A STUDY OF THE PREVALENCE OF COMPASSION FATIGUE IN DEPLOYED FEMA RESERVISTS

MSA 699 Capstone

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Executive Summary

This study attempted to understand the phenomenon of compassion fatigue in deployed FEMA Reservists. Does compassion fatigue exist in deployed FEMA Reservists? If so, what can be done about it? The research has addressed this question as well as the following sub-questions:

- How prevalent is compassion fatigue in deployed FEMA Reservists?
- What is the correlation, between levels of burnout, compassion fatigue, and compassion satisfaction in this population?

The answers to these questions were found using an electronic survey distributed to deployed FEMA Reservists nationwide. The findings of this study indicated that compassion fatigue does exist in this population, but at lower levels than anticipated. Overall, deployed FEMA Reservists experience a high level of compassion satisfaction and only a low to moderate level of burnout despite their demanding roles. Based upon these findings as well as the findings in the literature review, it was found that FEMA can build upon these favorable outcomes by implementing staff and management training programs centered around compassion fatigue as well as monitoring staff for signs of compassion fatigue and burnout. Based upon the conclusions of the study, three recommendations were made: include compassion fatigue training as part of Emergency Manager Orientation (EMO), conduct regular compassion fatigue screenings of deployed FEMA Reservists to identify those needing additional support, and include mental health counseling as part of the demobilization process.
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Chapter I

Definition of the Problem

Introduction

The mission of the Federal Emergency Management Agency (FEMA) is to help people before, during, and after disasters in the United States and its territories by reducing the loss of life and property and protecting communities nationwide from all hazards, including natural disasters, acts of terrorism, and other man-made disasters (cite). Due to the uncertainty of disaster activity and unknown personnel requirements, the agency must augment its Permanent Full-Time (PFT) staff with Reservists which are temporary, intermittent employees. Reservists are deployed depending on disaster activity and are a significant component of the Incident Management workforce, comprising about half of the agency’s disaster response personnel. They must be ready to deploy within 24-48 hours of receiving a deployment request and commit to be deployed at least 30 days. Deployment instance and length can vary depending on need. Reservists are hired to a position within cadres, or operational function groups, depending on skill and experience and be assigned to work in Joint Field Offices (JFO), Branch Offices, or Disaster Recovery Centers. They may work directly or indirectly with disaster survivors.

FEMA Reservists may be required to work more than eight hours a day and/or more than 40 hours in a given week which includes weekends and holidays and may be under stressful, physically demanding, and austere conditions. Work schedule and Temporary Duty Station (TDY) site could be changed with little or no notice. Based solely on conditions of employment and working in the emergency management field, FEMA Reservists are pre-disposed to stress and burnout. But due to the unique nature of their role as disaster operation workers, they may also be pre-disposed to compassion fatigue, a form of secondary traumatization or secondary
traumatic stress differing from burnout that arises from working more closely with those affected by a primary traumatic event such as a natural disaster. This phenomenon can take a toll on these workers both personally and professionally. Per FEMA’s Publication 1 that outlines the agency’s ethos, compassion is among its core values in addition to fairness, integrity, and respect. These core values guide employee performances which includes interacting with those affected by disasters and executing programs to assist them.

The agency has an Employee Assistance Program (EAP) available to employees at all levels of the organization. The purpose of the EAP is to provide counseling and referrals to address life changes, job stress and burnout, and conflict for employees. There are also services for managers that include counseling and procedures for referring subordinates to the EAP. Employees are made aware of the EAP, but there is no formal program in place to address compassion fatigue.

**Research Problem**

In the field of emergency management, the emphasis in agencies, organizations, and with the public tends to be on resources and logistics to address the disaster while less attention is paid to the demands on personnel. With such demanding conditions of employment, FEMA Reservists often have little time for self-care, are under significant amounts of stress, and are continuously exposed to trauma. With an especially active 2017 hurricane season, this workforce has been stretched thin and continues to work on the long-term recovery of multiple communities affected by disaster. Within a three-week period in 2017, three major hurricanes made landfall in the US and its territories, making that season one of the most active in US history. According to FEMA’s 2017 Hurricane Season After Action Report (2018), the agency entered the season with “a force strength less than its target, resulting in staffing shortages across incidents.” Essentially,
workers have been shuffled to multiple duty stations and have worked on multiple disasters back to back. The agency also acknowledged in this report the risk to response and recovery operations due to these staffing issues. With increased demand on personnel, burnout is to be expected, but it is important to recognize the signs and symptoms of compassion fatigue which is related to burnout but is unique in its effect on a professional’s well-being and work performance and can have both short-term and long-term effects (Figley, 2002). Kelly (2015) found that compassion fatigue not only affects service delivery, but also organizational recruitment and retention, both crucial components of disaster operation staffing. Retention is especially important in a reservist-style workforce due to a worker’s ability to decline a deployment request. FEMA requires almost constant operational availability due to the no-notice nature of disasters. A workforce must be in place and ready to deploy. Conrad and Kellar-Guenther (2006) examined the relationship between burnout, compassion fatigue, and compassion satisfaction in child protection staff and found that compassion satisfaction could mean lower levels of burnout and compassion fatigue.

**Purpose of the Study**

The purpose of this survey study is to determine the prevalence of compassion fatigue in FEMA Reservists. The independent variables will be defined as demographic factors such as ethnicity, age, and gender; and organizational factors such as length and instance of deployment. The dependent variables will be defined as compassion satisfaction, job burnout, and secondary traumatic stress.
Research Objective

The study will strive to address the research question: Does compassion fatigue exist among deployed FEMA Reservists? To more fully address the research question, the researcher developed a series of sub-questions as follows:

- How prevalent is compassion fatigue in deployed FEMA Reservists?
- What is the correlation, between levels of burnout, compassion fatigue, and compassion satisfaction in this population?

Further, this study will strive to define what compassion fatigue is, what risk factors exist, what some common signs of compassion fatigue are, how it can be addressed, and what organizations and managers can do to help those affected.

Assumptions

Although respondents were informed of the anonymous nature of the survey, due to the inherent sensitivity of certain research questions related to job satisfaction, the researcher will assume that some questions may be skipped. Due to the nature of the occupation being studied, the researcher will assume that all participants will suffer from burnout and compassion fatigue and that workers who deal directly with disaster survivors will show an even higher prevalence of compassion fatigue. Finally, the researcher anticipates deployment length and instance to positively correlate with compassion fatigue.

Theoretical framework

This study followed Stamm’s Theoretical Model of Compassion Satisfaction and Compassion Fatigue (2009). This theoretical framework posits that professional quality of life has both positive and negative aspects; compassion satisfaction, burnout, and compassion fatigue. Burnout is commonly associated with frustration, anger, exhaustion, etc. while
secondary traumatic stress or compassion fatigue is driven by feelings of fear and work-related trauma which can be direct or indirect; primary or secondary. The researcher believed that demographic and organizational characteristics may contribute to and have an influence on the development of compassion satisfaction, compassion fatigue, and burnout. Another theoretical framework that was considered was a risk management model proposed by Paton, Smith, & Violanti (2000) to conceptualize the relationship between the hazard or event, the individual, the work group, and the organization as it relates to the develop or mitigation of compassion fatigue.

**Definition of Terms**

Per the Guide to Emergency Management And Related Terms, Definitions, Concepts, Acronyms, Organizations, Programs, Guidance, Executive Orders & Legislation (Blanchard, 2007) the following terms are unique to the emergency management field and may appear in this study:

1) **After Action Report**: The document that describes the incident response and findings related to system response performance

2) **Duty Station**: While an employee’s official duty station is their home address, an employee’s duty station while deployed is a temporary duty or TDY or where they are assigned to work

3) **Complex Incident**: Management of a major incident that includes multiple operational periods and usually more than 1000 personnel assigned

4) **Rotation**: A period of no more than two weeks’ vacation that workers are allowed to take every 45 days while deployed to a disaster

5) **Joint Field Office (JFO)**: main office in a disaster operation, section responsible for the financial management, monitoring, and tracking of all Federal costs relating to the
incident and the functioning of the JFO while adhering to all Federal laws and regulations.

6) **Disaster Recovery Center (DRC):** A facility established in a centralized location within or near the disaster area at which disaster victims (individuals, families, or businesses) apply for disaster aid.

7) **Emergency Worker:** A term used to encompass all personnel involved with incident response, addressing either hazard generated demands or response generated demands. This term includes first and second responders, incident management personnel, and support personnel outside the direct incident, such as organizational personnel, emergency operations center managers and staff, and others significantly involved in incident activities.

8) **Mission:** In emergency management, an organization’s primary goal and expected control objectives.

9) **Occupational Health:** The science of designing, implementing and evaluating comprehensive health and safety programs that maintain and enhance employee health, improve safety and increase productivity in the workplace.

10) **Personnel Accountability:** The ability to account for the location and welfare of incident personnel. It is accomplished when supervisors ensure that Incident Command System principles and processes are functional and that personnel are working within established incident management guidelines.

11) **Preparedness:** Plans that address the preparedness of organizations for emergency response and recovery; these include a training plan, exercise plan, and others.
Developing, documenting and revising/refining response and recovery plans and all their components

12) **Long-term Recovery:** A process of recovery that may continue for a number of months or years, depending on the severity and extent of the damage sustained. For example, long-term recovery may include the complete redevelopment of damaged areas

13) **Response:** In disaster/emergency management applications, activities designed to address the immediate and short-term effects of the disaster/emergency

14) **First Responder:** Refers to individuals who in the early stages of an incident are responsible for the protection and preservation of life, property, evidence, and the environment, including emergency response providers as defined in Section 2 of the Homeland Security Act of 2002 (6 U.S.C. 101). It includes emergency management, public health, clinical care, public works, and other skilled support personnel (e.g., equipment operators) who provide immediate support services during prevention, response, and recovery operations

15) **Second Responder:** Personnel intended to arrive later during incident response, to augment or relieve first responders, or to provide additional, specialized expertise that is less common in first response

16) **Situation Awareness:** A person’s state of knowledge or mental model of the situation around the individual and/or his/her operating unit, including an understanding of the evolving state of the environment

17) **Cadre:** Operational function group or department

18) **Deployment:** Directing of resources on an incident to accomplish the objectives designated by strategy
19) **Branch Office**: Satellite office located away from the Joint Field Office

**Scope of the Study**

The target population of this research will be individuals who hold the position of Reservist with the Federal Emergency Management Agency (FEMA) without regard to cadre. This study will only target those Reservists who are currently deployed. This delimitation was chosen for various reasons, namely to gather the most accurate data according to the survey instrument. Respondents are asked to rate their experiences within the last 30 days. Reservists can be in a deployed or non-deployed status at any time. However, there was no duty station limitation as reservists can be deployed to any location in the United States and its territories. Further, duty stations could vary significantly in that workers may be working in a DRC, the JFO, or a Branch Office. Varying duty stations can affect environmental considerations, roles, and responsibilities.

**Researcher Credentials**

The researcher is a FEMA Reservist who has been deployed three times with a maximum deployment length of 300 days. The researcher has worked at four different duty stations. The researcher has always worked directly with disaster survivors.
Chapter II

Review of Related Literature

Historical & General Background

The idea that helping others can be stressful is not new. The term *compassion fatigue* was first introduced in a study of nurses exposed to trauma by Joinson (1992). According to Figley (1995), compassion fatigue arises from a therapist’s exposure or overexposure to his or her client’s suffering which can include disaster and loss. He remarks that this exposure is cumulative and takes place over extended periods of time. These effects often result from not only the stressors themselves, but the professional’s lack of self-care which is common among those who choose caregiving or caregiving-related professions (Figley, 2002). Higher risk of anxiety and depression has been linked to compassion fatigue (Hegney et al., 2014). There are many terms that are used interchangeably in the research to refer to the negative effects of helping the traumatized including *secondary traumatic stress* (Figley, 2013), *vicarious traumatization* (McCann & Pearlman, 1990), and *compassion fatigue* (Figley, 1995). This study will distinguish between these terms in the literature review to include a wider breadth of research. Secondary traumatic stress will be considered equivalent to compassion fatigue. The literature is not conclusive on the nuances between these terms and there have been conflicting conclusions.

There has been a moderate amount of research conducted regarding compassion fatigue in the helping professions, but most of that research has been focused on certain occupations and/or fields such as social workers, nurses, and mental health professionals. There has not been as much research done in the emergency management field. Palm, Polusny, and Follette (2004) conducted one of the few studies concerning disaster workers. While I believe this research is
relevant, further study is warranted in other fields and occupations. Overall, there are numerous gaps in the research, including what exactly constitutes compassion fatigue, how to definitively measure it, and an inclusion of all known risk factors or predictors.

**Existing Studies**

Compassion Fatigue (CF) is a kind of occupational stress that is found in various industries. When examining CF literature, most of the focus is on the healthcare and social work fields. There is little research within the emergency management field. However, Kowalski (1995) examined both stress and its effect on emergency management workers and advocates more consideration of stress in emergency management activities. Stress is inherent in any type of emergency management work but can be either positive or negative. Positively, stress can lead to superior performance and motivation while negatively, stress can cause disease and dysfunction. Stress can be either cumulative or traumatic. In the case of emergency management, stress is traumatic, or sudden and intense. Both immediate and long-term symptoms of exposure to traumatic stress have been identified by researchers such as denial, avoidance, withdrawal, concentration difficulties in the short term and irritability and sleep disturbances long term. This type of stress can manifest both cognitively and physically. Further, workers can sometimes experience a kind of reverse stress upon demobilization due to the intense and meaningful nature of their work that include feelings of loss and ambivalence about the loss of their role in the disaster (Paton, Smith, & Violanti, 2000).

Burnout is an important contributor to and correlate of compassion fatigue and the two phenomena are often confused. It’s important to understand burnout as a contributing factor to compassion fatigue. Burnout has been more widely studied as an independent subject and came into popular thought in the 1970s as it was being recognized that many in human services
professions were losing their “energy and sense of value of their job” (Schaufeli, Leiter, and Maslach, 2009, p. 206) as the industrial economy gave way to the service economy. One of the foremost researchers on the topic of job burnout is Maslach (2003) who defined burnout as feelings of overwhelming exhaustion, feelings of detachment and cynicism, and a sense of inefficacy. Two of the contributing factors to burnout include an imbalance between resource and demand and conflicting values between a worker and the organization” (Schaufeli, Leiter, and Maslach, 2009). Probably the most important takeaway from this study is the identification of engagement as the opposite of burnout which lends itself then as a potential remedy. In a study of mental health professionals by Sprang, Clark, and Whitt-Woosley (2007), it was discovered that respondents in rural locations tended to suffer higher levels of burnout than their urban counterparts due to limited resources, limited peer support, and feelings of geographical isolation. This is an important consideration for the reservist program as duty stations can be anywhere in the United States or its territories, sometimes in remote and/or devastated locations. Per Reservist Conditions of Employment, duty stations may be in austere locations.

Secondary traumatic stress (STS) and compassion fatigue (CF) are often used interchangeably. STS was defined by Figley (1995) as the behaviors and emotions resulting from the knowledge of another’s traumatic experience and from helping or the desire to help the traumatized person. A desire to help the traumatized, being exposed to trauma either directly or indirectly, and empathy are the foundation for the development of STS. Gentry (2002) proposed that individuals attracted to the helping professions are already experiencing compassion fatigue because of their ability to identify with the traumatized and therefore their willingness to help. That is, higher levels of empathy can predispose workers to experiencing the symptoms of those they help. Newell and MacNeil (2010) more clearly differentiated between STS and burnout by
noting that STS is directly related to working with traumatized populations while burnout is more general and can occur within any social service environment. Even more importantly, this study emphasized the need for training and even inclusion in curricula. Bride, Radey, & Figley (2007) uncovered the high prevalence of secondary traumatic stress in social workers and the severity of symptoms experienced with 70.2% experiencing at least one symptom and 55% experiencing at least one of the core symptom clusters of STS. Symptoms of STS or CF can mimic those of someone directly exposed to trauma including avoidance, detachment, anxiety, sleeping disturbances, irritability, and significant changes in world view and general psychological function (Palm et al., 2004). Figley (2003) stressed the importance of offering intervention to workers affected not only once, but continuously. Finally, assisting workers either before or during disasters to develop effecting coping mechanisms and support systems to combat STS and mitigate the effects of trauma exposure can greatly reduce risk. There is a lack of literature on the effectiveness of treatment and specific predictors. Most of the literature focuses on the prevalence of or risk factors contributing to compassion fatigue, burnout, and secondary traumatic stress or vicarious traumatization rather than intervention.

There is little focus on compassion satisfaction, or the positive aspect of helping others. Compassion satisfaction is a worker’s sense of achievement, motivation, inspiration, etc. and is an effective means of reducing compassion fatigue (Bride, Radey, & Figley, 2007). Compassion satisfaction results in higher productivity, positive attitude and allows workers to connect with those they serve (Stamm et al., 2010). Compassion satisfaction has been shown to be negatively correlated with burnout and compassion fatigue and therefore may mitigate the negative effects of the helping professions (Conrad, 2006). Further, compassion fatigue and burnout have been found to be positively correlated. Factors that can enhance compassion satisfaction include being
optimistic, utilizing several social resources, maintaining good health, and maintaining a balanced life (Alkema, Linton, & Davies, 2008).

Certain individual factors may either predispose workers to or protect workers from compassion fatigue such as demographics including gender, age, educational level, and marital status but there is little consensus in the literature. Stamm (2010) examined scores across demographics, finding little to no differences of statistical significance across various demographics such as age group, income level, years of experience, and gender. However, several studies including Sprang et al. (2007) found a higher prevalence of compassion fatigue in females. Increased age, higher education level, and more years of working experience were found to mitigate compassion fatigue and burnout in other studies (Abu-Bader, 2000; Hunsaker et al. 2015). Paton, Smith, & Violanti (2000) noted that other individual dispositional and cognitive factors can cause a higher level of either resilience or vulnerability to disaster stress. These biological, historical, and psychological factors can determine a worker’s response to disaster stress and act as early identifiers of the need for additional support.

At the organizational level, signs of compassion fatigue include higher rates of absenteeism, lack of teamwork, lack of respect for deadlines, negativity toward management, and aggressive behavior. That is, compassion fatigue in workers can have a significant effect on the organization. Potter et. al (2010) clearly distinguishes between work-related stress and exhaustion from burnout and proposes that compassion fatigue is a leading cause of the nursing shortage and therefore a financial burden on healthcare organizations. It can also cause decreased productivity and higher turnover. Employees may also take more sick days. DePanfilis (2006) Recruitment, retention, and quality of service delivery could be adversely affected by compassion fatigue in workers (Hegney et al, 2014; DePanfilis, 2006). Palm, Polusny, and
Follette (2004) examined vicarious traumatization across multiple professions including disaster workers and examined organizational factors unique to this field. They point out the difficulty in managing stress in emergent situations organizational considerations. Organizational setting seemed to be a significant contributor to compassion fatigue with lack of social support, lack of supervisor support, and poor communication being common complaints among disaster workers. Level of manager support has been found to be a strong predictor of compassion satisfaction or compassion fatigue as well as shift length, educational background, and an overall positive work environment (Hunsaker, Chen, Maughan & Heaston, 2015). Conrad (2006) found significant differences in levels of compassion fatigue and burnout among nurses in the same department but different units, suggesting that roles and responsibilities in the same environment can have a significant impact. Paton, Smith, & Violanti (2000) found that social groups formed in disaster work environments are unique in their dynamic and social norms and can influence either resilience or vulnerability when exposed to disaster stress. This vulnerability-resistance paradigm also extends to managerial behavior and organizational characteristics, specifically management style, reporting procedures, and flexibility as it pertains to bureaucratic procedures.

While exposure to traumatic stress is inevitable in disaster work, the literature has suggested many forms and styles of intervention to mitigate negative outcomes such as burnout and compassion fatigue and assist in disaster workers’ coping with and recovering from the effects of traumatic stress exposure. Changes in organizational culture, group support, workload, self-care, supervision, education, and work environment may help prevent vicarious trauma (Bell, Kulkarni, & Dalton, 2003). These findings suggest that while compassion fatigue may be inevitable, targeted organizational strategies could reduce the chance of burnout and contribute to a higher incidence of compassion satisfaction rather than compassion fatigue. Paton, Smith, &
Violanti (2000) suggest that while disaster response work inevitably causes exposure to traumatic stress, growth outcomes and positive reactions can be encouraged in the form of a resiliency construct. Cognitive resilience training can assign meaning and coherence to disaster demands and events and thereby enhancing performance and speeding recovery and act as an essential component of disaster preparedness for professionals.

Kowalski (1995) suggested intervention before, during, and after called Critical Incident Stress Debriefing (CISD) performed by a peer-driven team led by a mental health professional. Before disasters, workers and management would be educated on critical incident or traumatic stress, how to mitigate it, and when and how to seek assistance. During incidents, on-scene assistance to the obviously distressed would be offered and defusings could be held to promote discussion of events and stressors thus reducing acute stress. Kowalski (1995) also suggested mental health professionals being included as part of the demobilization and debriefing process post disaster. Mitchell (1986) defined Critical Incident Stress Management (CISM) as a “comprehensive, integrated, systematic and multicomponent crisis intervention program” with the aim to help manage traumatic events within communities and organizations. It includes multiple tactics used together to mitigate the impact of the traumatic event, facilitate recovery from the traumatic event, restore organizations and individuals, identify those who need additional support. It is comprehensive in that it includes education, planning, policy, training, and management. The key to this program is its systematic nature, meaning it is applied methodically and consistently. Paton (1997) outlined a resilience training plan to include: supportive and participative management style, accepting and acknowledging staff needs, identifying and meeting staff needs, general communication, planning and plan implementation,
delegation, uncertainty and ambiguity management, recovery and return to routine performance management.

Another element of compassion fatigue mitigation is self-care. Palm, Polusny, and Follette (2004) suggested spending time with people, engaging in purposeful activities, and asking for support in order to cope with personal response to disasters. Moreover, it is important that disaster workers and healthcare providers attend to their personal needs to have the physical and psychological energy to work more effectively with others. Alkema, Linton, & Davies (2008) looked at the relationship between compassion satisfaction, compassion fatigue, burnout, and self-care strategies as well as protective factors. In correlating the three constructs and self-care strategies such as eating regularly (physical), self-reflection (psychological), permitting oneself to cry (emotional), being open to inspiration (spiritual), taking time to chat with colleagues (workplace), and maintaining personal relationships (balance), compassion fatigue was negatively correlated to all aspects of self-care. Notably, burnout was also negatively correlated to these aspects. Thus, management should promote self-care strategies as a means of mitigating both compassion fatigue and burnout.

Methodology

The most common approach to researching compassion fatigue is the self-reporting cross-sectional survey method. Slocum-Gori, Hemsworth, Chan, Carson & Kazanjian (2013), Hunsaker, Chen, Maughan & Heaston (2015), and Hooper, Craig, Janvrin, Wetsel & Reimels (2010) all used this method to assess levels of compassion fatigue, compassion satisfaction, and burnout in their target populations. Slocum-Gori et al. (2013) used a two-stage approach to identify the target population and obtained an organizational membership list and respondents were contacted directly via email. Hunasker et al. (2015) also obtained a nationwide
organizational membership list, but instead mailed surveys to 1,000 selected respondents nationwide. This study had very specific inclusion criteria such as a minimum number of work hours, direct contact with patients, and a minimum number of years’ experience to control for experience and exposure. The researchers followed up with respondents to encourage participation and increase response rate. Hooper et al. (2010) used similar methods, but instead sampled multiple nursing units within the same department as a means of comparison within the target population.

**Instrumentation**

Bride et al., (2007) analyzed various assessment tools for measuring compassion fatigue. What is most important to note is that these scales are used to screen and do not constitute a clinical review. Several instruments have been developed to measure different aspects of compassion fatigue, the most popular being the Compassion Fatigue Self-Test (Figley, 1995). This test assesses both compassion fatigue and job burnout. This test was further developed by Stamm and Figley (1996) to include an assessment of compassion satisfaction. Another revision by Stamm (2002) to include secondary traumatic stress resulted in the Professional Quality of Life Scale (ProQOL) which will be used in this study. The ProQOL has been identified as a valid and reliable measure of compassion satisfaction, burnout, and secondary traumatic stress (Stamm, 2010). The ProQOL has three subscales that measure compassion satisfaction, burnout, and secondary traumatic stress using a 30-item self-report 6-item Likert scale format. This instrument has an advantage in that it measures both the positive and negative aspects of the helping professions and has been used in over half of all published papers on compassion fatigue. A CS score of 22 or less suggests low levels of CS, a score of 23 to 41 indicates average levels, and 42 and above suggests high levels of CS. For CF and burnout, a score of 22 or less indicates
low levels, 23 to 41 indicates average levels, and a score of 42 and above suggest high levels of CF and burnout.

Other scales include the Secondary Traumatic Stress Scale (STSS), the Impact of Event Scale (IES) and Impact of Event Scale Revised (IES-R), the Trauma and Attachment Belief Scale (TABS, and the World Assumptions Scale (WAS). The STSS focuses mainly on assessing symptoms associated with trauma exposure using three subscales that include intrusion, avoidance, and arousal; symptoms correlated with the symptoms of PTSD. The IES and IES-R were designed to measure subjective stress after being directly exposed to trauma rather than indirectly exposed and are generally associated with one traumatic event. The TABS assesses cognitive disruptions in areas of psychological need such as intimacy, safety, trust, control, and esteem. This scale has been used in the study of both direct and indirect trauma. Lastly, the WAS is another scale to measure cognitive changes associated with directly experiencing trauma, but like the TABS, has also been used to assess cognitive changes with experiencing trauma indirectly. Its purpose to assess changes in a respondent’s world view encompassing benevolence, meaningfulness, and feelings of worthiness.

Bride, Radey, & Figley (2007) advise choosing a scale that focuses on the aspects of compassion fatigue that need to be monitored and that no one scale measures all potential aspects of compassion fatigue. They further advise that more than one scale or a combination of scales be utilized in organizations to uncover compassion fatigue and its risk factors in workers. Further, the scales differ in terms of timeframes, some are longer while others are shorter. Shorter scales can assist in pinpointing current levels of compassion fatigue while others may uncover recent but not necessarily current compassion fatigue.
Statistical Approach

All the studies cited used descriptive statistics to describe the features of study data obtained. Most researchers not only summed the subscale scores but did multivariate or regression analysis to understand the relationship among both the dependent and independent variables. Sprang et al. (2007) used a multivariate analysis of variance (MANOVA) comparing each of the three subscales to demographic and work-related factors. Further, Box’s M test was used to compare variation. Finally, multiple regression analyses were used to determine if these independent variables could be predictors of compassion satisfaction, compassion fatigue, and/or burnout. Slocum-Gori et al. (2013) used Pearson correlation tests to correlate the three subscale constructs. Pearson chi-square tests were also used to determine the relationship between dependent and independent variables. Hunsaker et al. (2015) used general statistical analysis as well as a series of Pearson associations and multiple regressions to examine the relationship between compassion satisfaction, compassion fatigue, burnout, work-related factors, and demographics.

Significant Studies

Hooper et al. (2010) used the ProQOL to measure and compare levels of compassion satisfaction, compassion fatigue, and burnout in nurses in different departments. Much like this study, participants completed a self-reporting cross-sectional survey. The survey included a sociodemographic profile and the ProQOL. The scores for each subscale were scored and compared. This study highlighted the differences between the three subscales and what factors might contribute to varying scores among them based on organizational factors. For example, emergency nurses demonstrated lower levels of compassion satisfaction while oncology nurses demonstrated higher levels of compassion fatigue and intensive care nurses showed a higher risk
of burnout. Slocum-Gori et al. (2013) also used self-reported measures of compassion satisfaction, compassion fatigue, and burnout as well as demographic profiles and organizational characteristic questions to understand the factors that influence positive and negative outcomes of working in hospice palliative care. This study found a negative correlation between compassion satisfaction and burnout, between compassion satisfaction and compassion fatigue, and a positive correlation between compassion fatigue and burnout. This study also found differentiated results depending on practice characteristics. Hunsaker et al. (2015) sought to uncover the prevalence of compassion fatigue in emergency department nurses in the United States and to examine demographic and work-related factors that might affect the risk for compassion fatigue. The researchers utilized the ProQOL and a demographic questionnaire distributed to a random group of nurses nationwide. This study found low to average levels of burnout and compassion fatigue and higher levels of compassion satisfaction. More specifically, it found that lower levels of management support contributed to higher levels of compassion fatigue and burnout and vice versa.

**Summary of Literature Reviewed**

As the review of related literature indicated, there was a moderate amount of literature that explored the phenomenon of compassion fatigue, risk factors, and how to treat and mitigate it. Unfortunately, there is less literature focused on compassion fatigue in the emergency management field as most research has been done in the healthcare or social work setting. The phenomenon of compassion fatigue is evident but is not completely understood as it may be considered the same as secondary traumatic stress or vicarious trauma; or it may be considered distinct from these conditions. Most of the literature focuses not just on compassion fatigue as a singular construct, but as it correlates to burnout and compassion satisfaction. Hence, the
standard survey instrument to measure compassion fatigue is the ProQOL which includes the three constructs as subscales. The consensus is that compassion satisfaction, the positive aspect of helping, negatively correlates to burnout and compassion fatigue, the negative aspects of helping.

Both individual and organizational factors have been identified as both risk factors and possible predictors of compassion fatigue. Further research is warranted regarding individual risk factors, although several sources pointed to more professional experience being a mitigating factor. A large portion of the research pointed to work environment as the strongest risk factor or predictor of higher levels of compassion fatigue and thus the key to mitigating its prevalence. The research presented in this chapter indicated that an effective training and education program before disasters should be the first line of defense in reducing the risk for compassion fatigue. Furthermore, additional research in the area pointed to interpersonal support, both outside and inside of the workplace, as important in reducing the incidences of compassion fatigue.
Chapter III

Methodology/Procedures

Research Methodology

This study used a Web-based self-reported survey. The survey was cross-sectional and non-experimental. Respondents were self-selected in that the survey was posted publicly and a population was invited to participate. Respondents self-identified as a member of said target population.

Instrumentation

The survey instrument had 40 questions and consisted of two parts. Part one was 10 questions and captured demographic and work-related data. The demographic data included age, gender, ethnicity, marital status, and educational level. Work-related data included deployment status, length of deployment, number of previous deployments, and direct or indirect contact with disaster survivors. No identifying work-related information was included. All questions were closed with pre-coded response options. The Professional Quality of Life Scale version 5 (ProQOL) formed the second part of the survey. The (ProQOL) has 30 questions and consists of three subscales: Compassion Satisfaction (CS), Burnout (BO), and Compassion Fatigue (CF). Each subscale has 10 questions. The BO and CF subscales both measure negative effects but are different as the CF scale measures fear while the BO scale does not. Each item was measured on a five-point Likert scale ranging from 1 = never to 5 = very often. Each scale has a maximum of 50 points and mid-point scores as follows: Compassion Satisfaction 37, Compassion Fatigue 13, and Burnout 22. Higher scores on the CF subscale indicate a strong risk of compassion fatigue. Higher scores on the CS subscale indicate strong feelings of professional satisfaction. Finally, higher scores on the BO subscale indicate the respondent is at risk of experiencing symptoms of
burnout such as helplessness, hopelessness, etc. Permission to use the ProQOL was obtained from the publisher as shown in Appendix A.

Field Procedures

The survey was Web-based and administered through the online survey platform SurveyMonkey. The Web invitation letter, as shown in Appendix C, was publicly posted on Facebook, LinkedIn and Twitter with an accompanying link that would open the survey in SurveyMonkey. The survey includes a cover letter that outlines the purpose of the study, the potential benefits and risks of participation, and the researcher’s contact information. Completion of the survey took approximately 5 minutes. The researcher posted an invitation to complete the survey six times over a 30-day period. Due to a low response rate, the researcher posted the invitation again and allowed another week to receive responses.

Sample

The target population for this study was deployed FEMA Reservists nationwide. Not limiting the survey to a particular disaster or location allowed data to be distributed among duty stations and disasters, therefore including varying work environments and roles to be included therefore making the results more generalized. The sampling was homogenous and purposive in that it was limited to deployed workers due to the nature of the study. The research aimed to uncover the prevalence of compassion fatigue which is measured using the ProQOL. The survey asked respondents to supply information about their feelings in the last 30 days. Thus, reservists who are deployed, or known to be working right now, were targeted. Non-deployed reservists may not have worked for an extended period. It was impossible to assume a response rate since the number of deployed reservists constantly fluctuates depending on open disasters and operational need and the total number of reservists is unknown.
Data Collection and Recording Procedures

All entries for the survey were collected on the SurveyMonkey website. The results were provided to the researcher for assessment. The website categorized a summary of group and individual sample responses with graphic representation.

Data Processing and Analysis Procedures

The results of the survey were analyzed using descriptive statistics in Excel statistical functions. The results of the three subscales on the ProQOL were summed and an average rating computed for each subscale as well as the standard deviation, variance, and range. These average scores were then categorized as low, medium, or high and compared. These scores were also analyzed as cut scores to demonstrate relative risk in terms of percentile scores. A correlation analysis was run on the three subscales to determine their relationship.

Methodological Assumptions

The researcher assumed that the respondents answered all questions honestly and understood all questions posed. The researcher also assumed the validity and reliability of the survey instrument and that the demographic and work-related items were relevant and could add to the measurement of compassion fatigue.

Methodological Limitations

This research did have limitations. The study only focuses on certain demographic and work-related factors and there may be other factors that affect the prevalence of compassion fatigue and relies on self-reported data that cannot be independently verified. There was some limitation in terms of access as the researcher was unable to obtain permission to access private organizational social media groups or use internal organizational data thus potentially limiting
the sample. Further, as with all survey research, this sample may not represent the entire population as the entire population isn’t being measured.
Chapter IV

Data Analysis

The data collected will be presented in this chapter in written and visual form. The type of data collected includes a demographic survey and a Likert-style survey adapted from the Professional Quality of Life Survey (ProQOL) that invited the target population of deployed FEMA Reservists to participate. The relationship of the data to the research questions will be discussed. The data included 29 responses to the survey. The target population was deployed FEMA Reservists. The survey instrument included two questions to ensure the respondent was part of this target population: Are you a FEMA Reservist? Are you deployed? Data from respondents who answered No to either question was eliminated. After eliminating these responses, the data included 18 total responses.

Population Characteristics

Respondents were asked questions to gather demographic and professional data as shown in Appendix D. Respondents were first asked about their age, gender, ethnicity, marital status, and educational level. Secondly, respondents were asked whether they were a FEMA Reservist, if they were deployed at the time of the survey, how many times they had been deployed and for how long. Lastly, respondents were asked if they worked directly with disaster survivors.

The age range of the sample was 25 to 74 years of age with most respondents falling in the 25-34 (29.41%) and 55-64 (29.41%) age ranges. The sample was almost equally male (47.06%) and female (52.94%) and most respondents were either Black (35.29%) or White (35.29%). There were the same number of single (27.78%) and married (27.78%) respondents with 22.22% divorced, 16.67% separated, and 5.56% widowed. 50% of the sample had at least a bachelor’s degree and educational background varied from some high school to doctoral degree.
Majority of the sample had been deployed at least two or three times (44.44%) with a significant percentage being deployed five or more times (38.89%). Most respondents had been deployed nine to 12 months (44.44%) with a large percentage being deployed between three to nine months (33.34%). Finally, most respondents work directly with disaster survivors (83.33%).

Table 1. Professional Quality of Life (ProQOL) Survey Data

<table>
<thead>
<tr>
<th>Subscore</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion Satisfaction</td>
<td>43.1</td>
<td>5.1</td>
<td>33</td>
<td>50</td>
</tr>
<tr>
<td>Compassion Fatigue</td>
<td>22</td>
<td>5.4</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>Burnout</td>
<td>21</td>
<td>5.7</td>
<td>12</td>
<td>33</td>
</tr>
</tbody>
</table>

Does Compassion Fatigue exist in deployed FEMA Reservists?

Compassion fatigue does exist in deployed FEMA Reservists but at varying levels and in conjunction with compassion satisfaction and burnout as exhibited in Table 1. All respondent surveys indicated at least some level of compassion fatigue coupled with compassion satisfaction and burnout. All respondents reported either low (scores of 22 or less) or moderate levels (scores of 23-41) of CF. No respondent reported high levels (scores of 42 or more) of CF. The specific levels of compassion fatigue reported, and the questions used to assess the subscale will be addressed further in analysis of the first sub-question.

How prevalent is compassion fatigue in deployed FEMA Reservists?

To address the first sub-question, descriptive statistics were used to calculate mean, standard deviation, and percentages for compassion fatigue based on the raw scores obtained in Table 1. The mean score for the level of CF in this sample was 22 (SD=5.4). This mean score
would be considered on the upper end of the low level (scores of 22 or less). As previously stated, no respondent reported high levels of CF (scores of 42 or more). 10 respondents (56%, SD=2.6) reported low levels of CF and eight respondents (44%, SD=2.1) reported average levels of CF. The lowest reported level of CF was 16 and the highest level was 31. Respondents were asked 10 questions to determine the level of CF (Questions 12, 15, 17, 19, 21, 23, 24, 33, 35, and 38) as shown in Table 2.

Table 2 Survey Data: Compassion Fatigue (CF)

<table>
<thead>
<tr>
<th>Question</th>
<th>1=Never (%)</th>
<th>2=Rarely (%)</th>
<th>3=Sometimes (%)</th>
<th>4=Often (%)</th>
<th>5=Very Often (%)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. I am preoccupied with more than one person I help.</td>
<td>1 (5.56%)</td>
<td>2 (11.11%)</td>
<td>6 (33.33%)</td>
<td>6 (33.33%)</td>
<td>3 (16.67%)</td>
<td>3.4</td>
</tr>
<tr>
<td>15. I jump or am startled by unexpected sounds.</td>
<td>1 (5.56%)</td>
<td>8 (44.44%)</td>
<td>9 (50.00%)</td>
<td>-</td>
<td>-</td>
<td>2.4</td>
</tr>
<tr>
<td>17. I find it difficult to separate my personal life from my job.</td>
<td>3 (16.67%)</td>
<td>5 (27.78%)</td>
<td>6 (33.33%)</td>
<td>4 (22.22%)</td>
<td>-</td>
<td>2.6</td>
</tr>
<tr>
<td>19. I think that I might have been affected by the traumatic stress of those I help.</td>
<td>5 (27.78%)</td>
<td>5 (27.78%)</td>
<td>6 (33.33%)</td>
<td>2 (11.11%)</td>
<td>-</td>
<td>2.3</td>
</tr>
<tr>
<td>21. Because of my helping, I have felt &quot;on edge&quot; about various things.</td>
<td>5 (27.78%)</td>
<td>7 (38.89%)</td>
<td>4 (22.22%)</td>
<td>2 (11.11%)</td>
<td>-</td>
<td>2.2</td>
</tr>
<tr>
<td>23. I feel depressed because of the traumatic experiences of the people I help.</td>
<td>6 (33.33%)</td>
<td>6 (33.33%)</td>
<td>6 (33.33%)</td>
<td>-</td>
<td>-</td>
<td>2.0</td>
</tr>
<tr>
<td>24. I feel as though I am experiencing the trauma of someone I have helped.</td>
<td>5 (27.78%)</td>
<td>7 (38.89%)</td>
<td>6 (33.33%)</td>
<td>-</td>
<td>-</td>
<td>2.1</td>
</tr>
<tr>
<td>33. I avoid certain activities or situations because they remind me of frightening experiences of the people I help.</td>
<td>12 (66.67%)</td>
<td>4 (22.22%)</td>
<td>1 (5.56%)</td>
<td>-</td>
<td>1 (5.56%)</td>
<td>1.6</td>
</tr>
</tbody>
</table>
66.66% of the sample reported being *preoccupied with more than one person I help*. 50% of the sample reported being *startled by unexpected sounds*. More than half of the sample (55.55%) reported either sometimes or often having difficulty *separating my personal life from my job*. Only one third (33.33%) of the sample felt that they sometimes *might have been affected by the traumatic stress of those I help*. More than half (55.56%) reported feeling affected this way never or rarely. More than half (56.67%) reported never or rarely *feeling on edge because of helping*. Respondents equally reported (33.33%) either never, rarely, or *sometimes feeling depressed because of the traumatic experiences of those they help*. Only one third (33.33%) reported *feeling as though I am experiencing the trauma of someone I have helped* and most (66.67%) reported never *avoiding certain activities or situations because they remind me of frightening experiences of the people I help*. Most (55.56%) also reported never *having intrusive, frightening thoughts*. Finally, most of the sample (77.78%) reported never or only rarely not being able to *can't recall important parts of work with trauma victims*. The questions related to CF addressed the negative aspects of helping. Examining mean scores for each question, the mean scores range from 1.6 to 3.4, thus indicating that in general, this sample tends to experience these negative aspects never, only rarely, or only sometimes. The strongest indicator of CF was Question 12, *I am preoccupied with more than one person I help* with 15 of the 18 respondents reporting that they felt this way at least sometimes if not often or very often.

<table>
<thead>
<tr>
<th>Question</th>
<th>10 (55.56%)</th>
<th>6 (33.33%)</th>
<th>1 (5.56%)</th>
<th>-</th>
<th>1 (5.56%)</th>
<th>1.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>35. As a result of my helping, I have intrusive, frightening thoughts.</td>
<td>7 (38.89%)</td>
<td>7 (38.89%)</td>
<td>3 (16.67%)</td>
<td>1 (5.56%)</td>
<td>-</td>
<td>1.9</td>
</tr>
<tr>
<td>38. I can't recall important parts of my work with trauma victims.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What is the correlation, between levels of burnout, compassion fatigue, and compassion satisfaction in this population?

To address sub-question two, descriptive statistics were used to calculate mean, standard deviation, and percentages for CS and BO as shown in Table 1. The mean score for the level of CS in this sample was 43.1 (SD=5.1). This mean score would be considered high (scores of 42 or more). All respondents reported either high or average levels of CS (scores of 23-41). Six respondents reported average levels of CS (33%, SD=3.39) while the rest of the sample reported high levels of CS (66%, SD=2.76). The highest reported level of CS was 50 while the lowest reported level of CS was 33 which is still well in the average range.

Table 3 Survey Data: Compassion Satisfaction (CS)

<table>
<thead>
<tr>
<th>Question</th>
<th>1=Never</th>
<th>2=Rarely</th>
<th>3=Sometimes</th>
<th>4=Often</th>
<th>5=Very Often</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. I get satisfaction from being able to help people.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>16</td>
<td>4.9</td>
</tr>
<tr>
<td>16. I feel invigorated after working with those I help.</td>
<td>1</td>
<td>8</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>2.4</td>
</tr>
<tr>
<td>22. I like my work.</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>4.4</td>
</tr>
<tr>
<td>26. I am pleased with how I am able to keep up with techniques and protocols.</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>4.1</td>
</tr>
<tr>
<td>28. My work makes me feel satisfied.</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>8</td>
<td>7</td>
<td>4.2</td>
</tr>
<tr>
<td>30. I have happy thoughts and feelings about those I help and how I could help them.</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>4.1</td>
</tr>
<tr>
<td>32. I believe I can make a difference through my work.</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>4.2</td>
</tr>
<tr>
<td>34. I am proud of what I can do to help.</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>4.3</td>
</tr>
</tbody>
</table>
Respondents were asked 10 questions to determine the level of CS in the sample (Questions 13, 16, 22, 26, 28, 30, 32, 34, 37, and 40) as shown in Table 3. Most of the sample (88.89%) reported getting satisfaction from being able to help people. Half (50.00%) of the sample reported at least sometimes feeling invigorated after working with those they help, while the other half (50.00%) reported rarely or never feeling that way. Half (50.00%) of the sample felt very often that they liked their job while the other half (50.00%) felt that way sometimes or often. Often or very often, most (77.78%) felt pleased with how they could keep up with techniques and protocols and an even larger percentage (83.33%) felt satisfied with their work either often or very often. More than two thirds of the sample (77.77%) reported having happy thoughts and feelings about those they help and about how they could help them and the same portion (77.77%) felt they could make a difference through their work. The majority (83.33%) felt often or very often proud of what they could do to help. 72.23% think of themselves as a success as a helper either often or very often and finally, 94.45% report being happy they chose to do this work. Examining mean scores for each question, the mean scores tend to be above 4 except for one question I feel invigorated after working with those I help (M=2.4). The strong response to Question 13, I get satisfaction from being able to help people (M=4.9) gives a strong indication of compassion satisfaction in the sample and provides an idea of workers’ motivations. Overall, this sample either often or very often experiences the positive aspects of helping.

Descriptive statistics were used to calculate mean, standard deviation, and percentages for BO as shown in Table 1. The mean score for the level of BO in this sample was 21 (SD=5.7). This mean score would be considered on the upper end of the low range (scores of 0-22). Most of the sample reported low levels of BO (72%, SD=3.2). The rest of the sample reported an
The average level of BO (28%, SD=2.9). The lowest level of BO reported was 12 with the highest level of BO reported being 33.

**Table 4. Survey Data: Burnout (BO)**

<table>
<thead>
<tr>
<th>Question</th>
<th>1=Never</th>
<th>2=Rarely</th>
<th>3=Sometimes</th>
<th>4=Often</th>
<th>5=Very Often</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. I am happy.</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>4.2</td>
</tr>
<tr>
<td>14. I feel connected to others.</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>4.1</td>
</tr>
<tr>
<td>18. I am not as productive at work because I am losing sleep over traumatic experiences of a person I help.</td>
<td>7</td>
<td>7</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>1.8</td>
</tr>
<tr>
<td>20. I feel trapped by my job.</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>1.9</td>
</tr>
<tr>
<td>25. I have beliefs that sustain me.</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>4.1</td>
</tr>
<tr>
<td>27. I am the person I always wanted to be.</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>4.1</td>
</tr>
<tr>
<td>29. I feel worn out because of my work.</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>31. I feel overwhelmed because my work load seems endless.</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>36. I feel &quot;bogged down&quot; by the system.</td>
<td>4</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>2.7</td>
</tr>
<tr>
<td>39. I am a very caring person.</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>13</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Respondents were asked 10 questions to determine the level of BO in the sample (Questions 11, 14, 18, 20, 25, 27, 29, 31, 36, and 39) as shown in Table 4. More than half of the sample
(55.56%) reporting feeling happy sometimes or often while the rest (44.44%) reported feeling happy very often. The same number of respondents (44.44%) that felt happy very often reported feeling connected to others very often while half (50.00%) reported sometimes or often feeling connected to others. Most respondents (77.78%) reported never or rarely being not as productive due to losing sleep over traumatic experiences of those they help. A little less than one quarter (22.22%) reported sometimes feeling that way. A little less than half (44.44%) of the sample reported never feeling trapped by their job while 44.45% felt that way rarely or sometimes. 11.11% often felt trapped. Almost one third (72.22%) of the sample often or very often felt they had self-sustaining beliefs and 77.78% often or very often felt like the person they always wanted to be. Over half (55.56%) sometimes felt worn out because of work but less than half (44.44%) sometimes felt overwhelmed due to a work load that seemed endless. The same number (44.44%) sometimes felt boggled down by the system and almost one third (72.22%) very often felt that they were a caring person. Examining mean scores for each question, the mean scores are more varied than the other two subscales with a range of 1.8 to 4.7. Upon looking at the questions in detail, this variation is due to questions pertaining to BO being asked from both a positive and negative aspect. For example, I feel connected to others \((M=4.1)\) versus I feel trapped by my job \((M=1.9)\).

Table 5. Correlations among Compassion Satisfaction, Compassion Fatigue and Burnout

<table>
<thead>
<tr>
<th></th>
<th>Compassion Satisfaction</th>
<th>Compassion Fatigue</th>
<th>Burnout</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CF</td>
<td>-0.242</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BO</td>
<td>-0.747</td>
<td>0.519</td>
<td>1</td>
</tr>
</tbody>
</table>

Pearson \(r\) correlation calculation was used to determine the relationship between the three subscales as show in Table 5. Correlation among the three subscales were calculated as shown.
CS is negatively correlated with both CF ($r = -0.242$) and BO ($r = -0.747$) while there is a positive correlation between CF and BO ($r = 0.519$). Thus, higher levels of CS could mean lower levels of CF and BO. Conversely, lower levels of CS could mean higher levels of CF and BO. The positive correlation between CF and BO indicate that higher levels of CF can contribute to higher levels of BO and vice versa. Therefore, reducing levels of BO may reduce levels of CF and vice versa.
Chapter V

Summary, Conclusion, Recommendations

Summary

The data was collected and analyzed to answer the primary research question: Does compassion fatigue exist in deployed FEMA Reservists? Data was also collected and analyzed to answer two sub-questions:

- How prevalent is compassion fatigue in deployed FEMA Reservists?
- What is the correlation, between levels of burnout, compassion fatigue, and compassion satisfaction in this population?

This chapter will summarize key findings of the research from chapters two and three, listing conclusions drawn from the data as it relates to answering the research questions. Recommendations will be made based upon conclusions drawn. Finally, future research suggestions will be explained. Understanding the prevalence of compassion fatigue in this population will help us understand how to retain reservists, improve their quality of life, improve agency preparedness and effectiveness in program delivery.

It was difficult to determine how demographic factors may have contributed to subscale scores. The age range of the sample was very large and almost evenly split between two age groups, 25-34 and 55-64. The sample was almost equally male or female, equally Black or White, and at least half of the sample had a bachelor’s degree. It was notable that this sample seemed to have a significant level of professional experience with number of deployments being at least twice and up to five or more times and deployment lengths averaging nine to twelve months which according to Hunsaker et al. (2015) could mitigate compassion fatigue.
Conversely, most of the respondents work directly with disaster survivors, thus being exposed more frequently to the traumatic experiences of those they assist.

The data analysis included specific questions targeted at uncovering levels of compassion fatigue, compassion satisfaction, and burnout in the sample. By taking a deeper look at the questions and how they were answered, specific areas can be targeted to improve outcomes. Per Bride et al., (2007), analysis of the way the questions were answered can uncover aspects of the subscales that need to be monitored. Within the compassion fatigue subscale, the data analysis showed that the sample seemed to feel affected by the trauma they are exposed to. While the stronger symptoms of intrusive thoughts and avoidance weren’t as prevalent, there seemed to be an overlap or imbalance in workers’ personal and professional lives. Within the compassion satisfaction subscale, workers displayed a general satisfaction with their jobs. They feel effective and truly believe in what they are doing and their ability to help. The only outlier was that respondents reported a lack of feeling *invigorated* after helping despite their overall job satisfaction. It would be worth looking into what this means and what workers think is missing either in their environment or interpersonally to increase enthusiasm. Within the burnout subscale, there were significant feelings of being worn out, overwhelmed, and bogged down with work. So, despite feeling good about what they do, the sample feels the effects of such a demanding job.

According to the data analysis, the sample reported high levels of CS, and moderate to low levels of CF and BO. The sample reported at least one core symptom of CF as would be expected (Bride et al., 2007) but at low levels. Although no formal hypothesis was stated, these results could be considered contrary to researcher expectations of at least a moderate level of CF in this population due to working conditions, especially considering that most of the sample
work directly with disaster survivors. Although most studies in the literature discovered at least a moderate level of CF in target populations as anticipated, Hunsaker et al. (2005) found only low to average levels of burnout and compassion fatigue and higher levels of compassion satisfaction in the sample. Although most of the sample self-reported as empathetic which could be considered a strong predictor or compassion fatigue (Gentry, 2002), this one individual factor alone did not seem to significantly contribute to levels of compassion fatigue.

It is helpful to interpret the results on the three subscales in combination. The results of the data analysis support the literature findings concerning the correlation of the three subscales. This combination of subscales (high level of CS, moderate to low CF and BO) is the most desirable result (Stamm, 2010). These results indicate a significant level of positive reinforcement within the organization and strong feelings of efficacy among workers and in the organization.

Conclusions

The researcher sought to determine if compassion fatigue exists in deployed FEMA Reservists and if so, how prevalent it is. More specifically, the researcher sought to understand the correlation between compassion fatigue, compassion satisfaction, and burnout which all comprise professional quality of life. The results of the study indicate that compassion fatigue does exist in this population but at lower levels than the national average (Stamm, 2010). Although it exists at low levels in this sample, it does in fact still exist and is a type of occupational stress that should be considered in disaster preparedness and resource management activities at the agency. Further, there were high levels of compassion satisfaction in this population and low levels of burnout, though the level of burnout was almost at the moderate level. Based on these results, the researcher concluded that deployed FEMA Reservists are
generally satisfied with their work and highly motivated, though they are susceptible to burnout which can then increase the risk for compassion fatigue. So, despite the favorable results in this sample, intervention is still necessary and should be an integral part of training and management.

**Recommendations**

As major disasters become more frequent and the Federal Emergency Management Agency’s reservist workforce is called in to assist in fulfilling the agency’s mission, it is important to ensure that this portion of the agency’s workforce is ready and willing to deploy and effective in their duties while working in a disaster. Compassion fatigue is a reality of working under significant stress, specifically disaster stress. But as the data showed, these negative aspects of the role are being mitigated by the positive aspects and as such, interventional strategies before, during, and after disasters should be employed to continue this trend and maximize organizational effectiveness. Based upon the conclusions of this study, the researcher has three suggestions for the agency which may help address risk factors for compassion fatigue in this population. The implementation of these recommendations may help to ensure the continued effectiveness of the agency’s mission.

**Recommendation 1: Compassion fatigue training.** All FEMA personnel undergo Emergency Manager Orientation (EMO) upon hire and this training must be completed before being eligible to deploy. This new hire orientation should include a module on compassion fatigue. To date, this training does not address compassion fatigue and disaster stress. One of the themes in the literature review was the need for intervention. Kowalksi (1995) suggested pre-disaster training to educate all staff on how to recognize compassion fatigue, how to mitigate it, and how to ask for assistance. More specifically, Kowalksi (1995) suggested that this training be not only peer-driven but led by a mental health professional. It is important for workers to be
able to distinguish between job burnout and compassion fatigue as the effects of compassion fatigue differ and can be longer lasting for the worker thus being more detrimental. This training could build resiliency in the workforce before even being exposed to trauma or disaster stress. Paton’s (1997) resilience training plan included promoting a supportive and participative management style where managers could accept and acknowledge staff needs, identify and meet staff needs and improve interpersonal communication. Staff should also learn self-care strategies as self-care has been found to mitigate compassion fatigue (Alkema, Linton, & Davies, 2008).

**Recommendation 2: Compassion fatigue screening.** Another theme in the literature was intervention during disasters to provide assistance to workers who may be at high risk for or are already experiencing compassion fatigue. In addition to management attempting to recognize compassion fatigue in workers, regular screening should be in place to highlight individuals at risk to provide them with care. An instrument such as the Professional Quality of Life Scale (ProQOL) should be used to measure levels of compassion fatigue, compassion satisfaction, and burnout in workers and specific responses should be further analyzed if necessary. This screening should be systematic to be effective and done at regular intervals to monitor risk and enable support (Mitchell, 1986). *Defusings*, or group discussion focused on traumatic stress exposure, should be done regularly as part of this screening process and any individuals or groups at risk should be identified and targeted for counseling (Kowalski, 1995).

**Recommendation 3: Mental health counseling as part of demobilization.** When workers have finished their deployment, they go through a process of demobilization that includes “checking out” with several departments. They turn in their equipment to accountable property, confirm completion of their mission with their supervisor, chief of staff, request removal from e-mail lists with the IT department, and confirm their timecard is processed with
human resources. Workers are generally not debriefed or provided any resources upon
demobilizing. Once their forms are processed, they travel home and are free to do whatever they
like until they are requested for deployment again. Ending a mission can be traumatic in addition
to the trauma the worker was exposed to. Workers can suffer from anxiety, depression, anger,
etc. as well as physical symptoms such as exhaustion, immune impairments, and pain, all of
which can influence personal relationships and readiness for another deployment. Mental health
counseling should be included in the demobilization process to reinforce compassion fatigue
training received at orientation whereby workers can recognize the symptoms, employ self-care
strategies, and seek additional support if necessary.

Suggestions for further research

This study did not address the individual factors that could be highlighted as predictors or
risk factors for compassion fatigue such as personality type or personality characteristics. The
literature has suggested that certain personality traits can encourage resiliency to compassion
fatigue, thus further research is warranted in this area. Further, several studies pointed to
organizational characteristics around roles and responsibilities affecting compassion fatigue risk.
This was also not specifically addressed in this study. It could be helpful to understand how
different roles within the agency could affect risk for this condition. Finally, it could be helpful
to provide intervention as suggested in Recommendation 2, and then conduct another
compassion fatigue screening to understand intervention effectiveness.
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Stamm, B. H., Blampied, S., Higson-Smith, C., Hudnall, A. C., Piland, N. F., Stamm, H. E., &


Appendix A: Permission to use ProQOL

Permission for Use of the ProQOL (Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue) www.proqol.org

Accompanied by the email to you, this document grants you permission to use for your study or project

The ProQOL (Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue) www.ProQOL.org

Prior to beginning your project and at the time of any publications, please verify that you are using the latest version by checking the website. All revisions are posted there. If you began project with an earlier version, please reference both to avoid confusion for readers of your work.

This permission covers non-profit, non-commercial uses and includes permission to reformat the questions into a version that is appropriate for your use. This may include computerizing the measure.

Please print the following reference or credit line in all documents that include results gathered from the use of the ProQOL.


Permission granted by
Beth Hudnall Stamm,
PhD Author, ProQOL
ProQOL.org
info@proqol.org

Help us help all of us. Please consider donating a copy of your raw data to the data bank. You can find more about the data bank and how you can donate at www.proqol.org and www.proqol.org/Donate_Data.html. Data donated to the ProQOL Data Bank allow us to advance the theory of compassion satisfaction and compassion fatigue and to improve and norm the measure itself.
Appendix B: Survey Cover Letter

Dear Participant:

My name is Karla Roberson and I am a graduate student in the Master of Science in Administration program at Central Michigan University. For my final project, I am examining the prevalence of Compassion Fatigue in deployed disaster relief workers. As a deployed FEMA Reservist, I am inviting you to participate in this research study by completing the Professional Quality of Life Scale Survey (ProQOL) and a demographic questionnaire.

The following survey will require approximately 5 minutes to complete. There is no compensation for responding nor is there any known risk. Copies of the project will be provided to my Central Michigan University instructor. If you choose to participate in this project, please answer all questions as honestly as possible. Participation is strictly voluntary and you may refuse to participate at any time.

Thank you for taking the time to assist me in my educational endeavors. The data collected will provide useful information regarding the prevalence of compassion fatigue in FEMA Reservists and education and training program suggestions for management and staff to prevent and mitigate it.

Completion of the survey will indicate your willingness to participate in this study. If you require additional information or have questions, please contact me at the number listed below. Please feel free to e-mail me if you would like a summary copy of the study.

Please note that if you are not satisfied with the manner in which this study is being conducted, you may report (anonymously if you so choose) any complaints to the MSA Program by calling 989-774-6525 or addressing a letter to the MSA Program, Rowe 222, Central Michigan University, Mt. Pleasant, MI 48859.

Sincerely,

Karla Roberson
(202) 351-1436
Rober5kj@cmich.edu

Instructor: Dr. Calvin Lathan III
Lathalca@cmich.edu

Survey Link: https://www.surveymonkey.com/r/MKWDLFY
Appendix C: Web Survey Invitation

Karla Roberson, a graduate student in the Master of Science in Administration program at Central Michigan University, invites Deployed FEMA Reservists to take a survey about the prevalence of Compassion Fatigue in deployed FEMA Reservists. Interested participants can access the survey at https://www.surveymonkey.com/r/MKWDLFY or by clicking on the green survey button below. More information about my project is available after you open the survey. Please note that you must be age 18 or older to participate in this study. Feel free to share with any deployed Fema Reservists that you know. Thanks for your help with my project! #fema #femareservist

SURVEYMONKEY.COM
Can you spare a few moments to take my survey? ✓
Please take the survey titled "Compassion Fatigue". Your feedback is important!
## Appendix D: Survey Instrument

1. What is your age?
   - [ ] 18-24 years old
   - [ ] 25-34 years old
   - [ ] 35-44 years old
   - [ ] 45-64 years old
   - [ ] 55-64 years old
   - [ ] 65-74 years old
   - [ ] 75 years or older

2. What is your gender?
   - [ ] Male
   - [ ] Female

3. Please specify your ethnicity.
   - [ ] White
   - [ ] Hispanic or Latino
   - [ ] Black or African American
   - [ ] Native American or American Indian
   - [ ] Asian or Pacific Islander
   - [ ] Other (please specify)

4. What is your marital status?
   - [ ] Single, never married
   - [ ] Married or domestic partnership
   - [ ] Widowed
   - [ ] Divorced
   - [ ] Separated

5. What is the highest level of education you have obtained?
   - [ ] Some high school, no diploma
   - [ ] High school graduate, diploma or the equivalent (for example, GED)
   - [ ] Some college credit, no degree
   - [ ] Trade/technical/vocational training
   - [ ] Associate degree
   - [ ] Bachelor's degree
   - [ ] Master's degree
   - [ ] Professional degree
   - [ ] Doctorate degree
6. Are you a FEMA Reservist?
   - Yes
   - No

7. Are you currently deployed?
   - Yes
   - No

8. How many times have you been deployed?
   - 1
   - 2
   - 3

9. How long have you been deployed?
   - 1-3 months
   - 3-6 months
   - 6-9 months
   - 9-12 months

10. Do you work directly with disaster survivors?
    - Yes
    - No

11. I am happy.
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very Often

12. I am preoccupied with more than one person I help.
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very Often
13. I get satisfaction from being able to help people.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

14. I feel connected to others.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

15. I jump or am startled by unexpected sounds.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

16. I feel invigorated after working with those I help.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

17. I find it difficult to separate my personal life from my job.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

18. I am not as productive at work because I am losing sleep over traumatic experiences of a person I help.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often
19. I think that I might have been affected by the traumatic stress of those I help.
- Never
- Rarely
- Sometimes
- Often
- Very Often

20. I feel trapped by my job.
- Never
- Rarely
- Sometimes
- Often
- Very Often

21. Because of my helping, I have felt "on edge" about various things.
- Never
- Rarely
- Sometimes
- Often
- Very Often

22. I like my job.
- Never
- Rarely
- Sometimes
- Often
- Very Often

23. I feel depressed because of the traumatic experiences of the people I help.
- Never
- Rarely
- Sometimes
- Often
- Very Often

24. I feel as though I am experiencing the trauma of someone I have helped.
- Never
- Rarely
- Sometimes
- Often
- Very Often
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. I have beliefs that sustain me.</td>
<td>○ Never ○ Often ○ Rarely ○ Very Often ○ Sometimes</td>
</tr>
<tr>
<td>26. I am pleased with how I am able to keep up with techniques and protocols.</td>
<td>○ Never ○ Often ○ Rarely ○ Very Often ○ Sometimes</td>
</tr>
<tr>
<td>27. I am the person I always wanted to be.</td>
<td>○ Never ○ Often ○ Rarely ○ Very Often ○ Sometimes</td>
</tr>
<tr>
<td>28. My work makes me feel satisfied.</td>
<td>○ Never ○ Often ○ Rarely ○ Very Often ○ Sometimes</td>
</tr>
<tr>
<td>29. I feel worn out because of my work.</td>
<td>○ Never ○ Often ○ Rarely ○ Very Often ○ Sometimes</td>
</tr>
<tr>
<td>30. I have happy thoughts and feelings about those I help and how I could help them.</td>
<td>○ Never ○ Often ○ Rarely ○ Very Often ○ Sometimes</td>
</tr>
</tbody>
</table>
31. I feel overwhelmed because my work load seems endless.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

32. I believe I can make a difference through my work.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

33. I avoid certain activities or situations because they remind me of frightening experiences of the people I help.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

34. I am proud of what I can do to help.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

35. As a result of my helping, I have intrusive, frightening thoughts.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often

36. I feel “bogged down” by the system.
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often
<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>37. I have thoughts that I am a “success” as a helper.</td>
<td>Never, Rarely, Sometimes, Often, Very Often</td>
</tr>
<tr>
<td>38. I can’t recall important parts of my work with trauma victims.</td>
<td>Never, Rarely, Sometimes, Often, Very Often</td>
</tr>
<tr>
<td>39. I am a very caring person.</td>
<td>Never, Rarely, Sometimes, Often, Very Often</td>
</tr>
<tr>
<td>40. I am happy that I chose to do this work.</td>
<td>Never, Rarely, Sometimes, Often, Very Often</td>
</tr>
</tbody>
</table>
Appendix E: Permission to Conduct Study

8/7/2018 Gmail - Research Review Application approval/K. Roberson

Karla <roberson.karla@gmail.com>

Research Review Application approval/K. Roberson
1 message
Thu, Jun 7, 2018 at 9:29 AM

Prout, Christina Leigh <prout1cl@cmich.edu>
To: "Roberson, Karla Jean" <rober5k@cmich.edu>
Cc: "Lathan III, Calvin A" <lathanca@cmich.edu>, "Zeh, Colleen Marle" <zeh1cm@cmich.edu>

Dear Karla,

Your Research Review Application has been reviewed and approved. You may start your data collection. This approval will not expire as long as your topic and methodology remain unchanged. If your topic or methodology changes, please submit a new Research Review Application and supporting documents to your instructor by e-mail.

Please contact your instructor if you have any questions. Also, be sure to check with your instructor concerning the due dates for your project.

Good luck with your project. This is the only notification you will receive. Please keep a copy for your records.

Kim Griibben
Assistant Director, MSA Program

Christina Prout
Administrative Secretary, Master of Science in Administration Program
Rowe 222 | Central Michigan University | Mount Pleasant, MI 48859

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For more information, visit us online!

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