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Self-Care and Self-Compassion of Disaster Responders: Predictors of Resilience

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Running head: SELF-CARE AND SELF-COMPASSION

Self-Care and Self-Compassion of Disaster Responders: Predictors of Resilience

by

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DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of
Doctor of Psychology in the Department of Clinical Psychology
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Department of Clinical Psychology

DISSERTATION COMMITTEE PAGE

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**SELF-CARE AND SELF-COMPASSION OF DISASTER RESPONDERS:
PREDICTORS OF RESILIENCE**

presented on July 26, 2018

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Dedication

To my sons, Evan Macedonia and Garrett Macedonia,

Thank you for your unwavering support, patience, and unconditional love.

You both inspire me and your faith in me gives me strength.

To my mother, Francoise Duvillier,

My gratitude for teaching me through your examples to be a determined woman, to love others,

and to never give up.

To the memory of Dr. Raymond Macedonia,

With much love.

To Jaret Yost,

Thank you for your loving and caring support during this process.

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Abstract

Every year, natural and human-made disasters occur around the world bringing chaos and destruction to unsuspecting populations. Disaster responders, both trained professionals and volunteers, rally from around the world to provide care, help, and support to survivors of these catastrophes. Responders operate often in tragic circumstances and are exposed to various stressors. Despite a large body of literature on self-care and growing research on self-compassion and their respective effects on resilience (Friborg et al., 2006; Germer & Neff, 2013; Leary, Tate, Adams, Allen, & Hancock, 2007; Roysircar, 2008) there exists no measure that assesses first responders' self-care, self-compassion, resilience, and their disaster response competencies. In addition, little is known about protective factors that prevent vicarious traumatization. In response to this need to assess the mental well-being of first responders, the study investigated how self-care and self-compassion contributed to the resilience of responders in disaster settings. In addition, the study investigated how protective and risk factors predicted responders' disaster response competencies as well as resilience. Archival data were analyzed for the study. The use of the pilot measure, Disaster Response Competencies Questionnaire (DRCQ, Roysircar, 2010) provided the data. Participants were disaster responders ($N = 77$) between ages 22–74, who responded online to the measure. The purpose of the DRCQ was to screen responders and to do pre–post evaluation as related to their response service. The basic psychometric properties of the DRCQ were good to excellent with regard to the internal consistency reliabilities of six scales and their respective facets. There were strong positive Pearson r correlations among self-care, self-compassion, and resilience, while self-compassion had a strong negative Pearson r correlation with vicarious traumatization. Protective factors were also strong predictors of resilience and disaster response competencies. No gender difference was found in

self-compassion. The study's results, limitations, and implications for future research are discussed.

Keywords: Disaster responders, self-care, self-compassion, resilience, disaster response competencies, protective factors, vicarious traumatization

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Self-Care and Self-Compassion of Disaster Responders: Predictors of Resilience

In 2013, the Centre for Research on the Epidemiology of Disasters (CRED) and the Institute of Health and Society (IRSS) released the Annual Disaster Statistical Review report for 2012 (Guha-Sapir, Hoyois, & Below, 2013). This worldwide data collection reported that 357 natural disasters were recorded that year, causing the death of more than 9,655 people and suffering to 122.9 million survivors (Guha-Sapir et al., 2013). In addition, natural disasters cost a record amount of US \$157.3 billion in material damages (Guha-Sapir et al., 2013). These numbers do not include the cost in lives and material damages caused by human-made disasters, such as wars, genocides, and ethnic cleansings. At the sites of these natural and human-made disasters, responders rally to provide help, care, and support to survivors. Some are trained and seasoned professionals working for humanitarian organizations and traveling worldwide to provide assistance to populations in need. Others are volunteers who are provided basic training to provide organizations with support in situations when too often demands exceed by far the available help.

Disaster responders provide frontline services around the world to communities placed in grave living situations. These compassionate men and women, led by a sense of fellowship to their fellow human beings, are exposed to the experiences of disaster survivors and explicit accounts of what the survivors endured (Howlett & Collins, 2014). Traumatic events impact not only those who experience them but also those who engage in helping survivors. Disaster response workers are exposed to various stressors and are vulnerable to secondary traumatization (Dass-Brailsford, 2010; Roysircar, 2008). Vicarious traumatization is an occupational hazard for responders and is a process that is not always fully understood by both workers and rescue organizations (Howlett & Collins, 2014). The lack of adequate training and sometimes the poor

support provided to these workers often result in vicarious traumatization. Studies (Dass-Brailsford, 2010; Fullerton, Ursano, & Wang, 2004; Kessler, Chin, Demler, Merikangas, & Walters, 2005) have shown that the rate of Post-Traumatic Stress Disorder (PTSD) affecting men is 3.5% and for women it is 9.7%, while the rate can reach 32% for individuals involved in rescue and recovery, and 33% for responders with no previous disaster training. However, research (Howlett & Collins, 2014) also showed that protective factors (e.g., training, adequate self-care) can enhance resilience to secondary traumatization.

This study investigated some of the protective factors that can enhance resilience in disaster rescue workers—the benefits of dimensions of self-care and self-compassion for resilience. The relationship of resilience with disaster response competencies was studied. Furthermore, at the conclusion of the study, there is a discussion of benefits for organizations in providing self-care training for their volunteers and employees in high-risk situations. Finally, the study investigated the basic psychometric properties of the DRCQ as an instrument for appropriately measuring the resilience, disaster response competencies, and self-care practices of rescue workers.

Disasters

Natural disasters. CRED defined a disaster as “a situation or event which overwhelms local capacity, necessitating a request to a national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering” (Vos, Rodriguez, Below, & Guha-Sapir, 2010, p. 5). Natural disasters can be categorized in subgroups: geophysical (events originating from solid earth), meteorological, hydrological, climatological, and biological (Guha-Sapir et al., 2013). Examples of such disasters include Hurricanes Katrina and Rita and the Indian Ocean tsunami.

Human-made disasters. Roysircar, Podkova, and Pignatiello (2013) further define disaster by including human-made disasters (e.g., acts of terrorism or hostage taking), war and genocide (e.g., the Iraq and Afghanistan wars, Somalia ethnic cleansing, refugee displacements), and pandemics (e.g., HIV/AIDS in African nations, the plague and yellow fever previously, Ebola outbreak more recently). The International Federation of Red Cross and Red Crescent Society (2014) also referred to the human-made disaster of technological hazards resulting from anthropogenic hazards caused by humans.

The Effect of Disasters on Survivors and Disaster Workers

The impact of disasters on survivors. Disasters have an impact on people both physically and psychologically. Survivors of catastrophic events may be physically injured or made homeless by the destruction of their material possessions and homes. They may have witnessed the death of loved ones. Some negative reactions (e.g., emotional, cognitive, physical, and behavioral) are expected and normal in the light of abnormal events (Dass-Brailsford, 2010). Shock, numbness, guilt, anger, grief, anxiety, and concentration problems are considered adaptive responses in survivors of traumatic events and can vary from one individual to another depending on coping abilities and personality characteristics (Dass-Brailsford, 2010).

The impact of disasters on responders. Disaster responders are exposed to a variety of stressors that compromise their well-being and may result in vicarious traumatization (i.e., secondary traumatic stress), burnout, and/or compassion fatigue (Roysircar, 2008). Ehrenreich and Elliott (2004) provided a list of stressors that humanitarian aid workers report, which includes: long hours in treacherous conditions, excessive amounts of work, separation from family, lack of privacy, constant immersion in fear and danger, lack of appreciation from others, sense of helplessness, and overwhelming guilt for having food, clothing, shelter or other things

that the disaster-affected population lacks. These stressors may undermine the mental health of disaster response workers, who may experience trauma themselves through prolonged exposure to the aftermath of devastating events (Roysircar, 2008).

Traumatization

The Substance Abuse and Mental Health Services Administration (SAMHSA, 2012) defines that individual trauma “results from an event, series of events, or a set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual’s functioning and physical, social, emotional, or spiritual well-being” (online, paragraph 1). Effects of trauma depend on how:

an individual assigns meaning to and is disrupted physically and physiologically by an event. Effects can occur immediately or over time. Other effects include but are not limited to the inability to cope with normal daily stresses, difficulty in maintaining or forming relationships, decrease in cognitive abilities (e.g., attention, memory, thinking), negative changes in behavior, and interference with and modification of neuro-physiological processes that affect physical health. (SAMHSA, 2012, online, para. 3)

The American Psychiatric Association’s (2013) *Diagnostic and Statistical Manual of Mental Disorders – 5th Edition* (DSM-5) refers to trauma-related disorders as affecting individuals directly experiencing a trauma event and sometimes affecting their close relatives through “indirect exposure” (i.e., vicarious trauma; p. 274). However, this explanation does not address the effect of trauma beyond individuals, such as widespread trauma in communities that is caused by catastrophes (Roysircar et al., 2013). Individual trauma may not occur in a vacuum but in a community owing to its contextual make-up (e.g., geographic, virtual, organizational)

(Bronfenbrenner, 1999; Roysircar et al., 2013, SAMHSA, 2012). When an individual is exposed to an event that results in trauma, his or her community is affected as well because of the community's interaction with the individual and the individual's with the environment (Bowman & Roysircar, 2011; Roysircar et al., 2013, SAMHSA, 2012). Therefore, depending on a community's reaction to an individual experiencing trauma, it might impact the way in which this individual copes with trauma either positively (through resilience) or negatively (e.g., hopelessness); for instance, if the community refuses to acknowledge an individual's trauma, the individual may be re-traumatized involuntarily and experience more severe trauma.

Burnout of Human Service Providers. The American Psychological Association (VandenBos, 2007) defines burnout as:

“*n.* physical, emotional, or mental exhaustion, especially in one's job or career, accompanied by decreased motivation, lowered performance, and negative attitudes towards oneself and others. It results from performing at a high level until stress and tension, especially from extreme and prolonged physical or mental exertion or an overburdening workload, take their toll... Burnout is most often observed in professionals who work closely with people (e.g., social workers, teachers, correctional officers) in service-oriented vocations and experience high levels of stress. It can be particularly acute in therapists or counselors doing trauma work, who feel overwhelmed by the cumulative secondary trauma of witnessing the effects....” (p. 140)

In addition, burnout not only affects individuals but also organizations in which they are employed, and the people that are called to help (Rupert & Morgan, 2005).

Burnout stems from psychological depletion and is often accompanied by physical exhaustion and occurs when rescue workers remain in the field for an extended period of time,

when their initial energy and motivation are overcome by continuous witnessing of despair, loss, and hardship (Dass-Brailsford, 2010). A study by Maslach, Schaufeli, and Leiter (2001) linked burnout to turnover, absenteeism, decreased job satisfaction, mental health conditions (e.g., anxiety, depression), and lower rates of productivity and effectiveness.

Compassion Fatigue. Compassion fatigue is defined by Figley (1995) as a common occupational side effect to working with traumatized populations. The primary symptom is a decreased ability to maintain empathy as a result of repeated exposure to the content of reports by trauma victims (Figley, 1995). It can affect most individuals working in helping professions but is particularly prevalent in individuals doing disaster work (Dass-Brailsford, 2010).

Vicarious Traumatization. Vicarious traumatization refers to a transformation in trauma workers' inner experience resulting from empathic engagement with survivors' trauma material (Dass-Brailsford, 2010). These effects are cumulative and permanent, affecting both professional and personal lives. The effects of vicarious traumatization are similar to the effects of traumatic experiences (e.g., PTSD), and include "significant disruptions in one's sense of meaning, connection, identity, and world view, as well as in one's affect tolerance, psychological needs, beliefs about self and other, interpersonal relationships, and sensory memory" (Pearlman & Saakvitne, 1995, p. 151). Secondary traumatic stress shares many of the same characteristics as those of PTSD: (a) re-experiencing, (b) avoidance, (c) negative cognitions and mood, and (d) arousal (Figley, 1995; American Psychiatric Association, 2013). The diagnostic criteria in the DSM-5 identify the trigger to PTSD as exposure to actual or threatened death, serious injury or sexual violation but include the following scenario as well, "Extreme exposure to aversive details of the traumatic event (not through media, pictures, television or movies unless work-related; American Psychiatric Association, 2013). Though the symptoms experienced by rescue workers

suffering secondary traumatization are usually less severe than PTSD-like symptoms experienced by disaster survivors, these can affect the health and livelihood of those working with disaster and trauma survivors (Baldwin, 2015).

The Positive Effects of Self-Care and Self-Compassion

Self-care. Self-care is a multidimensional concept in which psychological and physical well-being aspects are interdependent and lead to an enhanced quality of life and a sense of fulfillment (Roysircar, 2008). It encompasses all aspects of being human—the emotional, the physical, the spiritual, the intellect, the social, the familial or relational—as well as safety and security concerns. The integration of self-care practices into the daily lives of disaster responders serves as a safeguard against vicarious traumatization, thereby preventing burnout and compassion fatigue (Roysircar, 2008). Additionally, self-care practices may help disaster responders maintain their psychological and physical health. Thus, the use of self-care practices is expected to support and cultivate resiliency in disaster responders.

Emotional self-care. Research indicates there is an important connection between emotions and health (Frederickson, 2000). Hence, practicing emotional self-care is important to both mental and physical health. Disaster responders and caregivers are likely to encounter people and situations that cause emotions of anxiety, fear, anger, stress, and insecurity. Negative patterns of cognition, which are related to poor emotional adjustment, may also result from a traumatic event. These negative patterns of cognitions include overwhelming helplessness, negative self-talk, self-blame, and a crisis of confidence (Lerias & Byrne, 2003). If not effectively addressed, negative thoughts can compromise disaster responders' feelings and eventually their well-being.

Physical self-care. The benefits of physical self-care have been extensively covered in literature, particularly in regard of emotional well-being and the practice of regular physical activity (Fox, 1999). Research showed that regular physical activity reduces stress, anxiety, and depression in adults (VanKim & Nelson, 2013). Physical self-care includes nutrition, fitness, preventive medical care, and early treatment care (Cameron & Leventhal, 2003).

Spiritual self-care. Spiritual self-care engages individuals in the search for a deeper meaning of life and the connection to a higher power. The constructs of religiousness and spirituality are seen by some as interchangeable and by others as being two clearly separate concepts (Pargament, 2007). William James defined spirituality as “the feelings, acts, and experience of individual men [people] in their solitude, as far as they apprehend themselves to stand in relation to whatever they might consider the divine” (cited by Pargament, 2007, p. 30). With this intent, a walk in the forest, sitting by a lake, or reading a book in a moment of appreciation can be considered spiritual endeavors. Spirituality is a personal experience defined by each individual who then assigns meaning-making. Religion and religiousness refer to a larger social, institutional, and cultural context of spirituality (Pargament, 2007, p. 32). It is also viewed as the totality of a belief system, an inner piety or disposition or ritual practice (Wulff, 1997, as cited by Daaleman & Dobbs, 2010). Furthermore, religion is seen by some as the vehicle used to convey spirituality. However, not all individuals need to use religion in order to experience spirituality nor do all religious individuals experience spiritual fulfillment.

Intellectual self-care. Intellectual self-care is the regular exercise of an individual’s critical thinking skills, on-going expansion of knowledge, and the stimulation of one’s cognitive abilities (Roysircar, 2008). Activities relating to intellectual well-being, such as reading, learning, and exposure to novel experiences, help to maintain a level of intellectual excitement

that buffers intellectual fatigue developing in people exposed to trauma survivors (Skovholt & Trotter-Mathison, 2009).

Social self-care. Social self-care is one's regular involvement in relationships outside of nuclear and extended family networks. It pertains to establishing, nurturing, and maintaining social networks and friendships through community involvement and group affiliation (Roysircar, 2008). Responders involved in the care of trauma survivors work often through rigorous and stressful conditions which allow them limited time and energy to take care of their social needs.

Relational self-care. Relational self-care is about establishing and maintaining meaningful relationships with life partners and nuclear and extended family (Roysircar, 2008). Research shows that a person's overall health is positively impacted by daily nurturing interactions with family members (Bylund & Duck, 2004).

Safety and security self-care. Safety and security self-care pertains to the precautions (e.g., personal, environmental, and financial) taken by individuals to feel safe and comfortable in their home and community (Roysircar, 2008). Often underestimated, the stress caused by personal financial or physical insecurity can affect a disaster responder's peace of mind and can further affect the quality of services provided to patients (Roysircar, 2008).

Self-compassion. Compassion can be defined as an intimate awareness of the suffering experienced by others and the desire to assuage it (Germer & Neff, 2013). Self-compassion is compassion directed toward oneself (Germer & Neff, 2013). Self-compassion is relevant to all, but particularly to individuals in situations that might bring pervasive feelings of personal inadequacies, failures, and mistakes. According to Maslach et al. (2001), a low sense of achievement is a dimension of burnout. Self-compassion is an important construct for rescue

responders who are confronted everyday with circumstances beyond their control and might be vulnerable to the above-stated feelings. Research has shown that self-compassion is associated with lower psychopathology and depressive disorders (Barnard & Curry, 2011; MacBeth & Gumley, 2012). Most importantly, research has found that self-compassion seems to enhance resilience by lessening people's reactions to negative circumstances (Germer & Neff, 2013; Leary et al., 2007). Self-compassion lowers fear of failure (Neff, Hseih, & Dejitterat, 2005), increases motivation to perform better in the future (Breines & Chen, 2012), and improves interpersonal functioning (Neff & Beretvas, 2012). Finally, Neff and Pommier (2012) associate self-compassion to altruism, greater empathy, perspective taking, and forgiveness of others. A greater sense of self-compassion can only benefit disaster responders who are at risk to feel inadequate and ineffective as they face suffering they cannot easily alleviate as they work day after day with trauma survivors. Being self-compassionate may make them better helpers.

Resilience

Though there is not one operational definition of resilience (Newman, 2005), the construct can be conceptualized as “effective coping and adaptation in the face of major life stress” (Tedeschi & Kilmer, 2005, p. 231). Resilience can be understood as the sum of experience and knowledge acquired over time through one's survivor experiences and from one's local community of sufferers (Roysircar, 2008). Roysircar (2008) presents two assumptions regarding resilience. First, it stems from people encountering challenging situations, and second, these situations require them to utilize resources that are internal (a person's traits) and external (social and societal) to overcome traumatic problems. Friberg et al. (2006) defined five internal and external factors of resilience: personal strength, social competence, structured style, family cohesion, and social resources. Material resources (external resources) include

income, health insurance, employment, and interpersonal resources, such as social support, familial relationships, or religious connections (Friborg et al., 2006).

Risk factors. Risk factors are conditions in the environment (e.g., poverty, negative group influences, marginalization, and an individual's cumulative traumatic experiences), which increase the likelihood of a negative outcome (Kaplan, Norman, & Stillson, 1996). Risk factors for disaster responders, as proposed by the present study, could include: low responder socioeconomic status (SES), low organizational support, low survivor SES, environmental stresses, and vicarious traumatization.

Protective factors. Protective factors are systems in the environment, such as family, school, community, group solidarity, and organizational resources, which act to reduce the likelihood of a negative outcome despite adversity, thereby fostering resilience (Benard, 1995). Additional protective factors for disaster responders, as presented in this present study, could include preparedness for disaster work, age, and number of participations in disaster work. Protective factors act as both buffer against negative outcomes and can enhance the possibility of resilient outcomes (Roysircar, 2012).

In addition to the above-mentioned internal and external resources participating in building resilience, Roysircar (2012) lists other resources which pertain to disaster responders: (a) optimism; (b) spirituality and religiousness; (c) group orientation; d) flexibility; (e) self-efficacy for disaster work, using a resilience framework in disaster work; and (f) a sense of purpose and achievement. These appear to be personal strengths of disaster responders that are briefly described below.

Optimism. Optimism refers to an attitude of hopefulness and confidence about the future or the successful outcome of something. Responders need to foster a sense of optimism in their

life in order to continue serving disaster survivors without feeling hopelessness about the demands of the work.

Spirituality and religiousness. Spirituality and religiousness foster resilience by reconnecting people to hope, faith, and concern for others (Farley, 2007), especially after the trauma of a disaster (Roysircar, 2008). Responders need to participate in the rehabilitation of religious leaders and local healers within communities struck by disasters.

Group orientation. Group orientation pertains to the extent to which the individual enjoys and seeks working with others, involving team members in decisions and looking for others' feedback. Group orientation does not deny individual differences but embraces them as assets in working toward a humanitarian common goal.

Flexibility. Flexibility denotes adaptive ability in cognitive, emotional, social, and physical situations, as well as bicultural competence across different cultural settings (Roysircar, 2012). Westphal and Bonnano (2007) stated that it is not which coping strategy people use that determines resilient outcomes, but how flexible they are in using these strategies across varied traumatic situations. Disaster responders who use a flexible approach do not have fixed expectations of a community in crisis and can provide appropriate interventions across varied settings, people, and situations (Roysircar, 2012).

Self-efficacy for disaster work. Self-efficacy refers to responders' belief in their capacity to execute behaviors necessary to produce specific performance in their disaster relief work. It reflects belief in the ability to exert control over one's own motivation, behavior, and social environment (APA, 2015).

Resilience framework in disaster work. Disaster responders frame their work in the philosophy of resilience, which is the expectation of a return to mental health at pre-disaster

levels of functioning. By assessing both risk factors and protective factors for individuals and communities, responders provide a valid assessment of the strengths and healing processes within survivors and their communities (Roysircar, 2012).

Sense of purpose and achievement. Responders face circumstances that sometimes lead them to believe they are powerless to provide significant relief to disaster survivors and they experience feelings of self-blame. Sense of purpose and achievement pertains to responders' desire to help and to recognize their efforts and work performed rather than focusing on the work they were unable to do (Roysircar, 2012).

Disaster response competencies. Disaster response competencies are a set of skills that are particular to individuals who work in disaster settings. These skills encompass the ability to “calibrate wide-spread loss and tragedy and differentiate group differences in trauma reactions, accompanied with community-appropriate intervention responses” (Roysircar, 2012, p. 1). These skills, unlike any other set of professional skills, are measured by social competence in disaster work; integrative and flexible practices; collaborative work; psychosocial interventions; listening to stories of loss and grief from large numbers of survivors; multicultural responsiveness in disaster work; and assessment of community culture of a disaster setting. These disaster response competencies are briefly described below.

Social Competence in Disaster Work. Responders possess the basic skill of connecting or engaging interpersonally with survivors while providing disaster relief services. They are able to communicate clearly with others (fellow relief providers and survivors), identify and manage others' emotional expressions, and lead when necessary.

Integrative and Flexible Practices. Responders' skills set includes, working within a team, and doing psychological, structural, sociological, economic, and sociopolitical analyses.

The expectation is “Responders adapt to the nature of the emergency, as well as to the cultural, political, and geographic contexts in which a disaster has occurred” (Roysircar, 2012, p. 11).

Collaborative Work. Harmonious collaboration between disaster response organizations reduces the risks of draining local resources by duplicating services. Effective organizations align their services according to what resources local communities require and not vice versa (Roysircar, 2012).

Psychosocial Interventions. Psychosocial interventions consist of educating, supporting, and consulting with local health workers and educators, who in turn will educate their community people. It can include activities developing self-help groups, re-establishing cultural and religious activities, and developing cohesion in the community (Roysircar, 2012).

Listening to Stories of Loss and Grief. Disaster responders provide survivors the opportunity to tell their story, helping them through this cognitive-affective intervention to find meaning in their experience and to untangle constricting and overwhelming grief (Roysircar, 2012). Responders listen to large numbers of people and their many sad stories. Some survivors will repeat the same story over and over again because they have not been listened to enough (Roysircar, 2008).

Multicultural Responsiveness in Disaster Work. Disaster responders develop helping strategies that consider a community’s history, religion, psychosocial stressors, language, communication styles, traditions, values, artistic expressions, help-seeking behaviors, informal helping supports, and natural healing practices (SAMHSA, 2009, as cited in Roysircar, 2012). Through research prior to entering a disaster site, responders become aware of language and cultural differences (including stigma regarding mental health care). They seek the services of interpreters and learn local customs and linguistic expressions (e.g., basic greetings, expression

of gratitude and apology; Roysircar, 2012)

Assessment of Community Culture of a Disaster Setting. An early cultural assessment of a community struck by a disaster can provide essential information on planning an intervention that will be deployable in the community (Roysircar, 2012). A needs assessment can be done from door to door and from family to family.

Statement of the Problem

Natural and human-made disasters are a fact of life. Disaster responders serving their fellow human beings in the aftermath of disasters are exposed to tremendous pressure in the line of their humanitarian work. The very nature of their work relies on unpredictable, catastrophic events. They leave behind them the comforts of home and family to provide care and support to survivors of traumatic circumstances, often in the most precarious environments. They work and live in basic accommodations available to rescue workers. Disaster responders are at risk for emotional exhaustion, social isolation or loneliness, decreased job satisfaction, interpersonal relationship problems, and low self-concept (Shapiro, Brown, & Biegel, 2007). They are at risk for developing vicarious traumatization. The care of volunteers is not a high priority for organizations that are already burdened by responding to the overwhelming effects of natural or human-made disasters (Howlett & Collins, 2014). Responders experiencing the negative impact of trauma work often do not reach out for help within their own organization (Howlett & Collins, 2014). Research has shown that some rescue workers internalized self-stigma at the perspective of revealing to others their own perceived vulnerability and feelings of inadequacy when they were impacted by their work (Howlett & Collins, 2014).

In addition, there are professional ramifications to disaster responders developing mental health symptoms due to prolonged exposure. Harrison and Westwood (2009) stated, “When

individuals trained in the helping professions abandon the field, because of a perceived burden of caring and an insufficient ability to balance work with other aspects of life, this constitutes an enormous loss of resources and potentials” (p. 204). There are human costs (e.g., poor care to patients), structural costs (e.g., destabilization of team organization), and monetary costs (e.g., replacement of workers).

By researching the relationships among self-care, self-compassion, resilience, and disaster response competencies, implications of the results lead to suggestions on how to enhance resilience in disaster response workers to prevent vicarious trauma.

Research Questions

The research questions that guided the study were as follows:

- Will select protective factors and risk factors predict resilience?
- Will there be significant positive relationships among resilience, self-care, and self-compassion?
- Will resilience relate positively at a significant level with disaster response competencies?
- Will self-care and self-compassion have a negative relationship at a significant level with vicarious traumatization?
- Will responders who have trained for an extended period of time have higher levels of disaster response competencies, resilience, self-care, self-compassion, and protective factors?

Significance of the Study

This study, intended to be helpful to psychologists and other mental health professionals in general (i.e., the broader profession), provides information regarding the relationships of

self-care and compassion to resilience, and factors that are negatively related to resilience. The study also provides an understanding of particular characteristics that constitute disaster response competencies.

Organizations such as the American Red Cross, medical professions, or religious ministries that commonly work in disaster settings will also find the study's findings beneficial for understanding the well-being and proficiencies of their service providers. Given the frequency and devastation of natural and human-made disasters, there is a global need to understand how volunteers as well as professional responders can be strengthened against the negative effects of caring for trauma survivors.

In addition, the study adds to the literature on self-care assessment and the screening of responders. The construction of the DRCQ fills a gap in the resiliency literature with regard to "which protective factors are relevant for whom, under what stressful circumstances, and with respect to what desirable outcomes" (Peterson & Seligman, 2004, pp. 79–80). The study also provides implications for future research regarding self-care and resiliency of disaster response workers.

Definition of Terms

1. *Disaster*: Masten and Osofsky (2010) describe three categories of disasters: (a) natural disasters (i.e., earthquakes, hurricanes, tornadoes, fires, or floods); (b) human-made disasters (i.e., armed conflict, genocide, industrial accidents, school shootings, or terrorism); and (c) disease outbreaks. CRED defined a disaster as "a situation or event which overwhelms local capacity, necessitating a request to a national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering" (Vos, Rodriguez, Below, & Guha-Sapir, 2010,

p.5).

2. *Disaster Responders*: These include men and women who are trained to provide assistance to people in need for humanitarian purposes, typically in response to natural or man-made disasters. The primary objective of disaster responders is to save lives, alleviate suffering, and maintain human dignity.
3. *Trauma*: Individual trauma results from an event, a series of events, or a set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning and physical, social, emotional, or spiritual well-being (SAMHSA, 2012). Mass trauma for a community reflects the harmful systemic impact of an event at the individual, family, community, and societal level (Hoffman & Kruczek, 2011).
4. *Vicarious Traumatization*: Refers to the inner changes (e.g., emotional, psychological, spiritual) experienced by individuals who work with trauma victims or are exposed to the reports of trauma victims.

Summary

In a world ravaged by natural and human-made disasters with increasing frequency, humanitarian help is a crucial element in the healing and rebuilding process of affected communities. Disaster responders are the functional part of humanitarian organizations. In their line of their work, these men and women are exposed to numerous stressors (e.g., social, environmental, physical, and psychological) and are vulnerable to vicarious traumatization. Exposure to trauma work can cause temporary or lasting adverse effects and incapacitate responders, taking them temporarily or sometimes permanently out of the field. Through a better understanding and practice of self-care and self-compassion, professionals working in the field

of disaster response might enhance their resilience, and ultimately, lower the risks of developing significant mental health symptoms. Careful screening of responders' self-care, self-compassion, resilience, disaster response competencies, and risk factors with the use of the DCRQ would inform both individuals and humanitarian organizations on the strengths and areas needing improvement for better preparedness in response workers. Well-prepared disaster responders will be able to serve longer in the field without significant negative psychological difficulties. Their ability to remain healthy in the field for extended periods of times will also be cost effective for organizations that often have little resources in drastically demanding situations.

Method

An Overview of an Archival Study

This is an archival study of previously collected data. The data that were analyzed were an archival data set of Antioch Multicultural Center for Research and Practice (MC Center), which had not been analyzed previously. The director of the MC Center, Gargi Roysircar, Ed.D., who collected the data, granted me permission to utilize the data. The information about participants, procedures, and instrumentation was obtained from Dr. Roysircar's Institutional Review Board (IRB) application (Roysircar, 2010) and from Dr. Roysircar's research papers (Roysircar, 2008, 2009) as well as grant applications (Roysircar, 2010, 2012) on her disaster mental health service, as these documents were relevant to the data collection for the present study.

Boslaugh (2007) lists economic advantages in using archival data with regard to financial costs, time saved, and energy used. Collected data are used for secondary data analyses, meaning that the data have been previously analyzed and reported, and that another study with new questions subjects the data to new analyses. However, a secondary analysis is limited by the

objectives, instrumentation, and data collection method of the original study, none of which can be changed. Also, there is the possibility of over-analyses of the same data set, leading to statistical errors, such as, finding significance when no actual, meaningful difference may exist, but rather only random effects. However, the data on the DRCQ collected by Dr. Roysircar (2011) have not yet been analyzed, and therefore, the present study with the DRCQ is to be considered a primary, pilot investigation.

Effect Size Estimation

To determine the necessary number of participants required for the study, I assumed to detect a small to medium effect size for an expected sample of $N = 75-100$. This would result in an estimated power of .80 at $p < .05$. Seventy-seven participants were sought for the needed effect size. Some subjects had a maximum of 20 missing responses. These missing responses were taken care of by the use of mean replacement (i.e., the mean score of the entire sample for a particular item).

Participants

Participants were professional and volunteer first responders. Seventy-one participants (94.8%) self-identified as volunteer responders, while four reported being professional responders (5.2%). All participants (100%) reported participating in response work within the past five years.

Sex and age. Of the 77 participants that filled out the survey, 44 were female (65.7%) and 23 were male (34.3%). Ten participants did not respond to the question on male and female gender. Participants' ages ranged widely from 22–74, with a mean of 40 years. There were more than twice as many women participants in the study as men.

Race and ethnicity. Thirty-three participants self-identified as Black/African American (49.3%), while 22 self-identified as Caucasian/European American (32.8%). Eight participants (11.9%) self-identified as Arabic/Middle Eastern. Two participants (3.0%) self-identified as Multiracial. One participant self-identified as Asian (1.5%), and one as Hispanic/Latino (1.5%). Ten participants did not report their racial or ethnic background. The majority (67.2%) of participants consisted of racial, ethnic, and cultural minorities.

Class. Forty (59.7%) participants self-identified as working middle class, 17 as middle class (25.4%), while 10 participants self-identified as upper middle class (14.9%). Ten participants did not disclose their social class. A large majority of the participants (85.1%) was middle class.

Relationship status. Thirty-seven (55.2%) participants reported being married, while 11 (16.4%) lived with a partner/significant other, and 12 (17.9%) were involved in a dating relationship. Five (7.5%) participants self-identified as single, one (1.5%) participant reported being divorced, and one reported being widowed (1.5%). Ten participants did not disclose a relationship status. A large majority (89.5%) reported being in relationships.

Social support. Participants relied on different support systems while performing disaster relief work. These support systems consisted of: extended family, co-workers, close friends, and spiritual community members. A large majority (89.6%) reported having social support systems. See Table 1 for participants' support resources.

Disaster response experience. All participants reported diverse experiences with disaster relief work, including various scales and types of disasters. Participants' involvement in large-scale disasters varied, ranging from 1 to 10 with a mean of 3.1. See Table 2 for participants' involvement in various types of large-scale disasters.

Measure: The DRCQ

First, the purpose for constructing the Disaster Response Competencies Questionnaire (DRCQ; Roysircar, 2010) was to screen and do ongoing assessment of disaster response competencies of disaster responders. Second, the DRCQ was meant to fill a gap in the assessment of disaster provider services because no such instrument exists as of now. Third, the DRCQ was proposed (Roysircar, 2010) to assess several psychological dimensions considered to be important characteristics of disaster responders. Its items sets cover protective and risk factors; resilience; positive attitudes and traits; self-care behaviors; and response skills that contribute to individual workers' ability to foster community rebuilding (Roysircar, 2010). Fourth, the DRCQ intends to screen for preparedness for relief work (Roysircar, 2008). Fifth, the DRCQ intends to use a positive framework of community resilience as its theoretical basis. The DRCQ, a copyrighted instrument, may be obtained from Gargi Roysircar by email [groysircar@antioch.edu]. Copyright laws do not allow the display of copyrighted measures.

The DRCQ, in its pilot construction, had 204 items that covered Demographic Items, Protective Factors, Risk Factors, Resilience, Disaster Response Competencies, Self-Care Practices, Self-Compassion, and Ethics. A Likert scale of 1 to 4, with 1 = *strongly disagree* and 4 = *strongly agree*, with higher scores indicating stronger resilience, disaster response competencies, protective factors, self-care, and self-compassion. Lower scores on Risk Factors items indicated participants were in less at-risk conditions and less at risk for vicarious traumatization. Fourteen items are reverse scored to control for participant response biases.

Demographic items. There are 15 items (item 1 through item 15) that ask questions in a multiple-choice format on a responder's demographics. These items are on gender, age, race and ethnicity, social class, relational status, support people, types of disaster work done, number of

large scale disaster work done, populations served, cultural diversity of populations served, formal training in disaster work, training gained through experience, access to debriefing, and disaster organization's support. Among four open-ended questions, one was analyzed for the present study ("How many large scale disaster situations have you been involved in helping?"). Open-ended answers to this question were coded quantitatively for analyses.

Disaster response, as conceptualized by Roysircar (2008, 2009; Roysircar et al., 2013), is psychosocial programming for return to pre-disaster levels of functioning. This recovery is initiated by providing prevention outreach, such as disaster counseling and psychoeducation for community groups (Bowman & Roysircar, 2011; Boudreau, Roysircar, Macedonia, & Thompson, 2015; Roysircar, 2012; Roysircar, Pignatiello, Lanza, & Irigoyen, 2015); as well as through the assessment of children's resilience, vulnerability, and trauma (Roysircar, Colvin, Afolayan, Thompson, & Robertson, 2017). Parenting skills are also addressed through focus groups of parents, extended kin, and orphanage caregivers (Roysircar, 2013).

To assess resilience-based competencies of disaster responders, items were generated through a review of the literature on individual and community resilience (Alvord & Grados, 2005; Miller, 2003); the diathesis stress model of protective and risk factors (Benard, 1995; Lightsey, 2006; Rutter, 1985); and the communal nature of response work.

Protective factors. The protective factors are measured by the following: preparedness for disaster work (items 142–148, e.g., "I was mentally prepared to face ethical dilemmas, environmental stresses, and possible vicarious traumatization"). Protective factors included age, gender, relational status, support people, number of engagements in disaster work, and number of engagements in large-scale disaster situations.

Risk factors. The risk factors are measured by the following: low responder SES (items 44–48, e.g., “I find it hard to make ends meet”); low organizational support (items 65–68, e.g., “My organization was very supportive of staff that experienced work-related stress”); low survivor SES (items 87–89, e.g., “unemployment in the disaster area I served was above the national average”); environmental stresses (items 90–98, e.g., “I worked in physically demanding and unpleasant conditions”); and vicarious traumatization (items 99–106, e.g., “I had repeated exposure to others’ traumatization and tragedies”).

Resilience. Resilience is measured by the following dispositional characteristics: (a) optimism (items 1–9, e.g., “I love what I do”); (b) spirituality and religiousness (items 23–31, e.g., “I see religion as a support for both the survivors of disaster and those helping them”); (c) group orientation (items 49–58, e.g., “In a group, I try to make sure everyone feels included”); (d) flexibility (item 59–64, e.g., “I consider myself to be open-minded and flexible); self-efficacy for disaster work (items 79–87, e.g., “I was able to manage my emotions to respond to difficult situations”); (e) using a resilience framework in disaster work (item 107–114, e.g., “I avoided pathologizing, instead emphasizing what were normal reactions to abnormal situations”); and (f) sense of purpose and achievement (items 167–175, e.g., “My recovery work has provided me with a sense of making a difference in the world”).

Disaster response competencies. Disaster response competencies are measured by the following: (a) social competence in disaster work (items 69–78, e.g., “In a disaster situation, I easily adapted to a new group”); (b) integrative and flexible practices (items 115–117, e.g., “I was aware of the human tendency of having expectations of others and monitored my demands of others”); (c) collaborative work (items 118–122, e.g., “I provided assistance in whatever way needed by the stakeholders”); (d) psychosocial interventions (items 123–135, e.g., “The disaster

has provided an opportunity to the community to work together”); (e) Listening to stories of loss and grief from large numbers of survivors (items 136–141, e.g., “I was willing to listen to people talk about their disaster experiences”); (f) multicultural responsiveness in disaster work (items 149–155, e.g., “The history of the disaster community was unknown to me”; reverse scored); and (g) assessment of community culture of a disaster setting (items 156–166, e.g., “it was difficult to keep hospitals functioning when the disaster struck,” “Prior to entering the area I knew the predominant religion of the people and the community’s socioeconomic status”). Ethics are also included in disaster response competencies. Its items measure the ethical challenges of disaster work (item 198–204, e.g., “I was familiar with my organization’s code of ethics”).

Self-care practices. Self-care practices consist of emotional, physical, spiritual, intellectual, social, familial or relational, as well as safety and security concerns. Items included in the DRCQ measure (a) emotional self-care (e.g., “Rather than letting my emotions well up, I sought a mental healthcare provider upon my return home”); (b) physical self-care (e.g., “I used many ways to deal with the stress associated with disaster work, like physical and mental relaxation”); (c) social self-care (e.g., “In times of need, I always have someone to talk to”), familial/relational self-care (e.g., “I accept help from my family members”); and (d) safety and security concerns (e.g., “I frequently monitored my own safety while delivering disaster relief services”).

Self-compassion. There are several items in the DRCQ that measure self-compassion (e.g., “I avoid negative people who do not share my best interest at heart”; “I recognized that my actions, while not typical to my own behavior, were normal for a person who had been in a disaster situation”; “I was proud of myself for the challenges I faced and the ability to overcome many obstacles”). These items are scattered throughout the DRCQ and have been identified by

the present researcher as representing self-compassion. The item numbers are: 12, 17, 110, 109, 122, 168, 171, and 187.

Procedure

At the onset of this project, an application to conduct this study was submitted and approved by Antioch University New England's IRB. Several consultants participated in the development of the project: Dr. Sharon Bowman (Ball State University, IN), Dr. Richard Heaps (Brigham Young University, UT), and Dr. Cerecie West-Olatunji (University of Florida, FL). These consultants were affiliated with organizations such as a State American Red Cross and the APA Response Network; they also facilitated access to their organizations to recruit participants.

Dr. Roysircar obtained participants through snowball sampling, a technique that involved making contact with a few participants who were viewed as knowledgeable about the disaster response community. The announcement for the study was passed to other key informants believed to be interested in the topic. This technique was specifically employed in rural regions of New Hampshire and Mississippi since Dr. Roysircar, by virtue of working in New Hampshire and Mississippi, had the capacity to "spread the word" to colleagues. To recruit participants in MS, Dr. Roysircar invited responders who attended her resilience workshops (Roysircar, 2010) in Mississippi.

Dr. Roysircar is acquainted with trainers in the American Red Cross and APA's Disaster Response Network. These contacts facilitated access to their organizations to recruit participants. Other organizations were contacted by e-mail and telephone calls. A recruitment message was sent to disaster relief organizations and disaster training sites. These contacts were requested to forward the message to responders and trainees that they knew. A link to the informed consent document and the survey was included in the message.

Individuals were recruited from regional and national relief/rescue organizations, such as the NH Department of Safety, Division of Homeland Security and Emergency Management, American Red Cross (New Hampshire, and the national organizations), U.S. AID, Federal Emergency Management Agency (FEMA), National Organization for Victim Assistance (NOVA), APA Relief Network, Partners in Health, and religious/charity organizations, such the Salvation Army, the Southern Baptist Convention, and the Jewish disaster relief organization NECHAMA.

The following training programs were informed of the research and asked to include a link to the study's psychdata.com website: (a) FEMA Disaster Training; American Red Cross Training; (b) SAMSHA's Training; Disaster Training International; (c) Northwest Center for Public Health Practice; and (d) University of South Dakota-Disaster Mental Health Institute. A diverse and adequate sample size was hoped for because of the limited population of professional responders and trained volunteers.

Recruitment information (see Appendix A) provided participants with a brief description of the study, the benefits of participating, and requirements for participation, as well as a link to the study. Participants were directed to the research website, psychdata.com, which provided a link to answer voluntarily and anonymously the DRCQ. Participants read an Informed Consent Form prior to answering. Participants were offered a participation incentive: they were given a choice between entering a drawing to win a \$50 Amazon gift card, having \$5 donated on their behalf to the American Red Cross by the researcher, or not receiving anything.

Participant anonymity and confidentiality. Participants' individual identities remained anonymous. The surveys carried neither names nor codes. The website, psychdata.com, that hosted the survey has the capacity to securely store data and exclude IP addresses of

participants. Most importantly, the website has the ability to have participants taken to a separate and unlinked webpage at the end of the study where email addresses can be entered, which the website can then automatically download separately to ensure the confidentiality of responses. Because of this, participants' email addresses could not be linked to their responses. In addition, participants who chose to have \$5 donated on their behalf to the American Red Cross did not need to provide any identifying information. The only specific identifying information that participants needed to provide was their email addresses if they chose to enter the drawing for the gift card.

In addition, participants were informed of the researcher's goal to share modal anonymous results with various national and regional relief organizations, the scholarly community, and professional organizations. This dissemination was deemed important because the purpose of the study was to start local, regional, and national conversations about responders' and volunteers' disaster response competencies to rebuild communities. Participants may have been motivated to complete the measures when they learned in the Informed Consent that their input would contribute to future systemic strengthening and training of disaster response work. One purpose of the present study was to provide this information to response organizations upon the completion and write-up of the study.

Risks and benefits. Given the anonymous and fairly innocuous nature of the online survey, Dr. Roysircar anticipated that participants would experience no or very minimal risk in their participation. In the event that a participant would experience discomfort, Dr. Roysircar provided her contact information, so that appropriate follow-up (such as talking with the participant on the telephone for problem-solving, assurance, etc.) could take place. This type of emergency contact with Dr. Roysircar did not occur.

Hypotheses and Research Questions

Hypotheses. There were five research hypotheses tested in the study. These were:

Hypothesis 1: Select protective factors and risk factors are predictors of resilience.

Hypothesis 2. Self-care dimensions are predictors of self-compassion.

Hypothesis 3. Resilience, self-care, and self-compassion have significant positive relationships with each other.

Hypothesis 4. Self-care practices have a negative relationship with vicarious trauma.

Hypothesis 5. Disaster responders who received longer prevention training have higher scores on disaster response competencies, resilience, self-care, self-compassion, and protective factors than those who received a short period of training.

Research questions. In addition to the above hypotheses, the study also sought to answer the following research questions:

Question 1. Is high self-compassion found in the majority of the responders who show high resilience?

Question 2. Is there a gender difference in the practice of self-care among responders?

Question 3. Do responder preparedness, organizational support from work place, age, and social status predict disaster work competencies?

In addition, it was hypothesized that the DRCQ has acceptable psychometric properties with regard to the internal consistency reliabilities of Resilience, Disaster Response Competencies, Self-Care, and Self-Compassion. It was also expected that the DRCQ has face validity and content validity.

Data Analyses

Data collected from completed surveys were transferred to a private computer and

analyzed using the Statistical Package for the Social Sciences (SPSS). Data analyses included examining basic psychometric properties of the DRCQ. Pearson r correlation analyses for Self-Care, Self-Compassion, and Resilience were performed. A t-test, a MANOVA, and post hoc tests were conducted to examine differences in scores for the above-mentioned variables, in addition to Risk Factors, Protective Factors, and Disaster Response Competencies. Simple linear multiple regression analyses investigated the significant predictors of Self-Care, Self-Compassion, Resilience, and Disaster Response Competencies.

Data analyses: Psychometric properties of the DRCQ.

Focus group evaluation of the DRCQ. The DRCQ was submitted for a review by a panel of three experienced disaster responders who have a Psy.D. degree in clinical psychology from Antioch University New England. These psychologists, as doctoral students, were members of Disaster Shakti of the Antioch Multicultural Center for Research and Practice. They participated in counseling outreach to disaster settings nationally and internationally. One served in Haiti (for earthquake recovery) and South Africa (HIV/AIDS services in South Africa); one in Villahermosa, Mexico (flood recovery); and one in New Orleans (Hurricane Katrina recovery). These experts served as a focus group to discuss DRCQ's face validity, content validity, readability, and meaningfulness of items. Based on expert consultation and feedback, items were expected to be removed for irrelevance and ambiguities. The experts were asked to discuss in focus group style questions that were provided by the author on face validity, content validity, readability, and meaningfulness of items. The data collected through the focus group review were transcribed from an audio recording to a written document. The data were analyzed using thematic analysis. Thematic analysis is a qualitative research and analytic method that permits to identify theme patterns in narratives (Braun & Clarke, 2006). Braun & Clarke (2006) identify six

phases in the thematic analysis process: becoming familiar with the data (phase 1), generating initial code (phase 2), identifying themes (phase 3), reviewing themes (phase 4), defining and labeling themes (phase 5), and producing reports (phase 6). These steps were followed to identify recurring themes in the narrative content of the focus group discussion.

Face validity. Face validity refers to the extent to which a test is subjectively viewed as covering the concept it intends to measure. It pertains to the relevance of a test, as it appears to test participants (Anastasi & Urbina, 1997). The experts gave overall opinions about whether the items appeared to measure the relevant dimension they purported to measure.

Face validity question for the expert panel. The following questions were asked of the members of the focus group regarding instrument face validity: “Do the items appear to you to be measuring the relevant construct (e.g., self-care)?”; “Can you identify any ambiguous survey items or sections on the instrument?”; “Do items need rewording?”; “Do some items need to be removed?”

Content validity. Content validity refers to the adequacy of a test’s items to accurately represent the construct the test purports to measure. In addition, does the test carry out the purpose and objectives for which the test was developed? Establishing content validity of a measure is less a quantitative than a judgmental evaluation of experts (Anastasi & Urbina, 1997). The experts reviewed the items of the DRCQ and ensured that the items covered contents of a construct being measured.

Content validity questions for experts. The following questions were asked of the experts on whether the contents of the DRCQ met the purposes for constructing this test and demonstrated adequate content validity:

- Do items provide an adequate assessment of disaster response competencies?

- Do the items on the DRCQ assess protective and risk factors that might affect resilience in disaster response workers?
- Do the items on the DRCQ assess self-care behaviors that might contribute to resilience in the field of disaster work?
- Do the items on the DRCQ screen for preparedness for relief work?
- Do the items on the DRCQ assess constructs that foster resilience?

Thematic analysis of focus group discussion. Thematic analysis conducted of the focus group discussion concentrated on identifying principal ideas expressed by the participants regarding the face and content validity of the DRCQ. The researcher focused on remaining unbiased and objective in order to not contaminate participants' views.

Trustworthiness. Qualitative research does not have the same objectivity of numbers as quantitative research and results are often considered with a sense of doubt. As such, controls were put in place to maintain the quality of the research and to present the data in a trustworthy manner. As an example of control, my dissertation chair reviewed themes and subthemes emerging in the focus group discussion transcript.

Credibility and validity. This aspect of qualitative research references the accuracy of the researcher's interpretation of the participants' responses to interview questions (Bloomberg & Volpe, 2012). Possible biases held by the researcher or focus group participants can interfere with the purpose of the focus group. Credibility and validity was improved by verifying during the conference call that there was no misunderstanding about participants' expressed views and opinions. Consultations with colleagues and my dissertation chair was instrumental in avoiding misunderstandings.

Dependability and reliability. This component of the study helps to hold me accountable for following through with the procedures for data collection and interpretation. This was accomplished in the study by reporting in detail the exact process for data collection and analysis.

Transferability. Results from qualitative and phenomenological research are often applicable to other groups, populations, or problems (Bloomberg & Volpe, 2012). A detailed and descriptive account of the panel members' relationships with disaster work and their disaster competency was provided to provide backgrounds and context to the members' perspective and allow others reading the study to relate to the panel members.

Confirmability. This refers to the ability of the researcher to remain unbiased in the study as to accurately describe the participants' perspectives (Bloomberg & Volpe, 2012). My bias and expectations, if allowed to be voiced in the focus group discussion, would have contaminated the unique reactions of the participants. As such, I, as the researcher, did not interrupt the focus group discussion except to answer questions from the group.

Thematic analysis. Braun and Clarke (2006) suggest that phase one of Thematic Analysis is "familiarizing yourself with your data" (p. 87). Therefore, the focus group discussion was transcribed from an audio file into a written document. The researcher read the document several times in order to be familiar with the content of the discussion.

Braun and Clarke (2006) describe the second phase of thematic analysis as "generating initial codes," which are explicit or latent "elements" that researchers identify in the data (p. 88). The researcher reread the data and manually underlined and assigning relevant codes to segments of texts. Codes or core ideas were generated (e.g., content validity). Questions guided the focus group discussion but possible themes were allowed to naturally emerge from the data by not

being generated in advance.

Braun and Clarke (2006) describe the third phase of thematic analysis as “searching for themes” (p. 89). In this phase, previously identified codes and core ideas are organized and combined into themes (Braun & Clarke, 2006). I identified and combined similar codes into overarching themes (e.g., competency). For example, data that are coded as content validity might be identified as the candidate theme “competency,” with separate codes leading to potential subthemes (e.g., multicultural competency).

Braun and Clarke (2006) recommend reviewing the candidate themes as the fourth phase of thematic analysis. In the current research, initially generated themes were reviewed and themes lacking supportive data were identified. Excerpts from the panel participants that were congruent with candidate themes were kept. Other data were relabeled and reassigned to different themes, and data that did not align with an identified theme was discarded.

Braun and Clarke (2006) recommend that the fifth phase of thematic analysis be “defining and naming theme” (p. 92). In the course of this phase, data for each theme are organized into coherent accounts with narratives developed to describe each theme (Braun & Clarke, 2006, p. 92). In the study, the questions provided to the panel members provided starting narratives.

The sixth and final phase of thematic analysis described by Braun and Clarke (2006) consists of “producing the reports” (p. 93). Enough supportive evidence should be provided in the report for each theme, including excerpts of quotes from the focus group participants. For the present study, themes were identified and the frequency of their recurrence calculated. Results of frequency and lists of themes and subthemes were presented as a table (see Table 3).

Internal consistency reliability. An initial statistical analysis of internal consistency reliability of each dimension of the DRCQ were performed using Cronbach's coefficient alpha. Each DRCQ dimension would need to have a minimum alpha of $\alpha = .60$ in order to be retained for further statistical analyses to test for research hypotheses and questions.

Concurrent validity. A significant positive correlation between DRCQ and Resilience, between Resilience and Self-Care, and between Self-Care and Self-Compassion would indicate concurrent validity.

Pearson correlations among measures and convergent and discriminant validity. Pearson r correlational analyses between and among dimensions of the DRCQ were conducted to study the extent and directionality of relationships among the measures. To understand the constructs of these measures, convergent (significant high correlation) and discriminant validity (low correlations) and inverse relationships (significant negative correlations) were noted among the measures (Anastasi & Urbina, 1997).

Data analyses: Research hypotheses and research questions.

Research hypothesis 1. Select protective factors and risk factors are predictors of resilience.

Data analysis 1. A simple linear multiple regression analysis had Protective Factors and Risk Factors as predictor variables and Resilience as the criterion variable.

Research hypothesis 2. Self-care dimensions are predictors of self-compassion.

Data analysis 2. A simple linear multiple regression analysis had self-care dimensions as predictor variables and self-compassion as the criterion variable.

Research hypothesis 3. There are significant positive relationships among resilience, self-care, and self-compassion.

Data analysis 3. Pearson r correlational analyses studied the relationship among resilience, self-care, and self-compassion.

Research hypothesis 4. Self-care practices have a negative correlation with vicarious traumatization.

Data analysis 4. A Pearson r correlational analysis was performed between self-care and vicarious traumatization.

Research hypothesis 5. Disaster responders who received longer prevention training have higher scores on disaster response competencies, resilience, self-care, self-compassion, and protective factors than those who received a short period of training.

Data analysis 5. Two groups were identified: One group with longer prevention training experience and one group with shorter prevention training experience. A multivariate analysis of variance (MANOVA) was conducted to compare score between the two groups regarding self-care practices, self-compassion, resilience, disaster competency, and protective factors.

Research Question 1. Is Self-Compassion found in the majority of the response workers? A cut-off score identified a high self-compassion score. A frequency count/frequency distribution analysis was conducted to identify how many responders reported a high self-compassion score.

Research Question 2. Is there a gender difference in the practice of self-care among responders? A t-test was performed to examine the difference between men and women responders' self-care score.

Research Question 3. Do responder preparedness, worker organizational support, worker age, and worker social status predict disaster response competencies? A simple linear multiple regression with responders' preparedness, organizational support from place of work, age, and

social status predicted the criterion variable of disaster response competencies.

Conclusion

The study presented primary data analyses of archival data collected using the DRCQ, an instrument constructed to screen and do ongoing assessment of disaster response competencies, resilience, self-care practices, and self-compassion of disaster responders, including their personal preparedness for response work, their protective and risk factors, and their length of training for response work. The study is unique since no other assessment tool exists to understand responder characteristics required for disaster response work. Several research hypotheses and questions addressed concerns for the self-care and compassion of disaster responders. In addition, the study provided information on the basic psychometric properties of the DRCQ measure (e.g., internal consistency reliability). Face validity and content validity were reviewed in a focus group by a panel of experts with backgrounds in disaster work.

Results

The purpose of the study was to understand the relationships among resilience, self-care, self-compassion, and disaster response competencies. In addition, the study assessed the effects of protective and risk factors on response workers' resilience and disaster response competencies. Finally, the study investigated the psychometric properties of the DRCQ. In addition, the DRCQ was submitted for a review of its contents by a panel of three experts.

The research hypotheses that guided this study included the following:

1. Select protective and risk factors are predictors of resilience.
2. Self-care dimensions are predictors of self-compassion.
3. There are significant positive relationships among resilience, self-care, and self-compassion.

4. Self-care practices have a negative correlation with vicarious traumatization.
5. Disaster responders who received longer prevention training have higher scores on disaster response competencies, resilience, self-care, self-compassion, and protective factors.

Additional research questions guiding this study were: (a) Is Self-compassion found in the majority of responders?; (b) Does a gender difference exist in the practice of self-care among responders?; (c) Do responder preparedness, organizational support, age, and/or socioeconomic status predict disaster response competencies? The quantitative results are organized in three sections: (a) psychometric properties (i.e., reliability and validity) of the DRCQ; (b) the analyses of hypotheses; and (c) the analyses of the research questions.

Psychometric Properties of the DRCQ

The reliability and validity analyses evaluated the usefulness of the data collected. The internal consistency reliabilities of the DRCQ full scale and its facets were computed, as were the intercorrelations among the facets in order to determine if relationships between and among the subscales were congruent if similar and discriminant if dissimilar.

A focus group composed of three psychologists with experience in disaster response met on a conference call. The expert panel answered questions in a focus group style format regarding the DRCQ's face and content validity. Results of the focus group discussion are presented next.

DRCQ Face and Content Validity. The DRCQ was submitted for a review to a panel of three psychologists who have a Psy.D. degree in clinical psychology from Antioch University New England and have previous experience in disaster work through Disaster Shakti of the Antioch Multicultural Center. They participated as volunteer responders in United States Gulf

Coast; Tabasco, Mexico; and Haiti. These experts were asked to examine the DRCQ's face validity, content validity, readability, and meaningfulness of items in a focus group format. The panel met for an hour-long conference call with a moderator, also a Disaster Shakti volunteer who served in Haiti, who insured that the group would address all questions within a reasonable time frame. Two weeks prior to the conference call, the experts were provided with copies of the DRCQ items and a series of questions whether the measure evidenced face and content validity. The call was audiotaped and transcribed by a professional transcriptionist. A thematic analysis (Braun & Clarke, 2006) was conducted leading to the creation of codes, and the emergence of themes and subthemes in the discussion on the DRCQ's face validity and content validity. See Table 3 for themes, subordinate themes, and their frequencies in the focus group discussion.

Moderator. The role of a moderator in a focus group is to keep the discussion on topic while not influencing the opinion of the participants (Kitzinger, 1995). Dr. Megan Marsh, AUNE Psy.D. Class of 2016, now a psychologist in the college counseling center of Colby College, served as the moderator of the focus group session. Dr. Marsh has previous experience in disaster work. As a moderator, she presented to the experts the questions that would assist them in evaluating the DRCQ's face and content validity and kept them focused. Examples of her directions include: "Ok, so are there any items we feel are not useful and need to be removed? Or not appropriate and need to be removed?"; "Are there any others [items] that you can identify as needing rewording?"; "Ok. Great. So maybe we move onto content validity. I think we are already there in some ways"; and "Do we feel like the items provide an adequate assessment of disaster response competencies?"

Face validity. The focus group members were presented with the following questions and asked to assess whether the items appeared to measure the relevant dimension they purport to measure, establishing the DRCQ's face validity.

- Do the items appear to you to be measuring the relevant construct (e.g., self-care)
- Can you identify any ambiguous items or sections on the instrument?
- Do items need rewording?
- Do some items need to be removed?

Panel members agreed that DRCQ items appropriately targeted the constructs being assessed. One expert said, "I think all the relevant areas were hit there. I mean I definitely have some suggestions later on for the wording... but I thought it was pretty valid." Two themes relating to face validity emerged from the data collected from the focus group discussion: DRCQ administration procedures and ambiguous items.

DRCQ administration procedures. DRCQ administration procedures emerged as the most frequent overall theme. Panel members discussed various aspects of the DRCQ administration: timing of administration, data collection process, impact of timing, and optimal timing of administration. The panel discussed how participants' responses might vary depending on the amount of time that has elapsed between the disaster response experience and the administration of the DRCQ. For instance, Dr. Lanza, AUNE Psy.D. Class of 2014, shared her view:

These are very face-valid questions and I really appreciate what they are targeting. I could also imagine that, depending on how the experience was, if someone came home and was particularly pleased with it... in that honeymoon stage so to speak, or if they had a particularly bad experience, it may sway the answers. (Dr. Lanza, August 24, 2015)

Panel members suggested what might be an optimal period of time to administer the measure to disaster responders upon their return, particularly to assess for vicarious traumatization. For instance, Dr. Michael Brodeur, AUNE Psy.D. Class of 2006, shared his opinion:

I would think probably after three or four weeks, then you are more likely to have all the reintegration experience; you are more likely to see more vicarious traumatization take place... that would be my suggestion, to give it three to four weeks afterward. (Dr. Brodeur, August 24, 2015)

Ambiguous items. A theme that emerged was ambiguous items when the panel focused on the questions presented regarding the clarity, the readability, and the possible need to modify or remove some items from the measure in order to strengthen the DRCQ's face validity. The experts discussed how some items should be clarified. For instance, Dr. Brodeur commented on being more specific when assessing the level of education of participants as a demographic item.

"My education level is low." I am just wondering how that would be interpreted... depending on the person responding... honestly I could see someone feeling a little upset about that... and I am not quite sure what exactly a low education level is. Does it mean somebody without a college degree, a high school diploma? That would definitely be something I would think is a little ambiguous that probably needs to be clarified. (Dr. Brodeur, August 24, 2015)

The focus group members also suggested that the wording of items be more linguistically accessible and less clinical:

I am trying to think of like who's the target audience that's going to be filling this out. Is it gonna [sic] be other doctoral level clinicians, is it gonna [sic] be just any volunteer

from the Red Cross or humanitarian relief [agency]? So I'm just trying to think of like some of the clinical terms in here and how they could be clarified just so it would be more appealing to people from all different educational backgrounds too. Like, for example, the term "disaster response": like specifying "nonverbal behavior." I think, as psychologists, we know what that means, but I mean...I'm just trying to think of the average everyday person, if they're clear what nonverbal behaviors means. (Dr. Brodeur, August 24, 2015)

The experts commented on the cultural relevance of some terminology used in the measure. For instance, Dr. Irigoyen, AUNE Psy.D. Class of 2014, shared her view:

I had also circled the demographic item number 2 under "low organizational support," like using the word "macho"; I don't think that, I mean I don't know—maybe with just working with Latinos or something like that--they would be really aware of what that is. Or I think people might be confused. It might be better to be a little bit more specific about what's being asked in that question. (Dr. Irigoyen, August 24, 2015)

When asked if some items needed to be removed or were not particularly useful, the experts commented on the disparity between some subscales with regard to the numbers of items. They also suggested that similar items might be reviewed in order to reduce redundancy. For instance, Dr. Brodeur commented on both these topics.

For some reason, under psychosocial interventions, I noted that there were a lot of questions... I just felt that there were a lot of questions in that particular section... I recommend kind of narrowing that down a little bit more... Especially when compared to sections on multicultural responsiveness and ethical challenges ... there was more emphasis on the intervention piece and there were a couple that felt kind of similar, like,

item number 2 was kind of similar to item number 8. (Dr. Brodeur, August 24, 2015)

Content validity. The experts were to review the items of the DRCQ and ensure that the items covered contents of a construct being measured. The following questions were asked of the panel on whether the contents of the DRCQ met adequate content validity:

- Do items provide an adequate assessment of disaster response competencies?
- Do the items on the DRCQ assess protective and risk factors that might affect resilience in disaster responders?
- Do the items on the DRCQ assess self-care behaviors that might contribute to resilience in the field of disaster work?
- Do the items on the DRCQ screen for preparedness for relief work?
- Do the items on the DRCQ assess constructs that cover resilience?

Themes related to the DRCQ content validity that emerged were: assessment of disaster response competency, self-care practices, preparedness for disaster response, and fostering resilience.

Assessment of disaster response competency. The panel reviewed the content validity of items pertaining to the assessment of participants' disaster response competency. The experts agreed that the subscale psychosocial interventions would benefit from more direct language use to assess for disaster response competency. For instance, Dr. Lanza presented the following opinion:

Under psychosocial interventions, I think that the wording of items, if it was a little bit more consistent might be helpful in terms of targeting that goal (i.e., assessing disaster competency). It is wonderful to understand and know that you should do something but I wonder for the measure...[assessment] if they actually did or if they are going to target

the knowledge, skills. (Dr. Lanza, August 24, 2015)

The panel further suggested that the specific assessment of competencies might differ by the purpose of the measure itself, depending if the DRCQ is used as an advanced assessment tool before participants are dispatched, during fieldwork, or as a post-assessment.

Self-care practices. Experts reviewed if DRCQ items efficiently assessed self-care behaviors while working in the field. The panel agreed that while the 12 items of the subscale measured appropriately some self-care behaviors, the measure would benefit from adding another question regarding the gain an individual could make by spending time away from the group, as described, for instance, by Dr. Brodeur.

One of my own experiences, too, from doing Katrina relief was just like having some independent time separate from the group to do self-care. So under the self-care section I know it talks a lot about using the other workers there for social support, but I thought it would be nice to add an item in there... like pleasant, solitary activities... So I would suggest adding an item like, "I was able to spend some time apart from the group when necessary"... you know to, like, call friends, listen to music. It's just nice to have a little space to decompress. (Dr. Brodeur, August 24, 2015)

Preparedness for disaster response. This theme emerged when the panel was asked if the DRCQ would appropriately screen disaster responders for individual preparedness to work in the field. The experts agreed that the measure satisfactorily assessed preparedness for disaster response, while suggesting that some areas should be considered for further development. For instance, Dr. Irigoyen commented on the multicultural aspect of disaster workers' preparedness.

I don't see that many items on the topic of multicultural preparedness, which is fine, but it is something that I think is really important to add. And I mean they were really good but

I think a little more needs to be done... especially because there is so much international work that is being done... So I think there should be a heavier focus on that. But specifically I think there should be something about, you know, evaluating one's beliefs and values like when working in a different culture. (Dr. Irigoyen, August 24, 2015)

The panel further recommended adding items that would assess further disaster responders' preparedness in being flexible and adjusting to diverse circumstances. Dr. Brodeur emphasized this aspect of preparedness as being an important part of disaster work.

I would encourage adding some type of question that assesses that like, "we were able to adjust our plans as necessary to meet the needs of the trip"... I know especially in our relief work, we had to really adjust a lot of things that we had to do based on what the needs of the community were. (Dr. Brodeur, August 24, 2015)

Fostering resilience. This theme pertains to the relationship of protective and risk factors items with participants' resilience. Panel members agreed that the subscales items were clear and well written, assessing appropriately constructs that foster resilience.

DRCQ internal consistency reliability. Cronbach's alphas were calculated to examine the reliability of the DRCQ's scales and their facets. The scales and scale facets of the DRCQ are: (a) disaster response competencies (covers social competence, psychological intervention, listening to stories, multicultural response, assessment of culture, ethical issues consideration); (b) resilience (covers self-efficacy, using resilience framework, sense of purpose); (c) self-care practice (covers self-care, physical safety); (d) self-compassion; protective factors; and (e) risks factors (risk factors cover low responder SES, low organizational support, low survivor SES, environmental stress, vicarious trauma). See Table 4 for Cronbach's alpha values for DRCQ scales and their respective facets.

Risk factors. The Cronbach's alpha for the risk factors for the Resilience scale was $\alpha = .80$, showing good internal consistency reliability. In the Risk Factors scale, low survivor SES consisted of 3 items and showed good internal consistency reliability, $\alpha = .88$. Low organizational support consisted of 4 items with $\alpha = .75$. Environmental stress consisted of 8 items with $\alpha = .72$. Vicarious trauma consisted of 8 items with $\alpha = .77$. The four above-mentioned risk factor facets with few items each showed acceptable to good internal consistency, $\alpha = .72-.88$. Low responder SES consisted of 5 items with $\alpha = .63$, which indicated questionable reliability. A large majority of responders reported middle class status (85.1%), and so the cluster of items on low responder SES might not have shown a consistent trend to result in strong internal consistency.

Disaster response competencies. The Cronbach's alpha for the Disaster Response Competencies scale was $\alpha = .89$, showing high internal consistency reliability. Within disaster response competencies, psychological intervention consisted of 12 items with $\alpha = .84$, showing good internal consistency reliability. Social competence consisted of 7 items with $\alpha = .79$; listening to stories consisted of 5 items with $\alpha = .74$; multicultural response consisted of 4 items with $\alpha = .72$; assessment of a community's culture consisted of 8 items with $\alpha = .71$; and ethical issues consisted of 4 items with $\alpha = .71$. The six facets of disaster response competencies, some with few items each, showed acceptable to good internal consistency reliability, $\alpha = .71-.84$.

Resilience. The Cronbach's alpha for the Resilience scale was found to be highly reliable ($\alpha = .87$). Within Resilience, self-efficacy consisted of 8 items with $\alpha = .81$, and sense of purpose consisted of 3 items with $\alpha = .89$, showing high internal consistency. The facet responders using a resilience framework consisted of 6 items with $\alpha = .74$ and showed acceptable reliability.

Self-care. The Cronbach's alpha for the Self-Care practices scale was $\alpha = .88$, showing high internal consistency reliability. Self-care, broadly covering several areas of self-care (see the introduction), consisted of 12 items with $\alpha = .87$, and the physical safety facet consisted of 7 items with $\alpha = .78$, showing good to high internal consistency reliabilities.

Self-compassion and protective factors for disaster work. The self-compassion scale that consisted of 6 items showed acceptable internal consistency reliability, with $\alpha = .70$, while the Cronbach's alpha for the Protective Factor scale (5 items) was $\alpha = .80$, showing good internal consistency reliability.

Tests of research hypotheses.

Hypothesis 1: Protective factors and risk factors are predictors of resilience. A simple linear multiple regression analysis was conducted to determine if protective factors (an overall average score) and risk factors (an overall average) were significant predictors of resilience in disaster responders. The result of the regression partly supported this hypothesis, $F(1, 76) = 30.703$, $p < .001$, with $R^2 = .290$. Protective factors were strong predictors of resilience, $\beta = .539$, $p < .001$, $t(75) = 5.54$, while risk factors were not, $\beta = -.032$, $p = ns$. See Table 5 for the regression results. The t value for risk factors was negative, showing an appropriate inverse relationship between risk factors and resilience.

Hypothesis 2: Self-care dimensions are predictors of self-compassion. A simple linear multiple regression analysis was conducted to test the hypothesis that self-care practices (broad coverage of self-care and physical self-care) predicted self-compassion in disaster responders. The results of the regression supported the hypothesis, with $R^2 = .409$, $F(2, 74) = 25.63$, $p < .001$, showing an overall moderate effect size. Self-care broadly covered significantly predicted self-compassion ($\beta = .381$, $p < .001$), as did physical safety ($\beta = .357$, $p < .001$). See Table 6 for

regression results.

Hypothesis 3: There are significant positive relationships among resilience, self-care, and self-compassion. This hypothesis about relationships among resilience, self-care, and self-compassion was supported by Pearson r correlational analyses. Self-care and self-compassion were significantly correlated ($r = .59, p = .000$), while also showing themselves to be independent constructs. Self-care and resilience were significantly correlated ($r = .51, p = .000$), while also showing themselves to be independent constructs. A very strong correlation was found for self-compassion and resilience ($r = .86, p = .000$), suggesting possible multicollinearity in the measurement of the two different constructs. The DRCQ, as developed by Roysircar (2010, 2012), does not have a specific scale on self-compassion. The author of the present study selected items from within the DRCQ on the basis of her knowledge of the self-compassion literature, and she proposed that these items assessed self-compassion. See Table 7 for correlations.

Hypothesis 4: Self-care (i.e., self-care practices and physical safety) has a negative correlation with vicarious traumatization. A Pearson r correlational analysis supported the hypothesis of a significant negative correlation between self-care and vicarious traumatization ($r = -.38, p = .000$) and a significant negative correlation between physical safety and vicarious traumatization ($r = -.22, p = .00$), a modest correlation. Given that self-care and physical safety had a significant moderate correlation ($r = .50, p = .00$), self-care practices that cover several areas of self-care may relate more strongly to the prevention of vicarious traumatization in disaster responders than physical safety. See Table 8 for correlations.

Hypothesis 5: Disaster responders who received longer prevention training have higher scores in disaster response competencies, resilience, self-care, self-compassion, and protective factors than responders who receive a shorter period of training. Responders who reported prevention training for more than 4 weeks ($n = 24$) and responders who reported prevention training for 1 day to 4 weeks ($n = 53$) were compared. A MANOVA showed a significant difference between the two prevention groups, $F(4.00, 72.00) = 4.82, p < .002$, partial eta squared = .21, a small overall effect size. Significant between-subject effects were found on: Self-Care: $F(1, 998) = 13.58, p < .000$, partial eta squared = .15; Protective Factors: $F(1, 708) = 13.56, p < .000$, partial eta squared = .15; Disaster Response Competencies: $F(1, 708) = 12.89, p < .001$, partial eta squared = .15; Resilience: $F(1, 38) = 5.51, p < .02$, partial eta squared = .07; and Self-Compassion: $F(1, 573) = 7.59, p < .007$, partial eta squared = .092. Responders who had received training for a longer period had higher scores on self-care, protective factors, disaster response competencies, resilience, and self-compassion; however, the effect sizes were small. (Partial eta squared is a measure in which the effects of other independent variables and interactions are partialled out. Nowadays, partial eta squared is widely cited as a measure of effect size). See Table 9 for descriptive statistics for the impact of training time on self-compassion, resilience, disaster competency, and protective factors.

Research Questions.

Research Question 1. This question examined if a majority of responders practiced self-compassion. Participants endorsed items according to the following Likert scale: 1= Strongly Disagree, 2= Disagree, 3= Agree, 4= Strongly Agree. A cut-off score was identified. Answers of “agree” or lower indicated low self-compassion. Responders who endorsed an answer higher than “agree” on the self-compassion items indicated a high self-compassion score. A frequency

count indicated that the majority of respondents ($N = 56$, 72.7 %) reported high self-compassion scores. See Table 10 for frequency count.

Research Question 2. This question examined the possibility of a gender difference in the practice of self-care among disaster responders. A t-test was performed to examine the difference between men ($n = 23$) and women ($n = 44$) responders' self-care scores. Results indicated that men ($M = 3.27$, $SD = .30$) and women ($M = 3.28$, $SD = .31$) did not differ significantly on levels of self-care, $t(65) = -.100$, $p = .920$, n.s.

Summary

Experts judged positively the face and content validity of the DRCQ, while providing some recommendations for fine-tuning some wording, expanding a few content areas; and reducing some other content areas. The study examined the relationships among resilience, self-care, self-compassion, and disaster response competencies. In addition, the study assessed the contributions of protective and risk factors to responders' resilience and disaster response competencies. Five research hypotheses and three research questions were examined with Pearson r correlations, multiple regressions, and t-tests, showing significant and meaningful results. In addition, the psychometric properties of the DRCQ were investigated, which are discussed first to justify the acceptance of subsequent inferential statistics.

Significant findings.

Psychometric properties of the DRCQ. The internal consistency reliabilities of the DRCQ full scale and its facets were computed using Cronbach's alphas analysis. Internal consistency reliabilities ranged mostly from acceptable to high with only one facet (i.e., low responder SES) showing questionable reliability.

Protective factors predict resilience. Protective factors were strong predictors of

resilience. There was an appropriate inverse relationship between Risk Factors and Resilience, indicating that when there are lower risk factors, there is higher resilience.

Self-care dimensions are predictors of self-compassion. The observance of self-care practices and taking care of physical safety as well predicted self-compassion in disaster responders.

Resilience, self-care, and self-compassion. There were significant positive relationships among resilience, self-care, and self-compassion. The correlation was particularly significant between self-compassion and resilience, suggesting a strong similarity between these two constructs.

Self-care practices and vicarious traumatization. Both aspects of self-care (i.e., self-care practices broadly covering several areas and physical safety) were found to have significant negative correlation with vicarious traumatization, suggesting that the practice of self-care has a preventive role in decreasing vicarious traumatization. Self-care practices was stronger in its relationship with vicarious traumatization than physical safety.

Length of prevention training. In addition, as was hypothesized, disaster responders who received training for a longer period of time had higher scores on disaster response competencies, resilience, self-care, self-compassion, and protective factors, albeit the effect sizes for differences were small.

Research questions. Results indicated that the majority of responders in the study (72.7%) practiced self-compassion and that there was no gender difference in the practice of self-care among the responders who participated in the study. Findings showed that protective factors (i.e., responders' preparedness, including psychological first aid training, reflective listening skills, training knowledge of what challenges to expect, and adequate mental

preparation to face ethical, environmental as well as emotional challenges) predicted disaster response competencies, while low responder SES, a risk factor, came close to significance.

In the Discussion, the study's results are discussed and limitations of the study are presented. In addition, suggestions for future research are proposed.

Discussion

The study investigated the relationships among self-care, self-compassion, resilience, and disaster response competencies in responders working in disaster settings. In addition, it assessed the effects of protective and risk factors on disaster responders' resilience and disaster response competencies. Finally, the psychometric properties of the DRCQ were explored. This discussion presents the implications and conclusions of the study's findings in relation to the literature reviewed in the Introduction. Limitations of the study are considered, and recommendations for future research are suggested.

The DRCQ

The DRCQ was constructed to screen and provide ongoing assessment of disaster responders' competencies (Roysircar, 2010). The DRCQ was proposed to fill a gap in the assessment of disaster responders because no such instrument exists, as well as to assess several psychological dimensions considered to be important characteristics of disaster responders (Roysircar, 2010). Its items sets cover protective and risk factors; resilience; positive attitudes and traits; self-care behaviors; and response skills that contribute to responders' ability to foster community rebuilding (Roysircar, 2010). The study investigated the basic psychometric properties of the measure.

Internal consistency reliabilities. Psychometric results of the six scales of the DRCQ yielded scores ranging from good to high internal consistency reliability. Only one facet of the

risk factors scale yielded a questionable reliability (i.e., the low responder SES; $\alpha = .63$). This facet had few items (i.e., 5), and the participants were mostly middle class, so the risk factor of low responder SES may have been less relevant.

Face and content validity. A panel of experts reviewed in a focus group format the items of the DRCQ and assessed its face and content validity. The panel found that the measure showed good face and content validity in its original form and offered suggestion to strengthen some of the subscales (e.g., multicultural response). For example, one expert suggested items that would assess disaster response workers' own beliefs and bias regarding a different culture. In response to the experts' suggestion, it would be possible to add items such as, "I was willing to challenge my assumptions of a different culture," and "I was really open-minded about the culture of the community though I was not familiar with it."

Another expert suggested adding an item in the self-care subscale regarding the preference of some workers to make time for solitary self-care activities. An example of such item is, "I was able to spend a lot of time apart from the group when necessary to decompress," and "I was able to create time apart so I could engage in my own self-care."

Significant Findings

Protective factors and resilience. Research has shown that disaster responders are exposed to various stressors and are vulnerable to secondary traumatization (Dass-Brailsford, 2010; Roysircar, 2008). The findings of the study showed that protective factors (e.g., training, adequate self-care) can enhance resilience to secondary traumatization (see also Howlett & Collins, 2014). The findings supported the hypothesis formed at the onset of the research that protective factors, specifically responders' preparedness, were strong predictor of resilience. Disaster responders' preparedness includes psychological first aid training, reflective listening

skills training, knowledge of what challenges to expect, and adequate mental preparation to face ethical, environmental, and emotional challenges.

The above-stated finding indicates a need to emphasize training and preparation for disaster responders to prevent stressors, burnout, compassion fatigue, or even trauma in responders. This might not always be possible, since disasters are unpredictable and that the response force is often mostly composed of volunteers with little experience in disaster work. However, the cost of disaster responders suffering burnout, compassion fatigue or vicarious traumatization is significant and translates into absenteeism, turnover, decreased job satisfaction, mental health conditions, lower rates of productivity and effectiveness (Maslach et al., 2001). In addition, this results in great costs to the disaster-affected community that is suffering trauma and needs recovery help. Building resilience in responders through prevention training in preparation for a specific mission may support their ability to work in the field longer, remain efficient care providers to victims and survivors, be less prone to mental illnesses, and reduce human, structural, and financial costs to the disaster-affected community.

In keeping with the above recommendation, the study showed that participants who trained for a longer period of time had higher scores on disaster response competencies, resilience, self-care, self-compassion, and protective factors than those who trained for a briefer period of time. This finding places further emphasis on the timing and the optimal length of training necessary to prepare less experienced disaster responders prior sending them into the field.

Protective factors and disaster competencies. One research question guiding the study was to determine if (a) protective factors (i.e., psychological first aid training, reflective listening skills training, knowledge of what challenges to expect, adequate mental preparation to face

ethical, environmental, and emotional challenges); (b) organizational support from place of work; (c) age; and (d) social status predicted disaster response competencies. The findings showed that among the four variables, only protective factors predicted responders' competencies. Again, this finding shows the importance of adequate preparation to perform responder duties through appropriate training and how it increases responders' ability to perform effectively.

Results showed that a negative correlation came close to significance between responder low socioeconomic status (a risk factor) and disaster response competencies. The sample of the study was composed of middle class and upper class responders, which might have contributed to the negative correlation. A more varied sample with responders from modest economic backgrounds may have shown a different result. However, the implication may be that volunteering is a class privilege, which people of humble means cannot afford because they need to work daily for a living. It is to be noted also that the sample was diverse with a majority of women and racial and ethnic minorities. The question that arises is whether women and racial and ethnic minorities are more responsive to societal suffering and large-scale human needs.

Self-care, self-compassion, and resilience. It was hypothesized that significant positive relationships exist between self-care, self-compassion, and resilience. Roysircar (2008) describes self-care as a multidimensional concept in which psychological and physical well-being aspects are interdependent and lead to enhanced quality of life and a sense of fulfillment. Furthermore, integrating self-care practices into the daily lives of disaster responders serve as a safeguard against vicarious traumatization (Roysircar, 2008). The use of self-care practices is expected to foster resilience in disaster responders.

From the point of view of the helping professions, self-care is not only a beneficial

practice to people involved in the care of others in order to remain physically and psychologically healthy but a necessity, an integral part of ethical practice (Norcross & Barnett, 2007), and a moral imperative (Carroll, Gilroy, & Murra, 1999). The APA's ethics code (2002, amended 2010 & 2017) states the necessity for providers to be self-aware of any personal problems that might impair their ability to work effectively with clients and to take active steps to receive assistance (see Standard 2.06, Personal Problems and Conflicts). The American Counseling Association's Code of Ethic (2005) states clearly its view on the importance of self-care, recommending counselors to "engage in self-care activities to maintain and promote their emotional, physical, mental, and spiritual well-being to best meet their professional responsibilities" (see Section C, introduction, p. 8). Norcross and Barnett (2007) stated "self-care is not restricted to intervention after professional competence has been compromised; it is a continuous, proactive process throughout our careers" (para 18).

Similarly, research showed that self-compassion is associated with lower pathology and depressive disorders (Barnard & Curry, 2011; MacBeth & Gumley, 2012). Research has also found that self-compassion enhances resilience by lessening people's reactions to negative circumstances (Germer & Neff, 2013, Leary et al., 2007). The findings of the study supported the hypotheses about relationships among self-care, self-compassion, and resilience. Self-care and self-compassion were significantly correlated and self-care and resilience were also significantly correlated, yet showing themselves to be independent constructs. The correlation found between self-compassion and resilience suggests a stronger relation. Smith (2015) suggests that there are three fundamental aspects to self-compassion: mindfulness, common humanity, and self-kindness. Mindfulness is described by Smith (2015) as "the ability to be present and aware of one's thoughts, feelings, and experiences in the moment" (p. 17; see also Neff, 2011) and

allows people to reach a balance in their perspective of their shortcomings and their successes (Smith, 2015). Common humanity enables people to view their shortcomings in the larger context of the greater world (Neff, 2011; Smith, 2015), which allows them to experience a sense of connection with others when facing challenges and to avoid feeling isolated (Smith, 2015). Smith added that self-kindness, which soothes oneself during challenging times, resulted in higher levels of happiness in older adults and that high levels of self-compassion resulted in higher levels of resilience. Disaster responders who perform in overwhelming conditions may often challenge their sense of worth and ask themselves if they are making a difference in the task at hand. Self-compassion provides a sense of kind, non-judgmental self-acceptance of one's limitations and a self-appreciative view of one's efforts. By practicing self-compassion, responders are less prone to have discouraging thoughts, are more mindful of their own limitations, and are more aware of their own need for self-care. Consequently, they build resilience to challenging conditions.

The study also showed that there was no gender difference in the practice of self-care. The challenges of disaster work may positively change in both men and women attitudes of stoicism, of being tough, and of heroism. It is possible that in the study's sample, both genders were equally informed about the benefits of self-care practices due to prevention training in work-related stress (e.g., attending self-care workshops).

The study's hypothesis was retained that two dimension of self-care (self-care practices and physical safety) are predictors of self-compassion. In addition, there was a significant positive relationship between self-care and self-compassion, showing the probability that the two constructs are mutually supportive. Responders who consciously observe self-care practices foster and strengthen self-compassion and vice versa.

One research question examined if the disaster responders practiced self-compassion. A cut-off score was identified and responders who endorsed an answer higher than “agree” on the self-compassion questions indicated a high self-compassion score. A strong majority of the participants ($n = 56, 72.7\%$) reported high self-compassion scores.

Self-care and vicarious traumatization. Symptoms experienced by responders suffering vicarious traumatization are usually less severe than PTSD experienced by disaster survivors; however, vicarious traumatization can still affect the health and livelihood of those working with disaster and trauma survivors (Baldwin, 2015). The study showed that self-care practices were negatively correlated to vicarious traumatization, indicating the positive contribution of self-care in protecting disaster responders from the negative effects of constant exposure to traumatic conditions. This finding is significant. Vicarious traumatization is insidious and develops over time in responders before symptoms become obvious and debilitating (Baird & Jenkins, 2003). Self-care practices might be used as preventative tool to build resilience and reduce vicarious traumatization in disaster responders before their exposure in fieldwork. Training in self-care through prevention programming for first responders was provided by Roysircar (2008) for responders of Hurricanes Katrina and Rita in Louisiana and Mississippi.

Strengths of the Study

A strength of the study was that a majority of the participants were women and/or racial and ethnic minorities. There was no intentional recruitment or oversampling of these underrepresented populations in mainstream psychology research. This suggests that the study was unique in the collection of data from populations that are often not represented or studied in significant numbers in general survey studies. Other strengths of the study were its valuable insights into self-care practices, self-compassion, resilience, disaster response competencies, and

protective factors that benefit disaster responders, particularly from minority populations. The study may exemplify how mainstream psychological concepts may be adapted for and applied to multicultural service providers.

In addition, the age range of participants covered a large lifespan (22 to 74 years, with a mean of 40 years) indicating that the study was attractive to a diverse age group of responders, not just emerging adults (i.e., college students doing service work for credit). The findings, consequently, might indicate that there are no generational differences in self-care practices and self-compassion among disaster responders and that these healthy behaviors are of interest to responders of all ages.

Limitations of the Study

Archival data. While using archival data was convenient because the researcher did not need to collect data, it also brought some limitations to this study due to its mostly quantitative nature. Offering open-ended questions to participants would have enriched the study with personal, unique information on self-care practices that might not have been considered in the original design. There were, however, four open-ended questions, and the answers to only one question were coded for analyses.

Self-compassion scale. Originally, the DRCQ did not have items specifically based on the construct of self-compassion. Once the idea to explore self-compassion was suggested by the author, a facet was formed pulling together items that were the most closely related to the construct of self-compassion. The psychometric results of the DRCQ showed that this facet had good internal consistency reliability, suggesting that the construct was satisfactorily assessed. The items, however, could be strengthened by adding contents on common humanity, mindfulness, and self-kindness (Smith, 2015). Examples of suggested items are as follows:

“When I think I did not help someone enough, I pause and come to believe that others feel the same as I do and I am not alone” (e.g., common humanity); “When I feel useless or challenged, I reflect immediately on times when I felt useful and successful” (e.g., mindfulness); and “When I feel challenged or discouraged, I tell myself I work to the best of my ability and I do a good job” (e.g., self-kindness).

Suggestions for Future Research

Study replication in other professions. Future research might examine if the findings of the current study could be extended to other professionals in the fields of health and social services. For example, a similar study could be conducted in professions where providers are exposed to stressful and often traumatic situations (e.g., social case managers, nurses), placing them at risk for conditions such as vicarious trauma or burnout. The DRCQ could be adapted to assess professional responders, such as active-duty military forces, fire fighters, the police, and emergency medical technicians. The results of such studies might reveal different results in self-care practices and self-compassion than shown in this study, especially as these relate to societal and work cultural stigma about mental health disorders in providers who are labeled as heroes.

Use of the DRCQ. The study has shown the usefulness of the DRCQ as an assessment measure for disaster response competencies and self-care practices. The study demonstrated the DRCQ’s strong psychometric properties and the possibilities of its usage. The measure can be used for assessing responders prior to their departure for a disaster site. It can also be used as an ongoing assessment tool when disaster responders are in the field, helping to identify lack of self-care while they are exposed to duress. Finally, it can be used after responders have returned from disaster work to assess possible gains made or an area of self-care that might need

attention. With some accommodations, the DRCQ can be used to assess personnel from any professions at risk for vicarious trauma or burnout.

Summary

This study based on archival data was unique, not because of its topic but because it used a measure that has no comparison among assessment tools. The DRCQ was developed to assess disaster responders' self-care practices and disaster response competencies. The study demonstrated that the DRCQ has good basic psychometric properties and that its versatility allows it to be used as a pre, on-going, and post fieldwork assessment measure for responders. It is also suggested that with some modification the DRCQ can be used for assessment in any professional field related to health, social, and emergency services. A brief form of the DRCQ is also recommended.

The study aimed to investigate the relationships between self-care practices, self-compassion, and resilience. Results showed significant positive relationships among the three constructs, with a particularly strong correlation between resilience and self-compassion, suggesting that the practice of self-compassion fosters resilience in responders. The study and recognition of self-compassion is becoming increasingly popular in the literature of professional psychology and in therapy practices. The study showed that a large majority of the participants endorsed practicing self-compassion and that there was no gender difference in its practice. In addition, the study showed that disaster responders who practice self-care are at less risk to develop vicarious traumatization, a pervasive mental health condition that can be debilitating not only to disaster responders, but as a whole, if it occurs too frequently in individual responders, to an entire responder or humanitarian aid organization.

The study investigated the effects of protective and risk factors on responders' resilience

and disaster response competencies. Results showed that protective factors (i.e., psychological first aid training, reflective listening skills training, knowledge of what challenges to expect, adequate mental preparation to face ethical, environmental, and emotional challenges) were strong predictors of disaster response competencies. This finding is significant as it emphasizes that appropriate preparedness for fieldwork will increase disaster response competencies and promote individual resilience. Resilient disaster responders perform more effectively for a longer period of time and remain mentally healthy while in the field. Such performance allows for better care of disaster survivors and is more cost effective for rescue organizations and society as a whole.

While the study had limitations, it not only supported existing research about self-care practices, self-compassion, and resilience, but it also added to the body of literature on protective factors and their relationships with resilience and disaster response competencies. It also leads to further possible studies about aspects of self-compassion, used in combination with the DRCQ that might be beneficial in helping professionals at risk for vicarious traumatization and burnout. Findings may inform about resilience needed to continue working with suffering populations they selflessly serve.

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Tables

Table 1

Participants' Support Resources

Disaster	<i>n</i>	Percentage
Close Friends	60	87.0%
Co-Workers	51	73.9%
Extended Family	46	66.7%
Spiritual Community Members	26	37.7%

Note. n = 69.

Table 2

Participants' Involvement in Large Scale Disasters

Disaster	<i>n</i>	Percentage
Hurricane	36	52.2%
Tsunamis	26	37.7%
Earth Quakes	21	30.4%
Community Violence	20	29.0%
Pandemics	15	21.7%
Wild Fires	10	14.5%
Wars	6	8.7%

Note. *n* = 69.

Table 3

Domains, Themes, Subordinate Themes, and Frequency in Focus Group Discussion

Domains	Themes	Subthemes	F*
Face Validity	Administration	Timing of administration	10
		Procedures	2
	Ambiguous items	System of administration	2
		Impact of timing of administration	2
		Optimal timing of administration	2
		Level of education	3
		Language accessibility	4
Usage of clinical terms	4		
Content Validity	Items	Unnecessary or similar items	3
		Number of items in subscales	4
		Rewording of items	1
		Cultural relevancy of items	1
	Competency	Assessment of competencies	3
		Multicultural competency	4
		Social competency	1
	Self-care	Individual time for activities	4
		Individual time for processing	2
	Protective factors	Social support	4
		Preparedness	7

**Note.* F (frequency) denotes the overall frequency of occurrence. Subthemes indicating concern: Level of education, language accessibility, usage of clinical terms, unnecessary or similar items, number of items in facets. Subthemes indicating good contents: timing of administration, system of administration, optimal timing of administration, assessment of competencies, multicultural competencies, social competency.

Table 4

Cronbach's Alpha Values for DRCQ Scales

DRCQ Scales	Items	α
Disaster Response Competencies	40	.89
Resilience	23	.87
Self-Care Practice	19	.88
Self-Compassion	6	.70
Protective Factors	5	.80
Risk Factors	28	.80

Table 5

Summary of a Simple Linear Multiple Regression Analysis of Protective Factors and Risk Factors as Predictor Variables with Resilience as the Criterion Variable

	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>p</i>
(Constant)	2.451	.180		13.651	.000
Protective Factors	.303	.055	.539	5.541	.000
Risk Factors	-.032	.122	-.030	-.259	.797

Note: $n = 76$. Criterion Variable = Resilience.

Table 6

Summary of a Simple Linear Multiple Regression Analysis of Self-Care and Physical Safety as Predictor Variables with Self-Compassion as the Criterion Variable

	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>p</i>
(Constant)	1.475	.258		5.726	.000
Self-Care	.275	.074	.381	3.700	.000
Physical Safety	.302	.087	.357	3.465	.001

Note: $n = 76$. Criterion Variable = Self-Compassion

Table 7

Pearson Correlations among Self-Compassion, Self-Care, and Resilience

	Resilience	Self-Care	Self-Compassion
Resilience	1.00		
Self-Care	.511**	1.00	
Self-Compassion	.856**	.592**	1.00

Note: $n = 77$. **. Correlation is significant at the 0.01 level (2-tailed). While significant, the correlations of self-care and physical safety with vicarious trauma are low.

Table 8

Pearson Correlations Among Vicarious Trauma, Self-Care, and Physical Safety

	Vicarious Trauma	Self-Care	Physical Safety
Vicarious Trauma	1.00		
Self-Care	-.380**	1.00	
Physical Safety	-.223**	.499**	1.00

Note: $n = 77$. **. Correlation is significant at the 0.01 level (2-tailed).

Table 9

Descriptive Statistics for the Impact of Training Time on Self-Compassion, Resilience, Disaster Competency, and Protective factors

	Training Time	N	Mean	Standard Deviation
Self-Care	1 day - 4 weeks	53	2.92	.237
	4 weeks and more	24	3.17	.334
Self-Compassion	1 day - 4 weeks	53	3.21	.257
	4 weeks and more	24	3.39	.310
Resilience	1 day - 4 weeks	53	3.38	.235
	4 weeks and more	24	3.54	.318
Disaster Competency	1 day - 4 weeks	53	3.02	.210
	4 weeks and more	24	3.22	.280
Protective Factors	1 day - 4 weeks	53	3.12	.451
	4 weeks and more	24	3.52	.436

Note: $n = 77$.

Table 10

Frequency Count of Self-Compassion Level in Disaster Response Workers

	Frequency	Percent	Cumulative Percent	Distress
Low Self-Compassion Score	21	27.3	27.3	
High Self-Compassion Score	56	72.7	100	
Total	77	100		1.00

Note: $n = 77$. Low Self-Compassion = agree or lower; High Self-Compassion = greater than agree. 1= Strongly Disagree, 2= Disagree, 3= Agree, 4= Strongly Agree.

Table 11

Summary of a Simple Linear Multiple Regression Analysis of Responder Age, Low Organizational Support, Low Socioeconomic Status, and Protective factors as Predictor Variables with Disaster Competency as the Criterion Variable

	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>p</i>
(Constant)	2.002	.294		6.810	.000
Age	.001	.002	.060	.582	.563
LOS	.066	.057	.119	1.163	.249
LRSES	-.104	0.57	-.180	-1.835	.071
PF	.310	.051	.596	6.069	.000

Note: $n = 65$. Criterion Variable = Disaster Competency; LOS = Low Organization Support; LRSES = Low Responder Socioeconomic Status; PF = Protective Factors.

Appendix A

Recruitment Letter

Hello Disaster Responder or Volunteer,

I hope this message finds you rested and well. My name is Dr. Gargi Roysircar and I am a volunteer responder. I have participated in psychological first aid in earthquake-destroyed Haiti, tsunami-affected fishing communities in Southern India, and Hurricanes Katrina and Rita-affected communities and responder organizations in the United States Gulf Coast. I have provided psychoeducation and psychosocial programming in flood-ravaged Villahermosa, Tabasco, Mexico. At Antioch University New England, I train graduate student volunteer response teams in disaster trauma, culture-centered response skills specific to a particular community disaster, and in responder self-care and resilience. On the bases of my disaster response experiences and readings, I have developed a survey to understand the practices of responders and volunteers and their strengths, challenges, and experiences. I am recruiting responders and volunteers to answer this survey. I have received permission from my university's human subjects committee to do the study.

It is my hope that the field of disaster psychology and organizations that provide relief and emergency services will greatly benefit from a better understanding of the response experiences and characteristics of disaster responders and volunteers. Disaster responders have one of the toughest, most stress-filled jobs in the field of human services. Their impact on a community that has experienced a disaster is critical for the immediate and long-term well-being of the community's members. Yet there is very little research on the effectiveness of responders. What are the attributes and proficiencies of responders that enable communities to return to predisaster levels of functioning? What can we learn from responders about their strengths and preparedness that we could then pass on to future responders? This is what the survey studies.

Given the importance of this research, my university has agreed to fund my study. This will allow for one in every twenty participants to win \$50.00! Alternatively, you may choose to have five dollars donated on your behalf to the American Red Cross. Or you may choose not to receive a reward.

Your participation will consist of taking a 45-minute online survey. In order to participate, you must meet the following requirements:

- 1) You identify as a disaster responder or volunteer.*
- 2) You have done response work within the past 5 years.*
- 3) You are at least 18 years old.*

Your privacy will be completely respected. You will not be asked to provide your name or contact information on the survey and your IP address will not be collected.

Please click the link below to get started!

(Insert Link Here)

Thank you.

Gargi Roysircar

groysircar@antioch.edu

Appendix B

Informed Consent

Project Title: **Disaster Response Competencies Questionnaire: A Pilot Study**

Principal Investigator: Gargi Roysircar-Sodowsky, Professor of Clinical Psychology, and Director, Multicultural Center for Research and Practice

Address: Antioch University New England
40 Avon Street
Keene, NH 03431

Phone: 603-283-2182

E-mail: groysircar@antioch.edu

To be an informed participant, please read the following information. Thank you.

My name is Gargi Roysircar-Sodowsky. I am Professor of Clinical Psychology and Director of the Multicultural Center for Research and Practice at Antioch University New England, Keene, New Hampshire.

What I am asking you to do.

Please fill out a survey that I have developed about the experiences and practices of disaster responders or volunteers. In your relief work, you attend to the basic needs of people, rebuild communities, do psychological first aid, provide psychosocial interventions or counseling, help individuals and families, work in teams, and collaborate with local networks and relief workers from other organizations. Please assess yourself on your work. It takes about 45 minutes to finish the survey.

Purpose of the study

Because the service you provide is very difficult, I wish to learn about your response practices, strengths, and challenges. I also want to know how you rate your own personal and social strengths.

The anonymous results of the survey will be used as a needs assessment of disaster responders' practices in their service to disaster-affected communities. I wish to share my findings with various regional, state, and national relief organizations, the scholarly community, and professional organizations to start conversations about responders' preparedness, training, strengths, challenges, and needs for organizational support and personal wellbeing. It is hoped that such information will contribute to future systemic changes in relief and humanitarian aid organizations and communities prone to disasters in their assessment of responders' preparedness and competencies. I am asking responders and volunteers at local, state, regional, and national levels to fill out the survey. There are no risks to your privacy in taking part because I am not asking for any names, organizational names, or local identifiers, and no one can know who fills out a questionnaire.

Benefits to participating

1. At the end of the survey, you are invited to register to win one of twenty \$50 gift certificates from Amazon.com or to donate \$5.00 to the American Red Cross. This registration process is completely separate from the survey in order to keep survey responses anonymous.

2. Your participation may increase understanding and awareness of responder training, preparedness, and wellbeing. As such, it may help us improve the work experience of responders and the services they provide communities, groups, individuals, and families.
3. You may be motivated to complete the survey because you have been told that your input will contribute to future systemic strengthening and training of disaster response work.

Risks of participation in this study

Your participation involves minimal risk to you. It is not anticipated that the survey will cause you any stress. Your privacy will be completely respected; you will not be asked to provide your name or contact information on the survey and your IP address will not be collected. Your participation is completely voluntary and you may stop at any time you like. However, you're encouraged to complete the survey.

Taking part is voluntary.

If you choose not to fill out the survey, there will be no penalty and it will not affect any services or other benefits you might receive from your job or volunteer service or from Antioch University New England. This survey is not related to your work setting. Your supervisor and employer will not know whether or not you participate and they will not receive information about your responses to this survey. You and relief organizations may receive results of aggregated data (averages across all participants) that do not include identifying information or any demographic listing. If you do fill out the survey, you may leave any question blank, but I ask you to answer as many questions as you can.

If you have questions about the survey or have questions about your rights as a volunteer participant, please contact Dr. Gargi Roysircar-Sodowsky at Antioch University New England by email groysircar@antioch.edu or at 603-283-2182. Or if the survey causes you discomfort, you may contact her, so that she may be of assistance to you.

If you have any questions about your rights as a research subject, you may contact Dr. Kevin P. Lyness, Chair of the Human Research Committee at 603-283-2149, or Dr. Katherine Clarke, Vice President of Academic Affairs, 603-283-2416.

Thank you for participating in this survey.