

Toward a Mechanism for Secondary Trauma Induction and Reduction: Reimagining a Theory of Secondary Traumatic Stress

Marné Ludick
University of the Witwatersrand

Charles R. Figley
Tulane University

This article focuses on the mechanism by which real or perceived distress of another in turn distresses us and the process by which we become undistressed. This secondary traumatic stress (STS) mechanism accounts for work-related stress experienced by social workers, psychologists, physicians, first responders, some administrative groups and others who work or live with the traumatized. A model is described that demonstrates the STS mechanism. The compassion fatigue resilience (CFR) model is the latest iteration in successive models that attempt to account for the variance in CFR (higher resilience resulting in lower compassion fatigue). The article presents a thorough description and justification of the 12-variable CFR model. The model helps account for why some people experience little to no compassion stress whereas others do, despite the same levels of exposure and competence when working with the traumatized. This multidimensional model of resilience provides the best estimate yet in depicting STS reactions that account for the increase/decrease of STS. This model has the potential for guiding both research and practice, and teaching trauma survivors and future trauma-exposed professionals how to build up their secondary stress resilience and become more effective in managing secondary stress when their “hearts go out” to the suffering.

Keywords: secondary traumatic stress, indirect traumatization, costs of caring, compassion fatigue resilience, secondary stress resilience

Secondary traumatic stress (STS) is a relatively recent concept that emerged from secondary victimization (Figley, 1982). It refers to one of several negative outcomes from indirect trauma exposure, attributable to the process of vicarious traumatization (Adams, Boscarino, & Figley, 2006). These and closely related concepts spurred a groundswell of research into the effects of trauma-work on select groups, including rescue, emergency, law-enforcement, health care and mental health care workers (e.g., Argentero & Setti, 2011; Cieslak et al., 2013; Covey, Shucard, Violanti, Lee, & Shucard, 2013; Halpern, Maunder, Schwartz, & Gurevich, 2012; Hyman, 2004; Steed & Downing, 1998). Similar to secondary trauma, STS represents the consequent demands of working with the traumatized—directly or indirectly—as measured by incidence or prevalence of various stress reactions, varying from paper and pencil self reports to highly valid and reliable psychometric measures.

Initially, STS was viewed as specific to trauma-work (Sabin-Farrell & Turpin, 2003). Nowadays, *compassion fatigue* (CF) is the term favored for helping professions whereas STS is used

across diverse populations (Elwood, Mott, Lohr, & Galovski, 2011). Despite this distinction, STS and CF point to the *same* constellation of responses to client traumata that share features with posttraumatic stress disorder (PTSD; Figley, 2003). Consistent with the current trends in understanding and helping those with STS, it is critical to use a wide-angled research focus to include anyone reading or thinking about traumatic materials, not just those working directly with traumatized mental health clients (Figley, 2003). Funeral directors, victim advocates, attorneys, jurors, and most court workers are such examples (Anderson, 2004; Linley & Joseph, 2004). Journalists, researchers and trauma curriculum teachers/students are further instances (e.g., Coles, Astbury, Dartnall, & Limjerwala, 2014; Fucci, 2008; Keats & Buchanan, 2012; Lucas, 2008). This action of casting the research net wider to include all affected populations necessitates the reimagining of the theory of STS. It is critical to consider a working mechanism (explanation) of the trauma induction and reduction process. Applying this mechanism to secondary trauma enables a full discussion of both the limitations and advantages of increasing resilience and toughness in the face of STS.

Toward a Theory and Mechanism of Secondary Traumatic Stress

The concept of STS emerged from systems theory (Figley, 1983). Figley (1982) first identified secondary trauma as secondary victimization and later coined STS and CF (Adams & Riggs, 2008; Dunkley & Whelan, 2006). These concepts were critical in his original model of CF (Figley, 1995). Since 1995, Figley periodically refined his well-recognized model, which depicts

Marné Ludick, Department of Psychology, University of the Witwatersrand; Charles R. Figley, School of Social Work and the Traumatology Institute, Tulane University.

Correspondence concerning this article should be addressed to Marné Ludick, Department of Psychology, University of the Witwatersrand, 1 Jan Smuts Avenue, Braamfontein, 2000, Johannesburg, South Africa. E-mail: marne.ludick@gmail.com

trauma accumulation and transmission in therapists, fire fighters, the clergy, disaster workers, police officers and many others. These periodic changes represent revised thinking as a result of peer reviewed publications and books (see Figley & Ludick, in press).

Adhering to any single view of a phenomenon is confining and stymies the viewing of all its elements (i.e., panoptic thinking) as well as systematically gauging the effects at psychological, physiological and social levels. Merging theory can similarly yield a more balanced birds-eye view of complex phenomena within different contexts and reveal the full range of effects. Researchers consistently favor very general, familiar, and straightforward variables that are measurable and malleable to the context. A STS-based approach of identified variables can be applied to a number of settings, including but not limited to trauma-informed psychotherapists. For instance, Figley's STS-based CF model has been applied widely, from nurses (e.g., Abendroth & Figley, 2014) to animal care workers (e.g., Figley & Roop, 2006). Humans are social beings and require considerable social skills to coexist in families and larger systems, and empathy is key. Empathic people tend to be more popular and natural leaders (Damasio, 1994; Sundheim, 2013). On the other hand, empathic ability can become a burden if the intake of disturbing information is not managed. But what is the mechanism by which people experience trauma generally and secondarily (i.e., vicarious trauma)? More specifically, what is the mechanism by which trauma workers (i.e., the job of caring for the traumatized) experience CF?

Formulating a Theory of Secondary Traumatic Stress

Theoretical Stipulations

It is necessary when proposing a theory to stipulate the scope and mechanism and the relationship among a set number of variables. We offer the following nine stipulations:

- STS is a highly complex and often unavoidable experience when working with the suffering or those who study them; or through records of traumatic experiences.
- STS is most often present when a worker is exposed to a given dosage of evocative reality. This dosage varies from person to person: From direct contact and discussion with the traumatized to videotapes of interviews with the traumatized, all the way to reviewing written materials without photographs written by another.
- STS is elevated when the worker generates the necessary empathic response to do their job of helping to understand and help the traumatized.
- STS is elevated when the worker must compartmentalize the stress reactions to the evocative reality (direct contact, phone, or records).
- STS is elevated where there is prolonged exposure to evocative materials in the course of doing their job.
- STS is elevated when prior traumatic events are remembered.
- STS is lowered when the worker experiences incidents of compassion stress satisfaction that increases a sense of worth and purpose.

- STS is lowered when the worker experiences the social support from fellow workers, management, and the institution generally.
- STS is directly related to the level of compassion fatigue resilience (CFR) but affected also by other life demands outside of work.

These nine theoretical stipulations lay the groundwork for appreciating the utility of the model and the underlying STS induction and reduction process. The model is designed to measure the level of resilience (from high to low) to STS and also resilience to CF (that is, STS disorder; Figley, 1995). It is also a framework for understanding both positive and negative effects that emanate from this STS process.

Conceiving a Model of Secondary Traumatic Stress and Compassion Fatigue Resilience

We offer the CFR model in Figure 1 as a tool for determining who is at risk for excessive STS or to cultivate desirable levels of CFR. Collectively, the 12 variables predict the level of CFR. However it is important to view the model in sectors to optimize its use and maximize benefits for both research and resilience building. There are three sectors: the empathic stance/response, STS, and CFR.

Empathic Stance

This sector includes the variables of (a) exposure to suffering, (b) empathic concern, and (c) empathic ability that account for the quality/quantity of the (d) empathic response. This sector estimates the cost of caring. Worker efforts to empathize with suffering inform best practices in both assessment and treatment strategies, among other things.

Exposure to suffering. This component refers to the degree to which the worker interacts with suffering clients who seek their services (Figley, 1995). Exposure to suffering is the first pathway to STS by which workers assume client suffering and internalizes some of the expressed emotional energy from each encounter. In a vocational setting, workers are in contact with suffering on an ongoing basis, which exponentially increases the likelihood of negative effects (Jordan, 2001). Moreover, there is often no regard for traumatic material dosage. To illustrate, Temitope (2014) reported significantly higher levels of STS in counselors with a higher trauma caseload and so did Craig and Sprang (2010) in therapists with greater exposure to clients with PTSD. Even workers in telephonic set-ups have been shown to be adversely affected by client distress (McCalla & Ezingard, 2005). Simply hearing or learning about a traumatic event can induce secondary trauma (McCann & Pearlman, 1990). Exposure to suffering happens in various ways—in direct practice (e.g., health/mental health workers), as witnesses (e.g., first responders), in administrative settings (e.g., court workers, librarians dealing with disturbing artifacts, and insurance claims workers indemnifying traumatic losses), and in coexistence with a traumatized individual (family, friends, and colleagues).

The potency of secondary traumatization in less considered populations is often underestimated. Workers are especially vulnerable when they receive no training, informed supervision, or access to counseling and other support. For instance, Levin and

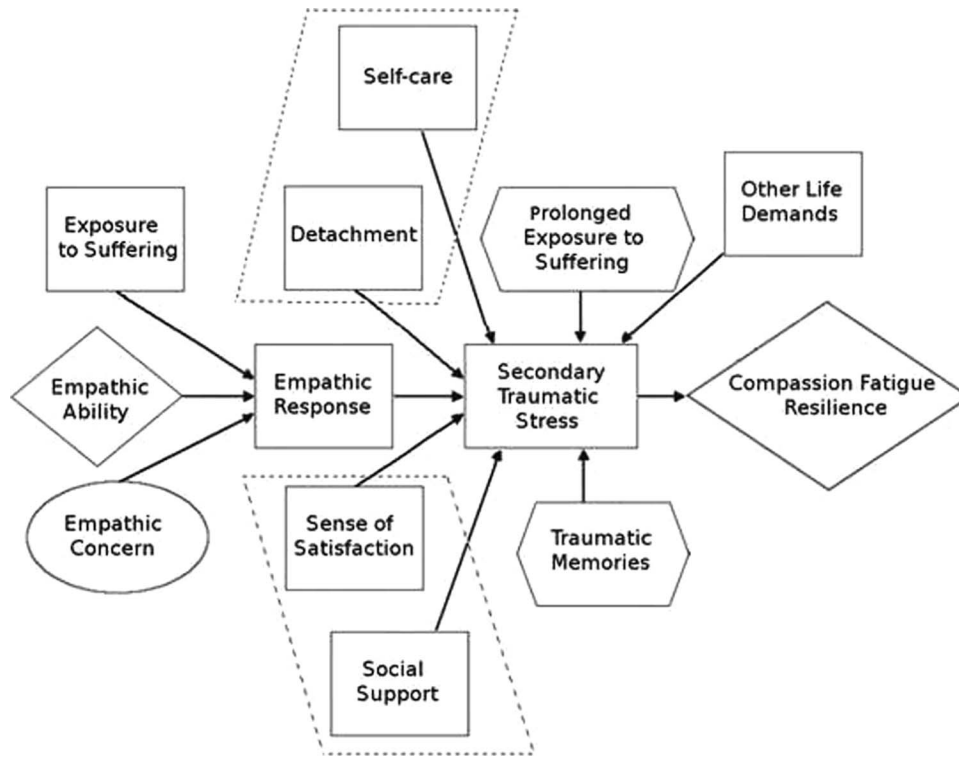


Figure 1. Compassion fatigue resilience model.

Greisberg (2003) found that attorneys, despite having fewer trauma-related cases, exhibited significantly more negative effects compared to mental health workers. Similarly, the frequency and severity of trauma cases handled by insurance claims workers were found to often parallel those encountered by trauma counselors (Ludick, 2013). In both the attorneys and claims workers, constant trauma exposure coupled with a lack in training and resources placed them at an ongoing disadvantage.

Empathic concern. Empathic concern is the explicit, high level of compassion and interest in helping clients meet their needs as well as an innate tendency of universal importance in human interactions (Ashraf, 2004). We all share varied degrees of empathic concern and the level of absence is directly related to increased psychopathy (Decety, Lewis, & Cowell, 2015). Because of its universal nature, empathy is a very significant pathway to STS. The greater the concern, motivation and capacity to empathize, the greater the probability of personal distress. Without empathy, there is no STS, but also no emotional resonance or connection between humans and no therapeutic change or effective service delivery in working with traumatized clients (Figley, 2002a).

Serving traumatized individuals effectively is a huge responsibility that centers upon empathy and empathic concern. Psychotherapeutic effectiveness and communication competence hinges on empathic concern. Lack of empathic concern in nurses directly correlated with an absence in personal accomplishments, depersonalization, high levels of stress and low occupational commitment (Omdahl & O'Donnell, 1999). Empathic concern is crucial in physicians to help understand their patients, and empathic con-

cern—counter intuitively—correlates inversely with burnout (Lamothe, Boujut, Zenasni, & Sultan, 2014). This is in line with the empathy paradox suggesting that empathy and empathic concern has the ability to both protect and harm (Salston & Figley, 2003). It is both the keystone to helping others as well as a pathway to the high costs of caring (Figley, 2002a). Empathic concern is also susceptible to attrition and already showed signs of erosion during the training of medical students (Airagnes et al., 2014). Empathy training might be necessary to counterpoise erosion, enhance empathy and boost its protective abilities. Trauma exposed workers without empathy training are often in a compromised position, no matter what their service delivery goals.

Empathic ability. This refers to a person's capability and proclivity to recognize suffering in others (Figley, 2002a). It is the ability to adopt and understand another's position, emotions, needs and pain for service providers to provide just the right empathic response. During empathizing, workers forge an emotional and empathic connection with suffering clients and then deliver an empathic response. It is this emotional connection that places the worker in harm's way (Figley, Huggard, & Rees, 2013). However, empathic abilities are always necessary to build client rapport, no matter what the business objective. In a diversity of service delivery situations, empathy seems to be the most important antecedent to quality service, customer satisfaction and loyalty (Dewi, Sudjana, & Oesman, 2011; Loke, Taiwo, Salim, & Downe, 2011). In clinical set-ups empathy promotes treatment adherence and positive clinical outcomes (Airagnes et al., 2014). It is fundamental in the physician-patient relationship for better health outcomes (Lamothe et al., 2014) and is a tool central in the "art of human

therapy" (Figley, 2002a, p. 1434). Without empathy, therapeutic change or effective help is unlikely. As with empathic concern, empathic abilities are open to fatigue or erosion in human service and care providers. However, the rapid empathy decline observed in medical students was more related to their perceived unimportance of empathy, rather than to empathic abilities per se (Airagnes et al., 2014).

As stated earlier, empathy is paradoxical and can protect trauma exposed workers. Lamothe et al. (2014) found that producing effective empathic responses reduces the effects of trauma exposure and empowers the empathizer. It can boost worker gratification or a sense of satisfaction—an important positive pathway recognized by the CFR model. Lamothe et al. (2014) further state that using cognitive rather than affective empathy manages the empathy load, curbs burnout and promotes well-being. *Cognitive* empathy is the adoption of the point of view of another, comprehending their inner perspectives and experiences as well as the capability to effectively relay this understanding (Lamothe et al., 2014). *Affective* empathy is conceptually close to sympathy. It involves an emotional reaction, feeling what the other person is emoting and emotion sharing (Lamothe et al., 2014). Cognitive empathy—reaching and communicating understanding while maintaining affective distance or clinical neutrality—induces less burnout and maintains greater emotional balance in those working with distressed individuals (Lamothe et al., 2014). Workers need to appreciate the importance of empathy in successful service and care delivery and be aware of the empathy conundrum. They could invest in cognitive empathy training to hone this skill and the high levels of emotional regulation it offers. This skill can certainly protect the many trauma exposed workers, prevent empathy erosion and reduce STS and burnout.

Empathic response. This element is the worker's reaction to the need to be empathic and the attempts and efforts to reduce the suffering of another. The empathic response is informed by empathic concern and empathic ability. When providing an empathic response, the worker is projected into the distressed client's position, experiencing their fear or suffering. Over time, constant empathic responses can have a numbing effect and elicit STS (Salston & Figley, 2003). During an empathic response, professionals draw heavily upon their skills, training and talent to provide the best service (Figley, 2002a). As stated before, those without empathy training are at an especial disadvantage as they have fewer inner resources to draw from. And, when one's efficiency and resources are overwhelmed, one's health and wellbeing is jeopardized (Craig & Sprang, 2010). There is a clear dearth of academic literature on the role of empathy in the process of secondary traumatization; however, Regehr, Goldberg, and Hughes (2002) observed that more empathic ambulance paramedics experienced greater levels of negative outcomes. MacRitchie (2006) and Harinarain (2007) made similar observations in trauma workers.

Even when conveyance of empathy to trauma survivors is not the worker's primary role, client distress is still internalized. For instance, Ludick (2013) found that administrative claims workers who connected deeply with traumatized clients, showed significantly more negative outcomes than their trauma counselor counterparts. Therefore, empathy or opening one's heart to the suffering of others is a key factor in the induction of trauma from the primary to the secondary individual (Harinarain, 2007). In Native

American teaching, this process is described as giving away a piece of yourself with each caring encounter until, at some point, you require healing (Stebnicki, 2007).

Secondary Traumatic Stress (STS) Sector

This (second) sector refers to a clear peril of trauma exposure. Constant contact and empathic engagement leave behind harmful cumulative emotional energy that, if left unchecked, can culminate in STS (Figley, 2002a). Marriage and Marriage (2005) observed that too many sad stories heard by mental health clinicians resulted in secondary traumatization that clearly emerged in their accounts about their work experiences. Ludick (2013) observed the same outcome in the narratives of claims workers. Even though they interact with clients for administrative purposes, they are not unaffected by their trauma.

Given the constant influx of negative energy, our innate negativity bias (Rozin & Royzman, 2001) and the contagion potency of emotional distress, it becomes clear how quickly trauma exposed workers can become bogged down in negativity. When negative energy accumulates unabated without counteraction by an increased ratio of positive affect or some positive pathway, this residual energy wreaks havoc within the affected person (Radey & Figley, 2007). For instance, residual compassion stress often manifests in a heightened sense of fear that signifies an inability to successfully work through painful client traumata (McCann & Pearlman, 1990). Ludick (2013) found that claims workers used fearful expressions seven times more frequently in their general discourse about their work than did their trauma counselor counterparts. They further showed an incapability to make sense of traumatic events as a fifth expressed a strong sense of disappointment in mankind, a way of thinking known as overaccommodation (Falsetti, Resick, & Davis, 2003). Instead of being disappointed in perpetrators, all of mankind is viewed with cynicism. The constructivist self-development theory precept confirms that client traumata can lastingly and negatively transform mental schemas or frameworks that encompass our beliefs, assumptions as well as expectations about ourselves, others, causality and trustiness of sensory information (McCann & Pearlman, 1990). Eagle, Haynes, and Long (2007) observed that student therapists felt that too intense levels of exposure threatened to diminish, reduce or even destroy their good, finite internal objects and resources. Kiser, Nurse, Lucksted, and Collins (2008) flagged studies that reported coldness, withdrawal, inclemency and punitiveness on the familial front. Moreover, posttraumatic stress symptoms can accentuate interpersonal difficulties (Milenković, Simonović, Stanković, & Samardžić, 2013). Christopher (2004) provocatively states that, whether a stress response is adaptive or maladaptive, it is always psychologically and biologically transformative.

It is perhaps important to be cognizant of the fact that STS is only one of several measurable outcomes of trauma exposure, which heightens the importance of the CFR model. Figley (1995) suggests that depression, anxiety, irritability, and physical or somatic complaints become rampant and that emotional, cognitive, behavioral, and interpersonal functioning is often compromised. Keats and Buchanan (2012) unearthed a culture of silencing in Canadian journalism, an unfortunate situation that disallows the professional negation and amelioration of negative effects. Some of these participants experienced health problems, depression and

substance abuse in addition to STS. Falsetti et al. (2003) reported changes in religiosity and spirituality following trauma exposure.

Ludick (2013) found that claims workers with the highest STS scores exhibited varying degrees of PTSD, which is another serious outcome. PTSD is the most commonly reported psychiatric consequence of trauma and secondary trauma (Norman, et al., 2006). Negative cognitive schemata were significantly more prevalent in claims workers than their study counterparts; they reported poor health most often and took more sick-leave due to work-related stress. They reported a general decline in health and well-being including chronic fatigue, prevailing lack of energy, restlessness, feeling run-down, insomnia, excessive weight-gain and even a failed pregnancy.

Mounting evidence shows that psychological trauma bears strong associations with poor health. Continuous traumatic stress exposure is linked to increased risks and incidences of serious, acute, and chronic illnesses (Norman et al., 2006). Some of the symptoms involve insomnia, sleep disturbance, exaggerated startle responses, difficulty breathing, perspiration and a racing heart (Bride, Robinson, Yegidis, & Figley, 2003). In addition to high levels of absenteeism in claims workers, nearly half of them admitted to having taken sick-leave to cope (Ludick, 2013), an undesirable outcome for any employer or colleague. Claims workers also showed the least sense of satisfaction with their work, compassion responses and their abilities to assist. This is consistent with McClenney (1992) and Josias (2005) who cited several cases where dissatisfaction led to withdrawal behavior, lowered organizational commitment and greater absenteeism.

The CFR model offers a map that steers the worker away from STS and toward CFR. Engendered improvements will not only negate secondary trauma and bolster CFR, but will also relieve most other negative effects associated with vocational trauma exposure. Finally, the factors outlined next introduce additional secondary traumatic injury pathways that can add strain and contribute to the development of STS.

Traumatic memories. Even though research results are mixed, personal trauma history can induce or exacerbate STS (Steed & Downing, 1998). Traumatic memories refer to the person's own trauma history as well as traumatic memories accumulated from client dealings (Figley, 2002a). These recollections have the potential to be reactivated and cause further distress, anxiety or depression. As far back as 1990, allusions were made about the role of traumatic memories in secondary trauma (e.g., McCann & Pearlman, 1990). In the years that followed, a multitude of studies echoed the sentiment that traumatic memories is a noteworthy correlate to secondary traumatization (e.g., Adams & Riggs, 2008; Nelson-Gardell & Harris, 2003; Ortlepp & Friedman, 2002; Salston & Figley, 2003). Especially those with unresolved traumas have been found to be at particular risk for STS (MacRitchie, 2006). Similarly, claims workers and trauma counselors spontaneously remarked that their own trauma impinged on their work efficiency and their ability to assist clients (Ludick, 2013). Client experiences closely resembling that of the worker's own traumatic memories are especially problematic and induce more distress than unrelated types of trauma. McCann and Pearlman (1990) explain how painful client images or the worker's own traumatic memories can repeatedly return as painful or frightening fragments. These take on the form of flashbacks, night-

mares or intrusive thoughts, a scenario comparable to a PTSD hallmark (McCann & Pearlman, 1990). The affected person can eventually adopt a very grim view of the world.

Other life demands. Life situations that demand attention can temporarily disrupt functioning (Figley, 2002a). Unexpected changes in routine/schedule and managing demanding responsibilities can add strain. These include financial difficulties, changes in social status and illness. We usually take these in our stride exasperatedly, as they are mostly ephemeral challenges that we adapt to. However, certain life events in combination with the factors expressed by the CFR model can induce STS. An unexpected event would hardly cause a stir in a prospering individual, but to the overextended person it can seem catastrophic, insurmountable or be the proverbial straw that breaks the camel's back. The additional life demands of a group of law students considerably elevated their distress compared to community norms and induced serious levels of depression and anxiety in more than half of them (Bergin & Pakenham, 2015). Also, a large percentage of trauma counselors and even larger percentage of study controls felt that life challenges had positive outcomes, a trend that was almost nonexistent for trauma exposed claims workers (Ludick, 2013). Their distinctively more negative appraisals of ordinary life events suggest that when optimistic, healthy cognitive schemata are sullied by distress, one cannot derive positive meaning from life or recognize and experience positivity (Christopher, 2004). Some authors have found STS to instill pessimism (Ludick, 2006; McCann & Pearlman, 1990). Others state that stress and anxiety cause selective attentiveness to negative stimuli, disregarding the positive (Mitte, 2008). Distress is augmented when a person's coping capabilities and resources are exceeded, which threatens their efficiency, health, well-being and heightens the likelihood of STS.

Compassion Fatigue Resilience Sector

This third and final sector refers to the salutogenic opposite of STS and the emotional hardiness reached by trauma exposed individuals through the positive pathways of the CFR model. This form of resilience offers adaptation and coping as well as resistance to STS that allows the trauma exposed person to develop into a confident, caring, competent worker and social being. CFR is reached when one's compassion core is honed and built, and results in an exquisite form of empathy that protects and invigorates (Harrison & Westwood, 2009). Kapoulitsas and Corcoran (2015) recently excavated four crucial factors in resilience building that resonates strongly with the CFR model. The first is unique work complexities, followed by social support, promotion of well-being and self-care and an appreciation that resilience building is a changing and complex process that happens within its own systemic context. The context that will promote and cultivate CFR is mapped by the CFR model. The building of CFR is largely dependent upon optimization and nurturance of the positive pathways of self-care, detachment, sense of satisfaction, and social support.

Self-care. Self-care is crucial and bears strong theoretical associations with posttraumatic growth and positive adjustment (Salston & Figley, 2003). Figley (2002b) has often extolled it to

hold tremendous salutogenic benefits and the ability to neutralize harmful energy from trauma-work. Self-care is defined as the learnt behavior of practices and activities initiated and performed by individuals to maintain health, life, and well-being (Nelson-McEvers, 1995). Kulkarni, Bell, Hartman, and Herman-Smith (2013) found that commitment and greater time invested in self-care is associated with lower levels of STS. Similarly, Newsome, Waldo, and Gruszka (2012) remarked that negative effects are amplified when self-care strategies are lacking.

Ludick (2013) found that trauma counselors, due to training and superior insight, participated far more in self-care than their claims worker counterparts, who also experienced significantly more negative outcomes. This suggests that additional positive avenues are especially important to untrained workers with fewer resources. Authors agree that a proactive stance toward secondary trauma is best (Clemans, 2004; Knight, 2013). Being proactive increases the likelihood of self-care in attempts to constantly normalize whatever problems may arise. When workers learn about secondary trauma they are often relieved that their feelings have a name and are normal, expected reactions to their work (Knight, 2013). This would be true especially for nonpractitioners who probably have very little knowledge about the impact of trauma exposure. Finally, Newsome et al. (2012, p. 299) suggest a larger degree of "self-compassion," kindness and understanding toward oneself instead of being harsh and self-critical. Oftentimes, those working with traumatized individuals have more compassion for others than they have for themselves.

Detachment. This second resilience building component is the ability to let go of client suffering (Figley, 2002a). Sonnentag and Bayer (2005) define psychological detachment as the off-job action of switching off mentally and not being occupied, physically or mentally, by work-related matters. They found detachment to positively correlate with well-being, positive mood and low fatigue. They also cite a myriad of empirical studies that found insufficient respite and recovery from work to impair physical and psychological health, with psychosomatic complaints and burnout as the most salient. Not everyone shares the same ability to detach or disengage, which is a skill honed by training, experience and ongoing self-care. With PTSD, there is often a difficulty to disengage from trauma stimulus at its core, which drives and maintains the disorder (Aupperle, Melrose, Stein, & Paulus, 2012). This inability to disengage often hinders attentiveness to family, friends, positive emotions and pleasurable activities, which in turn perpetuate emotional numbness and depression so often seen in the aftermath of trauma exposure.

Ludick (2013) found that workers who could effectively detach and leave client traumas behind, also exhibited the least negative effects. Figley (2002a) has long surmised that the ability to detach protects against the costs of caring. Also, guilt over their own good fortune in the face of client adversities often harangue trauma exposed workers. Held, Owens, Schumm, Chard, and Hansel (2011) investigated disengagement as a multidimensional construct that went beyond detachment from thoughts and feelings about stressors. They found that disengagement partially mediated trauma related guilt and perceived PTSD severity in U.S. military veterans. They argue that detaching

offers relief in the short-term but not in the long run, as disengagement can also act as denial or temporary self-distraction. This shows that trauma exposed workers need to process traumatic materials consciously and continuously to assimilate the events in guilt free, adaptive ways. Therefore, there needs to be balance between detachment from and reflection on client traumata. The positive pathways mapped by the CFR model propose avenues for conscious reversal of residual compassion stress.

Sense of satisfaction. The worker's sense of satisfaction with client service can further negate STS (Figley, 2002a). Conrad and Kellar-Guenther (2006) reported that a sense of fulfillment from helping others unequivocally mitigated CF in child protection workers. Ludick (2013) affirmed these protective effects as those workers who possessed the most compassion satisfaction generally exhibited significantly fewer negative outcomes. Burnett and Wahl (2015) similarly found compassion satisfaction to be highly ameliorative in trauma responders. They illustrated a clear connection between resiliency and compassion satisfaction. In the same vein, Slocum-Gori, Hemsworth, Chan, Carson, and Kazanjian (2013) found a significant inverse relationship between compassion satisfaction and STS in hospice palliative care workers, as did Ray, Wong, White, and Heaslip (2013) among front-line mental health care professionals. These convergent results highlight the salutogenic power of compassion satisfaction.

Social support. This fourth positive avenue wields preventative, ameliorative and resilience building power in trauma-work (Figley, 2002b). Eriksson, Vande Kemp, Gorsuch, Hoke, and Foy (2001) found that social support determined psychological adjustment in international relief personnel and VanDeusen and Way (2006) cite multiple studies that extol its protective power among therapists. Lérias and Byrne (2003) assert that social support greatly bolsters one's ability to deal with trauma exposure. It acts as a buffer, especially with higher doses of trauma exposure. Michie and Williams (2003) found insufficient social support to be key in poor psychological health and increased absenteeism in a diversity of workers. Boscarino, Figley, and Adams (2004) observed a similar increased risk for negative outcomes in trauma exposed mental health professionals where social support is lacking.

Harrison and Westwood (2009) reported qualitative data whereby therapists explained how social support and a sense of connectedness fulfilled, sustained and shielded them from trauma exposure exhaustion. More recently, Michalopoulos and Aparicio (2012) found personal connections to others to protect social workers in the same way. In 2013, Ludick found that contact with supportive and caring people were especially important in preserving healthy, positive cognitive schemata. Not engaging with caring people on a regular basis leaves trauma exposed workers with the many testimonies from clients about the callousness and cruelty of humankind. Not having nurturing relationships to prove the contrary, cognitive schemata are mainly based on negative experiences. Finally, to embrace and understand the role of each of the CFR model's components and to fully comprehend the resilience building process, measurement of the model variables is required.

Measuring the 13 Variables

When the 13 CFR model variables are measured simultaneously, it identifies secondary traumatic injury, as well as the net amounts of STS and CFR. Ludick (2013) provides an example of how these variables were measured including STS by (a) the STS Scale (Bride et al., 2003) and (b) The TSI Belief Scale, which measures the levels of cognitive negativity (Pearlman, 1996). Empathy multidimensionality was measured by the Interpersonal Reactivity Index (Davis, 1980). The Professional Quality of Life Scale (4th edition, revised) Compassion Satisfaction subscale noted the levels of compassion satisfaction (Stamm, 2005) whereas the SSQ6 (Social Support Questionnaire 6) short form measured levels of perceived social support (Sarason, Sarason, Shearin, & Pierce, 1987). Ludick collected qualitative data on the remainder of the model variables. Troxell (2008) similarly gauged certain trauma variables in 911 telecommunicators by means of qualitative thematic content analysis. In cases such as these, qualitative data offers targeted information and specific insights that unearth valuable, unique information and opens new lines of research.

However, Table 1 makes recommendations of reliable, validated measures that could be utilized instead to obtain quantitative measures of the remaining model components. These instruments are established options that each offers a window into the different variables, that can each flag difficulties and unresolved issues that may interfere with daily functioning or complicate the worker's responses to client traumas.

Conclusions and Recommendations

As can be seen, there are numerous evidence based protective factors against the perils of trauma exposure. Approaches as simple, viable and inexpensive as the ones extolled by the CFR model in Figure 1 simply cannot be left unexploited. The model offers educational and ameliorative solutions for a diversity of trauma exposed workers that experience negative outcomes or want to take charge of their well-being. The dotted lines denote the positive avenues toward CFR that needs ceaseless cultivation.

These steps could do more than improve secondary trauma as they are all-round healthy practices with numerous benefits. Reducing one form of stress, such as STS, will undoubtedly improve any other form of stress the person might be under. Increasing job satisfaction, self-care, effective detachment from work-stress and surrounding oneself with caring supports are sagacious, no matter what one's profession. Moreover, employers stand to gain greatly from more efficient, healthy, happy workers. Ultimately, all trauma exposed workers should be educated responsibly to recognize the onset of undesirable outcomes without perpetuating stress over negative effects (Elwood et al., 2011). Prospective appointees should be screened effectively and placed in the best possible position to decide whether they want to enter into the challenges of working with traumatized clients. Employers could endorse self-care and health-promoting behaviors by providing motivating incentives. In conclusion, ameliorative actions should be modest, before resorting to costly formal programs/services. Amelioration

Table 1

Measuring Detachment, Self-Care, Trauma History, Trauma Exposure, and Difficult Life Demands

Model component	Measures	Description	Exemplifying/Validating studies
Detachment	Experiences Questionnaire (Fresco et al., 2007)	Measures the ability to detach from/disidentify with thought content and feelings	Fresco et al., 2007; Soler et al., 2014
Self-care	Anxious Self-Statements Questionnaire "Letting Go" Revised Version (Kendall & Hollon, 1989)	Gauges the frequency/capability to decenter from anxious self-talk and thoughts	Hartnett & Carr, 2013; Oei & Chaw, 2015
	Self-Care Checklist (Saakvitne & Pearlman, 1996)	A highly useful self-report measure for guiding and measuring self-care	
Trauma history	Denyes Self-Care Practice Instrument (Denyes, 1990)	Measures self-care behaviors	Andrews, Richard, & Aroian, 2009
	Stressful Life Events Screening Questionnaire (Goodman, Corcoran, Turner, Yuan, & Green, 1998)	Assesses lifetime exposure to traumatic events	Goodman et al., 1998; Green, Chung, Daroowalla, Kaltman, & DeBenedictis, 2006
	Trauma History Questionnaire (Green, 1996)	Measures direct trauma exposure	Hooper, Stockton, Krupnick, & Green, 2011
	Life Events Checklist (Gray, Litz, Hsu, & Lombardo, 2004)	Measures the level of exposure to potentially traumatic events	Gray et al., 2004
Trauma exposure	The Trauma History Screen (Carlson et al. 2011)	Offers a succinct and effective measure of past traumas	Carlson et al., 2011
	Level of Exposure Checklist (MacRitchie, 2006)	Gauges the frequency of trauma cases and is based on the Crime Information Analysis Centre classification system	Harinarain, 2007
Difficult life demands	Social Readjustment Rating Scale (Holmes & Rahe, 1967)	Developed for identifying antecedents to stress-related diseases, but has the power to reveal what is burdening trauma exposed workers beyond the vocational context	More than 40 years after its creation, it is still the measurement tool chosen by researchers most frequently (Scully, Tosi, & Banning, 2000)
	Daily Hassles Scale (Delongis, Folkman, & Lazarus, 1988)	Focuses on everyday hassles that add strain and gauges their impact on health and well-being	Delongis et al., 1988; Holm & Holroyd, 1992

need not be expensive or enigmatic as often the simplest strategies will suffice (Salston & Figley, 2003). STS is preventable, highly responsive to treatment and often needs very little to be reversed (Gentry, 2002).

Future Research

Pretest posttest or longitudinal designs serve most empirical studies best. These should be employed more to enable unequivocal conclusions about secondary trauma. Mixed method designs can offer a quick read from key community members who are aware of the truisms or axioms about “these people.” Eventually this can take the form of videotaped interviews to record not only what was said, but also what was unsaid. The quantification of these interviews is critical in gathering input from the larger community and surrounding ones. They will be surveyed about both the truth and the relative importance of the axioms identified and confirmed by interviewees. The CFR model presented here could serve as a road map for empirical analysis of data gathered in various communities—be they tribes of people or locations—and the methods and measures appropriately adapted. A community of scholars in Israel (Figley, 2013), a community of Terrebonne Parish in the United States (Figley, 2011), a community of U.S. Army combat medics (Cabrera, Pitt, Figley, & Chapman, 2010), and a community of New Orleans, Louisiana, musicians who returned after Katrina (Morris, 2013). In the latter example, James Morris, for his doctoral dissertation, interviewed 10 musicians recommended by fellow musicians. He and his research team identified 64 truisms that were verified by his interviewees. Shortly, there will be a survey of all 274 musicians in New Orleans regarding their assessment of these 64 trauma resilience truisms. The results of this work will enable social service agencies to focus on fostering the attributes and attitudes represented in truisms. Another trauma resilience study generated 83 truisms. The top three, in order, were (a) in stressful/traumatic situations, a connection to others is important; (b) a strong sense of purpose can have a positive impact on resilience; and (c) a large portion of society is exposed to terror-related stress and trauma, but some sections of the population are more at risk than others for developing mental health problems. These truisms seem universal and are automatically added to community surveys to confirm their importance.

The CFR model suggests that social support, compassion satisfaction, and the kind of spontaneous support that gathers around us naturally in times of need predict CFR. Future research can test this assertion. The studies that helped to build and verify this model all pave the way to understanding resilience, especially CFR. The first step in testing and being guided by the model in any community not yet studied, is to first calibrate the measures of the dozen variables to fit the culture. For example, the question: What is a sense of social support in one community versus another? The second step is designing programs that facilitate the development of CFR in trauma exposed workers; those who are suffering and needy. Enabling trauma workers to thrive in the face of emotionally toxic stressors is the price of social services. The cost of caring (Figley, 1995) must be contained. Future research to be respectful and respectable must study communities not yet studied; must not make assumptions about the truth about these communities. Such research efforts are part of a

larger goal in studying trauma through a lens that is both global and diverse (Schnurr, 2006).

References

- Abendroth, M., & Figley, C. R. (2014). Vicarious traumatization and empathic discernment: Maintaining healthy boundaries. In D. Murphy, S. Joseph, & B. Harris (Eds.), *Trauma, recovery, and the therapeutic relationship: Putting the therapeutic relationship at the heart of trauma therapy* (pp. 111–125). London, United Kingdom: Taylor & Francis.
- Adams, R. E., Boscarino, J. A., & Figley, C. R. (2006). Compassion fatigue and psychological distress among social workers: A validation study. *American Journal of Orthopsychiatry*, 76, 103–108. <http://dx.doi.org/10.1037/0002-9432.76.1.103>
- Adams, S., & Riggs, S. A. (2008). An exploratory study of vicarious trauma among therapist trainees. *Training and Education in Professional Psychology*, 2, 26–34. <http://dx.doi.org/10.1037/1931-3918.2.1.26>
- Airagnes, G., Consoli, S. M., De Morlhon, O., Galliot, A. M., Lemogne, C., & Jaury, P. (2014). Appropriate training based on Balint groups can improve the empathic abilities of medical students: A preliminary study. *Journal of Psychosomatic Research*, 76, 426–429. <http://dx.doi.org/10.1016/j.jpsychores.2014.03.005>
- Anderson, J. (2004). Vicarious trauma and its impact on advocates, therapists and friends. *WCSAP Research and Advocacy Digest*, 6, 1–16.
- Andrews, D. R., Richard, D., & Aroian, K. (2009). Factor structure of the Denyes Self-Care Practice Instrument (DSCPI-90). *Western Journal of Nursing Research*, 31, 799–811. <http://dx.doi.org/10.1177/0193945909337726>
- Argentero, P., & Setti, I. (2011). Engagement and vicarious traumatization in rescue workers. *International Archives of Occupational and Environmental Health*, 84, 67–75. <http://dx.doi.org/10.1007/s00420-010-0601-8>
- Ashraf, S. (2004). *Development and validation of the Emotional Empathy Scale (EES) and the dispositional predictor and potential outcomes of emotional empathy* (Unpublished doctoral dissertation). Quaid-i-Azam University of Islamabad, Pakistan.
- Aupperle, R. L., Melrose, A. J., Stein, M. B., & Paulus, M. P. (2012). Executive function and PTSD: Disengaging from trauma. *Neuropharmacology*, 62, 686–694. <http://dx.doi.org/10.1016/j.neuropharm.2011.02.008>
- Baird, K., & Kracen, A. C. (2006). Vicarious traumatization and secondary traumatic stress: A research synthesis. *Counselling Psychology Quarterly*, 19, 181–188. <http://dx.doi.org/10.1080/09515070600811899>
- Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47, 644–675. <http://dx.doi.org/10.2307/3094912>
- Bell, H., Kulkarni, S., & Dalton, L. (2003). Organizational prevention of vicarious traumatization. *Families in Society*, 84, 463–470. <http://dx.doi.org/10.1606/1044-3894.131>
- Bergin, A., & Pakenham, K. (2015). Law student stress: Relationship between academic demands, social isolation, career pressure, study/life imbalance and adjustment outcomes in law students. *Psychiatry, Psychology and Law*, 22, 338–406. <http://dx.doi.org/10.1080/13218719.2014.960026>
- Boscarino, J. A., Figley, C. R., & Adams, R. E. (2004). Compassion fatigue following the September 11 terrorist attacks: A study of secondary trauma among New York City social workers. *International Journal of Emergency Mental Health*, 6, 57–66.
- Bride, B. E., Robinson, M. R., Yegidis, B., & Figley, C. R. (2003). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice*, 14, 27–35. <http://dx.doi.org/10.1177/1049731503254106>
- Burnett, H. J., & Wahl, K. (2015). The compassion fatigue resilience connection: A survey of resilience, compassion fatigue, burnout, and compassion satisfaction among trauma responders. *International Jour-*

- nal of Emergency Mental Health and Human Resilience*, 17, 318–326. <http://dx.doi.org/10.4172/1522-4821.1000165>
- Cabrera, D., Pitt, B., Figley, C. R., & Chapman, P. (2010, June 3). *The Soldier Medic Mettle Study: Initial findings*. Poster presented at the Force Protection Conference, Washington, DC.
- Carlson, E. B., Smith, S. R., Palmieri, P. A., Dalenberg, C., Ruzek, J. I., Kimmerling, R., . . . Spain, D. A. (2011). Development and validation of a brief self-report measure of trauma exposure: The Trauma History Screen. *Psychological Assessment*, 23, 463–477. <http://dx.doi.org/10.1037/a0022294>
- Centre for the Study of Violence and Reconciliation. (2007). *The violent nature of crime in South Africa*. A concept paper for the Justice, Crime Prevention and Security Cluster, South Africa.
- Centre for the Study of Violence and Reconciliation. (2009). *Why does South Africa have such high rates of violent crime?* Supplementary report submitted to the Minister of Safety and Security, South Africa.
- Christopher, M. (2004). A broader view of trauma: A biopsychosocial-evolutionary view of the role of the traumatic stress response in the emergence of pathology and/or growth. *Clinical Psychology Review*, 24, 75–98. <http://dx.doi.org/10.1016/j.cpr.2003.12.003>
- Cieslak, R., Shoji, K., Luszczynska, A., Taylor, S., Rogala, A., & Benight, C. C. (2013). Secondary trauma self-efficacy: Concept and its measurement. *Psychological Assessment*, 25, 917–928. <http://dx.doi.org/10.1037/a0032687>
- Clemans, S. E. (2004). Recognizing vicarious traumatization: A single session group model for trauma workers. *Social Work with Groups*, 27, 55–74.
- Coles, J., Astbury, J., Dartnall, E., & Limjerwala, S. (2014). A qualitative exploration of researcher trauma and researchers' responses to investigating sexual violence. *Violence Against Women*, 20, 95–117. <http://dx.doi.org/10.1177/1077801213520578>
- Conrad, D., & Kellar-Guenther, Y. (2006). Compassion fatigue, burnout, and compassion satisfaction among Colorado child protection workers. *Child Abuse & Neglect*, 30, 1071–1080. <http://dx.doi.org/10.1016/j.chiabu.2006.03.009>
- Covey, T. J., Shucard, J. L., Violanti, J. M., Lee, J., & Shucard, D. W. (2013). The effects of exposure to traumatic stressors on inhibitory control in police officers: A dense electrode array study using a go/nogo continuous performance task. *International Journal of Psychophysiology*, 87, 363–375. <http://dx.doi.org/10.1016/j.ijpsycho.2013.03.009>
- Craig, C. D., & Sprang, G. (2010). Compassion satisfaction, compassion fatigue, and burnout in a national sample of trauma treatment therapists. *Anxiety, Stress, and Coping*, 23, 319–339. <http://dx.doi.org/10.1080/10615800903085818>
- Damasio, A. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York, NY: Putnam.
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalogue of Selected Documents in Psychology*, 10, 85–104.
- Decety, J., Lewis, K. L., & Cowell, J. M. (2015). Specific electrophysiological components disentangle affective sharing and empathic concern in psychopathy. *Journal of Neurophysiology*, 114, 493–504. <http://dx.doi.org/10.1152/jn.00253.2015>
- DeLongis, A., Folkman, S., & Lazarus, R. S. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. *Journal of Personality and Social Psychology*, 54, 486–495. <http://dx.doi.org/10.1037/0022-3514.54.3.486>
- Denyes, M. J. (1990). *Denyes Self-Care Practice Instrument*. Detroit, MI: Wayne State University.
- Dewi, F. D., Sudjana, G., & Oesman, Y. M. (2011). Patient satisfaction analysis on service quality of dental health care based on empathy and responsiveness. *Dental Research Journal*, 8, 172–177. <http://dx.doi.org/10.4103/1735-3327.86032>
- Dunkley, J., & Whelan, T. A. (2006). Vicarious traumatization: Current status and future directions. *British Journal of Guidance & Counselling*, 34, 107–116. <http://dx.doi.org/10.1080/03069880500483166>
- Eagle, G. T., Haynes, H., & Long, C. (2007). Eyes wide open: Facilitating student therapists' experiences with the unfamiliar. *European Journal of Psychotherapy and Counselling*, 9, 133–146. <http://dx.doi.org/10.1080/13642530701363270>
- Elwood, L. S., Mott, J., Lohr, J. M., & Galovski, T. E. (2011). Secondary trauma symptoms in clinicians: A critical review of the construct, specificity, and implications for trauma-focused treatment. *Clinical Psychology Review*, 31, 25–36. <http://dx.doi.org/10.1016/j.cpr.2010.09.004>
- Eriksson, C., Vande Kemp, H., Gorsuch, R., Hoke, S., & Foy, D. (2001). Trauma exposure and PTSD symptoms in international relief and development personnel. *Journal of Traumatic Stress*, 13, 205–211. <http://dx.doi.org/10.1023/A:1007804119319>
- Falsetti, S. A., Resick, P. A., & Davis, J. L. (2003). Changes in religious beliefs following trauma. *Journal of Traumatic Stress*, 16, 391–398. <http://dx.doi.org/10.1023/A:1024422220163>
- Figley, C. (1982, February). *Traumatization and comfort: Close relationships may be hazardous to your health*. Paper presented at Families and Close Relationships: Individuals in Social Interaction, Texas Tech University, Lubbock, TX.
- Figley, C. R. (1983). Catastrophes: An overview of family reactions. In C. R. Figley (Ed.), *Stress and the family, Volume II: Coping with Catastrophe* (pp. 3–20). New York, NY: Brunner/Mazel.
- Figley, C. R. (1995). Compassion fatigue as secondary traumatic stress disorder: An overview. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 1–20). New York, NY: Brunner/Mazel Publishers.
- Figley, C. R. (2002a). Compassion fatigue: Psychotherapists' chronic lack of self-care. *Journal of Clinical Psychology*, 58, 1433–1441. <http://dx.doi.org/10.1002/jclp.10090>
- Figley, C. R. (Ed.). (2002b). *Treating compassion fatigue*. New York, NY: Brunner-Routledge.
- Figley, C. R. (2003). *Compassion fatigue: An introduction*. Traumatology Institute at Tulane University (New Orleans). Retrieved from <https://sites.google.com/site/charlesfigley/Home/traumatologyinstitute/research/cf>
- Figley, C. R. (2011, March 14). *Parish perspectives: Initial findings of the Oxfam-Tulane University Disaster Resilience Study*. Paper presented at the Groves Conference on Marriage and the Family, New Orleans, LA.
- Figley, C. R. (2013, December 5). *Traumatic psychological stress injuries, reactions, and management*. Paper presented at the Israeli–New Orleans Collaboration on Emergency Medicine, Session on Traumatic Stress Injury and Resilience, New Orleans, LA.
- Figley, C. R., Huggard, P., & Rees, C. (Eds.). (2013). *First do no self-harm: Understanding and promoting physician stress resilience*. New York, NY: Oxford University Press. <http://dx.doi.org/10.1093/acprof:oso/9780195383263.001.0001>
- Figley, C. R., & Ludick, M. (in press). *Secondary traumatization and compassion fatigue*. Manuscript submitted for publication.
- Figley, C. R., & Roop, R. G. (2006). *Compassion fatigue in the animal care community*. Washington, DC: Humane Society Press.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319. <http://dx.doi.org/10.1037/1089-2680.2.3.300>
- Fresco, D. M., Moore, M. T., van Dulmen, M. H. M., Segal, Z. V., Ma, S. H., Teasdale, J. D., & Williams, J. M. G. (2007). Initial psychometric properties of the experiences questionnaire: Validation of a self-report measure of decentering. *Behavior Therapy*, 38, 234–246. <http://dx.doi.org/10.1016/j.beth.2006.08.003>

- Fucci, C. M. (2008). *The subjective experience of vicarious trauma for psychology graduate students* (Unpublished doctoral dissertation). Massachusetts School of Professional Psychology, Boston, MA.
- Gentry, J. E. (2002). Compassion fatigue: A crucible of transformation. *Journal of Trauma Practice*, 1, 37–61. http://dx.doi.org/10.1300/J189v01n03_03
- Goodman, L. A., Corcoran, C., Turner, K., Yuan, N., & Green, B. L. (1998). Assessing traumatic event exposure: General issues and preliminary findings for the Stressful Life Events Screening Questionnaire. *Journal of Traumatic Stress*, 11, 521–542. <http://dx.doi.org/10.1023/A:1024456713321>
- Gray, M. J., Litz, B. T., Hsu, J. L., & Lombardo, T. W. (2004). Psychometric properties of the life events checklist. *Assessment*, 11, 330–341. <http://dx.doi.org/10.1177/1073191104269954>
- Green, B. L. (1996). Trauma History Questionnaire (Self-report). In B. H. Stamm (Ed.), *Measurement of stress, trauma, and adaptation* (pp. 366–368). Brooklandville, MD: Sidran Press.
- Green, B. L., Chung, J. Y., Daroowalla, A., Kaltman, S., & Debenedictis, C. (2006). Evaluating the cultural validity of the stressful life events screening questionnaire. *Violence Against Women*, 12, 1191–1213. <http://dx.doi.org/10.1177/1077801206294534>
- Halpern, J., Maunder, R. G., Schwartz, B., & Gurevich, M. (2012). Identifying, describing, and expressing emotions after critical incidents in paramedics. *Journal of Traumatic Stress*, 25, 111–114. <http://dx.doi.org/10.1002/jts.21662>
- Harinarain, E. (2007). *Compassion fatigue, level of exposure, empathy and affect intensity amongst employee assistance programme counsellors* (Unpublished master's thesis). University of the Witwatersrand, Johannesburg, South Africa.
- Harrison, R. L., & Westwood, M. J. (2009). Preventing vicarious traumatization of mental health therapists: Identifying protective practices. *Psychotherapy: Theory, Research, & Practice*, 46, 203–219. <http://dx.doi.org/10.1037/a0016081>
- Hartnett, D., & Carr, A. (2013). Leaves on a stream: The effectiveness of a mindfulness-based exercise on the frequency, and difficulty in “letting go” of anxious self-statements. *Journal of Articles in Support of the Null Hypothesis*, 10, 41–51.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1993). *Emotional contagion*. New York, NY: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9781139174138>
- Held, P., Owens, G. P., Schumm, J. A., Chard, K. M., & Hansel, J. E. (2011). Disengagement coping as a mediator between trauma-related guilt and PTSD severity. *Journal of Traumatic Stress*, 24, 708–715. <http://dx.doi.org/10.1002/jts.20689>
- Holm, J. E., & Holroyd, K. A. (1992). The Daily Hassles Scale (revised): Does it measure stress or symptoms? *Behavioral Assessment*, 14, 465–482.
- Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research*, 11, 213–218. [http://dx.doi.org/10.1016/0022-3999\(67\)90010-4](http://dx.doi.org/10.1016/0022-3999(67)90010-4)
- Hooper, L. M., Stockton, P., Krupnick, J. L., & Green, B. L. (2011). Development, use and psychometric properties of the Trauma History Questionnaire. *Journal of Loss and Trauma*, 16, 258–283. <http://dx.doi.org/10.1080/15325024.2011.572035>
- Hope, N. L. (2006). *When caring hurts: The significance of personal meaning for well-being in the presence of secondary traumatic stress* (Unpublished master's thesis). Trinity Western University, Langley, British Columbia, Canada.
- Hyman, O. (2004). Perceived social support and secondary traumatic stress symptoms in emergency responders. *Journal of Traumatic Stress*, 17, 149–156. <http://dx.doi.org/10.1023/B:JOTS.0000022621.27014.0e>
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33, 14–26. <http://dx.doi.org/10.3102/0013189X033007014>
- Jordan, K. (2001). Working with trauma survivors with PTSD: An overview of assessment, diagnosis and treatment. *Counselling and Human Development*, 34, 1–11.
- Josias, B. A. (2005). *The relationship between job satisfaction and absenteeism in a selected field services section within an electricity utility in the Western Cape* (Unpublished master's thesis). University of the Western Cape, South Africa.
- Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine*, 4, 1–39. <http://dx.doi.org/10.1007/BF00844845>
- Kapoulitsas, M., & Corcoran, T. (2015). Compassion fatigue and resilience: A qualitative analysis of social work practice. *Qualitative Social Work*, 14, 86–101.
- Keats, P. A., & Buchanan, M. J. (2012). Covering trauma in Canadian journalism: Exploring the challenges. *Traumatology*, 19, 210–222. <http://dx.doi.org/10.1177/1534765612466152>
- Kendall, P. C., & Hollon, S. D. (1989). Anxious self-talk: Development of the Anxious Self-Statements Questionnaire (ASSQ). *Cognitive Therapy and Research*, 13, 81–93. <http://dx.doi.org/10.1007/BF01178491>
- Kiser, L. J., Nurse, W., Lucksted, A., & Collins, K. S. (2008). Understanding the impact of trauma on family life from the viewpoint of female caregivers living in urban poverty. *Traumatology*, 14, 77–90. <http://dx.doi.org/10.1177/1534765608320329>
- Knight, C. (2013). Indirect trauma: Implications for self-care, supervision, the organization, and the academic institution. *The Clinical Supervisor*, 32, 224–243.
- Kulkarni, S., Bell, C. H., Hartman, J. L., & Herman-Smith, R. L. (2013). Exploring individual and organizational factors contributing to compassion satisfaction, secondary traumatic stress and burnout in domestic violence service providers. *Journal of the Society for Social Work and Research*, 4, 114–130. <http://dx.doi.org/10.5243/jsswr.2013.8>
- Lamothe, M., Boujut, E., Zenasni, F., & Sultan, S. (2014). To be or not to be empathic: The combined role of empathic concern and perspective taking in understanding burnout in general practice. *BMC Family Practice*, 15, 15. <http://dx.doi.org/10.1186/1471-2296-15-15>
- Lerias, D., & Byrne, M. K. (2003). Vicarious traumatization: Symptoms and predictors. *Stress and Health*, 19, 129–138. <http://dx.doi.org/10.1002/smi.969>
- Levin, A. P., & Greisberg, S. (2003). *Vicarious trauma in attorneys*. Paper presented at the 2nd Annual Pace Women's Justice Center Domestic Violence Think Tank, Pace Law School, White Plains, NY.
- Linley, P. A., & Joseph, S. (2004). *Positive and negative vicarious reactions to trauma*. Retrieved from http://www.traumatologyacademy.org/journal/documents/positiveandnegativevicarious_blind.pdf
- Loke, S., Taiwo, A. A., Salim, H. M., & Downe, A. G. (2011). Service quality and customer satisfaction in a telecommunication service provider. *International Conference on Financial Management and Economics IPEDR*, 11, 24–29.
- Lucas, L. (2008). The pain of attachment: “You have to put a little wedge in there”: How vicarious trauma affects child/teacher attachment. *Childhood Education*, 82, 85–91.
- Ludick, M. (2006). *Indirect exposure to traumatic materials: Experiences of claims workers in the short-term insurance industry* (Unpublished master's thesis). University of the Witwatersrand, Johannesburg, South Africa.
- Ludick, M. (2013). *Analyses of experiences of vicarious traumatization in short-term insurance claims workers* (Unpublished doctoral dissertation). University of the Witwatersrand, Johannesburg, South Africa.
- MacDonald, C., & Mikes-Liu, K. (2009). Is there a place for biopsychosocial formulation in a systemic Practice? *The Australian and New Zealand Journal of Family Therapy*, 30, 269–283. <http://dx.doi.org/10.1375/anft.30.4.269>

- MacRitchie, V. J. (2006). *Secondary traumatic stress, level of exposure, empathy and social support in trauma workers* (Unpublished master's thesis). University of the Witwatersrand, Johannesburg, South Africa.
- Marriage, S., & Marriage, K. (2005). Too many sad stories: Clinician stress and coping. *The Canadian Child and Adolescent Psychiatry Review*, 14, 114–117.
- McCalla, R., & Ezingard, J. N. (2005). Examining the linkage between technology use, emotional expression and service quality perceptions: The data collection pool. *ECIS 2005 Proceedings*, 118.
- McCann, L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, 3, 131–149. <http://dx.doi.org/10.1007/BF00975140>
- McClenney, M. A. (1992). *A study of the relationship between absenteeism and job satisfaction, certain characteristics, and situational factors for employees in a public agency* (Unpublished master's thesis). South-West Texas State University, San Marcos, United States of America.
- Michalopoulos, L. M., & Aparicio, E. (2012). Vicarious trauma in social workers: The role of trauma history, social support and years of experience. *Journal of Aggression, Maltreatment & Trauma*, 21, 646–664. <http://dx.doi.org/10.1080/10926771.2012.689422>
- Michie, S., & Williams, S. (2003). Reducing work related psychological ill health and sickness absence: A systematic literature review. *Occupational and Environmental Medicine*, 60, 3–9. <http://dx.doi.org/10.1136/oem.60.1.3>
- Milenković, T., Simonović, M., Stanković, M., & Samardžić, L. (2013). Disturbed family functioning in patients suffering from posttraumatic stress disorder. *Medicinski Glasnik*, 10, 120–125.
- Mitte, K. (2008). Memory bias for threatening information in anxiety and anxiety disorders: A meta-analytic review. *Psychological Bulletin*, 134, 886–911. <http://dx.doi.org/10.1037/a0013343>
- Morris, J. (2013). *An exploration of musician resilience in New Orleans following Hurricane Katrina* (Unpublished doctoral dissertation). Tulane School of Social Work, New Orleans, LA.
- Nelson-Gardell, D., & Harris, D. (2003). Childhood abuse history, secondary traumatic stress, and child welfare workers. *Child Welfare*, 82, 5–26.
- Nelson-McEvers, J. A. (1995). *Measurement of self-care agency in a noninstitutionalized elderly population* (Unpublished master's thesis). Grand Valley State University, Allendale, Michigan, United States of America.
- Newsome, S., Waldo, M., & Gruszka, C. (2012). Mindfulness group work: Preventing stress and increasing self-compassion among helping professionals in training. *The Journal of Specialists in Group Work*, 37, 297–311.
- Norman, S. B., Means-Christensen, A. J., Craske, M. G., Sherbourne, C. D., Roy-Byrne, P. P., & Stein, M. B. (2006). Associations between psychological trauma and physical illness in primary care. *Journal of Traumatic Stress*, 19, 461–470. <http://dx.doi.org/10.1002/jts.20129>
- Oei, T. P. S., & Chaw, Y. F. (2015). Validation of the Anxious Self-Statements Questionnaire (ASSQ) in Asia. *International Journal of Mental Health and Addiction*, 13, 402–412. <http://dx.doi.org/10.1007/s11469-014-9534-x>
- Omdahl, B. L., & O'Donnell, C. (1999). Emotional contagion, empathic concern and communicative responsiveness as variables affecting nurses' stress and occupational commitment. *Journal of Advanced Nursing*, 29, 1351–1359. <http://dx.doi.org/10.1046/j.1365-2648.1999.01021.x>
- Ortlepp, K., & Friedman, M. (2002). Prevalence and correlates of traumatic stress in workplace lay trauma counsellors. *Journal of Traumatic Stress*, 15, 213–222.
- Pearlman, L. A. (1996). Psychometric review of TSI Belief Scale, Revision L. In B. H. Stamm (Ed.), *Measurement of stress, trauma, and adaptation* (pp. 415–417). Brooklandville, MD: Sidran Press.
- Radey, M., & Figley, C. R. (2007). The social psychology of compassion. *Clinical Social Work Journal*, 35, 207–214. <http://dx.doi.org/10.1007/s10615-007-0087-3>
- Ray, S. L., Wong, C. I., White, D., & Heaslip, K. (2013). Compassion satisfaction, compassion fatigue, work life conditions, and burnout among frontline mental health care professionals. *Traumatology*, 19, 255–267. <http://dx.doi.org/10.1177/1534765612471144>
- Regehr, C., Goldberg, G., & Hughes, J. (2002). Exposure to human tragedy, empathy, and trauma in ambulance paramedics. *American Journal of Orthopsychiatry*, 72, 505–513. <http://dx.doi.org/10.1037/0002-9432.72.4.505>
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negative dominance and contagion. *Personality and Social Psychology Review*, 5, 296–320. http://dx.doi.org/10.1207/S15327957PSPR0504_2
- Saakvitne, K., & Pearlman, L. A. (1996). *Transforming the pain: A workbook on vicarious traumatization*. New York, NY: Norton.
- Saakvitne, K. W., Tennen, H., & Affleck, G. (1998). Exploring thriving in the context of clinical trauma theory: Constructivist self-development theory. *Journal of Social Issues*, 54, 279–299. <http://dx.doi.org/10.1111/j.1540-4560.1998.tb01219.x>
- Sabin-Farrell, R., & Turpin, G. (2003). Vicarious traumatization: Implications for the mental health of health workers? *Clinical Psychology Review*, 23, 449–480. [http://dx.doi.org/10.1016/S0272-7358\(03\)00030-8](http://dx.doi.org/10.1016/S0272-7358(03)00030-8)
- Salston, M., & Figley, C. R. (2003). Secondary traumatic stress effects of working with survivors of criminal victimization. *Journal of Traumatic Stress*, 16, 167–174. <http://dx.doi.org/10.1023/A:1022899207206>
- SAPS Strategic management. (2013). *South African Police Service: An analysis of the national crime statistics 2012/2013*. Retrieved from http://www.saps.gov.za/resource_centre/publications/statistics/crimestats/2013/downloads/crime_stats_analysis.pdf
- Sarason, I. G., Sarason, B. R., Shearin, E. N., & Pierce, G. R. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, 4, 497–510. <http://dx.doi.org/10.1177/0265407587044007>
- Schnurr, P. (2006). Editorial: Looking towards the future of traumatic stress studies. *Journal of Traumatic Stress*, 19, 1–3. <http://dx.doi.org/10.1002/jts.20103>
- Scully, J. A., Tosi, H., & Banning, K. (2000). Life Event Checklist: Revisiting the Social Readjustment Scale after 30 years. *Educational and Psychological Measurement*, 60, 864–876. <http://dx.doi.org/10.1177/00131640021970952>
- Sexton, L. (1999). Vicarious traumatization of counsellors and effects on their workplaces. *British Journal of Guidance*, 27, 393–403. <http://dx.doi.org/10.1080/03069889908256279>
- Slocum-Gori, S., Hemsworth, D., Chan, W. W., Carson, A., & Kazanjian, A. (2013). Understanding Compassion Satisfaction, Compassion Fatigue and Burnout: A survey of the hospice palliative care workforce. *Palliative Medicine*, 27, 172–178.
- Soler, J., Franquesa, A., Feliu-Soler, A., Cebolla, A., García-Campayo, J., Tejedor, R., . . . Portella, M. J. (2014). Assessing decentering: Validation, psychometric properties, and clinical usefulness of the Experiences Questionnaire in a Spanish sample. *Behavior Therapy*, 45, 863–871. <http://dx.doi.org/10.1016/j.beth.2014.05.004>
- Sonnentag, S., & Bayer, U. (2005). Switching off mentally: Predictors and consequences of psychological detachment from work during off-job time. *Journal of Occupational Health Psychology*, 10, 393–414.
- Stamm, B. H. (2005). *The Professional Quality of Life Scale: Compassion satisfaction, burnout and compassion fatigue/secondary trauma scales*. Retrieved from <http://www.compassionfatigue.org/pages/ProQOLManualOct05.pdf>

- Stebnicki, M. A. (2007). Empathy fatigue: Healing the mind, body, and spirit of professional counselors. *American Journal of Psychiatric Rehabilitation, 10*, 317–338. <http://dx.doi.org/10.1080/15487760701680570>
- Steed, L. G., & Downing, R. (1998). Vicarious traumatisation amongst psychologists and professional counsellors working in the field of sexual abuse/assault. *Australasian Journal of Disaster and Trauma Studies, 2*, 1–9.
- Sundheim, D. (2013, August 15). Good leaders get emotional. *Harvard Business Review*. Retrieved from <https://hbr.org/2013/08-good-leaders-get-emotional>
- Temitope, K. (2014). *Secondary traumatic stress, burnout and the role of resilience in New Zealand counsellors* (Unpublished master's thesis). Massey University, Palmerston North, New Zealand.
- Troxell, R. M. (2008). *Indirect exposure to the trauma of others: The experiences of 9-1-1 telecommunicators* (Unpublished doctoral dissertation). University of Illinois, Chicago, IL.
- Van Deusen, K. M., & Way, I. (2006). Vicarious trauma: An exploratory study of the impact of providing sexual abuse treatment on clinicians' trust and intimacy. *Journal of Child Sexual Abuse, 15*, 69–84.

Received October 14, 2015

Revision received May 17, 2016

Accepted August 8, 2016 ■