have been adequately trained to meet the challenges of their role in crisis intervention work. STS symptomology is measured as Compassion Fatigue (CF) by responses to questions on the Compassion Satisfaction and Fatigue Test (CSF; Stamm, 2002).

The current study used analysis of variance (ANOVA) to study a sample of 206 crisis intervention workers having representative demographic profiles, drawn from four different crisis intervention fields (personal care/nurses' aides, disaster relief workers, police officers, and professional counselors). Evidence of STS symptoms among crisis intervention workers was determined by scores on the Compassion Satisfaction and Fatigue Test (CSF; Stamm & Figley, 1998; see Appendix E). Demographic variables were assessed on the Demographic/Trauma Work Questionnaire (designed by researcher for purpose of this study; see Appendix D).

Research Questions and Hypotheses

The investigation of the study's problem statement included examination of three research questions and the testing of hypotheses related to each.

Research Question 1: What is the difference in the levels of reported compassion fatigue based on an individual's field of crisis intervention work?

Hypothesis 1: There is a statistically significant difference of mean scores on the Compassion Fatigue Subscale (CF), as measured by the Compassion Satisfaction and Fatigue Test (CSF), between four crisis intervention fields (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors).

Statistical Procedure: One-way ANOVA.

Research Question 2: What is the difference in the levels of reported compassion fatigue based on an individual's field and level of experience in the field of crisis intervention work?

Hypothesis 2: There is a statistically significant difference of mean scores on the Compassion Fatigue Subscale (CF), as measured by the Compassion Satisfaction and Fatigue Test (CSF), between four crisis intervention fields (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors) and the reported level of experience in the field of crisis intervention work (0-2 years = low, 3-10 years = moderate, more than 10 years = high).

Statistical Procedure: Two-way ANOVA.

Research Question 3: What is the difference in the levels of reported compassion fatigue based on an individual's field and their participation in stress reducing activities?

Hypothesis 3: There is a statistically significant difference of mean scores on the Compassion Fatigue Subscale (CF), as measured by the Compassion Satisfaction and Fatigue Test (CSF), between four crisis intervention fields (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors) and the reported level of participation in stress reducing activity (low, moderate, high).

Statistical Procedure: Two-way ANOVA.

Research Question 4: What is the difference in the levels of reported compassion fatigue based on an individual's field and their belief of having received adequate training to meet the challenges of disaster and trauma work?

Hypothesis 4: There is a statistically significant difference of mean scores on the Compassion Fatigue Subscale (CF), as measured by the Compassion Satisfaction and Fatigue Test (CSF), between four crisis intervention fields (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors) and the belief they were adequately trained to meet the challenges of disaster and trauma work (little training, adequate training, well trained).

Statistical Procedure: Two-way ANOVA.

Participants

A convenience sample of volunteer participants for this study consisted of 206 crisis intervention workers who were employed in four different crisis intervention professions. The four professions include the personal care/nurses' aides, disaster relief workers, police officers, and professional counselors. These groups represent a cross section of individuals who work with people experiencing a crisis situation. Participants

for the study were contacted personally by professional colleagues of the researcher. Persons who were currently engaged in any one of the fields of crisis intervention work to be studied were asked to participate. No other criteria were set for participation. The sampling method used enabled the researcher to select individuals who are part of the population to be studied (i.e., persons currently engaged in a form of crisis intervention work). The disadvantage to this method is there is less likelihood the sample is truly representative of the larger population because an unknown portion of the population is excluded (e.g., those who did not volunteer), since the researcher used whatever individuals were available rather than selecting from the entire population. (Neuman, 1997).

Disaster relief workers are volunteers who are trained to handle crises in acute emergencies. They respond locally or nationally to disasters caused by fires, floods, hazardous materials, or weather emergencies. Their exposure to crisis is intense but usually of short duration. The sample population for this study included Red Cross disaster relief workers working in a two-county area of southwestern Pennsylvania.

Police Officers are patrol officers concerned mainly with instrumental crimes such as theft, robbery, and assault, who additionally deal with a multitude of expressive kinds of crime, where individuals pose a serious threat to themselves or others. These officers typically spend 80-90% of their work time on order-maintenance activities, many involving crisis intervention (Gilleg et al., 1990; Lockett & Slaikou, 1990; Winter, 1991). Participants for this study were drawn from two large urban areas in a mid-Atlantic state.

Personal Care/Nurses' Aides include professionals who work with severely ill or dying patients who require 24-hour care. The sample population for this study included hospice caregivers and nursing home caregivers working in a two-county area of southwestern Pennsylvania.

Professional counselors work with individuals experiencing the effects of trauma in settings as diverse as schools, corporations, and community agencies. They have an educational background of at least a master's degree (Zastrow, 2000). The population for this study included professional counselors working in a two-county area of southwestern Pennsylvania.

Participants were included in the study when they met the following criteria: (a) agreed to participate in the study, (b) signed the informed consent form (Appendix B), and (c) completed the Compassion Satisfaction and Fatigue Test (CSF) and Demographic/Trauma Work Questionnaire (Appendices E & D).

Instrumentation

The study used testing instructions (Appendix A), a consent form (Appendix B), debriefing statement (Appendix C), and two measurement instruments (Appendices D & E). The consent form explained the study, including a debriefing statement which delineated the positive and negative aspects of participating in this study, policies on confidentiality and debriefing, and possible damaging emotional effects of participating in this study (Appendix B). The debriefing statement included the name and phone number of counselors or psychologists to contact in the event of a crisis resulting from participation (see Appendix C for a copy of this form).

The 24-item Demographic/Trauma Work Questionnaire (Appendix D) was designed by the researcher for purposes of this study. This demographic questionnaire asked respondents their gender, age, education, type of worker, as well as questions about debriefing processes, stress-reducing activities, training, and hours worked (Appendix D).

The 66-item Compassion Satisfaction and Fatigue Test (CSF; Stamm & Figley, 1998; Appendix E) is a two-page paper and pencil test designed to identify people who suffer from secondary traumatic stress (STS) symptoms. The questionnaire contains three subscales: (a) compassion fatigue (CF), (b) burnout (BO), and (c) compassion satisfaction (CS). The CF subscale measures risk for STS and consists of 23 items (see CSF Scoring Instructions, Appendix F). Potential scores for CF subscale can range from 0-115. Respondents scoring 0-26 are considered to be at very low risk for developing STS, 27-30 at low risk, 31-35 at moderate risk, 36-40 at high risk, and 41+ at very high risk. The entire test takes 30 minutes or less to complete, and reads at a fifth grade level. The test works in either individual or group settings for both men and women.

The psychometric properties of the CSF were tested by using a pooled sample of 374 persons drawn from several researchers' raw data from multiple countries (Stamm, 2002). Data were collected from among South African bank workers trained as debriefers for bank robberies, caregivers from various mental health agencies in South Africa, and rape crisis workers in Canada. Multivariate analysis of variance did not provide evidence of differences based on country or origin, field of work, or sex when age was used as a control variable. Result yielded overall alphas ranging from .87 to .90, which indicates that the subscales have a high internal consistency and are reliable. These findings are

consistent with the findings of Figley and Stamm (1996) who reported reliabilities of .85 to .94 on a sample of 142 psychotherapy practitioners.

Minimal reliability and validity data exist for this instrument (Stamm, 2000). Measures for STS symptomology including the CSF are in the early stages of development; thus they have not been normed or validated adequately (Stamm, 2002). Thus, it remains open to question whether the CSF Test is a good measure of the constructs it seeks to test. However, no measure exists with which to gauge the accuracy of the CSF test (Stamm, 2002).

Procedures

This study was conducted through the support of the graduate counselor education department of the sponsoring university. At the beginning of the study, testing instructions (Appendix A), the informed consent form (Appendix B), debriefing statement (Appendix C), and measurement instruments (Appendices D & E) were reviewed and approved by representatives of the Duquesne University Institutional Review Board. As part of the study's "research packet," information was presented on the purpose and methods of the study to all potential participants. Confidentiality, the ability to freely withdraw from the study at any time, and the requirement for signed informed consent were thoroughly covered in the informational packet provided to all potential participants.

All participants in the study were guaranteed anonymity by use of assigned code numbers. When the data was recorded onto statistical data sheets, only the coded numbers were used in order to protect the identity and privacy of participants.

Participants recorded their name on the consent papers only. To ensure anonymity, they wrote their codes on the testing instruments.

The research team for this study consisted of the author and two graduate student administrative assistants. Participants for the study were recruited by professional colleagues of the research team. These recruiters were not affiliated with the crisis intervention workers' employer or volunteer organization. The researcher or his assistants personally presented each participant with a packet containing the consent form (Appendix B), testing instructions (Appendix A), debriefing statement (Appendix C), and two questionnaires (Appendices D & E) at an agreed upon time and location for various groups of participants. The testing instructions (Appendix A) letter thanked the respondents for their participation in the study, briefly outlined instructions, included an assurance of confidentiality and anonymity for the respondents, and provided encouragement to contact the researcher with any questions before beginning. The consent form (Appendix B) outlined the purpose of the study, risks and benefits associated with the study, and information related to compensation, availability of summary results, right to withdrawal, confidentiality, and voluntary consent. Approximately 30 minutes was necessary for participants to complete all items on the questionnaires. Participants completed the forms and returned the packet to the researcher or his assistant at the time of meeting. The participants were not compensated for their participation in the study.

Research Design and Data Analysis

An exploratory univariate research design (Neuman, 1997) was used for this study in order to investigate whether levels of STS in crisis intervention workers co-exist with various factors that were hypothesized to effect STS levels in these workers. The participants in the sample were in pre-existing groups as a result of their background in crisis intervention work. This study measured the level of STS symptomology in workers first by their field of work, second by their field of work and level of experience, third by their field of work and participation in stress-reducing activities, and last by their field of work and perception of adequate training to meet the challenges of their role in crisis intervention work.

The primary statistical approach for this study involved analysis of variance (ANOVA). The ANOVA is a hypothesis testing procedure to measure differences on a dependent variable (e.g., STS) by two or more treatments or groups (e.g., fields, gender, or participation). The ANOVA utilizes the sample data to make inferences about populations. Conceptually, the goal of analysis of variance is to ascertain the degree of variability in groups of data as well as to determine if the variability is greater “between” groups than “within” groups (Evans, 1996). ANOVA is concerned with differences between means of groups. The name analysis of variance comes from the way the procedure uses variances to decide whether the means are different. The ANOVA procedure determines what the variation is *within* the groups, then works out how that variation would translate into variation (i.e., differences) *between* the groups, taking into

account how many subjects there are in the groups. If the observed differences are larger than would occur by chance, there is statistical significance (Hopkins, 2000).

A two-way (factorial) ANOVA can show whether there are significant main effects of the independent variables and whether there are significant interaction effects of the independent variables in a set of data. Interaction effects occur when the impact of one independent variable depends on the level of the second independent variable.

The data analysis occurred in two sections. The first section is a description of the Demographic Disaster Trauma Work Questionnaire responses. The description includes the means, standard deviations, frequencies and percentages for all variables, where appropriate. Second, the research questions examine differences in the continuous CF (i.e., STS level) as the dependent variable by the categorical independent variables including field of worker, level of experience of worker, participation in stress-reducing activities, and perception of adequate training to meet the challenges of their role in crisis intervention work. The first research question was addressed by a one-way ANOVA, with the CF score (i.e., STS) as the dependent variable and field of the worker as the independent variable. The remaining research questions were addressed by two-way ANOVA. In each of the two-way ANOVAs performed, the CF score (i.e., STS) represented the dependent variable and field of worker as the first independent variable in conjunction with a second independent variable related to each research question further described below. Because no statistical significance was found, post hoc analysis was not performed. Additionally, alpha level set to $<.05$ and large sample size were sufficient to avoid a type II error.

Field of Worker and Level of Experience

The second research question included the level of STS (CF score) as the dependent variable measured against the participants' field of work (job title) and level of experience of the worker as independent variables. A two-way ANOVA determined whether CF scores differed by field of worker (personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors) and level of experience (under 2 years vs. 3-10 yrs. vs. over 10 years).

Field of Worker and Stress-Reducing Activity Participation

To investigate the question of whether participation in stress-reducing activities reduced the level of STS symptoms in crisis intervention workers, the sample was grouped by field and level of participation in stress-reducing activities. The participants rated five stress-reducing activities (reading, hobbies, counseling, socializing, exercise) from never participating in them (rated as "1") to usually participating in them (rated as "5"). All of the respondent ratings were arranged from lowest to highest, and trichotomized into low participation (0-14), moderate participation (15-17) and highest participation (18-25). A two-way ANOVA examined differences on CF by group, with STS as the dependent variable and field of worker and level of stress-reducing activity participation as the independent variables.

Field of Worker and Perception of Adequate Training

In order to address the question of whether perception of adequate training of crisis intervention workers affects the level of STS symptomology, the sample was grouped by field (personal care/nurses' aides vs. disaster relief workers vs. police officers

vs. professional counselors) and level of perceived adequacy of training. Perception of adequacy of training included three groupings: those who felt they had little training to meet the challenges of their role in crisis intervention work, those who felt they were adequately trained, and those who felt they were well trained to meet those challenges. A two-way ANOVA then determined whether CF scores as the dependent variable differed by field and levels of perceived adequacy of training (little vs. adequately vs. well) as independent variables.

Summary

In this chapter, the research questions, participants, instrumentation, research design, procedures, and data analysis were described. The following chapter addresses the results of the data analysis.

CHAPTER IV

RESULTS

This chapter presents a description of the data gathered from the demographic questionnaire and Compassion Satisfaction and Fatigue Test (CSF), as related to this study's research questions. The purpose of this study was to examine differences in selected groups of crisis intervention workers with respect to their individual experiences of compassion fatigue as determined by scores on a measure of self-reported symptoms.

The data analysis occurred in two sections. The first section is a description of the Demographic Disaster Trauma Work Questionnaire responses. The description includes the frequencies and percentages for variables, where appropriate. Second, the research questions examine differences in the Compassion Fatigue (CF) score (i.e., STS level) as the dependent variable by the categorical independent variables. The independent variables included field of worker, level of experience of worker, participation in stress-reducing activities, and perception of adequate training to meet the challenges of their role in crisis intervention work. Descriptive information was computed using frequency, means, and percentages to describe the results of the research questions studied. Analysis of Variance (ANOVA) was used to analyze the differences between demographic variables and personal responses. The criterion for the rejection of each data set's null hypothesis was set at an alpha level of $<.05$.

Demographics of Participants

Two hundred and six crisis intervention workers participated in this study. Fifty-eight (28.2%) were personal care/nurses' aides, 47 (22.8%) were disaster relief workers,

44 (21.4%) were police officers, and 57 (27.7%) were professional counselors. For those who responded, 113 (59.5%) indicated that they were paid, 43 (22.6%) were volunteer, and 34 (17.9%) identified themselves as both paid and volunteer crisis intervention workers. Ninety-two (45.1%) were male and 113 (54.9%) were female. All respondents were adults ranging in age from 18 years to 65+ years. Average age of respondents was 39 years. Table 1 describes the frequency and percent of the ages of these participants.

Table 1
Frequency and Percent of the Age Groups

Age	Frequency	Percent
18-24	24	11.7
25-34	57	27.8
35-44	57	27.8
45-54	44	21.5
55-64	20	9.8
65+	3	1.5

Note. One participant did not indicate an age.

Table 2 shows the cultural identification of the participants. Over half ($n = 110$, 58.8%) were European-American. Table 3 shows the education level of the workers. Fifty-one (25%) had a graduate degree and most individuals completed at least some college. Table 4 shows the respondents' estimated annual income. About a third earned under \$30,000, a third earned \$30,000-50,000, and a third earned more than \$50,000.

Table 5 shows the number of years participants were involved with their current organization; most ($n = 47, 22.8\%$) were with their organization 2-5 years.

Table 2
Frequency and Percent Cultural Identification

Culture	Frequency	Percent
African American	18	8.7
Asian American	5	2.4
Euro-American	110	53.4
Latin-American	1	0.5
Native American	19	9.2
Other	34	16.5
Missing	19	9.2

Table 3
Frequency and Percent of Education Level

Education	Frequency	Percent
Less than High School	1	0.5
HS diploma or GED	33	16.0
Some college	34	16.5
Associate degree	22	10.7
Bachelors degree	38	18.4
Graduate degree	51	24.8
Post-graduate degree	11	5.3
Missing	16	7.8

Table 4
Frequency and Percent of Annual Income Group

Income	Frequency	Percent
Under \$10,000	10	4.9
\$10,000-29,999	51	24.8
\$30,000-49,999	73	35.4
\$50,000-79,000	51	24.8
\$80,000-99,999	11	5.3
\$100,000 and over	2	1.0
Missing	8	3.9

Table 5
Frequency and Percent of Number of Years Involved With Current Organization

Years	Frequency	Percent
0-6 months	18	8.7
6 months – 2 years	37	18.0
2-5 years	47	22.8
5-10 years	42	20.4
10-15 years	19	9.2
15+ years	41	19.9
Missing	2	1.0

The Compassion Satisfaction and Fatigue Test (CSF) measured risk for or evidence of symptomology of STS in respondents, referred to as Compassion Fatigue (CF) in the measure. Respondents scoring 0-26 were considered to be at very low risk for developing STS, 27-30 at low risk, 31-35 at moderate risk, 36-40 at high risk, and 41+ at very high risk. Of the total sample, 45% scored in the extremely low risk range, 12% in the low risk range 16%, in the moderate risk range, 8% in the high risk range, and 19% in the very high risk range.

Findings in Relation to the Research Questions

This section presents the results of the variables associated with the research questions. Each research question is answered individually and descriptive statistics are

offered to support the findings. A narrative explanation and tables demonstrating the results are included with each research question.

1. The Field (Job Title) of the Crisis Intervention Worker

Research Question 1: What is the difference in the levels of reported compassion fatigue based on an individual's field of crisis intervention work?

Hypothesis 1: There will be a statistically significant difference of mean scores on the Compassion Fatigue Subscale (CF), as measured by the Compassion Satisfaction and Fatigue Test (CSF), between four crisis intervention fields (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors).

Table 6 shows the frequency and percentage of field of crisis intervention work as well as the means and standard deviations of CF by field of work. A one-way ANOVA was used to examine whether CF scores differed by crisis intervention worker group (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors). The ANOVA was not significant, $F(3, 201) = 1.83, p = .07$.

Table 6
Frequency, Percent, and Mean and Standard Deviation CF Scores by Field of Work

Field	N	Percent	M	SD
Personal Care/ Nurses' Aides	58	28.2	32.33	14.91
Disaster Relief Workers	47	22.8	27.32	12.34
Police Officers	44	21.4	29.52	11.68
Professional Counselors	57	27.7	27.70	10.35

2. The Field (Job Title) and Level of Experience of the Crisis Intervention Worker

Research Question 2: What is the difference in the levels of reported compassion fatigue based on an individual's field and level of experience in the field of crisis intervention work?

Hypothesis 2: There will be a statistically significant difference of mean scores on the Compassion Fatigue Subscale (CF), as measured by the Compassion Satisfaction and Fatigue Test (CSF), between four crisis intervention fields (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors) and the reported level of experience in the field of crisis intervention work (0-2 years = low, 3-10 years = moderate, more than 10 years = high).

Table 7 shows the frequency and percent of experience level. Of those who responded 21.4% had a low level of experience, 38.3% moderate level, 32.5% a high level of experience, with 7.8% not responding. Table 8 shows the mean and standard deviation CF scores by field of work and experience level.

A two-way ANOVA examined if CF scores differed by field and the years of experience of the respondents (0-2 years = low, 3-10 years = moderate, more than 10 years = high). Difference on CF by group (low vs. moderate vs. high) was not significant. Table 9 shows that there was no main effect on CF by field, experience, nor a significant interaction between field of crisis intervention work and reported experience.

Table 7
Frequency and Percent of Experience Level

Experience	Frequency	Percent	Valid percent
Low	44	21.4	23.2
Moderate	79	38.3	41.6
High	67	32.5	35.2
Total	190	92.2	100.0
Missing	16	7.8	
Total	206	100.00	

Table 8
Mean and Standard Deviation CF Scores by Field and Experience Level

Field	Exp	Mean	SD	N
Personal Care/Nurses' Aides	Low	33.42	16.43	12
	Mod	36.81	14.81	21
	High	30.07	13.16	14
	Total	33.94	14.74	47
Disaster Relief Workers	Low	25.25	12.31	12
	Mod	30.13	13.89	23
	High	24.64	8.26	11
	Total	27.54	12.38	46
Police Officers	Low	-	-	-
	Mod	28.62	15.94	13
	High	29.77	8.82	30
	Total	29.42	11.25	43
Professional Counselors	Low	30.25	10.68	20
	Mod	25.27	9.05	22
	High	29.58	11.96	12
	Total	28.07	10.42	54
Total	Low	29.75	12.95	44
	Mod	30.31	13.81	79
	High	28.96	10.31	67
	Total	29.70	12.42	190

Note. Descriptive Statistics; Dependent variable = CF; Independent variables = Field and Level of Experience (low, mod, high). - indicates no such responses.

Table 9
ANOVA on CF by Field and Experience Level

Source	df	F	p
Field (F)	3	2.40	.07
Exp (E)	2	0.31	.74
F x E	6	1.21	.31
Error	179	(150.65)	

Note. Value in parenthesis represent mean square error.

3. The Field (Job Title) and Level of Participation in Stress-Reducing Activities of the Crisis Intervention Worker

Research Question 3: What is the difference in the levels of reported compassion fatigue based on an individual's field and their participation in stress reducing activities?

Hypothesis 3: There will be a statistically significant difference of mean scores on the Compassion Fatigue Subscale (CF), as measured by the Compassion Satisfaction and Fatigue Test (CSF), between four crisis intervention fields (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors) and the reported level of participation in stress reducing activity (low, moderate, high).

The participants rated five stress-reducing activities (reading, hobbies, counseling, socializing, exercise) from never participating in them (rated as "1") to usually participating in them (rated as "5"). All of the respondent ratings were arranged from

lowest to highest, and trichotomized into low participation (5-14), moderate participation (15-17) and highest participation (18-25). Table 10 shows the frequency and percent of stress reducing activity level. Thirty-five and four-tenths percent (35.4%) of respondents had low participation, 35.0% moderate participation, 28.6% high participation, with 1% not responding. Table 11 shows mean and standard deviation CF scores by field and stress reducing activity. A two-way ANOVA examined if CF scores differed by whether respondents enjoyed a number of stress reducing activities (reading, hobbies, counseling, socializing, exercise). An ANOVA examining differences on CF by group (low vs. moderate vs. high) was not significant. Table 12 shows that there was no main effect on CF by field, stress reducing activity, nor a significant interaction.

Table 10
Frequency and Percent of Stress Reducing Activity Level

Stress Reducing Activity	Frequency	Percent	Valid percent
Low	73	35.4	35.8
Moderate	72	35.0	35.3
High	59	28.6	28.9
Total	204	99.0	100.00
Missing	2	1.0	
Total	206	100.00	

Table 11
Mean and Standard Deviation CF Scores by Field and Stress Reducing Activity

Field	Activity Level	M	SD	N
Personal Care/Nurses' Aides	Low	33.00	14.47	25
	Mod	28.30	11.13	20
	High	37.92	19.16	13
	Total	32.48	14.82	58
Disaster Relief Workers	Low	26.80	13.39	15
	Mod	27.21	15.08	14
	High	27.88	9.99	16
	Total	27.31	12.59	45
Police Officers	Low	28.27	11.28	15
	Mod	29.85	11.97	20
	High	29.00	10.85	9
	Total	29.14	11.28	44
Professional Counselors	Low	24.83	5.43	18
	Mod	26.94	11.24	18
	High	30.81	12.22	21
	Total	27.70	10.35	57
Total	Low	28.74	12.13	73
	Mod	28.18	12.03	72
	High	31.31	13.55	59
	Total	29.28	12.53	204

Note. Descriptive Statistics; Dependent variable = CF; Independent variables = Field and Level of Stress-Reducing Activity (low, mod, high)

Table 12
ANOVA on CF by Field and Stress Reducing Activity

Source	df	F	p
Field (F)	3	2.42	.07
Stress (S)	2	1.32	.27
F x S	6	0.67	.68
Error	192	(155.32)	

Note. Value in parenthesis represent mean square error.

4. The Field (Job Title) and Perceived Adequacy of Training of the Crisis Intervention Worker to Meet the Challenges of Disaster and Trauma Work

Research Question 4: What is the difference in the levels of reported compassion fatigue based on an individual's field and their belief of having received adequate training to meet the challenges of disaster and trauma work?

Hypothesis 4: There will be a statistically significant difference of mean scores on the Compassion Fatigue Subscale (CF), as measured by the Compassion Satisfaction and Fatigue Test (CSF), between four crisis intervention fields (i.e., personal care/nurses' aides vs. disaster relief workers vs. police officers vs. professional counselors) and the

belief they were adequately trained to meet the challenges of disaster and trauma work (little training, adequate training, well trained).

Table 13 shows frequency and percent of training level. Of the population sampled 15% indicated they believed they were little trained to meet the challenges of their work, 33.6% believed they were adequately trained, 49.5% believed they were well trained, with 1.9% not responding. Table 14 shows mean and standard deviation CF scores by field and training level. When asked about their training to meet the challenges of work, respondents had a mean of 3.51 (SD = .94), indicating a score of adequately to well trained. When asked how often they perform responsibilities beyond what they were trained for, they had a mean of 3.28 (SD = 1.04), indicating they sometimes perform such responsibilities. A two-way ANOVA shows that there was no main effect on CF by field, training, nor a significant interaction (see Table 15).

Table 13
Frequency and Percent of Training Level

Training Adequacy	Frequency	Percent	Valid percent
Little	31	15.0	15.3
Adequate	69	33.6	34.2
Well	102	49.5	50.5
Total	202	98.1	100.0
Missing	4	1.9	
Total	206	100.0	

Table 14
Mean and Standard Deviation CF Scores by Field and Training Level

FIELD	Training	Mean	SD	N
Personal Care/Nurses' Aides	Little	30.47	13.97	15
	Adequate	31.48	14.90	21
	Well	34.82	15.66	22
	Total	32.48	14.82	58
Disaster Relief Workers	Little	27.50	9.68	4
	Adequate	28.90	12.19	5
	Well	27.72	12.75	36
	Total	27.93	12.24	45
Police Officers	Little	24.33	8.74	3
	Adequate	29.90	10.08	20
	Well	29.10	12.85	21
	Total	29.14	11.28	44
Professional Counselors	Little	29.44	8.58	9
	Adequate	27.22	11.04	23
	Well	28.17	10.74	23
	Total	27.98	10.40	55
Total	Little	29.19	11.34	31
	Adequate	29.48	12.04	69
	Well	29.64	13.15	102
	Total	29.52	12.45	202

Note. Descriptive Statistics; Dependent variable = CF; Independent variables = Field and Level of Training (little, adequate, well)

Table 15
ANOVA on CF by Field and Training

Source	df	F	p
Field (F)	3	1.20	.31
Training (T)	2	0.22	.80
F x T	6	0.29	.94
Error 190	(158.32)		

Note. Value in parenthesis represent mean square error.

Summary

This study looked at the level of STS symptomology (CF) in relation to demographic variables (i.e., field of work, years of experience, participation in stress reducing activity, and perception of adequate training). ANOVAs determined there was neither main effect nor significant interaction on CF scores by field of worker, by field of worker and experience level, by field of worker and stress reducing activity, by field of worker and perceived adequacy of training. The following chapter presents a discussion of the results provided of the study.

CHAPTER V

DISCUSSION

This chapter includes a discussion of the results provided in the previous chapter, implications and limitations of this investigation, and suggestions for future research.

This study was designed to contribute to developing a better understanding of factors that influence crisis intervention workers' experience of secondary traumatic stress (STS). The pool of participants for this study consisted of crisis intervention workers who were employed in four different fields of crisis intervention work (i.e., personal care/nurses' aides, disaster relief workers, police officers, and professional counselors). These groups represented a cross section of individuals who worked with people experiencing a crisis situation.

This investigation used Analysis of Variance (ANOVA) to examine whether differences existed in the mean scores on the Compassion Fatigue Subscale (CF), of the Compassion Satisfaction and Fatigue Test (CSF; Appendix E) across field (job title) of crisis intervention workers (i.e., personal care/nurses' aides, disaster relief workers, police officers, and professional counselors). This study also examined whether differences in mean CF scores existed by the worker's level of experience, participation in stress-reducing activities, or perception of adequate training, and whether an interaction effect existed with field of work and these variables.

The Compassion Satisfaction and Fatigue Test (CSF) measured risk for or evidence of symptomology of STS in respondents, referred to as Compassion Fatigue (CF) in the measure. Respondents scoring 0-26 were considered to be at very low risk for

developing STS, 27-30 at low risk, 31-35 at moderate risk, 36-40 at high risk, and 41+ at very high risk. Of the total sample, 45% scored in the extremely low risk range, 12% in the low risk range 16%, in the moderate risk range, 8% in the high risk range, and 19% in the very high risk range.

The second measure was the 24-item Demographic/Trauma Work Questionnaire, designed by the researcher for purposes of this study (Appendix D). This questionnaire asked respondents their field of work, experience, stress-reducing activities, and training, as well as questions about gender, age, income, and education.

The primary statistical approach for this study involved analysis of variance (ANOVA). The goal of analysis of variance was to ascertain the degree of variability in groups of data, as well as to determine if the variability was greater “between” groups than “within” groups. (Evans, 1996). The alpha level was set at $< .05$. The investigation of the study’s problem statement included examination of four research questions and the testing of hypotheses related to each. Analyses were conducted with the sample grouped by their field of work, then regrouped by field and level of experience, by field and level of participation in stress-reducing activities, and, finally, by field and perceived adequacy of training.

The data collected and analyzed to answer research questions in this investigation did not indicate these factors significantly affected levels of STS in crisis intervention workers. Contrary to the hypothesis, no statistical significance was found to indicate a difference in level of STS symptomatology in crisis intervention workers in relation to their field of crisis intervention work. Nor was statistical significance found to support

the hypotheses that level of experience or participation in stress-reducing activities reduced the level of STS symptomatology. Additionally, no statistical significance was found to support the hypothesis that level of training affected the level of STS symptomatology.

Factors suspected to affect the level of STS in crisis intervention workers chosen for this study were field of work, level of experience, participation in stress reducing activities, and level of training. The lack of statistical significance found in the analyses conducted would, on the surface, seem to indicate that neither the field of crisis intervention work performed, nor the level of experience or stress-reducing activities of the worker, nor the perception of adequate training for their role in crisis intervention work had bearing on the workers susceptibility to or experience of STS symptomatology. This would be an unexpected conclusion given that past research findings seemed to support the idea that adequate self-care (O'Halloran & Linton, 2000; Sawyer, 2001), experience and training (Green & Nowack, 1993; Ursano & McCarroll, 1994), and effective support systems (Perlman, 1999) do reduce the likelihood of developing STS symptoms in those working with trauma victims.

Other factors or a combination of these and other factors may account for the accumulation of STS. Factors that may increase the likelihood of STS symptoms development could include crisis intervention workers personal trauma history (Danieli, 1994; Meyers & Cornille, 2002), heavy case load (Myers & Wee, 2002b; Iliffe & Steed, 2000; Chrestman, 1995), and lack of professional support system (Myers & Wee, 2002b). Factors that may lessen or prevent STS symptom development could include adequate

supervision and a personal support system (Myers & Wee, 2002b; Perlman, 1999), self-awareness (Baranowski & Dunning, 2002; Sawyer, 2001; Gentry), and engaging in creative endeavors, rest, and social activities (Valent, 2002; Pearlman, 1995).

These preventative factors are sometimes referred to in research and literature as resiliency factors or hardiness (Tedeschi & Calhoun, 1995). They may act as a buffer against STS when they exist in concert, thus it may be difficult to measure their effects on STS individually. Hardiness is a buffer against stress and is associated with appraisals of threat that minimize emotional distress and promote active attempts at coping. (Tedeschi & Calhoun, 1995). Inherent in the ability to be resilient is the concept of self-efficacy and high self-esteem. The ability to be successful, such as in efforts to help people in trauma situations can have the effect of building self-esteem and one's belief that they can make a positive difference.

Characteristics that may help persons become resilient include but are not limited to family support, caring neighborhoods, positive peer interaction and influence, creative activities, religious community, caring, integrity, honesty, and responsibility (Gentry, Baranowski & Dunning, 2002; Moran, 2002; Pearlman, 1995). Other important characteristics are maintaining a sense of humor, use of spirituality, and a willingness to recognize and reduce emotional distress. The opportunity and ability to vent feelings and frustration to family, friends, and co-workers can play a role in reducing stressful emotions. This is sometimes referred to as natural debriefing (Ursano, Fullerton, Vance & Wang, 2000). I believe it is likely many of these assets are also applicable to resilience in crisis intervention workers to effectively reduce stress and the incidence of STS.

It is notable that in this study, results varied widely within each group studied, with many individual CF scores at the extreme high and low end of the spectrum. A normal distribution of data would have most examples in a set of data close to the average, with relatively few to one extreme or the other. For example, while the personal care/nurses' aides group scored a mean in the moderate risk for CF range, only 19% of the individuals in that group scored in the moderate range, with 36% scoring in the high or extremely high risk range and 45% scoring in the low or very low risk range. Thus, most individual scores within a given group were not close to the mean score for the group. This wide range of CF scores within each group would indicate that there was not a high degree of similarity within the group in terms of their levels of CF risk or STS symptomology, nor would the group mean score represent the STS level for most individuals within the group. Thus, STS (the dependent variable) cannot be shown to have been consistently affected by the factor represented by the independent variable (i.e., field or worker, level of experience, participation in stress reducing activity, or perception of adequacy of training). This may point to the possibility that other factors or combinations of factors not accounted for in this study may be more likely to determine vulnerability to or protection from STS symptom development.

Overall, more than half (57%) of the respondents scored in the low or very low risk for CF range, 16% in the moderate risk, and 27% in the high or very high risk range. This investigation was not able to determine what accounted for the difference between the high and low risk individuals.

Summary of Findings/Research Questions

Research Question 1: What is the difference in the levels of reported compassion fatigue based on an individual's field of crisis intervention work?

Contrary to the hypothesis, this research found no statistically significant difference between the groups (personal care/nurses' aides, disaster relief workers, police officers, and professional counselors) in terms of their mean CF scores. Thus the research demonstrates no difference in susceptibility to or evidence of STS symptomology based on field of crisis intervention work.

Although no statistical significance was found, it is interesting to note that the mean scores of the personal care/nurses' aides group was slightly higher than the others, putting that group into the "moderate risk" range as opposed to the "low risk" range as were the other three group means (disaster relief workers, police officers, and professional counselors). Although all other field groups scored within the low risk range even when coupled with other factors such as level of experience, participation in stress-reducing activities, or training, the personal care/nurses' aides' mean scores most often fell in the moderate risk range. High risk for CF mean scores occurred only in groups that included personal care/nurses' aides: the group of aides with a moderate level of experience and the group with the highest participation in stress-reducing activity. This is in contrast to all other groups that scored means in the low risk or very low risk ranges. Additionally, the standard deviation of the personal care/nurse's aides group mean (14.91) indicates a large range of scores within that group. Indeed, 31% of personal care/nurse's aides respondents scored in the very-high-risk range for CF as opposed to

11%, 18%, and 16% for the disaster relief workers, the police officers, and the professional counselors respectively.

One reason for this may be that personal care/nurses' aides are more chronically exposed to trauma care. Often the work of personal care/nurse's aides requires that they work with individuals who may be chronically or seriously ill. The dynamic of working with patients who do not show improvement could significantly add to the stress level and a potential increased susceptibility to STS. Not being able to see progress in patients on a day-to-day basis can ultimately become frustrating and may also lead to burnout or job dissatisfaction. Other job conditions exist that may add to these concerns including, working long hours and the use of mandatory overtime. The notion that the personal care/nurses' aides seem to be chronically exposed to trauma on a day-to-day, hour-to-hour basis could also add to the accumulation of stress and therefore susceptible to developing STS.

Personal care/nurses' aides may have less training in general and particularly in recognizing and coping with the phenomenon of STS, and may likely have less of a professional support system than would disaster relief workers, police officers, or professional counselors. Additionally, the long term care of the terminally ill may allow less opportunity for the experience of compassion satisfaction, or the ability to assist the victim to recovery or safety, which would be more likely experienced by a disaster relief worker, police officer, or professional counselor.

It has been postulated that the capacity for empathy plays a major role in the susceptibility and development of STS symptoms in those closely associated with a

trauma victim (Cornille & Meyers, 1999; Figley, 1995a). Empathy is an important resource for crisis intervention workers that enable them to understand and help trauma victims. However, this empathetic engagement also makes these workers vulnerable to STS (Figley, 1999). It is possible that because the entire sample population was drawn from persons engaged in the helping professions, the results (i.e., no significant difference between fields of crisis intervention work) reflect the fact that those drawn to such professions in general are empathetic people and thus may have a similar susceptibility to developing STS symptoms regardless of which particular profession in trauma work they choose. This would include police officers who can be drawn to their profession by a desire to serve and protect those in the community in which they serve. Workers in all fields examined in this study are regularly exposed to trauma victims and are often engaged in the intensity of the experience of coming to the aid of such persons. This similar exposure and engagement across all fields examined could account for the little difference in mean CF scores across field groups.

There were large variances of individual CF scores within each field group. The standard deviation was 14.91 for personal care/nurses' aides, 12.34 for disaster relief workers, 11.68 for police officers, and 10.35 for professional counselors. This suggests that a factor or factors other than field of work accounted for the difference in STS levels in this sample.

Research Question 2: What is the difference in the levels of reported compassion fatigue based on an individual's field and level of experience in the field of crisis intervention work?

Contrary to the hypothesis, this research found no significant difference in CF scores based on level of experience. It was expected that the greater the level of experience of the crisis intervention worker the lower the CF score would be. However, the difference between the mean scores of the low, moderate, and high experience groups was very small.

Although no statistical significance was found, some interesting trends were illustrated. Overall, STS was highest in the moderate experience category (3-10 years). Higher scores in the moderate experience category could indicate several things. It could point to the fact that the middle years are the most difficult in terms of addressing and reacting to difficulties encountered in carrying out the responsibilities of one's role in crisis intervention work. At the moderate level of experience an individual might not have the early enthusiasm and possible naivety associated with the beginning years of their career. In the high level of experience category (over 10 years) workers may have been able to better adapt to their work and have developed positive and protective characteristics that add to lower stress levels and increased job satisfaction.

A prior investigation (Chrestman, 1995) indicated that increased experience had a mediating effect on crisis worker distress when secondarily exposed to clients' traumatic material. This same study also noted that higher caseloads were associated with higher levels of STS symptomology. Level of experience should be a mitigating factor in development of STS symptoms. However, years of experience may also represent greater exposure to trauma victims, which may serve to increase the risk for developing STS. Munroe (1999) pointed out that empirical data to date does not provide sufficient

evidence that experience prevents effects of secondary traumatic stress and that there is no reason to assume that experienced therapists in the field are sufficiently aware of the danger of exposure to clients' traumatic material. The results of this study appear to agree with the idea that experience does not in and of itself lessen the degree of STS symptoms experienced by crisis workers. It may be that experience must be combined with other factors such as awareness of susceptibility to STS and acquisition of knowledge to prepare and implement prevention measures in order to reduce the incidence of STS in such workers. In addition, crisis intervention workers may need to properly manage their caseload so as not to exceed their personal limitations with respect to their ability to process and manage exposure to clients' traumatic material.

Research Question 3: What is the difference in the levels of reported compassion fatigue based on an individual's field and their participation in stress reducing activities?

Contrary to the hypothesis, there was no significant difference between the groups regardless of their level of participation in stress-reducing activities. It was unexpected that the group of respondents in this study who had the highest level of participation in stress-reducing activities did not show a significantly lower mean CF score than the lower-participation groups. Because adequate self-care has been proposed as an important factor in reducing STS symptomology in persons working with trauma victims (O'Halloran & Linton, 2000), it was expected that persons participating in a higher level of stress reducing activities would, as a group, have a lower CF score.

Rather than obtaining lower CF scores for the high participation group, the converse proved to be true in this investigation. Individuals with high levels of stress

reducing activities had the highest scores for CF. This was true for all groups with the exception of police officers whose CF scores were relatively the same for moderate or high levels of participation in stress reducing activity. While this result was unexpected it may indicate that individuals participating in high levels of stress reducing activity may be doing so specifically to mitigate the effects of very stressful work and job responsibilities, not just for general relaxation and stress management. In the absence of this high level of stress reducing activity, CF scores may become even higher. These individuals may have an acceptance that their job is stressful and those aspects of responding to trauma are ones they cannot change. However, those individuals may be attempting to make changes that could ultimately lead to more effective functioning personally and professionally. The fact that these individuals seem to be setting goals and believing in their self-efficacy would seem to increase the possibility that positive changes could occur.

Many of the stress reducing activities that people engage in may not actually reduce levels of stress but instead may serve to increase our tolerance for more stress. This could also account for the higher scores by respondents in this category.

The mean CF scores for all fields of crisis intervention work and all levels of participation in stress reducing activity fell within the low risk for CF range with the exception of personal care/nurses' aides with low and high participation levels. Those aides with low participation scored a mean in the moderate risk for CF range. Those with high participation scored a mean in the high risk for CF range. This seems to indicate that there is something about the personal care/nurses' aide group that puts them at higher risk

for CF or STS symptomology other than their level of stress reducing activity level. The fact that the group with the highest participation without respect to field of work scored a mean in the moderate risk range seems only to further demonstrate that the high mean CF score of personal care/nurses' aides resulted from something other than level of participation in stress reducing activity.

It is possible that participation in stress reducing activities alone does not reduce the incidence or level of STS symptoms in crisis intervention workers. Participation in stress-reducing activities is certainly a recommended part of healthy self-care for all individuals, including those who work with trauma victims (Valent, 2002; Pearlman, 1995). However, it may be that more is needed in order to prevent or lessen the development of STS symptoms in crisis intervention workers. The lack of statistical significance found may also point to the possibility that certain types of stress reducing activities not investigated here are more effective in such prevention.

Research Question 4: What is the difference in the levels of reported compassion fatigue based on an individual's field and their belief of having received adequate training to meet the challenges of disaster and trauma work?

Contrary to the hypothesis, this research found no significant difference between the groups regardless of their perception of the adequacy of their training to meet the challenges of disaster/trauma work. Because studies in various settings have shown that untrained, poorly briefed staff suffer most from stress-related illness (Ursano & McCarroll, 1994), it was expected that there would be a significant difference in CF

scores between groups of crisis intervention workers who felt they were adequately trained and those who did not.

Perception of adequacy of training for the crisis workers role did not appear to have an effect on the appearance of STS symptomology in this sample. Mean CF scores for levels of training (little training, adequate training, well trained) without respect to field of work were very nearly identical. When grouped by field of work as well as training level, mean scores varied little for disaster relief workers, police officers, and professional counselors, which all fell within the low risk for very low risk range. However, the personal care/nurses' aides group scored as moderate risk if they felt adequately trained or well trained for the challenges of their work. Again, the descriptive data does seem to indicate that personal care/nurses' aides are experiencing greater levels of STS symptoms or are at greater risk for STS. However, the statistical analysis (ANOVA) performed concluded no statistically significant difference between the groups with respect to perception of adequacy of training.

Perception of adequate training alone appears not to be sufficient to reduce the effects or incidence of STS. In terms of training, employees or volunteers who work with disaster and trauma victims should be made aware of the risks and potential effects of performing these types of responsibilities. As part of the training for crisis intervention workers, they should be educated about the effects exposure to clients' trauma may have on them. Ongoing training that addresses reactions to trauma victims and the cumulative effects that this could have should be presented and explored. Opportunities for supervision should be provided as well as peer supervision opportunities with fellow

crisis intervention workers to promote ideas and suggestions for self-care and management of the stresses of their responsibilities.

Limitations of the Study

Limitations of the study included its sample size, the use of a convenience sample, inability to generalize beyond the groups studied, minimal reliability and validity data for the testing instrument, and reliance upon self-report measures (Stamm, 2002; Fincham & Bradbury, 1987). Concerning the latter, whereas self-report can be a useful means of obtaining data, disadvantages of this method can include volunteer bias and distortion. Volunteer bias occurs when a sample of volunteers is not necessarily representative of the general population (MUSC, 2001). Distortion occurs when a subject does not answer questions truthfully (CSU, 2004). Social scientists are always cautious not to assume automatically that individuals can or will accurately provide reasons or explanations for their behaviors. Moreover, because the pencil-and-paper test and questionnaire relied exclusively on self-reports, some subjects may be hesitant to respond honestly to certain questions for fear of repercussions.

It was sometimes difficult identifying agencies that were willing to participate in this study. Some administrators may have been suspicious of “external” research (for fear of being accused of incompetence, malpractice, or negligence). This apprehension could have limited the pool of potential subjects even further. Ideally, a larger, randomly selected sample would have strengthened the statistical basis of the study, and therefore the applicability of its findings.

There is minimal reliability and validity data for the testing instrument used. Measures for STS symptomology including CSF are in early stages of development; thus they have not been normed or validated adequately. It is still open to question whether the CSF Test is a good measure of the constructs it seeks to test. Furthermore, no measure exists with which to gauge the CSF test (Stamm, 2002).

All empirical investigations are insufficient in some respect due to the nature of the measures used and the samples studied. In the present research, results may generalize only to one area of the country, as well as only to adults who are currently employed as crisis intervention workers.

A final possible limitation is the fact that all participants are crisis intervention workers. This restricts the generalizability of the data beyond that particular setting. It could be argued that expanding this study to include a control group of other types of workers for the purposes of comparison could provide additional insights.

Implications for Future Research

Because the sample population displayed a range of CF risk according to responses on the CSF, it is perplexing that the data examined in this study was not able to discover the reason for the difference between those individuals with higher and lower risk levels. Whereas 45% of respondents were measured to be at very low risk of CF, 19% were measured as being at very high risk. Thus, within the sample, there existed substantial groups at both ends of the spectrum. Future research might consider a more comprehensive and specific questionnaire to gain better insights into the personal and

professional life experiences of these individuals. It may be possible to determine the reasons for these differences with more in-depth querying of the individual respondents. Future research could compare the STS experience of persons working in fields other than crisis intervention.

Minimal reliability and validity data exist for the CSF test instrument used in this research or other instruments that intend to measure STS symptomology. Future research into the reliability and validity of instruments designed to measure STS would improve the validity of research findings that attempt to measure STS symptoms or susceptibility. Development and use of other test instruments that measure STS symptomology, in conjunction with the Compassion Satisfaction and Fatigue Test, may add to the validity and utility of the CSF test instrument in future research on STS.

Regarding future research into factors that may reduce the incidence of STS symptomology in crisis intervention workers, it appears that it may be useful to select a more specific group in order to measure more specific stressors and/or supports and possible interaction effects. The descriptive data seemed to support the idea that the personal care/nurses' aides did demonstrate higher risk for CF or displayed greater STS symptomology. Although not statistically significant, there does appear to be clinical significance. Why does a significantly larger percentage of these workers score in the very high risk for CF range as opposed to those in the other fields of crisis work?

The data gathered and examined for this study would bolster the idea that the presence or absence of STS is due to a variety of factors. Not only a variety of factors but perhaps specific combinations of factors could be responsible for the accumulation of

STS symptoms. It is important that more research be done on the protective factors and asset and risk factors that would predispose a crisis intervention worker to STS. With more research these factors could be identified and used to educate crisis intervention workers and help them to self-assess their risks and their positive assets. This information could then be applied to assist each worker in addressing their particular deficits, and through training and support increase their ability to remain effective on the job and avoid the pitfalls of STS.

Summary and Conclusion

This research was designed to aid in developing a better understanding of the actual influences on crisis intervention workers' experience of STS. The statistical analysis (ANOVA) performed on the various groups of crisis intervention workers indicated there were no significant differences between the groups with respect to their field, level of experience, participation in stress-reducing activities, or perception that they were adequately trained to meet the challenges of their work in crisis intervention. This was contrary to the hypothesis in each of the four research questions explored. Because past research seems to support the idea that adequate self-care, greater experience, and adequate training/preparation reduce the incidence or level of STS symptoms in those who work with trauma victims, these results were unexpected.

These unexpected results may be due to a number of factors. In the case of the various fields of crisis intervention work, it could be that all crisis intervention workers tend to have common characteristics, such as high levels of empathy, regardless of which field they choose and thus show a similar potential to develop STS symptoms. It was

noted that a significantly larger portion of the personal care/nurses' aides group scored in the very-high risk for CF range than did those engaged in other fields of crisis intervention work. It may be that this group is likely to be more chronically exposed to trauma care. They often have less training and may likely have less of a professional support system than the other groups. Additionally, the long term care of the terminally ill may allow less opportunity for the experience of compassion satisfaction, than those in the other field of work studied.

Past research suggests that level of experience should be a mitigating factor in the development of STS symptoms. However, years of experience may also represent greater exposure to trauma victims, which may serve to increase the risk for developing STS. Or greater experience may not in and of itself be a mitigating factor.

Although participation in stress reducing activities is recommended as a part of healthy self-care for crisis intervention workers, more than that is needed to diminish the incidence or level of STS symptoms in crisis workers. Other forms of stress reduction may be more effective in reducing the incidence of STS than those investigated in the current study. It cannot be dismissed that the statistical analysis (ANOVA) performed with respect to the levels of perception of adequate training/preparation concluded no statistically significant difference between the groups.

The results of this study support the idea that the presence or absence of STS is due to a variety of factors. With more research these factors could be identified and this information could be used to educate crisis intervention workers. Through training and

support they could be helped to increase their ability to remain effective on the job and avoid the pitfalls of STS.

References

- Alexander, D., & Wells, A. (1991). Reactions of police officers to body-handling after a major disaster a before-and-after comparison. *British Journal of Psychiatry, 159*, 517-555.
- American Psychiatric Association [APA]. (1980). *Diagnostic and statistical manual of mental disorders. (3rd ed.)*. Washington, DC: American Psychiatric Association.
- American Psychiatric Association [APA]. (1994). *Diagnostic and statistical manual of mental disorders. (DSM-IV-TR.)*. Washington, DC: American Psychiatric Association.
- Anderson, B. L., Kiecolt-Glaser, J. K., & Glaser, R. (1994). A biobehavioral model of cancer stress and disease course. *American Psychologist, 49*, 389-404.
- Arvay, M. J., & Uhlemann, M. R. (1996). Counsellor stress in the field of trauma: A preliminary study. *Canadian Journal of Counselling, 30*, 193-210.
- Baranowsky, A. (2002). The silencing response in clinical practice: On the road to dialog. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 155-170). New York: Brunner Mazel.
- Barnes, M. F (1997). Understanding the secondary traumatic stress of parents. In C. R. Figley (Ed.), *Burnout in families: The systemic costs of caring* (pp. 75-90). Boca Raton, FL: CRC Press.

Beaton, R. D., & Murphy, S. A. (1995). Working with people in crisis: Research implications. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 51-81). New York: Brunner/Mazel.

Briere, J. (2001). *Detailed assessment of posttraumatic stress (DAPS)*. Odessa, FL: Psychological Assessment Resources.

Brill, N. & Levine, J (2002). *Working with people: The helping process*. Boston, MA: Allyn & Bacon.

Bryant, R., & Harvey, A. (1996). Posttraumatic stress reactions in volunteer firefighters. *Journal of Traumatic Stress, 9*(1), 51-63.

Burgee, S. K. (1983). Rape: Individual and family reactions. In C. R. Figley & H. I. McCubbin (Eds.), *Stress and the family, Volume II: Coping with catastrophe* (pp. 103-119). New York: Brunner/Mazel.

Busuttill, W., Turnbull, G. J., Neal, L. A., Rollins, J., West, A. G., Blanch, N., & Herepath, R. (1995). Incorporating psychological debriefing techniques within a brief group psychotherapy programme for the treatment of post-traumatic stress disorder, *British Journal of Psychiatry, 167*, 495-502.

Callahan, S. (2000). Gender differences. *Commonwealth, 127*(16), 9.

Catherall, D. (1999). Coping with secondary traumatic stress: The importance of the therapist's professional peer group. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, & educators* (pp. 80-92). Baltimore, MD: Sidron Press.

Cerney, M. S. (1995). Treating the "Heroic Treaters." In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 131-149). Philadelphia, PA: Brunner/Mazel.

Chessick, R. D. (1986). Transference and countertransference revisited. *Dynamic Psychotherapy*, 4(1), 14-30.

Chrestman, K. (1995). Secondary exposure to trauma and self reported distress among therapists. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self care issues for clinicians, researchers, and educators* (pp. 29-36). Baltimore, MD: Sidran Press.

Colorado State University [CSU], (2004). Applications of transferability and generalizability: survey. Retrieved June 2004 from <http://writing.colostate.edu/references/research/gentrans/com2e4.cfm>

Comas-Diaz, L., & Padilla, A. M. (1990). Countertransference in working with victims of political repression. *American Journal of Orthopsychiatry*, 60, 125-134.

Corey, G. F. (1991). *Theory and practice of counseling & psychotherapy*. Belmont, CA: Brooks Cole.

Corey, G. F. (2001). *Theory and practice of counseling & psychotherapy (6th ed.)*. Belmont, CA: Brooks Cole.

Cornille, T. A., & Meyers, T. W. (1999). Secondary traumatic stress among child protective service workers: Prevalence, severity and predictive factors. *Traumatology*, 5(1), 3-16.

Danieli, Y. (1985). The treatment and prevention of long-term effects and intergenerational transmission of victimization: A lesson from holocaust survivors and their children. In C. R. Figley (Ed.), *Trauma and its wake* (pp. 295-313). New York: Brunner/Mazel.

Danieli, Y. (1988a). Confronting the unimaginable: Psychotherapists' reactions to victims of the Nazi holocaust. In J. P. Wilson, Z. Harel, & B. Kahana (Eds.), *Human adaptation to extreme stress* (pp. 219-238). New York: Plenum.

Danieli, Y. (1988b). Treating survivors and children of survivors of the Nazi holocaust. In F. Ochberg (Ed.), *Post-traumatic therapy and victims of violence* (pp. 278-294). New York: Brunner/Mazel.

Danieli, Y. (1994). Countertransference, trauma, and training. In J. P. Wilson & J. D. Lindy (Eds.), *Countertransference in the treatment of PTSD* (pp. 368-388). London: Guilford.

Dunning, C., & Silva, M. (1980). Disaster induced trauma in rescue workers. *Victimology: An International Journal*, 5(2-4), 287-297.

Dyregrov, A., & Mitchell, J. (1992). Work with traumatized children: Psychological effects and coping strategies. *Journal of Traumatic Stress*, 5(1), 5-17.

Dutton, M. A., & Rubinstein, F. L. (1995). Working with people with PTSD: Research implications. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 82-100). New York: Brunner/Mazel.

Erickson, C. A. (1989). Rape and the family. In C. R. Figley (Ed.), *Treating stress in families* (pp. 257-290). New York: Brunner/Mazel.

Evans, J. D. (1996). *Straightforward statistics for the behavioral sciences*. Belmont, CA: Brooks/Cole.

Faber, B. (1983). *Stress and burnout in the human service professions*. New York: Pergamon Press.

Federal Emergency Management Agency [FEMA]. (1998). *Disaster assistance programs: Crisis counseling programs: A handbook for grant applications (DAP-9)*. Washington, DC: Author.

Figley, C. R. (1978). Psychosocial adjustment among Vietnam vets: An overview of the research. In C. Figley (Ed.), *Stress disorders among Vietnam veterans: Theory, research, and treatment* (pp. 57-70). New York: Brunner/Mazel.

Figley, C. R. (1985). The family as victim: Mental health implications. *Psychiatry*, 6, 283-291.

Figley, C. R. (1988). Toward a field of traumatic stress. *Journal of Traumatic Stress*, 1(1), 3-16.

Figley, C. R. (1989a). *Helping traumatized families*. San Francisco: Jossey-Bass.

Figley, C. R. (Ed.). (1989b). *Treating stress in families*. New York: Brunner/Mazel.

Figley, C. R. (1995a). Compassion fatigue as secondary traumatic stress disorder: An overview. In C. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 1-20). New York: Brunner/Mazel.

Figley, C. R. (1995b). Compassion fatigue: Toward a new understanding of the costs of caring. In H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 3-28). Baltimore, MD: Sidran Press.

Figley, C. R. (1995c). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. xiv-xv). New York: Brunner/Mazel.

Figley, C. R. (1999). Compassion fatigue: Toward a new understanding of the costs of caring. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (p. 3-28). Baltimore, MD: Sidran Press.

Figley, C. R. (2002). *Treating compassion fatigue*. New York: Brunner-Routledge.

Figley, C. R., & McCubbin, H. I. (Eds.). (1983). *Stress and the family, Volume II: Coping with catastrophe*. New York: Brunner/Mazel.

Figley, C.R. & Stamm, B.H. (1996). Psychometric review of the compassion fatigue self-test. In B.H. Stamm (Ed.), *Measurement of stress, trauma & adaptation*. Lutherville, MD: Sidran Press

Fincham, F. D., & Bradbury, T. N. (1987). The impact of attributions in marriage: A longitudinal analysis. *Journal of Personality and Social Psychology*, 53, 481-489.

Fitzgerald, H (2002) Managing stress for hospice professionals. American Hospice Foundation. Retrieved May 2002 from <http://www.americanhospice.org/griefzone/articles/hospicestress.htm>

Foa, E. B., Steketee, G., & Rothbaum, B. O. (1989). Behavioral/cognitive conceptualizations of post-traumatic stress disorder. *Behavior Therapy, 20*, 155-176.

Follette, V., Polusny, M., & Milbeck, K. (1994). Mental health and law enforcement professionals: Trauma history, psychological symptoms, and impact of providing service to child sexual abuse survivors. *Professional Psychology: Research and Practice, 25*(3), 275-282.

Freudenberger, H. J. (1980). *Burn-out: The high cost of achievement*. New York: Anchor Press.

Friedman, M. J. (2000). PTSD Diagnosis and treatment for mental health clinicians. In M. Scott & J. Palmer (Ed.), *Trauma and post-traumatic stress disorder* (pp. 1-14). New York: Cassell.

Ganellen, J. J., & Blaney, P. H. (1984). Hardiness and social support as moderators of the effects of life stress. *Journal of Personality and Social Psychology, 47*, 156-163.

Gentry, J. E., & Baranowsky, A. (1999). *Treatment manual for accelerated recovery from compassion fatigue*. Toronto, Ontario, Canada: Psych Ink Resources.

Gentry, J. E., Baranowsky, A., & Dunning, K. (2002). ARP: The accelerated recovery program (ARP) for Compassion Fatigue. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 123-138). New York: Brunner-Routledge.

Gersons, B. (1989). Patterns of post traumatic stress disorder among police officers following shooting incidents: A two dimensional model and treatment implications. *Journal of Traumatic Stress, 2*(3), 247-257.

- Gilleg, P. M., Dumaine, M., Stammer, J. W., Hillard, J. R., & Grub, P. (1990). What do police officers really want from the mental health system? *Hospital and Community Psychiatry, 41*, 663-665.
- Gilliland, B., & James, R. (2001). *Crisis intervention strategies* (4th ed). Belmont, CA: Brooks/Cole.
- Green, R. L., & Nowack, K. M. (1993). *Stress, hardiness, and absenteeism: Results of a 3-year longitudinal study*. Los Angeles Police Department and Organizational Performance Dimensions, CA. Unpublished Manuscript.
- Griffiths, J. A., & Watts, R. (1992). *The Kempsey and Grafton bus crashes: The aftermath, instructional design solutions*. University of New England, Australia.
- Harris, C. (1995). Sensory-based therapy for crisis counselors. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 101-114). New York: Brunner/Mazel.
- Harsough, D., & Myers, D. (1985). *Disaster work and mental health: Prevention and control of stress among workers*. Washington, DC: National Institute of Mental Health, Center for Mental Health Studies of Emergencies.
- Herman, J. L. (1992). *Trauma and recovery: The aftermath of violence from domestic abuse to political terror*. New York: Basic Books.
- Hodgkinson, P., & Shepherd, M. (1994). The impact of disaster support work. *Journal of Traumatic Stress, 7*(4), 587-600.
- Hopkins, W.G. (2000). A new view of statistics. Internet society for sport science. Retrieved January 2004 from <http://www.sportsci.org/resource/stats/>

- Hyttén, K., & Hasle, A. (1989). Fire fighters: A study of stress and coping. *Acta Psychiatrica Scandinavica*, 80, Suppl. 355.
- Iliffe, G., & Steed, L. G. (2000). Exploring the counselor's experience of working with perpetrators of domestic violence. *Journal of Interpersonal Violence*, 15, 393-412.
- Jaccard, J., Turrisi, R., & Wan, C. K. (1990). *Interaction effects in multiple regression*. Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-072, Newbury Park, CA.
- Johansen, K. H. (1993). Countertransference and divorce of the therapist. In J. H. Gold & J. C. Nemiah (Eds.), *Beyond transference: When the therapists real life invades* (pp. 87-108). Washington, DC: American Psychiatric Press.
- Joinson, C. (1992). Coping with compassion fatigue. *Nursing*, 22(4), 116-122.
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Bantam Doubleday Dell.
- Kenardy, J. A., Webster, R. A., Lewin, T. J., Carr, V. J., Hazell, P. L., & Carter, G. I. (1996). Stress debriefing and patterns of recovery following a natural disaster. *Journal of Traumatic Stress*, 8, 37-50.
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder national comorbidity survey. *Archives of General Psychiatry*, 52, 1048-1059.
- Luckett, J. B., & Slaikou, K. A. (1990). Crisis intervention by police. In K. A. Slaikou (Ed.), *Crisis intervention: A handbook for practice and research* (2nd ed, pp. 227-242). Boston: Allyn & Bacon.

- Lundin, T. (1995). Transportation disaster: A review. *Journal of Traumatic Stress, 8*(3), 381-389.
- Maddi, S. (1986). *The great stress-illness controversy*. Paper presented at the meeting of the American Psychological Association, Washington, DC.
- Markey, K. (1998). Reports on risks to health and safety identified by concern worldwide's international personnel. *Concern*.
- Marmar, C., Weiss, D., Metzler, T., Ronfeldt, H., & Foreman, C. (1996). Stress responses of emergency services personnel to the Loma Preita earthquake interstate 880 freeway collapse and control traumatic incidents. *Journal of Traumatic Stress, 9*(1), 63-85.
- Maslach, C. (1976). Burn-out. *Human Behavior, 5*(9), 16-22.
- Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice Hall.
- Maslach, C., & Jackson, S. E. (1981). The measurement of burnout. *Journal of Occupational Behavior, 2*, 99-113.
- Matsakis, A. (1994). *Post-traumatic stress disorder*. Oakland, CA: New Harbinger.
- McCammon, S. L., & Jackson, A. E. (1995). Debriefing and treating emergency workers. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 115-130). Philadelphia, PA: Brunner/Mazel.

McCann, L., & Pearlman, L. (1989). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress, 3*(1), 131-149.

McCann, I. L., & Pearlman, L. A. (1990a). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress, 3*(2), 131-149.

McCann, I. L., & Pearlman, L. A. (1990b). *Through a glass darkly: Understanding and treating the adult trauma survivor through constructivist self development theory*. New York: Brunner/Mazel.

McCubbin, H. I., Dahl, B. B., Lester, G., & Ross, B. (1977). The returned prisoner of war and his children: Evidence for the origin of second generational effects of captivity. *International Journal of Sociology of the Family, 7*, 25-36.

McFarlane, A. C. (1988). The longitudinal course of posttraumatic morbidity. *Journal of Nervous and Mental Diseases, 176*, 30-39.

Medical University of South Carolina [MUSC], (2001). Bias Glossary. Retrieved June 2004 from: <http://www.musc.edu/dc/icrebm/bias.html>

Meyers, T., & Cornille, T. (2002). The trauma of working with traumatized children. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 39-55). New York: Brunner-Routledge.

Miller, K. I., Stiff, J. B., & Ellis, B. H. (1988). Communication and empathy as precursors to burnout among human service workers. *Communication Monographs, 55*(9), 336-341.

Mitchell, J. T., & Dyregrov, A. (1993). Traumatic stress in disaster workers and emergency personnel. In J. P. Wilson & B. Raphael (Eds.), *International handbook of traumatic stress studies* (pp.35-49), New York: Plenum Press.

Moran, C. (2002). Humor as a moderator of compassion fatigue. In Figley (Ed) *Treating Compassion Fatigue* (pp. 139-154) NY: Brunner-Routledge

Munroe, J. (1990). *Therapist traumatization from exposure to clients with combat related PTSD: Implications for administration and supervision*. Unpublished doctoral dissertation, Northeastern University, MA.

Munroe, J. F (1999). Ethical issues associated with secondary trauma in therapists. In Stamm (Ed) *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 211-229). Baltimore, Maryland: Sidran Press.

Munroe, J. F., Shay, J., Fisher, L., Makary, C., Rapperport, K., & Zimering, R. (1995). Preventing compassion fatigue: A team treatment model. In C. R. Figley (Ed.), *Compassion fatigue: coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 209-231). New York: Brunner/Mazel.

Myers, D. (1994). *Disaster response and recovery: a handbook for mental health professionals*. Rockville, MD: Center for Mental Health Services.

Myers, D., & Wee, D. (2002a). Stress response of mental health workers following disaster: The Oklahoma city bombing. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 57-83). New York: Brunner-Routledge.

Myers D., & Wee, D. (2002b). Strategies for managing disaster mental health worker stress. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 181-211). New York: Brunner-Routledge.

National Institute of Mental Health [NIMH], (2001). Reliving Trauma: Post-Traumatic Stress Disorder: A brief overview of the symptoms, treatments, and research findings. NIH Publication No. 01-4597. Retrieved May 2002 from <http://www.nimh.nih.gov/publicat/reliving.cfm>

Neuman, W.L. (1997). *Social research methods: qualitative and quantitative approaches* (3rd ed). Needham Heights, MA: Allyn & Bacon

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

O'Halloran, T. & Linton, J. (2000). Stress on the job: Self-care resources for counselors. *Journal of Mental Health Counseling*, 22(4), 354-364.

O'Rear, J. (1992). Post traumatic stress disorder: When the rescuer becomes the victim. *JEMS: A Journal of Emergency Medical Services*, 30, 30-38.

Paton, D. (1997). Post-event support for disaster workers: Integrating recovery resources and the recovery environment. *Disaster Prevention and Management*, 5, 43-49.

Paton, D., & Violanti, J. (Eds.). (1996). *Traumatic stress in critical occupations: Recognition, consequences and treatment*. Springfield, IL: Charles C. Thomas.

Pearlman, L. A. (1995). Self-care for trauma therapists: Ameliorating vicarious traumatization. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorders in those who treat the traumatized* (pp. 51-64). New York: Brunner/Mazel.

Pearlman, L. A., & MacIain, P. S. (1995). Vicarious traumatization: An empirical study of the effects of trauma work on trauma therapists. *Professional Psychology: Research and Practice*, 26, 558-565.

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

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

Pennebaker, J. W. (1992). Inhibition as the linchpin of health. In H. S. Friedman (Ed.), *Hostility coping and health* (pp. 127-139). Washington, DC: American Psychological Association.

Perlman, S. D. (1999). *The therapist's emotional survival: Dealing with the pain of exploring trauma*. Northvale, NJ: Jason Aronson.

Remer, R., & Elliot, J. (1998a). Characteristics of secondary victims of sexual assault. *International Journal of Family Psychiatry*, 9(4), 373-387.

Remer, R., & Elliot, J. (1998b). Management of secondary victims of sexual assault. *International Journal of Family Psychiatry*, 9(4), 389-401.

Riordan, R. J., & Saltzer, S. K. (1992). Burnout prevention among health care providers working with the terminally ill: A literature review. *Omega*, 25, 17-24.

Robinson, H., Sigman, M., & Wilson, J. (1997). Duty-related stressors and PTSD symptoms in suburban police officers. *Psychological Report*, 81, 835-845.

Robinson, R. C., & Mitchell, J. T. (1993). Evaluation of psychological debriefings. *Journal of Traumatic Stress*, 6, 367-382.

Rosenheck, R., & Thomson, J. (1986). 'Detoxification' of Vietnam war trauma: A combined family-individual approach. *Family Process*, 25(4), 559-570.

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

Rowe, M (2000). Skills training in the long-term management of stress and occupational burnout. *Current Psychology*, 19(3), 215

Salama, P. (1999). The psychological health of relief workers: Some practical suggestions. *Concern Worldwide*. Retrieved May 2002 from <http://www.reliefweb.int/library/documents/psycho.htm>

Sawyer, C. M. (2001). A survey of team members who participate in traumatic event group psychological debriefings. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 61(11-B), p. 6148. US: University Microfilms International.

Schauben, L., & Frazier, P. (1995). Vicarious trauma: The effects on female counselors of working with sexual violence survivors. *Psychology of Women Quarterly, 19*, 49-64.

Sexton, L. (1999). Vicarious traumatization of counsellors and effects on their workplaces. *British Journal of Guidance & Counseling, 27*(3), 393.

Shalev, A. Y. (1994). Debriefing following traumatic exposure. In R. J. Ursano, B. G. McCaughey, & C. S. Fullerton (Eds.), *Individual and community responses to trauma and disaster* (pp. 201-219). New York: Cambridge University Press.

Shalev, A. Y., Bonne, O., & Eth, S. (1996). Treatment of posttraumatic stress disorder: A review. *Psychosomatic Medicine, 58*(2), 165-182.

Solomon, Z. (1989). A three year prospective study of post-traumatic stress disorder in Israeli combat veterans. *Journal of Traumatic Stress, 2*(1), 59-73.

Stamm, B. H. (Ed.). (1995). *Secondary traumatic stress: Self-care issues for clinicians, researchers and educators*. Lutherville, MD: Sidran Press.

Stamm, B. H. (1997, Spring). Work-related secondary stress. *PTSD Research Quarterly, 8*(2), 1-6.

Stamm, B. H. (1999). *Secondary traumatic stress: Self-care issues for clinicians, researchers and educators*. Lutherville, MD: Sidran Press.

Stamm, B. H. (2002). Measuring compassion satisfaction as well as fatigue: Developmental history of the compassion satisfaction and fatigue test. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 107-119). New York: Brunner-Routledge.

Stamm, B. H., & Figley, C. R. (1998). *Compassion fatigue and satisfaction self-test for helpers*. Retrieved March 2003 from: <http://mailer.fsu.edu/~cfigley/satfat.htm>

Stebnicki, M. A. (2000). Stress and grief reactions among rehabilitation professionals: dealing effectively with empathy fatigue. *Journal of Rehabilitation, 66*(1), 23.

Tedeschi, R.G. & Calhoun, L.G. (1995). *Trauma & transformation*. Thousand Oaks, CA: Sage Publications

Tomaka, J., Blascovich, J., Kelsey, R. M., & Leitten, C. L. (1993). Subjective, physiological, and behavioral effects of threat and challenge appraisal. *Journal of Personality and Social Psychology, 65*, 248-260.

Ursano, R., Fullerton, C., Kao, T., & Bhartiya, V. (1995). Longitudinal assessment of posttraumatic stress disorder and depression after exposure to traumatic death. *Journal of Nervous and Mental Disease, 183*, 36-42.

Ursano, R. J., Fullerton, C. S., Vance, K. & Wang, L. (2000). *Psychological debriefing: Theory, practice, and evidence*. Cambridge, UK: Cambridge University Press

Ursano, R. J., & McCarroll, J. E. (Eds.). (1994). *Exposure to traumatic death: The nature of stressor in individual and community response to trauma and disaster in Ursano*. New York: Cambridge University Press.

Valent, P. (2002). Diagnosis and treatment of helper stresses, traumas, and illnesses. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 17-37). New York: Brunner-Routledge.

Verbosky, S. J., & Ryan, D. A. (1988). Female partners of Vietnam veterans: Stress by proximity. *Issues in Mental Health Nursing*, 9(1), 95-104.

Warren, R., & Zgourides, G. D. (1991). *Anxiety disorders: A rational-emotive perspective*. New York: Pergamon.

Weiss, D., & Marmar, C. (1997). Impact of Event Scale-Revised. In J. Wilson & T. Keane (Eds.), *Assessing psychological trauma and post traumatic stress disorder* (pp. 100-112). New York: Guilford Press.

Weiss, D., Marmar, C., Metzler, T., & Ronfeldt, H. (1995). Predicting symptomatic distress in emergency services personnel. *Journal of Consulting and Clinical Psychology*, 63, 361-368.

White, G. (2002). Trauma treatment for Bosnian and Croatian mental health workers. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 17-37). New York: Brunner-Routledge

White, P. N., & Rollins, J. C. (1981). Rape: A family crisis. *Family Relations*, 30(1), 103-109.

Wilson, J. P., & Lindy, J. D. (1994a). *Countertransference in the treatment of PTSD*. New York: Guilford.

Wilson, J. P., & Lindy, J. D. (1994b). Empathic strain and countertransference. In J. P. Wilson & J. D. Lindy (Eds.), *Countertransference in the treatment of PTSD* (pp. 5-30). London: Guilford.

Winter, B. A. (1991). *The Family Trouble Center: A pilot program for domestic violence*. Paper presented at the Fifteenth Annual Convening of Crisis Intervention Personnel, Chicago, IL.

Yassen, J. (1995). Preventing secondary traumatic stress disorder. In C. R. Figley (Ed.), *Compassion fatigue: coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 178-208). New York: Brunner/Mazel.

Yee, J. L., & Schulz, R. (2000). Gender differences in psychiatric morbidity among family caregivers: A review and analysis. *Gerontologist, 40*, 147-164.

Zastrow, C. (2000). *Introduction to social work and social welfare* (7th ed., p. 63). Belmont, CA: Wadsworth Publishing Company

APPENDIX A
Testing Instructions

Testing Instructions

Thank you for agreeing to participate in this research study.

You will be asked to answer some questions about how you feel about yourself.

All information in this study is 100 percent confidential, meaning I will not talk about your answers or any other information with anyone. In fact, your answers will be coded (without your name on the test sheet) so that I will not even know how or if you answered questions.

Your participation in this study is 100 percent voluntary, meaning you do not have to answer any questions or continue in the study once it has begun. You may withdraw from this study at any time and for any reason whatsoever, without fear of any form of reprisal.

Instructions

First, please read and sign the enclosed informed consent form. If you have any questions before beginning, you may call me Mr. Mark Lepore at 412-885-7535. Second, complete the attached demographic information sheet. Include your name, address, phone number, and email. Third, please provide the most appropriate answers on the questionnaires. To protect your privacy, do not include your name on either questionnaire. Instead, I will use a coding system. While this research session will be short (45-60 minutes), I ask that you spend time thoughtfully and honestly reflecting on your responses.

Once again, I appreciate your taking time to complete these tests.

APPENDIX B

Consent to Participate in a Research Study

Consent to Participate in a Research Study

- TITLE:** Assessing the Frequency and Causes of Secondary Stress Symptoms (STS) Among Crisis Intervention Workers
- INVESTIGATOR:** Mark F. Lepore, MSW, LSW
2942 Churchview Avenue
Pittsburgh, PA 15227
412-885-7535
- ADVISORS:** Dr. Rick Myer (Chair)
DUQUESNE UNIVERSITY, Dept. of Counselor Education
412-396-4036
Dr. David Delmonico,
Dr. William Casile
DUQUESNE UNIVERSITY, Dept. of Counselor Education
412-396-5567
- SOURCE OF SUPPORT:** This study is being performed as partial fulfillment of the requirements for the doctoral degree in Counselor Education and Supervision at Duquesne University.
- PURPOSE:** You are being asked to participate in a research project that seeks to investigate the frequency and causes of secondary stress symptoms (STS) among crisis intervention workers. Each participant will be asked to fill out a consent form and two questionnaires; a demographic questionnaire and the Compassion Fatigue and Satisfaction Self-Test for Helpers (CSF; Stamm & Figley, 1998) Approximately 45-60 minutes will be necessary to complete all items on the questionnaires. The participants will complete the forms in the presence of the researcher(s) and return the packet to the researcher at that time.
- RISKS AND BENEFITS:** Very rarely a research subject experiences some discomfort during or following this type of testing. More often people enjoy participating in studies and knowing they are helping to contribute to the professional literature. However, should even a minor or temporary problem arise, as a reaction to this study, please contact the investigator or one of the advisors named above.

- COMPENSATION:** Participants will not be compensated for their participation in the study. However, participation in the project will require no monetary cost to you. An envelope is provided for return of your response to the investigator.
- CONFIDENTIALITY:** Your name will never appear on any survey or research instruments. No identity will be made in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your response(s) will only appear in statistical data summaries. All materials will be destroyed at the completion of the research
- RIGHT TO WITHDRAW:** You are under no obligation to participate in this study. You are free to withdraw your consent at any time.
- SUMMARY OF RESULTS:** A summary of the results of this research will be supplied to you, at no cost, upon request.
- VOLUNTARY CONSENT:** I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326).

Participant's Signature

Date

Researcher's Signature

Date

APPENDIX C
Debriefing Statement

Debriefing Statement

You have just participated in a psychological research study. Because you have been asked to recall experiences and symptoms that may be disturbing to you, I am attaching a list of referrals to psychological services in your area that you might want to contact to process your experience. Please feel free to ask me any questions you might have concerning this research study. I am available at the following telephone number: (412) 885-7535. My email is mlepore@baldwin.k12.pa.us.

Thank you for your time and help!
Referral List of Psychological Services:

Matthew Stromberg, Licensed Psychologist
Murrysville, PA
(412) 896-2309

Parent & Child Guidance Center
Pittsburgh, PA
(412) 343-7166

Mercy Behavioral Health
Pittsburgh, PA
(412) 323-4500

Richard Pry, Licensed Psychologist
Murrysville, PA
(724) 325-2229

Rogers, David A.
Hershey Psychological Services
Harrisburg, PA
(717) 671-9688

Taylor, Philip L.
Comprehensive Psychological Services
Lancaster, PA
(717) 397-2707

Psychological Health Services
Ford City, PA
(724) 763-8473

APPENDIX D

Demographic Disaster/Trauma Work Questionnaire

Demographic Disaster/Trauma Work Questionnaire

Please respond to the best of your ability. Indicate a response by marking the appropriate box, or writing in the spaces provided. Responses will be kept confidential and reported only as a group.

1. Gender: Male Female

2. Age: 18-24 25-35 35-44 45-54 55-64 65 +

3. Cultural Identification: African American Asian American Euro-American
 Latin-American Native American Other

4. Education: Less than High School High School Diploma or GED
 Some College Associates Degree
 Bachelors Degree Graduate Degree Post Graduate Degree

5. Estimated Annual Income: Under \$10,000 \$10,000-\$29,999 \$30,000-\$49,999
 \$50,000-\$79,000 \$80,000-\$99,999 \$100,000 +

6. Please indicate your position with regard to disaster/trauma work:
 - Military Police Fire Red Cross Disaster Relief Worker
 - Human Services Personnel: Counselor Social Worker Psychologist
 - Personal Care Attendant Nurse's Aid Other: Please Specify

7. Number of years involved with current organization/agency:
 - 0-6 months 6 mos-2 years 2-5 years 5-10 years 10-15 years
 - 15+years

8. What was the nature of your involvement with disaster/trauma events? (Mark all that apply)
 - Talked with Victims Witnessed Events Participated in Clean Up Effort
 - Other: (please specify) _____

9. Amount of satisfaction in performance at disaster/trauma work.

- Very Satisfied Somewhat Satisfied Neutral Somewhat Dissatisfied
 Dissatisfied

10. Was the nature of your work: Paid Volunteer Both

11. Which best describes the types of disasters or traumas you worked?

- Natural (flood, fire, earthquake, tornado)
 Man Made (accident victim, crash site, train derailment, crime scene)
 Medical Emergencies

12. Number of years involved in disaster/trauma work?

- 0-6 months 6 months-2 yrs 2 yrs-5 yrs 5 yrs-10 yrs 10 + yrs

13. Number of disasters/trauma worked within the past 6 months?

- 1-2 3-4 5-6 7+

14. Have you participated in structured stress reduction process such as a stress debriefing, facilitated by a trained professional? Yes No

15. Number of debriefings attended

within the past 6 months? 0 1-2 3-4 5-6 7+

within the past 2 years? 0 1-2 3-4 5-6 7+

16. I enjoy the following stress reducing activities:

	Never	Rarely	Sometimes	Often	Usually
Reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hobbies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Counseling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Socializing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other

Specify Other: _____

17. How would you describe your physical health?

Poor Fair Average Good Excellent

18. How well do you feel you were trained to meet the challenges of disaster/trauma work?

Not at all A little Adequately Well Very Well

19. How often do you feel you perform responsibilities beyond what you were trained?

Never Once in a while Sometimes Often Always

20. What was the disaster/trauma site you worked?

21. How long were you involved in the most recent disaster/trauma site?

Less than a day 1-2 days 3-5 days 6-8 days 9+ days

22. How many hours per day on average did you work?

1-3 4-6 7-9 10-12 13-15 16+

23. What was your shortest day?

Less than 1 hour 2-3 hours 4-6 hours
 7-9 hours 10-12 hours 13+ hours

24. What was your longest day?

1-3 hours 4-6 hours 7-9 hours 10-12 hours 13+ hours

25. Did you experience a particularly strong emotional response to a specific event while working at the disaster/trauma site?

Yes No

Explain: _____

26. Comments: _____

APPENDIX E

Compassion Satisfaction and Fatigue (CSF) Test

Compassion Satisfaction and Fatigue (CSF) Test

Helping others puts you in direct contact with other people's lives. As you probably have experienced, your compassion for those you help has both positive and negative aspects. This self-test helps you estimate your compassion status: How much at risk you are of burnout and compassion fatigue and also the degree of satisfaction with your helping others. Consider each of the following characteristics about you and your **current** situation. Write in the number that honestly reflects how frequently you experienced these characteristics in the last week. Then follow the scoring directions at the end of the self-test.

0=Never 1=Rarely 2=A Few Times 3=Somewhat Often
4=Often 5=Very Often

Items About You

-
- _____ 1. I am happy.
 - _____ 2. I find my life satisfying.
 - _____ 3. I have beliefs that sustain me.
 - _____ 4. I feel estranged from others.
 - _____ 5. I find that I learn new things from those I care for.
 - _____ 6. I force myself to avoid certain thoughts or feelings that remind me of a frightening experience.
 - _____ 7. I find myself avoiding certain activities or situations because they remind me of a frightening
 - _____ 8. I have gaps in my memory about frightening events.
 - _____ 9. I feel connected to others.
 - _____ 10. I feel calm.
 - _____ 11. I believe that I have a good balance between my work and my free time.
 - _____ 12. I have difficulty falling or staying asleep.
 - _____ 13. I have outburst of anger or irritability with little provocation
 - _____ 14. I am the person I always wanted to be.
 - _____ 15. I startle easily.
 - _____ 16. While working with a victim, I thought about violence against the perpetrator.
 - _____ 17. I am a sensitive person.
 - _____ 18. I have flashbacks connected to those I help.
 - _____ 19. I have good peer support when I need to work through a highly stressful experience.
 - _____ 20. I have had first-hand experience with traumatic events in my adult life.
 - _____ 21. I have had first-hand experience with traumatic events in my childhood.
 - _____ 22. I think that I need to "work through" a traumatic experience in my life.
 - _____ 23. I think that I need more close friends.

- _____ 24. I think that there is no one to talk with about highly stressful experiences.
- _____ 25. I have concluded that I work too hard for my own good.
- _____ 26. Working with those I help brings me a great deal of satisfaction.
- _____ 27. I feel invigorated after working with those I help.
- _____ 28. I am frightened of things a person I helped has said or done to me.
- _____ 29. I experience troubling dreams similar to those I help.
- _____ 30. I have happy thoughts about those I help and how I could help them.
- _____ 31. I have experienced intrusive thoughts of times with especially difficult people I helped.
- _____ 32. I have suddenly and involuntarily recalled a frightening experience while working with a person I helped.
- _____ 33. I am pre-occupied with more than one person I help.
- _____ 34. I am losing sleep over a person I help's traumatic experiences.
- _____ 35. I have joyful feelings about how I can help the victims I work with.
- _____ 36. I think that I might have been "infected" by the traumatic stress of those I help.
- _____ 37. I think that I might be positively "inoculated" by the traumatic stress of those I help.
- _____ 38. I remind myself to be less concerned about the well being of those I help.
- _____ 39. I have felt trapped by my work as a helper.
- _____ 40. I have a sense of hopelessness associated with working with those I help.
- _____ 41. I have felt "on edge" about various things and I attribute this to working with certain people I help.
- _____ 42. I wish that I could avoid working with some people I help.
- _____ 43. Some people I help are particularly enjoyable to work with.
- _____ 44. I have been in danger working with people I help.
- _____ 45. I feel that some people I help dislike me personally.

Items About Being a Helper and Your Helping Environment

- _____ 46. I like my work as a helper.
- _____ 47. I feel like I have the tools and resources that I need to do my work as a helper.
- _____ 48. I have felt weak, tired, run down as a result of my work as helper.
- _____ 49. I have felt depressed as a result of my work as a helper.
- _____ 50. I have thoughts that I am a "success" as a helper.
- _____ 51. I am unsuccessful at separating helping from personal life.
- _____ 52. I enjoy my co-workers.
- _____ 53. I depend on my co-workers to help me when I need it.
- _____ 54. My co-workers can depend on me for help when they need it.
- _____ 55. I trust my co-workers.
- _____ 56. I feel little compassion toward most of my co-workers
- _____ 57. I am pleased with how I am able to keep up with helping technology.

- _____ 58. I feel I am working more for the money/prestige than for personal fulfillment.
- _____ 59. Although I have to do paperwork that I don't like, I still have time to work with those I help.
- _____ 60. I find it difficult separating my personal life from my helper life.
- _____ 61. I am pleased with how I am able to keep up with helping techniques and protocols.
- _____ 62. I have a sense of worthlessness/disillusionment/resentment associated with my role as a helper.
- _____ 63. I have thoughts that I am a "failure" as a helper.
- _____ 64. I have thoughts that I am not succeeding at achieving my life goals.
- _____ 65. I have to deal with bureaucratic, unimportant tasks in my work as a helper.
- _____ 66. I plan to be a helper for a long time.

APPENDIX F
CSF Scoring Instructions

CSF Scoring Instructions

Please note that research is ongoing on this scale and the following scores should be used as a guide, not confirmatory information.

1. Be certain you respond to all items.
2. Mark the items for scoring:
 - a. Put an x by the following 26 items: 1-3, 5, 9-11, 14, 19, 26-27, 30, 35, 37, 43, 46-47, 50, 52-55, 57, 59, 61, 66.
 - b. Put a check by the following 16 items: 17, 23-25, 41, 42, 45, 48, 49, 51, 56, 58, 60, 62-65.
 - c. Circle the following 23 items: 4, 6-8, 12, 13, 15, 16, 18, 20-22, 28, 29, 31-34, 36, 38-40, 44.
3. Add the numbers you wrote next to the items for each set of items and note:
 - a. *Your potential for Compassion Satisfaction (x)*: 118 and above=extremely high potential; 100-117=high potential; 82-99=good potential; 64-81=modest potential; below 63=low potential.
 - b. *Your risk for Burnout (check)*: 36 or less=extremely low risk; 37-50=moderate risk; 51-75=high risk; 76-85=extremely high risk.
 - c. *Your risk for Compassion Fatigue (circle)*: 26 or less=extremely low risk, 27-30=low risk; 31-35=moderate risk; 36-40=high risk; 41 or more=extremely high risk.