



LOMA LINDA UNIVERSITY

Loma Linda University
TheScholarsRepository@LLU: Digital
Archive of Research, Scholarship &
Creative Works

Loma Linda University Electronic Theses, Dissertations & Projects

6-1-2011

Secondary Traumatic Stress: Social Workers in a Veterans Affairs Healthcare Setting

Nikola R. Alenkin
Loma Linda University

Follow this and additional works at: <https://scholarsrepository.llu.edu/etd>



Part of the [Social Work Commons](#)

Recommended Citation

Alenkin, Nikola R., "Secondary Traumatic Stress: Social Workers in a Veterans Affairs Healthcare Setting" (2011). *Loma Linda University Electronic Theses, Dissertations & Projects*. 17.
<https://scholarsrepository.llu.edu/etd/17>

This Dissertation is brought to you for free and open access by TheScholarsRepository@LLU: Digital Archive of Research, Scholarship & Creative Works. It has been accepted for inclusion in Loma Linda University Electronic Theses, Dissertations & Projects by an authorized administrator of TheScholarsRepository@LLU: Digital Archive of Research, Scholarship & Creative Works. For more information, please contact scholarsrepository@llu.edu.

LOMA LINDA UNIVERSITY
School of Science and Technology
in conjunction with the
Faculty of Graduate Studies

Secondary Traumatic Stress: Social Workers in a Veterans Affairs Healthcare Setting

by

Nikola R. Alenkin

Dissertation submitted in partial satisfaction
of the requirements for the degree of
Doctor of Philosophy in Social Policy and Social Research

June 2011

©2011
Nikola R. Alenkin
All Rights Reserved

Each person whose signature appears below certifies that this dissertation in her opinion is adequate, in scope and quality, as a dissertation for the degree Doctor of Philosophy.

_____,Chairperson
Kimberly Freeman, Associate Professor of Social Work and Social Ecology

Sigrid James, Professor of Social Work and Social Ecology

Ani Kalayjian, Adjunct Professor of Psychology

Sharon M. Valente, Associate Chief Nurse, Research and Education

ACKNOWLEDGMENTS

This dissertation would not be complete if it were not for the grace of God. My faith in his power to complete all that has begun has been unwavering.

To my committee, Dr. Kim Freeman (chairperson), Dr. Sigrid James, Dr. Ani Kalayjian, and Dr. Sharon M. Valente...thank you, thank you, thank you.

To my parents, Manooshak and Romiun, who through their own struggles brought my brother Alen and me to this country some 30-plus years ago. To my wife, Veronica, and son, Mikhail, who have been my “sanity” through these last 8-plus years.

I would also like to acknowledge all the social workers and staff at the Greater Los Angeles Healthcare system, in particular Arzenia Redcross, Florence Long, Dean Yamaguchi, and my fellow colleagues in the Domiciliary program. To all the veterans of past and current conflicts, thank you all for your service; I hope that you will be better served by the information in this study.

I also owe a debt of gratitude to Dr. Syion Rhee, CSULA, and Dr. De Mars at USC, for their statistical wizardry. Also Rebekah Hendershot for her editing prowess.

Lastly, I would like to acknowledge the victims of the Armenian/Assyrian Genocide at the hands of the Turks during the First World War. My interest in trauma studies began with seeking an understanding of this tragic event.

CONTENTS

Approval Page.....	iii
Acknowledgments.....	iv
List of Tables	ix
List of Figures	x
List of Abbreviations	xi
Abstract.....	xii
Chapters:	
1. Introduction and Rationale.....	1
The Role of Professional Social Workers.....	2
Current Prevalence Rates of STS Among Mental Health Professionals	3
Effects of STS	5
The Healthcare Setting.....	5
The Department of Veterans Affairs Healthcare System	7
Coping Strategies of Social Workers.....	9
Study Aims.....	10
2. Review of the Literature	12
Background of the Problem	12
Stress Constructs.....	14
Early Development of Stress Constructs	14
Burnout and Countertransference	16
Vicarious Traumatization.....	16
Secondary Traumatic Stress.....	17
Theoretical Frameworks	19
Conceptual Development of STS.....	20
The Role of Coping Strategies	21
STS and Occupational Setting	25
Predictors of STS	29

Age.....	30
Gender.....	30
Length of Exposure.....	31
Personal Trauma History	31
Educational Level and Occupational Role.....	32
Professional Experience.....	33
Coping Strategies	33
Organizational Supports and Secondary Traumatic Stress	35
Development of Policy	37
Literature Review Summary	38
3. Methodology.....	40
Hypotheses.....	40
Research Setting.....	41
Research Design.....	42
Participants.....	43
Recruitment and Sampling Procedures	44
Instrumentation	44
Secondary Traumatic Stress Scale	45
Coping Strategies Inventory	47
Demographic Questionnaires.....	49
Data Collection Methods	49
Data Analysis	50
4. Results	54
Characteristics of Survey Participants	54
Descriptive Statistics for STS Scores	56
Coping Strategies Score.....	57
Multivariate Findings.....	58
Hypothesis 1.....	58
Hypothesis 2.....	60
Exploratory Analysis	62
5. Discussion	65
Summary of the Study	71
Practice and Policy Implications.....	71
Limitations of the Study.....	73
Suggestions for Future Social Work Research	75

Conclusion	76
References	78

Appendixes

A. Sample invitation to learn about the study.....	89
B. Script of invitation to participate in the study.....	90
C. Secondary Traumatic Stress Scale	91
D. Coping Strategies Inventory Scale.....	92
E. Demographic Questionnaire	94
F. Disclosure information.....	97

TABLES

Table

1. Bivariate Analysis for Variables in Study	52
2. Characteristics of Social Workers at Greater Los Angeles Healthcare System.....	55
3. Secondary Traumatic Stress Scale Grouped Scores by Respondents	57
4. Secondary Traumatic Stress Scores by Gender and Setting	58
5. Coping Strategies Subscale Scores by Respondents.....	59
6. Setting-Adjusted Means on the STS Scale	59
7. Multivariate Regression Hypothesis Two.....	61
8. Exploratory Analysis	63
9. STS Score by Gender and Setting	64
10. Correlation with STS Scale	64

FIGURES

Figure	Page
1. Etiological Model of Secondary Traumatic Stress	20
2. Common Roles of Social Workers in Inpatient and Outpatient Settings.....	29

ABBREVIATIONS

GLA	Greater Los Angeles
STS	Secondary Traumatic Stress
STSS	Secondary Traumatic Stress Scale
IV	Independent Variable
DV	Dependent Variable
CSB	Coping Strategies Belief
CST	Coping Strategies Time

ABSTRACT OF THE DISSERTATION

Secondary Traumatic Stress: Social Workers in a Veterans Affairs Healthcare Setting

by

Nikola R. Alenkin

Doctor of Philosophy, Graduate Program in
Loma Linda University, June 2011
Dr. Kimberly Freeman, Chairperson

The purpose of this study is to examine secondary traumatic stress (STS) and the coping of social workers in inpatient and outpatient settings in a Veterans Affairs healthcare system. A convenience sample of 126 master's level and above social workers completed a survey measuring Secondary Traumatic Stress. Rates of reported secondary traumatic stress symptoms and utilization of coping strategies by social work staff were investigated. Setting was not a significant factor in reported secondary traumatic stress scores. Although female social workers in inpatient settings reported higher rates of stress symptomatology than other social workers across settings, the rates were not found to be statistically significant. Social workers who reported belief in using coping strategies did not report lower scores on the Secondary Traumatic Stress Scale. Social workers who reported increased time spent using organizational coping strategies also did not report lower scores on the Secondary Traumatic Stress Scale. The majority of social workers reported experiencing STS symptoms (59.5%), particularly those who have increased caseloads of clients with trauma ($p < .001$). Those who reported feeling "satisfied" with their work reported lower rates of STS symptomatology, a significant finding ($p < .001$). Implications for policy development to address some of the organizationally supported factors that lead to STS such as length of exposure and job satisfaction are discussed.

Future research should examine individual and organizationally supported factors that contribute to and help mitigate STS in this distinct setting.

CHAPTER ONE

INTRODUCTION AND RATIONALE

Social workers are challenged by increased demands at work and diverse roles, which have led to increased occupational stressors for social work professionals (Mor Barak, Nissly, & Levin, 2001). Significant cuts in program budgets and the proposed federal budget could dramatically affect social workers and the clients who receive their services (National Association of Social Workers, 2010). By the nature of their work, social workers encounter those who have been traumatized or who present with histories of trauma. These factors have prompted researchers to investigate the relationship between work with traumatized populations and negative consequences for the social work professional (Bride, 2007; Cunningham, 2003; Dalton, 2001; Figley, 2002). Social workers are also increasingly becoming victims of violence themselves (Newhill, 2003). In a recent study of licensed social workers in multiple settings, more than half of the social workers surveyed had been threatened on the job (Dalton, 2001). As research in this area has grown, it has led to the development of new constructs to better capture the full impact of work with traumatized populations. One construct in particular that has emerged in the literature to describe these effects is secondary traumatic stress (STS), referred to in earlier literature as “compassion fatigue” (Figley, 2002). Secondary trauma symptoms as experienced by the professional are nearly identical to posttraumatic stress disorder (PTSD) symptoms as experienced by the client. These symptoms often include sleep disturbances, dissociation, and avoidance (Bride, Robinson, Yegidis, & Figley, 2004.2004). These symptoms, if not addressed, can impact the important role that social workers play in various practice settings (e.g., community, healthcare). STS is

experienced through indirect contact with trauma through the client's "telling of their story" and the professional's desire to assist the client (Figley, 1997). This study uses the STS construct to examine the impact of indirect trauma exposure on social workers that work with veterans receiving treatment in inpatient and outpatient healthcare settings.

The Role of Professional Social Workers

Professional social workers are instrumental in the provision of social welfare services to populations that are under stress, marginalized, or have gone through traumatic experiences. Social workers are considered the "conscience of a community," professionals who are able to raise awareness of issues related to social justice through their work (International Federation of Social Workers, 2000). As difficult as this work can be, it requires that social workers maintain a positive and compassionate relationship with the populations they serve. It has been postulated that mental health professionals as individuals tend to be sensitive to others, humanitarian, sympathetic, and often just wish to be helpful (Cherniss, 1980).

Social workers' professional roles are also largely defined by their clients' needs. This client-centered orientation plays a large part in the stress response as experienced by professionals due to the empathic attachment inherent in the worker-client relationship. As social workers seek to build these healthy relationships, they may be neglecting their own needs and responses to stress. It is this emphasis on empathy that suggests an area of vulnerability for social workers, particularly in the development of STS (Figley, 1995). Social workers view the world and their relationships with clients in a more humanitarian way (Cherniss, 1980). This view of the world and work with clients is important in that

trauma work requires “relational embeddedness” (Mitchell, 2000). Understanding that the relationship between the client and worker has to include boundaries and roles. It is this inherent “relationship” that poses stressors for the social worker. As empathetic concerns for the stressors clients face become those that the social worker must resolve, the social worker’s stress may increase (Radey & Figley, 2007).

Social workers are also increasingly working with populations that seek out services due to trauma that they have experienced. Researchers report that 82% to 94% of recipients of mental-health or psychosocial services in the United States have experienced at least one trauma in their lifetime and 31% to 42% have experienced symptoms of posttraumatic stress (Chu & Dill, 1990; Davidson & Smith, 1990; Escalona, Tupler, Saur, Krishnan, & Davidson, 1997; Switzer et al., 1999). This indirect exposure to trauma from clients transforms the social worker’s professional and personal life in ways that may prove detrimental to both parties. This effect worsens when accounting for the inherent occupational stressors of being a social work professional. Occupational stressors such as lack of job satisfaction, a low level of commitment to the organization, and poor work conditions as experienced by social workers have also been identified as a factor in high turnover and retention problems (Mor Barak et al., 2001).

Current Prevalence Rates of STS among Mental Health

Professionals

Current research identifies STS as a problem worthy of further investigation. STS related emotional exhaustion as experienced by mental health social workers was reported to be greater than that of psychologists or psychiatrists (Snibbe, Radcliffe,

Weisberger, Richards, & Kelly, 1989). In a study of 100 psychotherapists, almost half were found to have traumatic stress symptoms that required clinical attention (Kassam-Adams, 1999). Other studies have also noted that approximately 37% of social workers experience moderate to high levels of secondary traumatic stress (Cornille & Meyers, 1999). In the Cornille and Meyers (1999) study, of 205 child protective social workers surveyed regarding job-related stress, 37% were found to be experiencing levels of emotional distress symptoms associated with STS. A recent study investigating STS among social work professionals by Bride (2007) found that 55% of social workers surveyed met one of the three diagnostic criteria for PTSD, 20% met two of the criteria, and 15% met all three criteria necessary for a diagnosis of PTSD. Another recent study by Badger, Royse, and Craig (2008) indicated growing concern over the impact of indirect trauma exposure and resulting STS among hospital social workers. Their study focused on 121 social workers employed in a trauma center setting. In this study, organizational stress was defined as “the stress produced in response to exposure and interaction with work environment stressors and measured by the Work-Related Strain Inventory” (p. 66). A significant and high correlation was found ($r = .60, p < .001$) between occupational stress and an increased likelihood of STS for participants in this study. Although limited in amount, empirical research in the area of STS is growing, and this study will contribute to that body of literature. A greater understanding of the effects of STS will improve this study and future research on the subject.

Effects of STS

STS symptomatology has been hypothesized to be similar to the effects of experiencing direct trauma (Chrestman, 1995). Some of those effects include intrusive imagery related to client's disclosure of their own traumas (Danieli, 1994; Herman, 1992); distressing emotions (Courtois, 1988; Herman, 1992); and functional impairment (Dutton & Rubinstein, 1995; Figley, 1995; McCann & Pearlmann, 1990). Professionals with STS symptoms may also be at higher risk for poor professional judgment in working with clients, including errors such as misdiagnosis of clients, poor treatment planning, or abuse of patients (Munroe, 1999; Williams & Sommer, 1995). Development of STS is one reason why some social workers and other human service professionals leave the field (Figley, 1999). Professionals who experience secondary traumatic stress within organizations find that it affects not only them but also the clients they work with, thus impacting social service delivery to those clients (Munroe, 1999). These studies are part of a growing body of literature that suggests work with traumatized populations has measurable clinical effects on social work professionals. Although limited in number, studies such as these emphasize the importance of understanding STS and its related effects on the individual. It is also important to examine the effects of STS in the work environment.

The Healthcare Setting

The occupational settings in which social workers operate may further affect how much general stress they experience. Social workers are employed in various practice settings within healthcare, including inpatient hospital settings (e.g., primary or acute

care facilities), skilled nursing facilities, residential settings, and outpatient care settings (Gehlert & Browne, 2006). One study found that social workers working with HIV/AIDS patients in inpatient settings reported higher levels of stress in the form of burnout and fatigue than social workers in other settings who did not work with HIV/AIDS patients (Oktay, 1992). Forty percent of the social workers in the study worked in inpatient settings, and 52% (n = 67) worked in both inpatient and outpatient settings. Those who worked in the AIDS unit, which was typically inpatient, rated higher on emotional exhaustion and depersonalization and lower on personal accomplishment than social workers who worked in other units that were typically outpatient (Oktay, 1992). This is important to note because social workers are often a critical component in health service delivery. Social workers perform a variety of tasks within these specific practice settings from assessment of patient needs to advocacy for end-of-life issues. Within healthcare settings, inpatient care has historically been the single largest employer of clinical social workers (Ginsberg, 1995). Social workers who practice in inpatient settings are tasked with screening for admissions, psychosocial assessments, discharge planning, and post-discharge follow-up (Diwan & Balaswamy, 2006). In recent years, however, hospitals have moved toward expanding the role of social workers to providing services in outpatient settings. Social workers in outpatient settings provide services such as group facilitation, case management, and crisis intervention to help stabilize clients in the community. This often means collaborating with physicians and community health organizations outside of the hospital setting (Mizrahi & Berger, 2001).

Organizational characteristics of the healthcare environment create greater occupational stress as role ambiguity and ideological work philosophies become sources

of conflict for social workers. They struggle to work in an environment that relies on medical-model approaches when their own training and education prompt them to work within psychosocial models (Pockett, 2003). The increased stress as a result of this role confusion has been correlated with the development of STS symptomatology among social workers (Regehr, Hemsworth, Leslie, Howe, & Chau, 2004). Other organizational characteristics of the healthcare setting that may increase occupational stress and result in development of STS symptoms, include high caseloads; a sense of “devaluation” of the social worker; quick turnover in patient populations; and ongoing exposure to patients who may have experienced traumatic accidents, acute or chronic illness or injury, or psychiatric conditions (Badger et al., 2008; Dane & Chachkes, 2001; Gellis, 2002).

In summation, occupational stress is highly characteristic of healthcare settings due to these myriad elements of patient care and social worker role confusion or conflict (Revicki & Gershon, 1996). Researchers have suggested that future research related to STS be conducted in healthcare or hospital settings as there is increased demand for mental-health professionals in this area (Badger et al, 2008). Thus the focus of this study is in this practice area, specifically in an inpatient and outpatient healthcare setting.

The Department of Veterans Affairs Healthcare System

One healthcare setting in which social workers work primarily with traumatized populations and thus may encounter indirect trauma exposure is the Department of Veterans Affairs (VA) healthcare system. The VA healthcare system is the largest employer of social workers (more than 6,500) in the country, as well as a primary clinical site for internship training for more than 600 social work graduates annually (Manske,

2006). Approximately 70 million people are potentially eligible for Veterans Health Administration services and/or benefits by virtue of being veterans or family members or dependents of veterans (Department of Veterans Affairs, 2006c). Social workers came in contact with more than 317,000 veterans with a primary or secondary diagnosis of PTSD in fiscal year 2005 (Department of Veterans Affairs, 2006a). Hence, social workers in this setting are likely to work with traumatized patients. As veterans return from the current conflicts in Iraq and Afghanistan, the role of social workers will become even more crucial. More than 300,000 veterans have already returned from Iraq or Afghanistan. Rates of PTSD diagnosis among these returning soldiers are estimated to be between 12% and 20% (Washington Post, 2006). A recent RAND study (2008) found that 20% of these returning soldiers reported symptoms of PTSD or major depression.

Munroe (1999) found that professionals working with combat-related PTSD clients have “significantly higher scores on intrusion and avoidance, and that these effects were distinct from burnout” (p.212). This symptomatology is also described by individuals who experience STS. The return of veterans from conflicts in Iraq and Afghanistan will mean that VA social workers will be tasked with working with larger populations with traumatic histories (Manske, 2006). Along with these increased rates of PTSD, other critical trauma issues have emerged as common diagnoses in this population.

Recent reports indicate that returning veterans are also at risk for suicide; approximately 290 veterans have already committed suicide since their return to the United States (Hefling, 2007). Studies also indicate that the rate of suicide for young returning veterans is 41 per 100,000, which is higher than the rate of suicide in the elderly

population and general population overall (National Center for Health Statistics National Death Index, 2006). Researchers are also now reporting that the refractory period for PTSD is shorter for veterans serving in Iraq and Afghanistan than for previous groups of returning combat veterans (e.g., Vietnam-era veterans), and that they are reporting to Veterans Health Administration clinics sooner for mental-health services (Milliken, Auchterlonie, & Hoge, 2007). These factors of the emerging veteran population place additional strain on an overburdened healthcare system, and also on social workers who work in these settings. Organizations and supervisors who manage these social workers need to be prepared for the impact of STS and other stress-related symptoms on their workers. One area that has shown some promise in managing STS symptoms is the use of personal and organizationally supported coping strategies.

Coping Strategies of Social Workers

Coping strategies that social workers may employ within healthcare settings can exacerbate, mitigate, or prevent stress symptoms or demands. In general, coping strategies are useful in that they are “cognitive and behavioral efforts [aimed at] managing psychological stress” (Lazarus, 1993, p.237). Schauben and Frazier (1995) found in their study of sexual violence counselors that the use of five common coping strategies (viz., physical health and well-being, spiritually oriented activities, participation in leisure activities, emotional support, and instrumental support) was associated with lower levels of reported STS symptomatology. Participation in leisure activities was also found to decrease STS symptomatology in a study of emergency response workers and police officers (Iwaski, Mannell, Smale, & Butcher, 2002).

Pearlman and MacIan (1995) also found that spending time with family or friends, taking vacations, and socializing inside and outside of the workplace could reduce STS symptomatology. Organizational support characteristics such as access to consistent clinical supervision, ability to consult with other professionals regarding difficult cases, and professional training have been reported by researchers to aid in the mitigation of STS symptomatology (Cerney, 1995; Dane, 2000; Pearlman & Saakvitne, 1995).

Some clinical evidence and research literature also points to positive coping effects of work with traumatized populations, a phenomenon called “compassion satisfaction” (Stamm, 1995 2002). This concept captures the “reward experience” of workers who participate in the healing or resiliency of their clients with traumatic experiences or histories. Social workers, as noted earlier, are an integral part of the fabric of society in the professional roles that they play. This can impact the professional in two ways, leading either to increased STS symptomatology or to “compassion satisfaction,” which aids in assisting another individual with resolving stressors in their lives (Bride et al, 2007). In one study conducted by Ghahramanlou and Brodbeck (2000), therapists who work with victims of sexual assault reported this sense of compassion satisfaction, and as a result, lower levels of STS symptomatology.

Study Aims

As evidenced above, secondary traumatic stress is a potential occupational hazard for social workers (Bride, 2007; Cunningham, 2003; Dalton, 2001; Figley, 2002).

Research is sparse in the specific area of social work practice in healthcare settings and STS, with the exception of a few studies (Badger et al, 2008; Dane & Chachkes, 2001),

and there has been no research identifying the rates of STS and coping strategies among VA social workers. This study has been designed in light of the importance of these issues and the increased need for social work professionals in healthcare practice settings.

The purpose of this study is to determine whether social workers in a healthcare system such as the VA healthcare system experience secondary traumatic stress, and if so, to what extent. An additional purpose is to examine the coping strategies used by these social workers and to discuss possible recommendations for the development of policy in the area of secondary traumatic stress training and education. To date, there has been no research in this area with this specific population. As such, the aims of the study are:

1. To examine the level of secondary traumatic stress among social workers in both inpatient and outpatient units in a large healthcare system.
2. To examine the relationship between individual-level and organizationally based coping strategies and social workers' reported levels of STS.

CHAPTER TWO

LITERATURE REVIEW

The following section discusses the development of stress constructs in the current literature on secondary traumatic stress. Researchers are continuing to make advances in both construct development and development of measures to capture the symptomatology associated with STS. This chapter also introduces relevant theoretical frameworks in terms of secondary traumatic stress, discuss the literature in this area, and present the conceptual model most relevant to this work.

Background of the Problem

Various extreme and/or life-threatening events are often deemed “traumatic stressors” that can be experienced directly or secondhand. Such exposure can be brief in duration (e.g., accidents) or be prolonged (e.g., emotional or sexual abuse). The literature on traumatic stress identifies the former as Type I trauma and the latter as Type II trauma (Terr, 1991). Common responses to traumatic stressors include: emotional responses (e.g., terror, guilt, anxiety); cognitive responses (e.g., confusion, impairment in concentration, intrusive thoughts); biological responses (e.g., sleep disturbance, exaggerated startle response, psychosomatic symptoms); and behavioral responses (e.g., social withdrawal, decreased intimacy in relationships, isolation) (Meichenbaum, 1994). Mental health professionals describe these types of responses to trauma as precursors to a diagnosis of posttraumatic stress disorder. In fact, a stressful event is a necessary but insufficient condition for an appropriate diagnosis of PTSD (American Psychiatric Association, 2000; Matsakis, 1994). The PTSD diagnosis must include the exhibition of

several other symptoms such as reexperiencing responses, avoidance and numbing responses, and symptoms that persist over a period of at least one month and result in significant distress and functional impairment (APA, 2000).

Although a diagnosis of PTSD may help describe the range of symptoms that occur as a result of a traumatic event or STS, it does not account for individual differences in response to trauma. The diagnosis also often focuses on the precipitating event rather than the deleterious consequences that result from long-term exposure to trauma. As a result, some authors have proposed the creation of an alternative diagnosis of PTSD II or complex PTSD (Herman, 1992; Van der Kolk, 1993). Until the debate over whether precipitating factors for PTSD or the resulting long-term impacts of trauma constitute a less or more complex form of PTSD is resolved, the professional continues to work with traumatized populations under current DSM-IV guidelines. The debate over PTSD likely will not be resolved quickly, and in the meantime social workers will continue to see traumatized patients under current guidelines, making it critical to develop a greater understanding of stressors that can lead to STS.

As mental health professionals began to report symptomatology related to work with traumatized populations and resulting stressors that were similar to PTSD, researchers became interested in better understanding and conceptualizing these stress constructs (Figley, 1995). It was clear that these symptoms could impact both the worker and the client receiving services (Munroe, 1999). An overview of common stressors and the related constructs are presented in the following section.

Stress Constructs

Early Development of Stress Constructs

Professional literature has examined the impact of work with traumatized clients for the last three decades. The groundbreaking work of Maslach in the 1970s identified this phenomenon as “burnout” (Maslach, 1976). Figley (1982) also initially noted these effects, but described a link to mental health professionals in his work with victims of traumatic events as a form of burnout or secondary victimization. In the 1980s, researchers sought to expand these concepts and developed constructs such as Secondary Survivor (Remer & Elliot, 1988), Co-Victimization (Hartsough & Meyers, 1985), and Savior Syndrome (NiCathy, Merriam, & Coffman, 1984). These constructs, however, did not seem to fully capture the impact of work with traumatized populations.

Professional literature and research regarding work with traumatized populations reached a peak in the 1990s. The work of McCann and Pearlman expanded the knowledge base of work with traumatized populations. In 1990, their groundbreaking article “Vicarious traumatization: A framework for understanding the psychological effects of working with victims” contained research with psychologists who worked in private-practice settings treating adult survivors of incest. This construct of vicarious traumatization was noted to be different from earlier constructs, such as burnout. The term “burnout” alone does not capture the full effect of trauma as an occupational stressor. This distinction was later examined in studies where researchers found that burnout and general stress levels were not related to exposure to traumatized clients, whereas measures of trauma exposure and vicarious trauma were related (Kassam-Adams, 1999; Schauben & Fraizer, 1995). Vicarious traumatization was expanded to

describe symptoms that are experienced by professionals who work in varied settings with diverse client populations defined as the permanent "transformation in the inner experience of the therapist that comes about as a result of emphatic engagement with clients' trauma material" (Pearlman & Saakvinte, 1995, p. 31). A detailed overview of these stress constructs, including secondary traumatic stress, is included in the following sections.

Burnout and Countertransference

Organizational literature has used the term "burnout" to describe the effects of work within mental health organizations and among other populations (Corey, 1991; Kapur, 1999; Maslach, 1996; Pines & Aronson, 1988; Pines & Maslach, 1978). Burnout includes elements of emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, 1982). Burnout developed from the work of psychologists on the construct of occupational stress. An individual who experiences burnout may take time away from the organizational environment and client population, but can eventually return to work.

The construct of countertransference has also been used to describe some of the stress responses to work in organizations with clients. Countertransference has been described as a counselor's emotional reaction to a client as a result of the counselor's personal life experiences (Figley, 1995). Both burnout and countertransference have been addressed in literature related to work with trauma populations and have some overlap in symptoms, but are distinct concepts from secondary traumatic stress (James & Gilliland 2001). For example, neither burnout nor countertransference adequately account for the

impact on the professional of material presented by the traumatized client. The pioneering work of McCann and Pearlman (1990) in the 1990s was instrumental in further understanding the stressors of work with traumatized populations in the development of the construct of vicarious traumatization.

Vicarious Traumatization

Vicarious traumatization focuses on meaning and adaptation and is based on constructivist self-development theory, developed by McCann and Pearlman (1990), which supports the idea that individuals construct their realities through the development of cognitive schemas or perceptions that help to facilitate their understanding of surrounding life experiences. Changes in these cognitive schemas, or in the perceived realities of counselors, can occur as a result of interactions between clients' stories and counselors' personal characteristics.

Symptoms of vicarious trauma include disturbances in the professional's cognitive frame of reference for themselves and others, their identity, world view, and spirituality ... affect tolerance, fundamental psychological needs, deeply held beliefs about self and others, interpersonal relationships, internal imagery, and ... physical presence in the world" (Pearlman & Saakvitne, 1995, p.280). These symptoms can disrupt five key areas that represent major psychological needs relevant to trauma: trust, safety, control, esteem, and intimacy (Pearlman & Saakvitne, 1995). When this occurs, professionals' work with clients can be damaging to both parties. For the professional, these disruptions can result in a loss of emotional attachment to others (e.g., family and friends), loss of intimacy, feelings of grief, and reduced self-esteem in their work

(Saakvitne & Pearlman, 1996). Disruptions in the cognitive schema of the professional may also lead to counselors compromising therapeutic boundaries (e.g., forgotten appointments, unreturned phone calls, and even abandonment of clients). The loss of self-esteem may also impact their work as they begin to doubt their own skill and knowledge and lose focus on clients' strengths and resources (Herman, 1992). These disruptions can even create a sense of "rescuing" on the part of the therapist, or an avoidance of work with traumatized clients (Munroe, 1999). Vicarious traumatization focuses on the disruptions of cognitive schema that occur as a result of work with traumatized populations and its resulting impacts on the professional. It does not, however, focus on the development of PTSD symptomatology that may result in longer-term consequences for the professional. This distinction is crucial in that STS best describes the range of effects (including cognitive impacts) that occur in work with traumatized populations. Figley's (1995) development of the term "secondary traumatic stress" further expanded understanding of the impacts of working with traumatized populations.

Secondary Traumatic Stress

The concept of secondary traumatic stress has emerged as a construct that can fully capture the impact of work with traumatized populations. Figley (1995) defined his impressions of the secondary traumatic symptoms resulting from the overutilization of empathy that the professional may feel in work with traumatized clients. As professionals listen to traumatic stories and develop genuine feelings of empathy, they become traumatized. Figley notes that some professionals prefer to use the term "compassion fatigue" rather than "vicarious traumatization" or "secondary traumatic stress," as it is

less derogatory. Nonetheless, Figley's contribution to stress literature is important because his is the only construct that incorporates the elements of energy depletion common in work with traumatized populations. This construct fully captures the impact on some social workers and other mental health professionals, taking into account both energy depletion and personal and professional impacts, whereas other constructs only emphasize energy depletion (burnout) or personal impacts (vicarious traumatization). Figley's work related to STS has also been explored in many recent studies examining stress and its effects on social workers (Bride et al, 2007).

This study used the construct of secondary traumatic stress (STS). This is in line with recent literature in the field suggesting that secondary traumatic stress may better capture the impact of work with traumatized populations, with vicarious traumatization and compassion fatigue being seen as specific types of secondary traumatic stress with different sets of symptoms. Secondary traumatic stress also focuses on symptomatology similar to the range of symptoms that are found in a diagnosis of PTSD (Bride et al., 2004). There is also a significant difference in the conceptual bases for these constructs. Secondary traumatic stress and compassion fatigue have their foundations in a symptom-based diagnosis, and thus focus primarily on the constellation of symptoms. Vicarious traumatization has its foundation in a constructivist personality theory, and emphasizes the role of meaning and adaptation rather than symptoms. For the added construct of burnout, Figley (1995) used categories of symptoms developed by Kahill's (1988) categories of symptoms (physical, emotional, behavioral, work-related, and interpersonal stressors). Although burnout may be a precursor to STS, it is typically a more gradual process. STS is often sudden and acute, with symptoms that cannot be resolved merely by

taking time away from the organizational environment or client population. This distinct difference separates it from the constructs of burnout, countertransference, and vicarious traumatization. A theoretical understanding of the STS construct and mitigating factors such as coping strategies is discussed below.

Theoretical Framework

This section addresses the theories guiding this study, the conceptual framework that links the variables and the role of coping strategies in mitigating or preventing STS. As mentioned before, secondary traumatic stress and its synonym, compassion fatigue, have their foundations in a symptom-based diagnosis, and thus focus primarily on the constellation of symptoms. Figley (1995) describes three domains of symptoms: (1) experiencing of the primary survivor's traumatic event; (2) avoidance of reminders and/or numbing in response to reminders; and (3) persistent arousal. Secondary trauma symptoms as experienced by the professional are nearly identical to PTSD as experienced by the client. Several factors have been shown to be related to the development of STS within professionals. These include personal trauma history (Hodgkinson & Shepard, 1994; Kassam-Adams, 1999; Pearlman & Mac Ian, 1995); level of professional experience (Chrestman, 1995); available social supports (Bartone, Ursano, Wright, & Ingraham, 1989); number and type of trauma cases in their caseload (Chrestman, 1995; Kasam-Adams, 1995; Schauben & Fraizer, 1995) , use of coping strategies such as self-care (Figley, 1995, 2002) and level of training and education to work effectively with traumatized populations (Ortlepp & Friedman, 2002). If professionals become unaware of this stress response, they may convey to clients that they are unwilling to hear the details

of the client's trauma, or be less likely to ask questions to facilitate dialogue related to the event. This can undermine the building of trust that is necessary for the development of a therapeutic relationship.

Conceptual Development of STS

Figley (1995,2002) developed an etiological model of secondary traumatic stress. In this model, exposure to the client, level of satisfaction in the work, and response to the client's material are pivotal to the level of stress that is experienced. If the worker does not practice self-care (termed "disengagement" by Figley) in their work with traumatized populations, emotional response builds (Figley terms this "residual stress"). Prolonged exposure coupled with traumatic material recalled from work with traumatized clients will eventually develop into STS. Emotional separation to lessen the emotional response is important for the social worker in that it is the basis of the worker's ability to modulate reaction to the client's material ("their story") and to maintain objectivity (Corcoran, 1983). See Figure 1 below.

Recent studies indicate that it is this emotional separation that may in part reduce symptoms of STS (Badger et al., 2008). Elements found to be related to the prevention or mitigation of stress in some settings include a sense of achievement on the part of the professional, reduced periods of exposure to traumatized clients, and the worker's need to address the client's suffering (Munroe, 1999). A thorough self-care plan has also been identified as assisting in the mitigation or prevention of STS symptoms and future development of STS. In this particular study, a focus on exposure to clients, level of

satisfaction in work, and self-care by the individual within and outside of the organizational context was examined in relation to the development of STS.

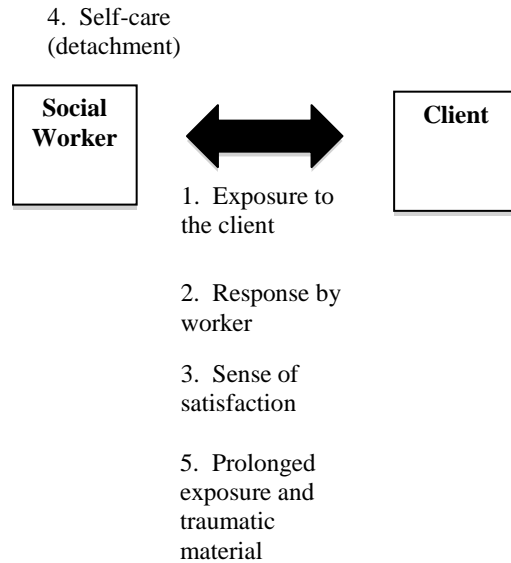


Figure 1. Etiological Model of Secondary Traumatic Stress

Role of Coping Strategies

Research literature suggests that use of coping strategies by mental health professionals may assist in reducing the symptomatology of STS. Although Yassen (1995) argued that STS could not be fully prevented, as it is a normal response to stress, she presented an ecological theoretical model of self-care to assist in mitigating the effects of secondary traumatic stress. This model was developed “out of the understanding of prevention in mental health, which draws from psychological and social impacts of disease with concepts of primary (social), secondary (societal), and tertiary (work setting) prevention” (Yassen, 1995, p. 180). Yassen’s ecological model employed two broad areas of care: personal strategies and environmental strategies. Some coping

strategies thought to mitigate the effects of secondary traumatic stress include balancing caseloads of traumatized clients; developing self-care activities for the professional; engaging in self-nurturing tasks (e.g., exercise); and seeking connections with others in the organizational environment through peer support (Pearlman & Saakvinte, 1995). Other coping strategies include discussing cases with colleagues, attending workshops, and other general socializing activities (Pearlman & MacIan, 1995). In support of this model, Bober Regehr, & Zhou (2006) identified four specific areas of coping strategies leisure, self-care, supervision, and research and development as effective long-term approaches to dealing with STS. Further, he conceptualized them as either individually supported (i.e. spending time with family, engaging in exercise or hobbies, etc.) or organizationally supported (i.e., regular supervision, case discussions, etc.).

Two studies of note conducted by Bober et al. (2006) and Bober and Regehr (2006) examined the impact of belief in and utilization of coping strategies by social workers and other mental health professionals. In this study, 259 mental health professionals (123 social workers) who worked in inpatient (16%), outpatient (20%) and other settings (i.e., private practice and community agencies) were studied for purposes of developing the Coping Strategies Inventory. The scale was developed to study both personal and organizationally supported coping strategies that workers believed in and actually spent time actually doing. Personal activities were defined as “leisure” (time with family), and “self-care” (stress management), for example. Organizationally supported activities included “supervision”, and “research and development” (conducting trauma research). In developing the scale, the authors sought to examine how coping

from an individual and an organizationally supported standpoint can be critical in mitigating stress for workers.

Leisure activities such as gardening, reading, listening to music, and going to the movies were found to be helpful coping strategies for psychologists and substance abuse counselors in mitigating stress (Schauben & Frazier, 1995). Research by Schauben and Fraizer (1995) demonstrated that five common coping mechanisms used by female sexual violence counselors were associated with lowered levels of STS symptomatology (active coping, emotional support, planning, instrumental social support, and humor).

Self-care such as meditation and exercise has been shown to be helpful in mitigating stress for social workers. A recent National Association of Social Workers study found that 70% of social workers who worked in an identified health practice area described “fatigue” as a stress-related health concern, and 74% of the participants also reported exercise as a useful as a coping strategy (Arrington, 2008). This particular coping strategy was rated highest among both genders and several ethnicities as well (Arrington, 2008). This same study also found that exercise was the highest-rated coping strategy (75%) for those in a health practice area. Other notable coping strategies identified by social workers in this study were meditation and therapy (Arrington, 2008). Meditation was used as a coping strategy by 35% of male and 27% of female social workers (Arrington, 2008). Adequate and consistent supervision has also been found to mitigate and prevent secondary traumatic stress. Organizational supports such as consistent supervision for staff resulted in lower levels of reported secondary traumatic stress (Dalton, 2001; Rosenbloom, Pratt, & Pearlman., 1995). This study focused on the belief in and time spent engaged in personal and organizationally supported coping

strategies in the reduction of STS using a measure developed by Bober et al. (2006) after a review of the literature related to coping strategies and impact on stressors as experienced by mental health professionals. In the present study, the stressor symptoms are measured using the STS Scale (Bride, et al., 2004).

While professionals need to be aware of coping strategies, they also need to understand stress and stressors in their work. Professionals, however, may not be fully aware of secondary traumatic stress as a construct or may dismiss it as just part of the work they do. Ultimately, comprehensive health approaches, which involve not only the individual but also organizational supports, are key to reducing and preventing the development of secondary traumatic stress. To date, literature surrounding the prevention of secondary traumatic stress has focused primarily on the individual; it is, however, also important to focus on some organizationally supported factors, which also impact individuals. As organizations come to recognize the potential effects that secondary traumatic stress has on employees, they have begun to consider the development of policies aimed at the management or prevention of secondary traumatic stress. In particular, Bober and Regeher (2006) focused on research and development as organizational supports for individuals. This includes activities such as participating in research related to understanding STS and its symptomatology; planning trauma programs to educate employees; and participating in trauma interest groups. Researchers have also suggested that organizations can better support their workers by considering the distribution of workload among professionals to decrease exposure to traumatized clients and assist in reducing STS symptomatology (Bober & Regehr, 2006). In this study, both

individual and organizational supports are examined through the organizational setting, both inpatient and outpatient.

STS and Occupational Settings

Social workers are not immune to the effects of stress, and have been identified as at risk for experiencing stress by virtue of their profession (Egan, 1993; Gilbar, 1998; Acker, 1999). Despite evidence that social workers are at risk for stress on the job, there has been only limited research conducted among social work professionals regarding stress and its impact. A recent literature review conducted by Lyod, King, and Chenoweth (2005) found that most of the information gathered in the area of social workers and job stress is “borrowed” research (e.g., the samples include other disciplines such as psychologists) or is anecdotal in nature. The research literature on secondary traumatic stress among social workers is sparse, with only a few notable studies. Setting-specific studies examining STS have been conducted with child-welfare workers (Cornille & Meyers, 1999; Nelson-Gardell & Harris, 2003), social workers responding to terrorist attacks (Boscarnio, Figley, & Adams, 2008), social workers responding to natural disasters (Naturale, 2007), social workers in HIV/AIDS counseling centers (Smith, 2007), and hospital social workers (Badger et al., 2008). As discussed earlier, healthcare settings are environments in which social workers experience tremendous stress (Badger et al., 2008; Dane & Chachkes, 2001; Gellis, 2002). Researchers have also called for studies focusing on healthcare settings as demand for mental health professionals and the services they provide has increased (Badger, et al., 2008). For these

reasons, this study focused on healthcare environments, specifically outpatient and inpatient settings.

Studies in healthcare environments that focus on outpatient and inpatient settings and the development of stressor symptoms (such as vicarious trauma and STS) are limited. Using qualitative methods, Dane and Chachkes (2001) focused on 12 social workers in various settings in a level-one trauma center, including both inpatient and outpatient settings. Although this study focused on vicarious trauma, it provides a good sense of the stressors in the hospital setting and the importance of organizational supports for the individual in inpatient and outpatient settings. Focus groups were held with hospital social workers, and they were asked questions such as: “Are there particular patients that affect you more than others?”; “What kinds of cases do you feel you are successful/ unsuccessful in dealing with?” and “When the work becomes difficult, how have you managed to cope?” (p. 37). Though a qualitative study, it was instrumental in identifying four common themes among hospital social workers in relation to development of vicarious trauma symptomatology: (1) organizational stress, (2) guilt, (3) problems in coping with the emotional impact of cases, and (4) social supports (Dane & Chachkes, 2001). Some of the inpatient social workers (those in oncology and transplant units) reported feeling “isolated from other professionals in the hospital” (p. 45). Others discussed the importance of feeling that their work was “significant and really helpful ... [which] increased their ability to cope with job stressors and the emotional impact of working with illness, disability, and death” (p. 42). The study concluded that there were risks inherent in the organizational structure that might produce traumatic stress symptoms (Dane & Chachkes, 2001).

Badger et al. (2008) studied contributory factors for indirect trauma exposure and resulting STS among 121 hospital social workers in five trauma centers in the Midwest. This was an important study in that it contained a sample of social workers whose practice was largely (45%) in inpatient settings. Results indicated that occupational stress was strongly correlated ($r = .60, p < .001$) with an increased likelihood of STS within the sample of hospital social workers. Also, years of experience was found to have a weak correlation ($r = -.19, p < .05$) with STS symptomatology (Badger et al., 2008). The researchers suggested a need for further evaluation of healthcare settings (inpatient and outpatient) and their impact on social workers to foster “preservation of their well-being and longevity in the social work profession” (p. 70). A longitudinal study was conducted by Sorgarrd, Ryan, Hill et al. (2006) that focused on stress and burnout among inpatient and community staff in six acute psychiatric care centers in five European countries. The study contained a sample of 414 total staff, of which 1.9% (eight) were inpatient social workers and 8.6% (37) were community staff. Inpatient staff in this study reported stress due to “worse social environment and a lack of control” (p. 801). Community (outpatient) staff reported more organizational problems, higher work demands, and less contact with staff. These same staff reported having more control over their work, which was defined as “influence on the work situation, the pace, important decisions, planning and having adequate responsibilities” (p. 799).

The above studies point to the importance of organizational supports for the individual in inpatient and outpatient settings and the impact of stressors on workers. When these supports are missing or inadequate these studies indicate an increase in reported stressors for the worker (Badger et al., 2008; Sorgarrd et al., 2006).

Organizational supports for the individual may also be helpful in mitigating stressors for workers. This research emphasizes the need to conduct research in healthcare settings that include inpatient and outpatient social workers and that focus on the stressors they experience (Badger et al., 2008).

There are a few methodological limitations in the aforementioned studies that should be noted. The first study contained small sample sizes, which could impact generalization to other similar populations. It also lacked a control group for comparison purposes. The last study reviewed healthcare settings in Europe, and although it did contain a relatively large sample size and was longitudinal in nature, healthcare settings in Europe may operate in a different manner than those in the United States. These studies, however, clearly demonstrate a need for further research in the area of workplace (inpatient/outpatient) setting and the relationship to STS.

In considering the above, the distinct roles that social workers have in the settings (inpatient and outpatient) are important to look at as well. Social workers in inpatient settings typically perform functions such as; admissions screenings, conducting assessments, discharge planning and aftercare follow-up. For outpatient social workers they typically perform the following functions; case management, group facilitation, individual therapy, and crisis intervention. It is important to note that these two settings are distinct in that outpatient social workers often have more “control” over the flow of clients that they interact with and thereby limit their exposure to traumatic material. The inpatient setting is often very fast-paced, requires quick decision-making and has a quick turnover of clients thereby increasing the interaction and exposure to traumatic material. See Figure 2 below.

Inpatient Settings	Outpatient Settings
<ul style="list-style-type: none"> • Admissions screening • Assessments • Discharge planning • Aftercare follow-up 	<ul style="list-style-type: none"> • Case management • Group facilitation • Individual therapy • Crisis Intervention

Figure 2. Common Roles of Social Workers in Inpatient and Outpatient Settings

Predictors of STS

A number of studies have identified factors associated with STS, many with mixed or inconsistent results (Arvay & Uhlemann, 1996; Birck, 2001; Kassam-Adams, 1999; Leria & Byrne, 2003). Specifically, these studies have found that factors such as age, gender, length of exposure to traumatized populations, personal trauma history, educational level and occupational role, professional experience and coping and support mechanisms may play a role in the development of secondary traumatic stress (Bride et al., 2004; Leria & Byrne, 2003). Given the lack of consensus in the research regarding the role of these variables in the development of STS, it is necessary to expand the

knowledge base through additional research. As such, a literature review of predictive factors along with research findings is presented in the section below.

Age

Ghahramanlou and Brodbeck (2000) found that younger age was associated with higher intensity of secondary traumatic stress in sexual-assault counselors. Arvay and Uhlemann (1996) also found that younger trauma counselors had higher levels of intrusion, avoidance, depersonalization symptoms, and perceived stress. Several other studies, however, have found no relation between age and secondary traumatic stress symptoms (Birck, 2001; Kassam-Adams, 1999; Meldrum, King, & Spooner, 2002; Nelson-Gardell & Harris, 2003; Pearlman & Mac Ian, 1995). Bride et al. (2004) theorize that the deciding factor may not necessarily be age but rather experience in practice and subsequent development of appropriate coping mechanisms in working with traumatized clients.

Gender

There are also mixed reports about the impact of gender on secondary traumatic stress. No relationship was found between the gender of the professional and symptom levels in studies by Meldrum et al. (2002) and Nelson-Gardell and Harris (2003). Studies conducted by Kassam-Adams (1999) and Cornille and Meyers (2002), however, found that female therapists and female child protective service workers were more likely to report high levels of psychological and cognitive distress. In this particular study, gender

is one of the demographic variables investigated in relation to STS level and coping strategies utilized.

Length of Exposure

Exposure to traumatized populations has been used as one standard in measuring subsequent development of secondary traumatic stress symptoms. One measure is the balance of the caseload (trauma vs. non-trauma clients) or the proportion of time spent in clinical activities with the population. Chrestman (1999) notes that higher percentages of trauma clients were associated with increased levels of dissociation, anxiety, and intrusion. In the same study, frequency and intensity of work with traumatized clients was positively correlated with increased avoidance. Brady, Guy, Poelstra, & Brokaw (1999) found that the current number of clinical hours spent with survivors, the current percentage of survivor clients, the average number of clinical hours spent over the course of a career with survivors, and the level of exposure to graphic material all contributed to trauma symptoms in mental health professionals. These studies were cross-sectional in nature and, surprisingly, none of the main studies of secondary traumatic stress have assessed the effects of continued work with traumatized populations. This may limit the findings of these studies, as they do not incorporate any longitudinal impacts of symptoms on professionals, nor do they address those professionals in the field who continue to work with traumatized populations.

Personal Trauma History

The professional's personal trauma history has also been identified as a predictor of secondary traumatic stress. A study of child welfare workers by Nelson-Gardell and Harris (2003) found that sexual abuse in childhood and adulthood increased their risk of secondary trauma symptoms. In her study of 250 Illinois social workers, Wrenn (2005) found that those social workers with personal childhood trauma histories were at significant risk for developing STS. Cornille and Meyers, (1999), in their study of 205 child protective service workers, found that 82% reported some form of personal trauma prior to their employment as child protective service workers. Jenkins and Baird (2002) studied 99 sexual assault and domestic violence counselors and found that those with personal trauma histories scored higher on a compassion fatigue self-test. These studies point to the influence of personal trauma history on reports of STS symptomatology. Another area that has been shown to be predictive of STS symptomatology is that of coping strategies used by the worker. A study by Bucciarelli et al. (2007) investigated factors that predict psychological resilience after life stressors. They sampled 2,752 people who lived in the New York City area after the 9/11 terrorist attacks. They found that life stressors and trauma exposure were significant predictors of resilience. In particular, those with prior traumatic experiences indicated less resilience than individuals with no prior traumatic experiences. "Compared with participants with no prior traumatic experiences, resilience was equally prevalent if there was one prior trauma ($OR = 0.96$), but close to half as likely ($OR = 0.58$) if there were two or three prior traumas, and less than half as likely ($OR = 0.42$) if there were four or more prior traumas" (p. 675).

Educational Level and Occupational Role

Educational level and occupational role were found to be significantly related to secondary traumatic stress symptoms in a study by Steed and Bicknell (2001). Their study found that psychologists had lower levels of secondary traumatic stress than social workers, but that there was no difference between bachelor's-level and master's-level graduates. This may indicate an opening for further research in the area of curriculum or training among these occupational roles, to determine whether these variables affect the development of secondary traumatic stress. There are limited studies investigating STS in relation to educational level.

Professional Experience

Professional experience of the worker is another variable that has been investigated in connection with STS with mixed results. Mental health workers just entering the field with little experience have reported higher STS levels in some studies (Betts Adams, Matto, & Harrington, 2001; Chrestman, 1995). One longitudinal study conducted by Collins and Long (2003) used both quantitative and qualitative methods to study 13 healthcare workers who were part of a trauma response team in Ireland. During a three-year period (1998-2001), they found that rates of secondary traumatic stress increased as coping mechanisms decreased during the first year, indicating the need to recognize the effects of stressors early in a professional's work rather than later.

Other studies have shown that workers just entering the field or with little experience did not report increased STS (Ghahramanlou & Brodbeck, 2000; Jenkins & Baird, 2002; Kassam-Adams, 1999). Although there appear to be mixed results in these

studies, professional experience can be considered an important factor in how the individual responds to organizational supports or lack thereof.

Coping Strategies

As indicated previously, coping strategies are thought to play an important role in reducing or minimizing the effects of STS. Support for this is seen in a study by Zur and Michael (2007), who examined the role of appraising stress and utilization of coping strategies among social workers and other mental health professionals (psychologists and nurses). They strongly recommended that “professionals should acquire both information and skills on effective coping strategies in order to manage problems and conflicts at their work successfully” (p. 79). Even stronger support for the relationship between coping skills and STS is provided by Bober and Regehr (2006), who found that although individual coping strategies may not be effective in immediately mitigating STS, organizationally supported approaches such as decreasing individual workers’ caseloads may be effective in the long term. They also noted that “further research regarding workplace conditions and individual strategies that would prevent, identify, or reduce various and secondary trauma among trauma therapists is urgently needed” (p.9). These studies highlight the importance of coping strategies in mitigating STS symptoms and emphasize the need for further research, particularly in terms of the type of coping strategies that should be utilized by the individual both personally and within the work environment. Several researchers have begun to address this issue.

An empirical study conducted by Follette, Polusny, and Milbeck (1994) of 225 mental health professionals working with child sexual abuse survivors examined coping

strategies and STS. The researchers found that 96% of the mental health workers reported that education and training about sexual abuse assisted in mitigation of stressors. The study found that utilization of negative coping strategies such as using alcohol, drugs and even directed aggression toward significant others resulted in higher reported stress scores ($r = .188, p < .001$), even if the workers had a personal trauma history themselves or had higher percentage of sexual abuse survivors on their caseloads. A further review of the literature related to negative coping strategies as a predictor of STS did not reveal any other studies of significance. Given the lack of research in this area, the current study draws on Yassen's (1995) theoretical model of self-care, which employs personal and organizationally supported aspects of coping using the Coping Strategies Inventory developed by Bober & Regehr (2006).

Organizational Supports and Secondary Traumatic Stress

Given some of the predictive factors of STS discussed above (e.g. personal trauma history, length of exposure), organizations have an opportunity to reduce STS among individuals through organizationally supported means. For instance, organizations could provide consultation to social workers that would help them evaluate their individual vulnerability (e.g., predictive factors) and offer supervision or other supports that could buffer their exposure to trauma (e.g., vacations, exercise, support groups). Supervisors also could be assigned the responsibility of monitoring STS and supportively discussing coping strategies with the social workers they supervise or referring those who are stressed to Employee Assistant Programs for counseling. Most research surrounding the prevention of secondary traumatic stress has focused on the individual, but

organizational values and culture often set expectations for work in social service and how the individual uses organizational supports. It is important that organizations that provide services to traumatized populations acknowledge the impact of trauma not only on the individual worker, but also on the organization as a whole. Professionals who experience secondary traumatic stress within organizations impact the clients with whom they work; this can impact social service delivery, including errors such as misdiagnosis of clients, poor treatment planning and abuse of patients (Munroe, 1999; Williams & Sommer, 1995). The impact of STS on client service delivery is still in its infancy with regard to empirical research, and needs to be explored more fully.

Current trends in organizations to reduce administrative costs have led to increases in paperwork, increased workloads, and further elimination of social supports for mental health professionals. This has led in part to an increase in the prevalence of secondary traumatic stress among professionals (Bell, Kulkarni, & Dalton, 2003; Cornille & Meyers, 1999; Dalton, 2001). Organizational culture and supports in general are thought to affect the prevalence of secondary traumatic stress among professionals. Workload assignments, for instance, are one way in which secondary traumatic stress can potentially be managed. A caseload that is high in clients with traumatic histories can lead to secondary traumatic stress; conversely, a diverse caseload can decrease the risk, according to a survey of members of the International Society for Traumatic Stress Studies, the International Society for the Study of Multiple Personality and Dissociation, and the American Association of Marital and Family Therapists (Chrestman, 1995). Lack of social and peer supports have also been found to contribute to the development of secondary traumatic stress (Chrestman, 1995). The general work environment can also be

a factor; a work environment that is safe and comfortable for both employees and clients can reduce stress responses. This includes a workplace that offers a separate space where staff can take breaks and engage in activities separate from client interaction, according to an anecdotal study of Boston-area rape crisis counselors (Yassen, 1995).

Education about work with traumatized populations may be another way to manage or prevent the impacts of secondary traumatic stress. As newer and inexperienced professionals are brought into the organization, Munroe (1995) suggests that organizations have an ethical duty to warn them about the risks of work with traumatized populations. This may include a discussion about the impacts of secondary traumatic stress during employee orientation. Staff training can also include ongoing education about trauma theory and the impact of work with traumatized populations (Regehr & Cadell, 1999; Urquiza, Wyatt, & Goodlin-Jones, 1997).

Providing staff with opportunities to informally debrief and process traumatic material with peers has been shown to be helpful in lowering the incidence of STS among staff working with trauma survivors, child-protection agencies, and even interviewers of victims of trauma (Catherall, 1995; Horwitz, 1998; Urquiza et al., 1997). Organizational resources that provide self-care are also vitally important in the management or prevention of secondary traumatic stress. Organizations that employ hospital social workers, such as those examined in this study, and that provide employee-assistance programs and other resources for self-care (such as stress-management classes for staff) have employees that suffer less impact from secondary traumatic stress (Wade, Beckerman, & Stein, 1996). The evidence above indicates a need to understand how the individual is impacted by organizational supports. As organizations begin to recognize

the impact that secondary traumatic stress has on employees, they have begun to develop policies aimed at the management or prevention of secondary traumatic stress.

Development of policy

Rudolph, Stamm, and Stamm (1999) investigated the relationship of secondary traumatic stress on policy development in organizations. They determined through both policy-analysis methods and an empirical study whether secondary traumatic stress should be of concern to administrators and those in charge of developing policy (e.g., education and training) in organizations. Their 1997 study in particular focused on the self-care domains available for workers individually and throughout the organization. The results indicated that secondary traumatic stress should be made a priority for administrators and policy developers within organizations based on both the resulting stressors that were reported by the workers and the role that policy development has in shaping education and training. Researchers have also indicated that organizations may want to address the time employees spend in areas of research and development (e.g., education, participation in trauma interest groups) in the case of professionals they employ to assist in mitigating STS symptomatology (Bober & Regehr, 2006). The current study investigated whether social workers who spend more time using organization-supported coping strategies (i.e., education and supervision) demonstrate lower levels of reported STS symptomatology in line with the research conducted by Rudolph, Stamm, and Stamm (1999).

Literature Review Summary

Researchers have indicated the need for further study among social workers in the area of secondary traumatic stress (Badger et al., 2008; Bride, 2007; Cunningham, 2003). This literature review aimed to investigate some of the variables found to be significant in the development of secondary traumatic stress, and to review literature on coping strategies that have been shown to mitigate or prevent the impacts of secondary traumatic stress. It is important to note the lack of empirical research in this area and the lack of research with the specific population proposed in the current study (social workers in the VA healthcare setting). The literature reviewed contains a mix of both anecdotal and empirical research; researchers are beginning to expand the knowledge base on STS. The proposed study aims to expand the research base of STS and to provide research which is of interest to the field of social work.

CHAPTER THREE

METHODOLOGY

This chapter provides a description of the research questions and hypotheses, design, sampling procedures, instruments, data collection procedures, and limitations of the proposed study. The research questions investigated in this study are: (1) Is there a difference in the reported levels of secondary traumatic stress among social workers working in inpatient and outpatient settings at the VA's Greater Los Angeles Healthcare System (GLA); and (2) Does belief in and time spent on different coping strategies among social workers at GLA impact reported secondary traumatic stress? The specific hypotheses tested are described below.

Hypotheses

The study examines the prevalence of STS among master's-level and above social workers in a healthcare setting and their use of coping strategies to mitigate or prevent the impact of STS. Findings from this study may be used to propose changes in policy for the Veterans Health Administration for current and future social work professionals who work in this and similar settings. Two research hypotheses are proposed for this study.

H₁: There will be a significant difference in the level of STS symptomatology between social workers who work in an inpatient setting and those who work in an outpatient setting, as measured by the STS Scale after controlling for the effects of personal and organizationally supported coping strategies, gender, educational level, professional experience, length of exposure, and personal trauma history.

H₂: Social workers who believe more strongly in and spend more time using personal and organizational supported coping strategies, as measured by the Coping Strategies Inventory Beliefs (Leisure, Self-Care, Supervision) and Coping Strategies Time (Leisure, Self-Care, Supervision, Research and Development) Subscales, will demonstrate lower levels of reported STS symptomatology on the STS Scale after controlling for the effects of gender, educational level, professional experience, length of exposure, and personal trauma history.

Research Setting

The Greater Los Angeles Healthcare System main hospital and services center is located at 11301 Wilshire Boulevard in Los Angeles, CA, and is also referred to as the West Los Angeles Healthcare Center. There are other satellite and ambulatory clinics within the GLA system located in downtown Los Angeles (Los Angeles Ambulatory Care Center) and North Hills (Sepulveda Ambulatory Care Center), as well as other parts of Los Angeles County. GLA is a large medical and university healthcare center that provides services to more than 1 million veterans residing in Los Angeles County. Los Angeles County has the largest concentration of veterans of any county in the United States (Department of Veterans Affairs, 2006b). The healthcare center provides a broad range of medical, surgical, and psychiatric care. These include areas such as internal medicine, cardiology, and infectious diseases. The healthcare center also offers major surgical subspecialties including orthopedics; urology; neurosurgery; ophthalmology; plastics; ear, nose and throat; podiatry; and cardiac surgery (Department of Veterans Affairs, 2006c).

To complete the continuum of care, there are two 120-bed community-living centers located on the grounds that are offered to veterans. Also on-site is a post traumatic stress disorder (PTSD) specialty program and a 321-bed residential-care domiciliary that provides rehabilitation programming in a therapeutic environment to prepare veterans for re-entry into the community (Department of Veterans Affairs, 2006b). The healthcare center employs more than 180 people on its social work staff, which includes 10 social work student interns from local graduate programs (e.g., USC, UCLA). It also employs more than 100 psychologists whose primary duty is the psychological testing and diagnosis of veterans, along with conducting individual and group therapy. A major study undertaken by RAND (2008) found that only 53% of returning troops sought help for their PTSD or major depression. Of the troops surveyed, 45% were concerned about side effects from the medications they might receive, while 44% were concerned that seeking help could harm their careers (RAND, 2008). The proportion of veterans seeking mental health treatment one year after returning from service was recently estimated at 35% (New York Times, 2007). An estimated 20% of troops surveyed in Iraq have reported signs and symptoms of PTSD (New York Times, 2007). This creates a large demand for professionals who can evaluate and treat people who have experienced traumatic stress. The direct impact of this work on the social work profession and VA healthcare system is significant and warrants further investigation.

Research Design

The research design used for this study was a cross-sectional survey, which utilized a sampling frame of master's-level and higher educated social workers employed

by the GLA. Survey methodology included a questionnaire packet that was sent to all master's-level and higher social workers currently employed in the system. The population included all social workers who work in an inpatient setting (e.g., polytrauma or psychiatric ward settings) and social workers who work in an outpatient setting (e.g., PTSD clinic or domiciliary/residential program). The purpose of this particular design was to explore the difference in STS between social workers who work in inpatient settings and those who work in outpatient settings, and to examine the relationship between the level of secondary traumatic stress and coping strategies utilized as a mitigating factor.

The cross-sectional design used in this study is one of the most common in the area of social science research (Nachmias & Nachmias, 2000). Cross-sectional designs are used to capture information on participants at one point in time (as is being done in this study, in which we ask respondents to rate STS symptomatology within the last 7 days and frequency of use of coping strategies) and do not require randomization of the sample. One weakness, however, is that it makes it difficult for the researcher to manipulate the independent variable (in this study, clinical setting and use of coping strategies) (Nachmias & Nachmias, 2000). Several researchers have utilized cross-sectional designs in their studies of STS symptomatology (Bober et al., 2006; Cornille & Meyers, 1999).

Participants

A sample of 128 social workers with a master's degree or higher was proposed as necessary for 80% power with a medium effect size at the .05 level of significance. A

sample of 127 out of a possible 170 social workers from GLA was obtained through an initial email request (see Appendix B) to participate in the study through attendance at a monthly social work meeting. One participant did not fully complete the survey materials, which resulted in a sample of 126 participants. For the analysis involving type of work setting, there was a group of 20 participants which indicated working in both inpatient and outpatient settings. These cases were removed whenever analysis involved work setting.

Recruitment and Sampling Procedures

The target population of all eligible GLA social workers (master's-level or higher) who currently practice in a clinical inpatient or outpatient setting were invited to participate. The convenience sample included all individuals who responded to an email sent to all clinical GLA social workers (master's-level or above) on the social-work employee list. This list was verified through the chief of social work service, who maintains the active list. A secondary attempt to gather appropriate eligible participants was also made at four social work meetings, which occurred on a monthly basis at the health center. An announcement was made at these meetings regarding the proposed study and the voluntary nature of participation (see Appendix C).

Instrumentation

Three instruments were used to gather data for this study: (1) the Secondary Traumatic Scale; (2) the Coping Strategies Inventory; and (3) a demographic questionnaire.

Secondary Traumatic Stress Scale

The Secondary Traumatic Stress Scale (STSS) (Bride et al., 2004) is a 17-item self-report scale used to measure the symptoms of intrusion, avoidance, and arousal that are shown to be correlated to exposure to indirect trauma (see Appendix D). Results are summed to give a total score, which ranges from 17 to 85. The sum is best interpreted as a percentile: Scores at or below the 50th percentile (less than 28) are interpreted as little or no STS, scores at the 51st to the 75th percentile (28 to 37) are interpreted as mild STS, scores at the 76th to the 90th percentile (38 to 43) are interpreted as moderate STS, scores at the 91st to the 95th percentile (44 to 48) are interpreted as high STS, and scores above the 95th percentile (49 and above) are interpreted as severe STS” (Bride, 2007, pp. 66-67). In essence, the lower the score, the lower the level of STS symptomatology. The STSS was tested for reliability, convergent discrimination, and factorial validity through a sampling of 287 licensed social workers (Bride et al., 2004). Coefficient alpha levels were high for the entire scale (.93) and acceptable for each of the three subscales used to measure STS symptomatology: intrusion (.80), avoidance (.87), and arousal (.83), indicating good internal consistency.

Bride et al. (2004) also tested convergent validity by comparing STSS scores with the level of traumatization found in the population treated by the respondent, severity of depressive and anxiety symptoms experienced by the respondent, and frequency of contact with the traumatized client population. A strong correlation between STSS scores and these areas was found among the population tested. This supported the convergent validity of the instrument, as STSS scores and each of the convergent variables were significant. Discriminant variables and STSS scores, on the other hand, were not found to

show any significance. A further assessment of discriminant validity through examination of the association of STSS scores with variables of income, ethnicity, and age was found not to be significant (Bride et al., 2004). As a result, the convergent and discriminant validity of the instrument was supported.

The authors established factorial validity through the use of a structural equation model (SEM). Fit indices for SEM were found to be adequate as the results obtained showed values above .90 each for the Comparative Fit Index (.94), Incremental Fit Index (.94), and Goodness of Fit Index (.90) (Bride, et al., 2004). A confirmatory factor analysis also showed that all the items loaded were statistically significant, with R^2 values from .33 to .63. The factors themselves all showed significant correlation, which supports consistency between this measure and a solid conceptualization of STS (Bride et al., 2004).

This particular instrument was selected for use in this study because of its effectiveness in measuring the physiological symptoms often associated with STS (viz., intrusion, avoidance, and arousal). It is applicable for use specifically with the population that is being studied (social workers). The instrument itself is also beneficial for this study as the length of time necessary to complete it and the level of technical jargon related to STS symptoms are low. It has been demonstrated to best conceptualize the impact of indirect trauma exposure among social workers (Bride et al., 2004). It has also been identified as a measure that supervisors can use to identify STS symptomatology levels among their employees (Bride et al., 2007).

Coping Strategies Inventory

The Coping Strategies Inventory (CSI) (Bober et al., 2006) is a 31-item self-report instrument used to measure beliefs regarding which coping strategies might lead to lower levels of STS and how much time the participant spends engaging in those coping strategies (see Appendix E). There are two subscales found within the CSI, the Coping Strategies Beliefs (CSB) scale and the Coping Strategies Time (CST) scale. In the CSB scale (14 items), participants are asked to rate their belief that specific activities will assist them in dealing with work with traumatized populations. The scale examines both individual (e.g, time with family, vacation/time off, hobbies) and organizational (e.g., developing team care plans, care discussions with management, regular supervision) items in terms of how helpful they are as coping strategies (Bober et al., 2006). The CST scale (17 items) explores the time spent by the participant engaged in both individual and organizational activities they believe assist in their work with traumatized populations. The CSI's two subscales (CST and CSB) have three factors (leisure, self-care, and supervision) and four factors (leisure, self-care, supervision, and research and development), respectively (Bober et al., 2006). The CSI's subscales are scored in the following way. For the CSB, items #1, 2, 3, 4, and 5 comprise the Leisure subscale and are scored by summing those items with a possible range of scores from 0 to 20. Summing items #6,7,8, and 9 scores the Self-Care subscale (range of scores 0 to 16). The Supervision subscale is scored by summing items #10, 11, 12, 13, and 14 (range of scores 0 to 20). Responses to individual items on the scale range from 0 (not at all helpful) to 4 (always helpful). A higher total score indicates that the respondent views that activity as more helpful. For the CST, items #1, 2, 3, 4, and 5 comprise the Leisure subscale and are

scored by summing those items (range of scores 0 to 15). The Self-Care subscale is scored by summing items #6, 7, 8, 9, and 10 (range of scores 0 to 15). The Supervision subscale is scored by summing items #10, 11, 12, and 13 (range of scores 0 to 12). The Research and Development subscale is scored by summing items #14, 15, 16, and 17 (range of scores 0 to 12). Responses on individual items range from 0 (not at all) to 4 (frequently). A higher total score indicates that the respondent engages in those activities more frequently.

The CSI was tested for reliability, construct validity, and content validity with a sample of 259 individuals who stated they were counselors or therapists providing direct care to populations, including 123 who identified themselves as social workers (Bober et al., 2006). Coefficient alpha levels ranged from .69 to .91 for the beliefs scale (CSB) and from .75 to .91 for the time scale (CST). These levels were obtained from the original sample ($n = 259$) and a subsequent “non-counselor” sample of 71.

Construct validity was tested through a comparison of factor structures of the CSB and CST between counselor and non-counselor groups. A similar breakdown for both groups was found, but factors within the CSB accounted for 55.9% of the total variance, while factors within the CST represented 45.7% of the variance (Bober et al., 2006). This may suggest that some aspect of the constructs in the subscales of the measure may not be adequately represented. Content validity was tested and the results revealed that beliefs (CSB) about values of three types of coping activities were found to be correlated with one another: leisure and self-care ($r = .30$); leisure and obtaining supervision ($r = .46$); and self-care and supervision ($r = .46$) (Bober et al., 2006). The time subscale (CST) was found to show few significant associations. “Only time devoted

to self-care with the organization and time devoted to supervision were significantly correlated ($r = .42$)” (Bober et al., 2006, p. 79). The authors of this measure suggest that it may indicate low levels of consistency between stress-management activities in any one individual. No published literature reporting measures of criterion validity for this scale exists. In part, this is because other scales measure traumatic responses of trauma counselors but do not address coping strategies (Bober et al., 2006).

This particular instrument was selected for use in this study as it can accurately reflect whether available coping strategies and their use by social workers can lower levels of distress from STS. It was also selected for its ability to measure individual and organizational coping by social workers. The use of this instrument also provides another specific sample of social workers (in a healthcare setting), which may shed more light on its effectiveness as an instrument for future studies.

Demographic Questionnaires

Questions related to demographics were included to determine the respondent’s age, sex, education, years of experience, percentage of trauma survivors in caseload, access to supervision, education and training in the area of STS knowledge, and general feedback on satisfaction with working with veteran populations (see Appendix F).

Data Collection Methods

This section will address the data collection methods that were used in this particular study. All procedures were approved by the Institutional Review Board of Loma Linda University and the Institutional Review Board of the Department of

Veterans Affairs Greater Los Angeles Healthcare System Research Department.

Participants who chose to complete the survey were provided with an envelope that they could seal and either place in closed collection boxes in a central location at the Social Work Department Office (Building 500, Room 6251) or return at the end of the presentation at the monthly social work meeting. The survey was completed in paper-and-pencil format; electronic surveys were not utilized. The packets were coded for tracking in order to obtain a completion percentage. Eligible social workers were informed they could leave any question unanswered if they considered it to be a potential identifier.

Data Analysis

The Statistical Package for the Social Sciences, Version 17 (SPSS, 2009) was used for data analysis in this study. Descriptive, bivariate, and multivariate statistical procedures were used. Standard data-screening methods were employed, including screening, testing, and analysis of assumptions from the data collected. Descriptive analysis examining frequency distributions and measures of central tendency was performed to explicate sample and variable characteristics found in the questionnaire and attached measures. The frequency distribution tables were also analyzed for entry errors and any possible outliers in the study. Standard deviations and means (measures of central tendency) were also examined to ensure there were no outliers. These methods are considered acceptable for the screening of outliers in statistical analysis (Tabachnick & Fidell, 2001). This analysis also involved a review of the frequencies to determine whether the responses were more than slightly skewed in either a positive or negative

direction, or if there was kurtosis. One survey with missing data was removed from the sample set. In analyzing the relationships between the independent variables and the dependent variables, the assumption of linearity was met as evidenced by a visual analysis of scatterplots. There was also no multicollinearity or singularity found among the bivariate or multivariate analyses that were conducted in this study.

The proposed covariates that were available from the data collection were evaluated in terms of their relationship with the dependent variable of secondary traumatic stress as well as with one another. None of the proposed covariates of gender, professional experience at the VA, personal trauma history, belief in the use of coping strategies, or use of coping strategies was significantly related to the dependent variable. Only exposure as measured by percentage of hours worked each week with traumatized clients was found to be significant (Table 1). This pre-analysis approach to examining covariates is supported by Tabachnick and Fidell (2001), who indicate that significance tests assess the usefulness of a covariate to adjust a dependent variable. They also suggest that including nonoptimal covariates reduces power by reducing degrees of freedom. Given the inconsistent findings in the literature regarding these variables, along with the weak relationship with the dependent variable, only the exposure covariate was used in addressing the hypotheses. The hypotheses were also run with the inclusion of all the covariates with no significant change in results.

The following multivariate analyses were conducted to test the hypotheses. For Hypothesis 1, an analysis of covariance (ANCOVA) which assesses for differences among groups with regard to a continuous outcome after controlling for other related variables was used to assess differences in STS score among social workers within

Table 1

Bivariate correlations of covariates with secondary traumatic stress

Variables	Secondary Traumatic Stress
Gender	-.048 (p=.595)
Professional Experience	-.117 (p=.192)
Length of Exposure	.375 (p=.000)*
Personal Trauma History	-.119 (p=.192)
Coping Strategies Belief	-.087 (p=.332)
Coping Strategies Time	-.031 (p=.728)

* $p < .001$

inpatient and outpatient settings after controlling for length of exposure. ANCOVA analysis is useful in that it reduces within-group error variance and assists in eliminating any confounds (unmeasured variables) in the study (Field, 2008). It should be noted that due to the lack of association between many of the originally proposed covariates and the dependent variable (STS), only length of exposure was included in the analysis.

For Hypothesis 2, a hierarchical multiple regression was conducted to examine the influence of several predictor variables (IVs) on a continuous outcome in a sequential way. Variables are entered in “blocks,” to determine the independent contribution of each variable after controlling for the effect of other covariates (Aron & Aron, 2007). The multiple regression provides some meaningful information in its analysis. The beta coefficients are the expected change in the dependent variable, per standard-deviation increase in the predictor variable. The standardized beta (β) is typically used as it describes the contribution of each variable to the model. The R value is the measure of the correlation between variables. R^2 is the measure of how much of the variability in the outcome is accounted for by the predictor(s). Adjusted R^2 takes into account the number

of variables in the model and number of participants the model is based on, in addition to providing accounted variance. For Hypothesis 2, the control variable was length of exposure, the predictor variables were the subscales from the Coping Strategies Inventory Belief scale (Leisure, Self-Care and Supervision) and from the Coping Strategies Time scale (Leisure, Self-Care, Supervision and Research and Development), and the criterion variable was STS.

CHAPTER FOUR

RESULTS

The following chapter provides an overview of the results found in this study. A descriptive overview of the study participants, along with univariate, bivariate, and multivariate analysis, is included, along with a review of the research questions and hypothesis.

Characteristics of Survey Participants

Data from 126 social workers were used for all analyses with the exception of hypotheses using type of setting in which 20 participants were removed for working in both inpatient and outpatient settings. Of the participants, more than three quarters were female ($n = 100, 79.4\%$), most worked 40 hours a week or more, and 80% were satisfied with their jobs (see Table 2). The average age of all respondents was 41.5 ($SD = 12$), and the range was from 23 to 68 years old. The majority of respondents held a master's degree in social work ($n = 119, 94.4\%$). Respondents also indicated a mean of 1.1 years of work in the VA health system ($SD = 9.5$), with a range of 2 months to 38 years. A larger number of respondents worked in outpatient settings ($n = 73, 57.9\%$) than inpatient settings ($n = 33, 26.1\%$). Of those surveyed, 68% reported that less than 50% of their caseload involved trauma cases, while 34% reported a personal history of trauma. Only 63.5% reported having a regular supervisor and receiving supervision at the VA. A full 47% of the VA social workers surveyed reported receiving no educational training about STS and 30% reported receiving no educational training about coping strategies.

Table 2

Characteristics of Social Workers at Greater Los Angeles Healthcare System

Characteristics	Mean (SD)	N (%)
Age	41.5 (12.1)	126
Hours Worked Weekly	41.0 (5.0)	126
Years Worked at the VA	1.1 (9.5)	126
Exposure to Trauma Survivors on Caseload		
Less than 25%		41 (32.5)
25-50%		45 (35.7)
51-75%		27 (21.4)
76-100%		13 (10.3)
Personal Trauma History		
Yes		43 (34.1)
No		79 (62.7)
Setting		
Outpatient		73 (57.9)
Inpatient		33 (26.1)
Other(overlap)		20 (16.0)
Gender		
Female		100 (79.4)
Male		26 (20.6)
Job Satisfaction		
Less than 25%		7 (5.6)
25-50%		17 (13.5)
51-75%		45 (35.7)
76-100%		57 (45.2)
Supervision		
Yes		80 (63.5)
No		46 (36.5)

Education About STS

Yes	50 (39.7)
No	60 (47.6)
Not Sure	16 (12.7)

Education About Coping Strategies

Yes	81 (64.3)
No	38 (30.2)
Not Sure	7 (5.6)

Note: A break down of years worked is as follows; <5 years 65.9%, 5-10 years, 11.1%, 11-15years, 2.4%, 16-20 years, 6.3% , 21 or more years, 14.3%

Descriptive Statistics for STS Scores

Table 3 provides an overview of the total STS scores for respondents in this study. More than 40 percent of respondents reported “no or little STS symptoms.” Half of the respondents fell into the “mild” (31%) and “moderate” (19%) range of STS symptom severity categories. A small percentage of respondents fell into the “high” (4.8%) and “severe” (4.8%) STS symptom categories. These categories, based on the summation of scores, are meant to be interpreted as indications of STS symptomatology.

Table 3

Secondary Traumatic Stress Scale Grouped Scores for Respondents

Grouped Score	n	%
0-28 (“No or Little STS Symptoms”)	51	40.5
29-37 (“Mild STS Symptoms”)	39	31.0
38-43 (“Moderate STS Symptoms”)	24	19.0
44-48 (“High STS Symptoms”)	6	4.8
49+ (“Severe STS Symptoms”)	6	4.8

Coping Strategies Scores

Respondents had a mean score of 38.1 ($SD = 10.6$) on the Coping Strategies Belief subscale and a mean score of 24.6 ($SD = 9.8$) on the Coping Strategies Time subscale. The various factors associated with these subscales, along with the possible range of scores, are presented in Table 4.

Table 4

Coping Strategies Subscales Scores by Respondents (n = 126)

Subscale Items Mean (SD)	
Coping Scale Belief Subscale (0-56)	
Belief Leisure (0-20)	16.1 (3.4)
Belief Self-Care (0-16)	9.1 (4.3)
Belief Supervision (0-20)	12.8 (4.8)
Coping Scale Time Subscale (0-51)	
Time Leisure (0-15)	11.0 (2.9)
Time Self-Care (0-15)	9.2 (4.3)
Time Supervision (0-12)	6.3 (3.1)
Time Research and Dev. (0-12)	3.1 (3.3)

Note: For the Coping Scale Belief subscale, the higher the score, the more helpful the respondent views an activity in terms of dealing with trauma work. For the Coping Scale Time subscale, the higher the score, the more time the respondent engages in those activities.

Multivariate Findings

Hypothesis 1

For Hypothesis 1, an ANCOVA was conducted to test whether social workers who work in an inpatient setting would report higher levels of STS symptomatology on the STS Scale than social workers in outpatient settings after controlling for the effect of length of exposure. Other covariates originally thought to influence STS in this study did not produce significant correlations and were not included in this analysis. 20 cases were removed from this analysis as these participants indicated working in both an inpatient and outpatient setting.

As previously indicated, the assumptions of normality and homogeneity of variance were met. The homogeneity-of-regression (slope) assumption was also examined and was met, as there was no significant interaction between the covariate and the factor $F(5,100) = .935, p = .462$. Results of the ANCOVA indicated no significant effect of setting on STS score, after controlling for length of exposure $F(5,99) = .738, p = .597$. Table 5 shows the analysis of covariance summary and Table 6 shows the adjusted means.

Table 5

Analysis of Covariance Summary

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared	Sig.
Length of Exposure	1746.9	1	1746.9	18.43	.147	$p = .000$
Setting	349.8	5	69.9	.738	.015	$p = .597$
Error		99	94.7			

Table 6

Setting-adjusted means on the STS scale

Setting	M	SD	Adjusted Mean	N
Outpatient	30.5	9.9	*30.6	73
Inpatient	32.6	10.5	*33.1	33

Note: *“mild” level of STS symptomatology

Hypothesis 2

The second hypothesis stated that social workers who have stronger beliefs and spend more time using personal and organizationally supported coping strategies as measured by the Coping Strategies Inventory Beliefs (Leisure, Self-Care, Supervision) and Coping Strategies Time (Leisure, Self-Care, Supervision, Research and Development) subscales will demonstrate lower levels of reported STS symptomatology on the STS Scale after controlling for the effects of length of exposure. Other covariates originally thought to influence STS in this study did not produce significant correlation and were not included in this analysis. A multiple regression analysis was conducted with the Secondary Traumatic Stress Scale score as the dependent variable. Each of the sets of variables was entered into the regression model in step order. In the first model (Block 1), length of exposure was entered into the analysis. Length of exposure was found to be significant ($p = .<001$). In the second model (Block 2), length of exposure along with the Coping Strategies Belief Subscales and Coping Strategies Time Subscales, was entered in relation to score on the STS scale. Length of exposure was found to be significant ($p = .<001$); the Coping Strategies Belief and Coping Strategies Time subscales were not found to be significant.

To examine the model fit, R , R^2 , Adjusted R^2 , analysis of variance, the corresponding F score, and p values were calculated. For Model 1, $R = .375$, $R^2 = .141$, Adjusted $R^2 = .134$, $F(1,124) = 20.34$, and $p = <.001$. For Model 2, $R = .393$, $R^2 = .155$, Adjusted $R^2 = .134$, $F(2,122) = 7.43$, and $p = <.001$. Results indicate that both models significantly predict scores on the STS scale. Model 1 accounts for 14.1% of the variance in scores on the STS scale. Model 2 accounts for 15.5% of the variance in scores on the

STS scale. However, in model 2, none of the variables (Coping Strategies Belief and Coping Strategies Time subscales) are significant. There is minimal change in Adjusted R^2 from model 1 to model 2, suggesting that the best fit model is model 1. The analysis indicated that the Coping Strategies Belief Subscales and Coping Strategies Time Subscales were not significantly related to lower reported scores on the STS scale even when controlling for length of exposure. See Table 7 below.

Table 7

Multiple Regression Hypothesis 2

Variables	B	SE B	β
Block 1			
Constant	.143	6.93	
Length of Exposure	.756	.168	.375*
Block 2			
Constant	3.59	7.36	
Length of Exposure	.777	.169	.386*
Coping Strategies Belief subscales	-.106	.093	-.112
Coping Strategies Time subscales	-.011	.100	-.011

Note: $R^2 = .141$ for Block 1, $\Delta R^2 = .014$ ($p = .375$) for Block 2.

* $p < .001$

Exploratory Analysis

Two general areas of exploratory analysis were conducted: (1) social workers' belief in and use of coping strategies with respect to work setting, and (2) unexplored

demographic variables such as gender and job satisfaction in relation to STS and work setting (inpatient/outpatient).

Exploratory analysis was conducted to see if there were any differences in reported scores on the Coping Strategies Belief subscales based on setting. As setting was one of the key variables in this study, this analysis was undertaken to determine whether there might be any other significant findings that might help to explain how social workers might mitigate the stress they experience. An independent-samples t test was conducted comparing the mean score of social workers in outpatient settings to those in inpatient settings on the Coping Strategies Belief subscale. No significant difference was found ($t(104)=1.13, p = .535$). The mean of outpatient social workers ($M = 39.13, SD = 10.62$) was not significantly different from the mean of inpatient social workers ($M = 36.54, SD = 11.60$).

An independent-samples t test was also conducted comparing the mean score of social workers in outpatient settings to those working in inpatient settings on the Coping Strategies Times subscales. No significant difference was found ($t(104) = 1.24, p = .898$). The mean of outpatient social workers ($M = 25.64, SD = 10.1$) was not significantly different from the mean of inpatient social workers ($M = 23.00, SD = 10.21$). These results suggest that setting may have no effect on Coping Strategies Belief and Coping Strategies Time subscales scores. Regardless of setting, social workers in this study exhibited no significant difference in belief in and time spent engaged in coping strategies. Table 8 highlights these results.

Table 8

Exploratory Analysis

<i>Variables</i>	Outpatient <i>M (SD)</i>	Inpatient <i>M (SD)</i>	<i>t</i>	<i>p</i>
Coping Strategies Belief Subscales	39.13 (10.62)	36.54 (11.60)	1.13	.535
Coping Strategies Time Subscales	25.64 (10.10)	23.00 (10.21)	1.24	.898

In addition, demographic variables such as gender and job satisfaction were explored in relation to STS and work setting (inpatient/outpatient). An examination of gender indicated that female respondents who worked in inpatient settings had higher mean scores of 33.1 ($SD = 10.8$) than their female counterparts who worked in outpatient settings, who averaged 29.8 ($SD = 10.4$). That same group also had a higher mean score than male respondents regardless of setting. Table 9 below highlights this finding. A factorial ANOVA was conducted to see if these differences were significant. A two-by-two between-subjects factorial ANOVA was calculated comparing the STS score by gender and setting. The main effect for gender was not significant ($F(1,102) = .096, p = >.05$). The main effect for whether participants were in inpatient or outpatient settings was also not significant ($F(1,102) = .006, p = >.05$). Finally, the interaction was also not significant ($F(1,102) = .232, p = >.05$). Thus, it appears that neither gender nor setting has any significant effect on STS scores.

Table 9

Secondary Traumatic Stress Cumulative Scores by Gender and Setting (n = 126)

Gender and Setting	n	M	SD
Male Inpatient	7	32.1	8.5
Male Outpatient	19	32.9	7.6
Total	26	32.7	7.7
Female Inpatient	32	33.1	10.8
Female Outpatient	68	29.8	10.4
Total	100	30.8	10.6

Finally, correlation analysis was conducted between job satisfaction and STS. Results indicated a significant negative moderate correlation between rates of feeling satisfied on the job (less than 25%, 25-50%, 51-75%, 76-100%) and reported scores on the STS scale ($r = -.371, p < .001$).

Table 10

Correlations with STS Scale

Variables	Secondary Traumatic Stress
Reported Satisfaction	-.371 ($p = .000$)*

*** $P < .001$**

CHAPTER FIVE

DISCUSSION

This chapter includes a brief summary and discussion of the findings compared with related findings in the literature, discusses limitations in the study, provides implications for policy and social work practice, and suggests future areas of social work research.

The overall purpose of the current study was to examine factors thought to be related to secondary traumatic stress among social workers in a metropolitan Veterans Affairs setting in the Western United States. Specifically, the study examined whether setting (inpatient versus outpatient) and/or belief in or use of individual and organizationally supported coping strategies had an impact on level of STS. Although results did not indicate a relationship between these variables, demographic variables such as length of exposure to clients with trauma, and satisfaction with the job emerged as significant correlates with STS. A more specific discussion of the results is provided below.

The first hypothesis in the current study proposed that social workers that work in an inpatient setting would report higher levels of STS symptomatology than social workers in outpatient settings after controlling for the effect of length of exposure. Results indicated no significant effect was found for setting on STS score after controlling for length of exposure. Although there have been no other studies conducted with VA social workers, this was inconsistent with other findings in the research literature related to STS. In contrast, researchers (Badger et al., 2008; Dane & Chachkes, 2001; Oktay, 1992) found setting to be a significant factor in the development of STS.

However, none of these researchers studied the VA healthcare setting. Perhaps there are other variables that might influence STS symptoms from not developing in the VA system that might be present in other settings. For example, job satisfaction appears to be an important factor in the VA setting, as indicated by a large percentage (80%) of participants reporting job satisfaction in this study. This has also been found to be an important variable in other studies as well (Mor Barak et al., 2001; Ghahramanlou & Brodbeck, 2000; Bride et al, 2007). Overall professional experience may also be a protective factor as the mean age from the current sample was 41.5 years old, suggesting that individuals have been out of college for some time and thus a more experienced workforce. Although years of professional experience was not measured in this study, 23% of respondents reported working 10 or more years with the VA. As workers develop more experience, their ability to handle stress may also improve over time. Consistent with this idea is the finding that longer professional experience has been shown to be an important factor associated with reduced symptoms of stressors such as STS (Munroe, 1995). Finally, a large number of participants reported that traumatized patients made up less than 50% of their caseload (68%). Caseloads with lower numbers of traumatized clients have been shown to be a mitigating factor in development of STS (Chrestman, 1995; Bober & Regehr, 2006). Perhaps the VA as an organization is doing a good job of balancing difficult caseloads among their clinicians.

The second hypothesis proposed that social workers who believe more strongly in and spend more time using personal and organizationally supported coping strategies as measured by the Coping Strategies Inventory Beliefs Subscales (Leisure, Self-Care, Supervision) and Coping Strategies Time subscales (Leisure, Self-Care, Supervision,

Research and Development) would demonstrate lower levels of reported STS symptomatology on the STS Scale after controlling for the effects of length of exposure. The analysis indicated that the Coping Strategies Belief Subscales and Coping Strategies Time subscales were not significantly related to lower scores on the STS Scale even when controlling for length of exposure. Although there have been no studies conducted with VA social workers, a study of hospital social workers by Bober and Regehr (2006), may help in understanding the current findings. Similar to the current study, Bober and Regehr (2006) found that surveyed social workers reported that coping strategies were not helpful in mitigating their stress. Specifically, it was indicated that although hospital administrators felt both individual and organizational coping strategies (i.e. regular supervision) would be helpful; this was not recognized by the social workers. It was suggested by the authors that perhaps social workers did not have access to or sufficient time to engage in coping strategies throughout the day. However, the fact that the coping belief scale was not found to be related to STS in the current study suggests that other factors may be more important in minimizing STS symptoms. Other possible factors that may account for the lack of significant findings in this present study are discussed below.

First, a larger sample size of social workers with moderate to severe STS might have yielded correlations that reached significance; 71% (n = 90) of social workers surveyed in this study reported “no to little” STS. The percentage of participants with no to mild symptoms was substantially higher than that of a similar study of social workers by Bride (2007), who reported that 45% of 282 social workers had “no to mild” STS. An interesting finding in this study was that only 9.6% (n = 12) of participants reported “high” to “severe” symptoms on the STS Scale. This percentage was lower than that in

the study conducted by Bride (2007), in which 15.2% had reported “high” to “severe” symptoms. These participants in the current study warrant further investigation, as they indicated high rates of stress. Characteristically, they were similar to other participants in the study, (e.g., female, worked in outpatient settings, and reported no personal traumas). Perhaps conducting a qualitative study in the future might better determine why these participants reported higher levels of STS and why coping strategies were not helpful in managing their symptoms. Focusing interventions and preventative measures on this group of participants is important, and is discussed in the implications section.

A second factor that may have contributed to the lack of findings in the area of belief in and time utilized in coping strategies from this study may be attributed to the lack of education and training about coping strategies as indicated by a large percentage of social workers in this study. Perhaps social workers at the VA are not fully aware of the types of coping strategies that can be utilized and when to engage in them. Also, they reported that on average they work extended hours a week (more than 40), and as such may not have time to engage in the coping strategies that have been previously found to be helpful in mitigating STS (Shauben & Fraizer, 1995). As such, the impact of working longer hours should be further investigated.

Finally, the instruments utilized (STS Scale and Coping Strategies Inventory) are new tools. Both were developed in the last five years, and although they demonstrate good psychometric properties (i.e., validity and reliability), they were not normed on a VA settings and with this population and may have not be sensitive enough or posed the right questions to be able to gather stress information from social workers. Bride (2004) cites a need for future research to better delineate what constitutes specific symptoms

experienced in the categories. He also adds that the STS Scale “is an important contribution toward the development of empirical knowledge regarding the effects of secondary traumatic stress on social workers and their clients” (p. 33). The coping strategies inventory scales also may not have indicated other coping mechanisms that are utilized by individuals to cope with stress such as spiritual or religious activities. The gaps in current knowledge include a full exploration of the STS Scale, the coping strategies inventories and its utilization with this and similar populations.

As this was the first study examining STS with this specific population and setting, a discussion of the descriptive profile is important in providing baseline information for comparisons with current and future studies. Although a majority of social workers in this study reported “no” to “mild” STS symptoms (71.5%), over 28% reported “moderate” to “severe” STS symptoms (n= 36). The last grouping in particular who reported “high” to severe” symptoms would be important to further investigate as they are experiencing stress symptoms to the degree that may impact their work with veterans. Interestingly, a majority of social workers (80%) indicated that they are satisfied with their job. While this may be acting as a protective factor in reducing STS, it is also possible that participants were not completely forthcoming in their responses in the study. As the VA is a large bureaucratic organization, respondents may have been concerned with possible repercussions of answering honestly about the stress that they experience and the lack of coping strategies provided to them.

In respect to the working environment, social workers in this study reported working an average of 41 hours a week with a range of 21 to 60 hours. This is important to note, as social workers in the VA setting often do not receive compensation for

working over their required work schedule of 40 hours a week. Related to longer work hours was the finding that the more time social workers spent working with traumatized clients the higher their overall level of their STS. Further, compounding this issue is that less than 50% of social workers reported no education and/or training regarding STS or the use of coping strategies. Supervision also appeared underutilized given that the mean years of employment at the VA was 1.1 years. Supervision has been found to be a mitigating factor for STS and was also found to be underutilized by social work staff in a similar hospital setting study (Bober and Regehr, 2006).

Further examination of covariates such as educational level, professional experience, length of exposure, and personal trauma history indicated variable results. There was no significant correlation found for educational level ($p > .05$), professional experience ($p > .05$), or personal trauma history ($p > .05$) in a bivariate analysis of these variables. Length of exposure, however, was highly correlated and significant in relation to reported STS symptoms ($r = .375, p < .001$). This finding is consistent with the literature that examined length of exposure and development of STS. Brady et al. (1999) found that the current number of clinical hours spent with survivors, level of exposure to graphic material, current percentage of survivor clients, and average number of clinical hours spent over the course of a career with survivors all contributed to trauma symptoms in mental health professionals. Length of exposure was also linked with lowered reported satisfaction in work by social workers in a qualitative study conducted by Killian (2008).

In respect to personal trauma history, more than 62% of the sample ($n = 79$) reported no history of trauma in the demographic survey they completed. The present study did not ask participants about the number of traumas they had experienced, which

may influence the way in which stressors such as STS are experienced. Bucciarelli et al. (2007) investigated factors that predict psychological resilience after life stressors. In particular, those with prior traumatic experiences indicated less resilience than individuals who had no prior traumatic experiences. “Compared with participants with no prior traumatic experiences, resilience was equally prevalent if there was one prior trauma ($OR = 0.96$), but close to half as likely ($OR = 0.58$) if there were two or three prior traumas, and less than half as likely ($OR = 0.42$) if there were four or more prior traumas” (pg. 675). A further investigation of the number of traumas experienced by participants in this study may have indicated different results.

Among the other covariates in this study that did not indicate significant results - educational level and professional experience - more research is clearly needed. In the current study most of the respondents were master’s-level social workers (94%), which may have impacted findings given that in other studies social workers may be at the bachelor’s or PhD level. This would theoretically impact their professional experience and training which may affect the development of STS. Also, this study did not measure overall professional experience and was limited to experience within the VA system. This variable would be an important for future study in the VA as longer professional experience has been shown to be an important factor associated with reduced symptoms of stressors such as STS (Munroe, 1999).

Practice and Policy Implications

This study provides some valuable insight into the rates of STS as reported by social workers in a VA healthcare setting. It is the first of its kind with this particular

category of social workers. As a whole, GLA social workers reported “mild” to “severe” STS symptomatology. Hence, some individuals may experience stressors significant enough to impact their ability to conduct their work. Further investigation might help to determine to what degree this impacts the work and services that they provide veterans. It appears that nearly 10% of social workers in the GLA system may be experiencing levels of STS high enough to impact service delivery to veterans, a phenomenon other researchers have noted can occur in work with traumatized populations. Several researchers (Munroe, 1999; Williams & Sommer, 1995) have indicated that STS as a stressor may negatively impact professional judgment and lead to misdiagnosis and poor treatment planning or abuse of patients. Role enmeshment and boundary violations might also occur. Social workers may also be “turned off” by repeated exposure to traumatic material and consequently deliver poor service. As such, it would be important to identify and find effective ways to work with individuals who experience STS.

In light of the results of this study, it is important to consider possible policy implications for social workers that are currently employed or may be entering the VA healthcare setting at a facility such as GLA. The VA is the largest employer of social workers and trains the largest number of social work students (Manske, 2006). As a result, the findings of the current study can be used to develop a greater understanding of possible policy implications at GLA and similar settings. An understanding of the spectrum of STS symptoms (e.g., no or little, high to severe) as suggested by Bride (2007) may aid in better understanding how possible policies can be developed and implemented. Policy development could come in the form of education/training and

development of a more positive and supportive work environment in the form of organizational support for the individual workers.

For social workers who have “no or little STS” or “mild STS” symptoms, or who are just entering the field, an attention to their satisfaction on the job and monitoring the diversity of trauma versus non-trauma patients on their caseload would be beneficial. This could be done in the form of a regular survey of job satisfaction among social workers at GLA; perhaps even at the mandatory monthly social work meetings. Monitoring of caseloads would also be an important factor. Supervisors could be integral in this in that they often assist in the placement of patients on social worker’s caseloads and could assist in ensuring that they are diverse in terms of trauma versus non-trauma clients. These same efforts may assist with reducing the stress symptoms that were experienced by the 10% of “high” to “severe” respondents. Bober & Regehr (2006) also echo the same considerations for caseload and supervision as organizational means of assisting workers in mitigating their stress.

Although some important factors have emerged in relation to STS, it is still unclear what policies can be implemented within the VA at this time. Future research is clearly needed. In this regard, some of the limitations of the current study are discussed below.

Limitations of the Study

Often, cross-sectional research designs such as the one used in this study that employ survey methodology to collect information from participants may present some limitations. Self-report surveys are subject to difficulties with recall and social

desirability (e.g., giving an acceptable or dishonest answer). Participants may have difficulty recalling information on surveys. Neuman (2000) advises researchers to be mindful of the way in which questions are asked of participants, as it may improve their recall. For this study, certain questions may have been difficult for participants to respond to (e.g., questions about client trauma). A cross-sectional design also does not allow causality to be determined. It is also important to note that participants may not be willing to be honest with the responses they provided for this study due to a risk of being identified or retaliated for their answers, as the VA is a highly bureaucratic organization. Another limitation may be that this study did not include enough questions related to job satisfaction asked of respondents as experienced in their daily work. Only 2 questions were on the demographic questionnaire and were limited on the other instruments utilized in this study. Job satisfaction has been shown to be a mitigating factor in STS development (Bride, 2007; Figley, 1995; 2002) and was not adequately assessed in the current study.

Also, the survey did not ask how many personal traumas or other types of trauma the respondents had experienced in the past. This is an important question on a factor that may influence development of stress symptoms. Bucciarelli, Vlahov, et al. (2007) found that an individual's life stressors and trauma exposure were significant predictors of resilience. In particular, those with prior traumatic experiences were less resilient than individuals with no prior traumatic experiences. "Compared with participants with no prior traumatic experiences, resilience was equally prevalent if there was one prior trauma ($OR = 0.96$), but close to half as likely ($OR = 0.58$) if there were two or three

prior traumas, and less than half as likely ($OR = 0.42$) if there were four or more prior traumas” (p. 675).

The emergence of STS and belief in and utilization of coping strategies to assist in the mitigation of STS are new research areas in the field of trauma study. Additionally, the STS Scale and Coping Strategies Inventory, despite having good psychometric properties, are new tools that have been developed to investigate this phenomenon. These tools have not been utilized in a VA healthcare setting before this study. They also may not have had items that were asked that were specific to this population, such as specific ways in which stress is experienced and specific coping strategies that may have been utilized by the participants. It would be worthy to further investigate the “sensitivity” of these tools or perhaps consider development of new tools to measure STS and coping within this setting as a result of this study’s finding.

Suggestions for Future Social Work Research

Some controversy exists about STS being included as a diagnosis in the proposed DSM-V (Kanno, 2010). However, it is clear that STS is a valid and debilitating phenomenon that social workers experience. Researchers should examine what individual and organizational factors can be utilized in a setting such as the VA to assist in mitigating the effects of STS. The increased demand for social workers and the increased traumas that veterans and other clients experience show no signs of abating. It is important that an understanding of STS and its impacts be recognized, as this is a first step in fundamental changes in professional and service delivery aspects of care. To this end, future research should focus on understanding how an individual progresses from

“mild” to “severe” STS symptoms. Also, the impact of organizational support in mitigating this progression and lack of organizational supports exacerbating STS should be further investigated. Further research that focuses on healthcare settings, specifically inpatient and outpatient settings should also be conducted. As healthcare expands and demands for social work services increase, organizations and the profession would be best served by understanding how to better navigate these systems. Utilization of coping strategies and their effectiveness should also be further investigated; particularly spirituality which is often overlooked. It was not clear from this study why coping strategies were not effective in mitigating STS. A future qualitative study might shed more light on all of these aspects. Many STS researchers point to the need for future work to be done in the area of healthcare and also in furthering the understanding of this important stressor (Bober & Regehr, 2006; Bride, 2007).

Conclusion

In conclusion, this study indicates that social workers employed at the GLA healthcare system do experience stress, a percentage of which are impacted to the point that they reported “high” and “severe” symptoms. Job setting and belief in or use of coping strategies did not prove to be significant factors in reported stress symptoms among social workers. However, high exposure to clients who report trauma and decreased job satisfaction emerged as important variables in minimizing STS. This study was the first study of its kind with this population and setting and it provides baseline data for reported stress symptoms and coping strategies. What is promising is that current

and future social workers may benefit from the findings of this study and possibly impact the organizational culture of GLA and other healthcare settings.

REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed, text revision). Washington, DC: American Psychiatric Association.
- Aron, A., Aron, E. N., & Coups, E. J. (2006). *Statistics for psychology* (4th ed.). Upper Saddle River, NJ: Prentice Hall.
- Arrington, P. (2008). Stress at work: How do social workers cope?. *NASW Membership Workforce Study*. Washington, DC: National Association of Social Workers
- Arvay, M. J., & Uhlemann, M. R. (1996). Counselor stress in the field of trauma: Preliminary study. *Canadian Journal of Counseling, 30*(3), 193-210.
- Badger, K., Royse, D., & Craig, C. (2008). Hospital social workers and indirect trauma exposure: An exploratory study of contributing factors. *Health and Social Work, 33*(1), 63-71.
- Bartone, P., Ursano, A. R., Wright, K., & Ingraham, L. (1989). The impact of a military air disaster on the health of assistance workers: A prospective study. *Journal of Nervous and Mental Disease, 177*, 317-328.
- Bell, H., Kulkarni, S., & Dalton, L. (2003). Organizational prevention of vicarious trauma. *Journal of Contemporary Human Services, 84*, 463-470.
- Ben-Zur, H., & Michael, K. (2007). Burnout, social support, and coping at work among social workers, psychologists, and nurses: The role of challenge /control appraisals. *Social Work in Health Care, 45*(4), 63-82.
- Birck, A. (2001). Secondary traumatization and burnout in professionals working with torture survivors. *Traumatology, 7*(2). Retrieved from <http://www.fsu.edu/~trauma/art2v7i2.html>
- Bober, T., Regehr, C., & Zhou, R. (2006). Development of the Coping Strategies Inventory for trauma counselors. *Journal of Trauma and Loss, 11*, 71-83.
- Boscarino, J. A., Adams, R. E., and Figley, C. R. (2006). Worker productivity and outpatient service use after the September 11 th Attacks: Results from the New York City terrorism outcome study. *American Journal of Industrial Medicine, 49*: 670-682.

- Brady, J. L., Guy, J. D., Poelstra, P. L., & Brokaw, B. F. (1999). Vicarious traumatization, spirituality, and the treatment of sexual abuse survivors: A national survey of women psychotherapists. *Professional Psychology: Research and Practice, 30*, 386-393.
- Bride, B. E. (2007). Prevalence of secondary traumatic stress among social workers. *Social Work, 52*, 63-70.
- Bride, B., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal, 35*, 155-163.
- Bride, B., Robinson, M., Yegidis, B., & Figley, C. R. (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice, 14*(1), 27-35.
- Carson, J., & Fagin, L. (1996). Stress in mental health professionals: A cause for concern or an inevitable part of the job? *International Journal of Social Psychiatry, 42*, 79-81.
- Catherall, D. R. (1995). 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, and educators* (pp. 80-94). Lutherville, MD: Sidran.
- Cerney, M. S. (1995). Treating the "heroic treaters." In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder*. New York: Burnner/Mazel.
- Chachkes, E., and Dane, B. (2001). The cost of caring for patients with an illness. *Social Work in HealthCare, 33*(2), 31-52.
- Chava Frankfort-Nachmias and David Nachmias, *Research Methods in the Social Sciences* (New York: Worth Publishers, 2000)
- Cherniss, C. (1980). *Professional burnout in human service organizations*. New York, NY: Praeger.
- Chrestman, K. R. (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* (2nd ed., pp. 29-36). Lutherville, MD: Sidran.
- Chu, J. A. & Dill, D. L. (1990). Dissociative symptoms in relation to childhood physical and sexual abuse. *American Journal of Psychiatry, 147*, 887-892.

- Corcoran, K.J. (1983). Emotional separation and empathy. *Journal of Clinical Psychology, 39* (5), 667-671.
- Collins, S., & Long, A. (2003). Working with the psychological effects of trauma: Consequences for mental health-care workers—A literature review. *Journal of Psychiatric and Mental Health Nursing, 10*, 417-424.
- Collings, J., & Murray, P. (1996). Predictors of stress amongst social workers: An empirical study. *British Journal of Social Work, 26*, 375-387.
- Corey G. F. (1991). *Theory and practice of counseling psychotherapy*. 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). Retrieved from <http://www.fsu.edu/~trauma/art2v5i1.html>
- Courtois, C. A. (1993). Vicarious traumatization of the therapist. *NCP Clinical Newsletter, 3*(2), Spring.
- Cunningham, M. (1999). The impact of sexual abuse treatment on the social work clinician. *Child and Adolescent Social Work Journal, 16*, 277-290.
- Cunningham, M. (2003). Impact of trauma work on social work clinicians: Empirical findings. *Social Work, 48*(4), 451-459.
- Dalton, L. E. (2001). *Secondary traumatic stress and Texas social workers*. Unpublished doctoral dissertation. University of Texas at Arlington.
- Dane, B. (2000). Child welfare workers: An innovative approach for interacting with secondary trauma. *Journal of Social Work Education, 36* (1), 27-38.
- Dane, B., & Chachkes, E. (2001). The cost of caring for patients with an illness: Contagion to the social worker. *Social Work in Health Care, 33*(2), 31-50.
- Danieli, Y. (1994). Countertransference, trauma and training. In J. P. Wilson & J. D. Lindy (Eds.), *Countertransference in the treatment of PTSD* (pp. 368-372). New York, NY: Guilford Press.
- Davidson, J., & Smith, R. (1990). Traumatic experiences in psychiatric outpatients. *Journal of Traumatic Stress, 3*, 459-475.
- Department of Veterans Affairs (2006a, March). Fact Sheet: Veterans with PTSD. Washington, DC: Office of Public Affairs.

- Department of Veterans Affairs (2006b, January 24). West Los Angeles Healthcare Center. Retrieved from <http://www.gla.med.va.gov/Campuses/execwla.cfm>
- Department of Veterans Affairs (2006c, May 23). About VA Home. Retrieved from http://www.va.gov/about_va/
- Diwan, S., & Balaswamy, S. (2006) Social work with older adults in health-care settings. In S. Gehlert & T. Browne (Eds.), *Handbook of health social work*. Hoboken, NJ: John Wiley & Sons.
- Dutton, M.A., & Rubinstein, F.L. (1995). Working with people with PTSD: Research Implications. In C.R. Figley (Ed), *Compassion fatigue: Secondary traumatic stress disorder in helpers*. (pp. 82-100). New York: Brunner/Mazel.
- Egan, M. (1993). Resilience at the frontlines: Hospital social work with AIDS patients and burnout. *Social Work in Health Care*, 18(2), 109-125
- Escalona, R., Tupler, L. A., Saur, C. D., Krishnan, R. R., & Davidson, J. R. T. (1997). Screening for trauma history on an inpatient affective-disorders unit: A pilot study. *Journal of Traumatic Stress*, 10, 299-305.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.
- Figley, C. R. (1982, February). Traumatization and comfort: Close relationships may be hazardous to your health. Presentation at Families and Close Relationships: Individuals in Social Interaction, Texas Tech University, Lubbock, TX.
- Figley, C. R. (Ed.). (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. New York, NY: Brunner/Mazel.
- Figley, C. R. (2002). *Treating compassion fatigue*. New York, NY: Brunner-Routledge.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1997). *Structured clinical interview for DSM-IV Axis I disorders*. Washington, DC: American Psychiatric Press.
- Follette, V. M., Polusny, M. M., & Milbeck, K. (1994). Mental health and law enforcement professionals: Trauma history, psychological symptoms, and impact of providing services to child sexual abuse survivors. *Professional Psychology: Research and Practice*, 25, 75-282.
- Gehlert, S., & Browne, T. (Eds.). (2006) *Handbook of health social work*. Hoboken, NJ: John Wiley & Sons.

- Gellis, Z. D. (2002). Coping with occupational stress in healthcare: A comparison of social workers and nurses. *Administration in Social Work, 26*(3), 37-52.
- Ghahramanlou, M., & Brodbeck, C. (2000). Predictors of secondary trauma in sexual assault trauma counselors. *International Journal of Emergency Mental Health, 2*, 229-240.
- Ginsberg, L. (1995). *The social work almanac* (2nd ed.). Washington, DC: NASW Press.
- Hartsough, D., & Myers, D. (1985). *Disaster work and mental health: Prevention and control of stress among workers*. Washington, DC: NIMH, Center for Mental Health Studies of Emergencies.
- Hefling, K. (2007, October 31). Iraq, Afghan vets at risk for suicide. Associated Press. Retrieved from http://ap.google.com/article/ALeqM5iXJt3z4_ecd5RO1rC7zdRmc6I7QQD8SKBS61
- Herman, J. L. (1992). *Trauma and recovery*. New York, NY: Basic Books.
- Hodgkinson, P., & Shepherd, M. (1994). The impact of disaster support work. *Journal of Traumatic Stress, 7*(4), 587-600.
- Horwitz, M. (1998). Social worker trauma: Building resilience in child protection social workers. *Smith College Studies in Social Work, 68*, 363-377.
- International Federation of Social Workers. (2000). International policy on human rights. Retrieved from <http://www.ifsw.org/en/p38000212.html>
- Ivancevich, J. M., Matteson, M. T., Freeman, S. M., & Philips, J. S. (1990). Worksite stress management interventions. *American Psychologist, 45*(2), 252-261.
- Iwasaki, Y., Mannell, R. C., Smale, B. J. A., & Butcher, J. (2002). A short-term longitudinal analysis of leisure coping dimensions among employees of police and emergency response services. *Journal of Leisure Research, 34*, 311-339.
- James, R. K., & Gilliland, B. E. (2001). *Crisis intervention strategies* (4th ed.). Belmont, CA: Brooks/Cole.
- Jenkins, S., & Baird, S. (2002). Secondary traumatic stress and vicarious trauma: A validation study. *Journal of Traumatic Stress, 15*, 423-432
- Jones, M. (1993). Role conflict: Cause of burnout or energizer? *Social Work, 38*(2), 136-141.

- Kagan, N. I., Kagan, H., & Watson, M. G. (1995). Stress reduction in the workplace: The effectiveness of psychoeducational programs. *Journal of Counseling Psychology*, 42(1), 71-78.
- Kahill, S. (1988). Interventions for burnout in the helping professions: A review of the empirical evidence. *Canadian Journal of Counseling Review*, 22, 310-342.
- Kapur, R. (1999). Unconscious communications. In A. Long (Ed.), *Interaction for practice in community nursing* (pp. 217-228). Basingstroke, UK: MacMillan.
- Kassam-Adams, N. (1999). The risks of treating sexual trauma: Stress and secondary trauma in psychotherapists. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, & educators* (2nd ed.). Lutherville, MD: Sidran Press.
- Killian, K. D. (2008). Helping till it hurts? A multi-method study of compassion fatigue, burnout, and self-care in clinicians working with trauma survivors. *Traumatology*, 14(2), 32-44.
- Keita, G. P., & Jones, J. M. (1990). Reducing adverse reaction to stress in the workplace: Psychology's expanding role. *American Psychologist*, 45(10), 1137-1141.
- Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York, NY: McGraw-Hill.
- Lazarus, R. (1993). Coping theory and research: Past, present, and future. *Psychosomatic Medicine*, 55, 234-247.
- Lerias, D., & Byrne, M. K. (2003). Vicarious traumatization: Symptoms and predictors. *Health and Stress*, 19(3), 129-138.
- Light, P.C. (2003). The health of the human services workforce. Retrieved from Brookings Institution website: http://www.brookings.edu/gs/cps_hp.htm
- Llyod, C., McKenna, K., & King, R. (2005). Sources of stress experienced by occupational therapists and social workers in mental health settings. *Occupational Therapy International*, 12(2), 81-94.
- Manske, J. (2006). Social work in the Department of Veterans Affairs: Lessons learned. *Health and Social Work*, 31(3), 233-239.
- Maslach, C. (1976). Burned-out. *Human Behavior*, 5(9), 16-22.
- Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice Hall.

- Maslach, C. (1996). *The Maslach Burnout Inventory* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Matsakis, A. (1994). *I can't get over it: A handbook for trauma survivors*. Oakland, CA: New Harbinger.
- McCann I. L., & Pearlman L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, 3(1),131-149.
- Meichenbaum, D. (1994). *A clinical handbook/practical therapist manual for assessing and treating adults with post-traumatic stress disorder*. Ontario, Canada: Institute Press.
- Meldrum, L., King, R., & Spooner, D. (2002). Secondary traumatic stress in case managers working in community mental health services. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 85-106). New York, NY: Brunner-Routledge.
- Milliken, C., Auchterlonie, J., & Hoge, C. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *Journal of the American Medical Association*, 298, 2141-2148.
- Mitchell, S. A. (2000). *Relationality: From attachment to intersubjectivity*. Hillsdale, NJ: The Analytic Press.
- Mizrahi, T., & Berger, C. S. (2005). A longitudinal look at social work leadership in hospitals: The impact of a changing health care system. *Health & Social Work*, 30(2), 155-165.
- Mor Barak, M. E., Nissly, J. & Levin, A. (2001). Antecedents to retention and turnover among child welfare, social work and other human service employees: What can we learn from past research? A review and meta-analysis. *Social Service Review*, 75, 625-661.
- Munroe, J. F. (1999). Ethical issues associated with secondary trauma in therapists. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 211-229). Lutherville, MD: Sidran Press.
- Nelson-Gardell, D., & Harris, D. (2003). Childhood abuse history, secondary traumatic stress, and child welfare workers. *Child Welfare*, 82, 5-26.
- Neumann, D. A., & Gamble, S. J. (1995). Issues in the professional development of psychotherapists: Countertransference and vicarious traumatization in the new trauma therapist. *Psychotherapy*, 32, 341-347.
- New York Times. (2007, August 17). '06 suicide rate for soldiers sets a record for the Army. *New York Times*, A13.

- Newhill, C. (2003). *Client violence in social work practice: Prevention, intervention, and research*. New York, NY: Guilford Press.
- NiCathy, G., Merriam, K., & Coffman, S. (1984). *Talking it out: A guide to groups for abused women*. Seattle, WA: Seal Press.
- Oktay, J. S. (1992). Burnout in hospital social workers who work with AIDS patients. *Social Work, 37*(5), 385-480.
- Pearlman, L. A., & Mac Ian, P. S. (1995). Vicarious traumatization: An empirical study of the effects of trauma work on trauma therapists. *Professional Psychology: Research & Practice, 26*(6), 558-565.
- Pearlman, L. A., & Saakvitne, K. W. (1995). *Trauma and the therapist: Counter-transference and vicarious traumatization in psychotherapy with incest survivors*. New York, NY: W.W. Norton & Co.
- Peterson, M., & Wilson, J. (2002) The Culture-Work-Health model and work stress. *American Journal of Health Behavior, 26*(1), 16-24.
- Pines, A. M., & Aronson, E. (1988). *Career burnout: Causes and cures*. New York, NY: Free Press.
- Pines, A. M., & Maslach C. (1978). Characteristics of staff burnout in a mental health setting. *Hospital and Community Psychiatry, 29*, 233-237.
- Pockett, R. (2003). Staying in hospital social work. *Social Work in Health Care, 36*(3), 1-23.
- Prosser, D., Johnson, S., Kuipers, E., Dunn, G., Szmukler, G., Bebbington, P., & Thornicroft, G. (1996). Mental health, burnout and job satisfaction among hospital and community-based mental health staff. *British Journal of Psychiatry, 169*, 334-337.
- Quick, J. C. (1998). Introduction to the measurement of stress at work. *Journal of Occupational Health Psychology, 3*(4), 291-293.
- Quick, J. D., Horn, R. S., & Quick, J. C. (1987). Health consequences of stress. *Journal of Organizational and Behavioral Management, 8*(2), 19-36.
- RAND. (2008). Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery. Retrieved from RAND website: <http://www.rand.org/pubs/monographs/MG720.html>

- Regehr, C., & Cadell, S. (1999). Secondary trauma in sexual assault crisis work: Implications for therapists and therapy. *Canadian Social Work, 1*, 56-70.
- Regehr, C., Hemsworth, D., Leslie, B., Howe, P., & Chau, S. (2004). Predictors of post-traumatic distress in child welfare workers: A linear structural equation model. *Children and Youth Services Review, 26*, 331-346
- Reid, Y., Johnson, S., Morant, N., Kuipers, E., Szmukler, G., Bebbington, P., & Prosser, D. (1999). Improving support for mental health staff: A qualitative study. *Social Psychiatry and Psychiatric Epidemiology, 34*, 309-315.
- Remer, R., & Elliot, J. (1988). Characteristics of secondary victims of sexual assault. *International Journal of Family Psychiatry, 9*(4), 373-387.
- Revicki, D. A., & Gershon, R. R. M. (1996). Work-related stress and psychological distress in emergency medical technicians. *Journal of Occupational Health Psychology, 1*(4), 391-396.
- Rosenbloom, D., Pratt, A., & Pearlman, L. A. (1995). Helpers' responses to trauma work: Understanding and intervening in an organization. In B. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 65-79). Lutherville, MD: Sidran.
- Rudolph, J. M., & Stamm, B. H. (1999). Maximizing human capital: Moderating secondary traumatic stress through administrative & policy action. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers and educators* (2nd ed.). Baltimore, MD: Sidran Press.
- Saakvitne, K. W., & Pearlman, L. A. (1996). *Transforming the pain: A workbook on vicarious traumatization for helping professionals who work with traumatized clients*. New York, NY: Norton.
- Schauben, L. J., & Frazier, P. A. (1995). Vicarious trauma: The effects on female counselors of working with sexual violence survivors. *Psychology of Women Quarterly, 19*(1), 49-64.
- Smith, B. D. (2007). Sifting through trauma: Compassion fatigue and HIV/AIDS. *Clinical Social Work Journal, 35*, 193-198.
- Snibbe, J. R., Radcliffe, T., Weisberger, C., Richards, M., & Kelly, J. (1989). Burnout among primary care physicians and mental health professionals in a managed health care setting. *Psychological Reports, 65*, 775-780.

- Sorgaart KW, Ryan P, Hill R, Dawson I, OSCAR group (2007) Sources of stress and burnout in acute psychiatric care: Inpatients vs. community staff. *Social Psychiatry and Psychiatric Epidemiology* 42(10): 794-802.
- Stamm, B. H. (Ed.). (1995). *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. 107-122). New York, NY: Brunner- Routledge.
- Stamm, B. H., & Pearce, F. W. (1995). Creating virtual community: Telemedicine and self-care. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators*. Lutherville, MD: Sidran Press.
- Steed, L., & Bicknell, J. (2001). Trauma and the therapist: The experience of therapist working with the perpetrators of sexual abuse. *Australian Journal of Disaster and Trauma Studies*, 1, 1-11.
- Switzer, G. E., Dew, M. A., Thompson, K., Goycoolea, J. M., Derricott, T., & Mullins, S. D. (1999). Posttraumatic stress disorder and service utilization among urban mental health center clients. *Journal of Traumatic Stress*, 12, 25-40.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn & Bacon.
- Terr, L. C. (1991). Childhood traumas: An outline and overview. *American Journal of Psychiatry*, 148(1), 10-20.
- United States Department of Labor. (2006, August 4). *Occupational outlook handbook, social workers*. Retrieved from <http://stats.bls.gov/oco/ocos060.htm>
- Urquiza, A. J., Wyatt, G. E., & Goodlin-Jones, B. L. (1997). Clinical interviewing with trauma victims: Managing interviewer risk. *Journal of Interpersonal Violence*, 12, 759-772.
- Van der Kolk, B. (1993). Biological considerations about emotions, trauma, memory, and the brain. In S. Ablon, D. Brown, S. Khnatsian, & J. Mack (Eds.), *Human feelings: Explorations in affect development and meaning*. Hillsdale, NJ: Analytic Press.

- Wade, K., Beckerman, N., & Stein, E. J. (1996). Risk of posttraumatic stress disorder among AIDS social workers: Implications for organizational response. *Clinical Supervisor, 14*, 85-97.
- Williams, M. B., & Sommer, J. F. (1995). Self-care and the vulnerable therapist. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators*. Lutherville, MD: Sidran Press.
- 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, NY: Brunner/Mazel.

APPENDIX A

SAMPLE INVITATION TO LEARN ABOUT THE STUDY

Sample Email

Dear Social Worker:

My name is Nikola Alenkin with the Loma Linda University's Department of Social Work and Social Ecology. I am conducting a study on stress among social workers working in a veteran's affairs healthcare setting and need your help. As such, I would like to encourage you to attend the monthly social work meeting where I will introduce the study and provide study packets.

Thank you so much for your interest,

Nikola Alenkin, LCSW
Doctoral Candidate
Department of Social Work and Social Ecology
Loma Linda University

Kimberly Freeman, Ph.D., MSW
Associate Professor/Program Coordinator
Department of Social Work and Social Ecology
Loma Linda University

Loma Linda University
Adventist Health Sciences Center
Institutional Review Board
Approved 8/11/09
59158 Chair *R. J. Ripley, MD*

APPENDIX B

SCRIPT OF INVITATION TO PARTICIPATE IN THE STUDY

Script

Hello, my name is Nikola Alenkin, I am a Doctoral Student at Loma Linda University's Department of Social Work and Social Ecology. I would like to tell you about a research study I am doing under the Supervision of Dr. Kimberly Freeman at Loma Linda University. I want to first thank you for your hard work with the veterans that have and are serving our country.

The purpose of this study is to examine the rates of stress among social workers and the coping strategies used to manage this stress. You are being invited to participate because you are currently employed with the Greater Los Angeles Healthcare System ("GLA") as a social worker and at times work with very stressed clients.

If you agree to participate, you will be asked to complete a study packet which includes an information sheet, demographic questionnaire and two measures. The study will take about 30 minutes of your time. This is a voluntary study and is completely anonymous. You will not be paid for your participation in this study. There is minimal risk from completing the study and if you come across questions you do not wish to answer or want to stop the study completely, you can do so at any time without penalty.

Although there are no personal benefits for participating in this study, we hope to learn more about stress and how social workers cope with this stressor in their work with veterans. I want to reiterate that your participation is voluntary. Your decision whether or not to participate or to terminate at any time will not effect your current or future employment as a social worker with GLA.

If you would like to participate in the study please take a packet as I come around the room. If you are interested in participating please read the instructions and return to packet either to myself or to the Social Work Department in building 500, sixth floor. If you have already completed a packet during a previous meeting, please do not complete the study again.

If anyone has any questions at this time I am free to answer them. Thank you all.

*Loma Linda University
Adventist Health Sciences Center
Institutional Review Board
Approved 8/11/09
59158 Chair *R. L. Ripley, MD**

APPENDIX C

SECONDARY TRAUMATIC STRESS SCALE (BRIDE, ET AL., 2004)

SECONDARY TRAUMATIC STRESS SCALE

The following is a list of statements made by persons who have been impacted by their work with traumatized clients. Read each statement then indicate how frequently the statement was true for you in the past seven (7) days by circling the corresponding number next to the statement.

NOTE: "Client" is used to indicate persons with whom you have been engaged in a helping relationship. You may substitute another noun that better represents your work such as consumer, patient, recipient, etc.

	Never	Rarely	Occasionally	Often	Very Often
1. I felt emotionally numb.....	1	2	3	4	5
2. My heart started pounding when I thought about my work with clients.....	1	2	3	4	5
3. It seemed as if I was reliving the trauma(s) experienced by my client(s).....	1	2	3	4	5
4. I had trouble sleeping.....	1	2	3	4	5
5. I felt discouraged about the future.....	1	2	3	4	5
6. Reminders of my work with clients upset me.....	1	2	3	4	5
7. I had little interest in being around others.....	1	2	3	4	5
8. I felt jumpy.....	1	2	3	4	5
9. I was less active than usual.....	1	2	3	4	5
10. I thought about my work with clients when I didn't intend to.....	1	2	3	4	5
11. I had trouble concentrating.....	1	2	3	4	5
12. I avoided people, places, or things that reminded me of my work with clients.....	1	2	3	4	5
13. I had disturbing dreams about my work with clients.....	1	2	3	4	5
14. I wanted to avoid working with some clients.....	1	2	3	4	5
15. I was easily annoyed.....	1	2	3	4	5
16. I expected something bad to happen.....	1	2	3	4	5
17. I noticed gaps in my memory about client sessions.....	1	2	3	4	5

Copyright © 1999 Brian E. Bride.

Intrusion Subscale (add items 2, 3, 6, 10, 13)	Intrusion Score	_____
Avoidance Subscale (add items 1, 5, 7, 9, 12, 14, 17)	Avoidance Score	_____
Arousal Subscale (add items 4, 8, 11, 15, 16)	Arousal Score	_____
TOTAL (add Intrusion, Arousal, and Avoidance Scores)	Total Score	_____

Bride, B.E., Robinson, M.R., Yegidis, B., & Figley, C.R. (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice, 14*, 27-35.

APPENDIX D

COPING STRATEGIES INVENTORY SCALE (BOBER ET AL., 2006)

COPING STRATEGIES INVENTORY

BELIEFS

Below is a list of activities in which counselors/therapists may participate. Please check **how helpful** each activity is in dealing with the demands of trauma work.

	Not at all helpful	Rarely helpful	Sometimes helpful	Usually helpful	Always helpful
1. Time with family	0	1	2	3	4
2. Vacation / Time off	0	1	2	3	4
3. Movies / T.V.	0	1	2	3	4
4. Hobbies	0	1	2	3	4
5. Exercise	0	1	2	3	4
6. Stress management training on an individual basis	0	1	2	3	4
7. Stress management training for the team	0	1	2	3	4
8. Planning trauma programs for clients	0	1	2	3	4
9. Developing self-care plans	0	1	2	3	4
10. Developing team-care plans	0	1	2	3	4
11. Case discussions with colleagues	0	1	2	3	4
12. Case discussions with management	0	1	2	3	4
13. Regular supervision	0	1	2	3	4
14. Supervision specifically related to trauma work	0	1	2	3	4

TIME

Below is a list of activities in which counselors/therapists may participate. Please check **how often** you engage in each activity.

	Not at all	Rarely	Sometimes	Frequently
1. Time with family	0	1	2	3
2. Vacation / Time off	0	1	2	3
3. Movies / T.V.	0	1	2	3
4. Hobbies	0	1	2	3
5. Exercise	0	1	2	3
6. Stress management training on an individual basis	0	1	2	3
7. Stress management training for the team	0	1	2	3
8. Developing self-care plans	0	1	2	3
9. Developing team-care plans	0	1	2	3
10. Case discussion with management	0	1	2	3
11. Regular supervision	0	1	2	3
12. Supervision specifically related to trauma	0	1	2	3
13. Discussing cases in team meetings	0	1	2	3
14. Participating in research	0	1	2	3
15. Education other organizations about trauma	0	1	2	3
16. Planning trauma programs	0	1	2	3
17. Participating in trauma interest groups	0	1	2	3

(Bober, T. and Regehr, C. 2006)

COPING STRATEGIES INVENTORY

SCORING

Reliability and validity data for the scale can be found in:

Bober, T., Regehr, C. & Zhou, R. (2006) Development of the Coping Strategies Inventory for Trauma Counselors. *Journal of Trauma and Loss*. 11:71-83

This measure was originally standardized on a sample of 259 trauma therapists and 71 hospital workers. Results demonstrated a consistent factor structure. Reliability coefficients for the Beliefs subscales ranged from .71 to .82. Reliability coefficients for the Time subscales ranged from .67 to .80.

Use of the measure can be found in:

Bober, T. & Regehr, C. (2006) Strategies for Reducing Secondary or Vicarious Trauma: Do They Work? *Brief Treatment and Crisis Intervention*.

The CSI – Beliefs Scale contains 3 subscales, Leisure, Self-Care, and Supervision

Leisure subscale – sum Beliefs items 1,2,3,4,5

Self-Care subscale – sum Beliefs items 6,7,8,9,

Supervision subscale – sum Beliefs items 10, 11, 12, 13, 14

The CSI – Time Scale contains 4 subscales, Leisure, Self-Care, Supervision, and Research and development

Leisure subscale – sum Time items 1,2,3,4,5

Self-Care subscale – sum Time items 6,7,8,9,10

Supervision subscale – sum Time items 10, 11, 12, 13

Research and development subscale – sum Time items 14, 15,16,17

For more information, please contact:
Ted Bober, Ontario Medical Association,
525 University Ave. Suite 300, Toronto, Ontario, Canada M5G 2K7
Email: tbober@cogeco.ca

APPENDIX E
DEMOGRAPHIC QUESTIONNAIRE

Please complete each of the questions below. Each question is meant to obtain a better understanding of your particular work, the setting you work in and the client/patients that you work with. Please remember that your responses will remain anonymous and confidential. If you feel that a particular question may potentially identify you, please do not answer it. Thank you for taking the time to answer!

1. What is your current age? _____(years)
2. What is your gender? _____ male _____female
3. What is your highest level of education in social work?
____ Master's _____Doctorate _____Other
4. How long have you worked for the Department of Veterans Affairs as a social worker? _____ (years)
5. How many hours per week do you work? _____ total hours
6. Of that time, how much is spent in the following settings? (**list by hours**)
_____ inpatient _____outpatient
7. In what program(s) do you currently work in (consider the one you spend the majority of your time in)?
_____ inpatient hospital _____ inpatient psychiatry
_____ PTSD (P.O.S.T.) _____ Domiciliary
_____ Ambulatory Care _____ Medical Surgery
_____ outpatient setting (please specify) _____ other (please specify)

8. In one week (7 days), what percentage of the clients that you see are trauma survivors? (please circle one)
- Less than 25% 25%-50% 51%-75% 76%-100%
9. Do you receive regular supervision as a part of your position at the Veterans Administration? _____ yes _____ no
10. If Yes, is that provided to you; once a week _____ once a month _____ once a year _____ other _____ (please fill in)
11. Was information on secondary traumatic stress included in any of your school curriculum (in graduate or doctoral programs)?
- _____ yes _____ no _____ not sure
12. Was information on secondary traumatic stress included in any of your training (in graduate or doctoral programs)?
- _____ yes _____ no _____ not sure
13. Was information on coping strategies included in any of your school curriculum (in graduate or doctoral programs)?
- _____ yes _____ no _____ not sure
14. Was information on coping strategies included in any of your training (in graduate or doctoral programs)?
- _____ yes _____ no _____ not sure
15. Do you yourself have any personal trauma history? _____ yes _____ no
16. Do you yourself have any childhood trauma history? _____ yes _____ no
17. Do you yourself have any natural trauma history exposure (e.g. earthquakes, hurricanes, etc..)? _____ yes _____ no

18. Are you currently involved in any personal therapy to assist you with any of the above? _____yes _____no

19. Do you feel a sense of satisfaction in working with the veterans?
_____ yes _____ no

20. If yes, how in what percentage of your work with veterans do you feel that sense of satisfaction?

Less than 25% 25%-50% 51%-75% 76%-100%

21. Other comments (please use additional blank sheets if needed):

Please continue by completing the Secondary Traumatic Stress Scale (Bride et al., 2004), and Coping Strategies Inventory (Bober et al., 2006).

APPENDIX F

DISCLOSURE INFORMATION



School of Science and Technology
Department of Social Work & Social Ecology
1898 Business Center Drive, San Bernardino, CA 92408

(909) 379-7570
FAX: (909) 379-7594
Email: sowk@llu.edu

Information Sheet

Stress Among Social Workers in a Veterans Affairs Healthcare Setting

You are invited to participate in a research study because of your current work as a social worker in the Greater Los Angeles Healthcare Center.

PURPOSE OF RESEARCH

The purpose of this student research study is to explore the rates of stress among social workers that work in inpatient and outpatient settings at the Greater Los Angeles Healthcare Center. It is also designed to study the belief in and use of coping strategies used by social workers who work in the Greater Los Angeles Healthcare Center.

Participation in this study will take approximately 30 minutes. You will be asked to complete a demographic questionnaire and two measures that examine stress associated with your work as a social worker and how you cope or manage this stress. Please return the sealed packet to the researcher directly following the meeting or to the marked drop box located at the GLA Social Work Service Department, Sixth Floor; Building 500. Participation in this study involves only the completion of these surveys.

RISKS

There are questions about your current level of stress and how you manage or cope with this stress. If you encounter any questions that make you feel uncomfortable please leave them blank, and/or you may stop the study at any time during the process. Participating in this study exposes you to minimal risk, no more than you would encounter in your daily life.

BENEFITS

There may not be any direct benefits to you for participating in this study. However, this research will help in making recommendations for future training or development of curriculum for social workers who work in the Greater Los Angeles Healthcare Center and similar settings.

PARTICIPANTS' RIGHTS

Participation in this study is voluntary. You are free to refuse to participate in this study and may quit the study at any time. Your decision on whether or not to participate or whether to terminate at any time will not affect your present or future employment as a social worker.

Loma Linda University
Adventist Health Sciences Center
Institutional Review Board
Approved 8/11/09
59158 Chair R. J. Ripley, MD SEVENTH-DAY ADVENTIST HEALTH SCIENCES INSTITUTION

Page 1 of 2

Stress Among Social Workers in a Veterans Affairs Healthcare Setting

CONFIDENTIALITY

Since names are not needed in this study, the information collected is anonymous. Please do not write your name on the questionnaires.

ADDITIONAL COSTS / REIMBURSEMENT

There is no cost to you for participating in this study. There will be no costs incurred from completing this study and you will not be reimbursed for your participation in the study.

IMPARTIAL THIRD PARTY CONTACT

If you wish to contact an impartial third party not associated with this study regarding any question or complaint you may have about the study, you may contact the Office of Patient Relations, Loma Linda University Medical Center, Loma Linda, CA 92354, phone (909) 558-4647, email patientrelations@llu.edu for information and assistance.

INFORMED CONSENT

Once you have read the contents of this informational letter, your completion and return of the questionnaire and study materials will indicate voluntary consent to participate in this study. Please keep this letter for future reference. You may call Nikola Alenkin during routine office hours at 310-478-3711 ext. 44912 or during non-office hours at 310-966-0606 or Kimberly Freeman, Ph.D., my research supervisor at 909-379-7589, if you have any additional questions or concerns.

CONSENT COPY

You may keep this consent form for your records.

Thank you so much for your participation,

Nikola Alenkin, LCSW
Doctoral Candidate
Department of Social Work and Social Ecology
Loma Linda University

Kimberly Freeman, Ph.D., MSW
Associate Professor/Program Coordinator
Department of Social Work and Social Ecology
Loma Linda University

*Loma Linda University
Adventist Health Sciences Center
Institutional Review Board*

*Approved 8/11/09
59158 Chair R. L. Ripley, MD*

A SEVENTH-DAY ADVENTIST HEALTH SCIENCES INSTITUTION

Page 2 of 2