

Nonhuman-Animal Care Compassion Fatigue: Training as Treatment

Michael G. Rank, Tracy L. Zapanick, and J. Eric Gentry

Using an exploratory design, this three-phased research study investigated the effectiveness of a manualized nonhuman-animal care compassion fatigue training module on the compassion fatigue symptoms of volunteer participants as measured by three separate instruments. A total of fifty-seven nonhuman-animal care professionals (NACP) attended three trainings. The results indicate that the training-as-treatment intervention had a statistically significant effect upon the negative symptoms of the nonhuman-animal care professionals who were participants of this study, including trait anxiety. Data analysis indicated an inverse relationship among working directly with nonhuman animals and the variables of age and working directly with the public. The mean scores for the Pro-QOL burnout and trauma subscales and the State-Trait Anxiety Inventory subscales decreased, all indicating improvement. The mean burnout scores were unchanged, compassion satisfaction scores increased, and the traumatic stress scores decreased. The results indicated that all mean scores were statistically significant and reflected the same directional changes.

Keywords: *compassion fatigue, training as treatment, nonhuman-animal care*

Introduction

There is a cost to caring (Figley, 1995). Burnout, caregiver stress, vicarious traumatization, countertransference, secondary traumatic stress, and compassion fatigue are all terms that have been utilized to describe the negative effects of professional helping. Since the simultaneous publication of three major texts in 1995 addressing these issues (Figley, 1995; Pearlman & Saakvitne, 1995; Stamm,

Michael G. Rank is associate professor at the University of South Florida School of Social Work. Tracy L. Zapanick, PhD, is a member of the College of Veterinary Medicine, University of Tennessee. J. Eric Gentry, PhD, is the founder of Compassion Unlimited, Sarasota, FL. Address correspondence to Michael G. Rank, University of South Florida, 4202 E. Fowler Ave., MGY132, Tampa, FL 33620-6600; e-mail: mrank@cas.usf.edu

1995), there has been explosive heurism surrounding this phenomenon. A number of research and popular writings have been published in journals and trade publications on the causes, effects, prevention, and treatment of compassion fatigue in the human health care field. There is ample evidence outlined in the following literature review that significant risks of negative psychological and physiological consequences confront professional helpers in their day-to-day applications of empathy and assistance.

Social workers, healthcare professionals and mental health professionals have been employing nonhuman animals in therapeutic interventions in various venues, with various populations. These interventions are now identified as “animal assisted interventions” (Kruger & Serpell, 2006). In the past they were identified as “animal assisted therapy” (Barker & Dawson, 1998; Heimlich, 2001; Kovacs, Kis, Rozsa, & Rozsa, 2003; Martin & Farnum, 2002; Odendaal, 2000; Reichert, 1998;); “pet therapy” (Hanselman, 2001); “pet-facilitated therapy” (Altschuler, 1999; Lutwack-Bloom, Wijewickrama, & Smith, 2005); “equine-assisted therapy” (Christian, 2005); “companion animals” (Baun & McCabe, 2003); “canine visitors and therapy dogs” (Jalongo, Astorino, & Bomboy, 2004); and “human-animal team approach” (Kogan, Granger, Fitchett, Helmer, & Young, 1999). Building upon this literature base, the notion of compassion fatigue in the caretakers and healers of these nonhuman animals was explored. The challenge is how to treat at-risk professionals who may be reticent to present for an intervention. Hence, training as treatment was the intervention, and the at-risk population was nonhuman-animal care providers.

The authors are introducing a new term, nonhuman-animal care professional (NACP). This phrase refers to humans who work in nonhuman-animal-related environments, like veterinary medicine, lab animal medicine, animal control, humane society/shelter employees, volunteers, and animal rescue groups. This article asserts and utilizes inclusive language that is designed to honor and elevate nonhuman-animal care professionals and the sentient beings with whom they work.

There is budding evidence that NACPs shoulder a considerable share of the cost of caring (Arluke, 1991; Figley & Roop, 2006; Hart & Hart, 1987; Reeve, Rogelburg, Spitzmuller, & DiGiacomo, 2005; Rollin, 1986; White & Shawhan, 1996), perhaps even more than their human care counterparts. As one animal control officer in our study stated to the authors during our early qualitative research into animal care compassion fatigue, “You don’t have to kill your patients.” Euthanasia stress added to the already considerable challenges and risk factors associated with professional nonhuman-animal care creates a professional landscape that is fraught with danger and pain for many employees and volunteers. In addition to the stressors associated with euthanasia, NACPs are often required to treat suffering nonhuman-animal patients who are unable to articulate their needs or give narrative to their experiences. Add to this imaginal traumatic history of their patients the long hours, bleak working conditions, low wages, high demands, minimal resources, overtaxed co-workers, and lack of

understanding and empathy from the public and you have all the ingredients for the development of nonhuman-animal care compassion fatigue (NACCF).

During 2001, the authors began a funded mixed method investigation into the experience of compassion fatigue among front-line NACPs at various locations in the eastern United States. We completed twenty one-hour taped interviews and three focus groups at various nonhuman-animal care facilities, public and private. Several themes emerged from these interviews with groups comprising a wide range of NACPs. The single common experience among all the participants with whom we spoke was that they all experienced significant painful symptoms directly related to their work and workplace.

From this work, the following high-risk factors emerged: frequent and intense euthanasia distress; maltreatment of and cruelty to nonhumans by clients and public; distressed human clients; distressed public; limited financial resources (organizational and clientele); insensitive administrative policies; attrition; constant stream of homeless nonhuman animals; volumes of distressed human and nonhuman animals in a short amount of time; and conflict within the workplace and personal life.

This early investigative work revealed and gave voice to the acute and chronic pain from which NACPs suffer. As a result we were compelled to develop interventions that might both ameliorate and prevent some of the symptoms that these caregivers have heretofore endured as part of their commitment to human and nonhuman-animal health and welfare. Drawing from the authors' experience with providing treatment for human care professionals' symptoms of compassion fatigue, we developed a nonhuman-animal care "training-as-treatment" protocol. Previous research (Gentry, Baggerly, & Baranowsky, 2004) had shown that the two-day Certified Compassion Fatigue Specialist Training significantly lowered compassion-fatigue-related symptoms among participants. During 2002, through partnership with the Humane Society of the United States and the Humane Society University, and through the generous financial support of the Kenneth A. Scott Charitable Trust, a KeyBank Trust, this "training-as-treatment" intervention research project began. A three-phase training protocol was developed and manualized (Zaparanick, Gentry, & Baranowsky, 2002). These three phases included a two-day accelerated recovery program in which the participants engaged in experiential activities to learn about the causes, symptoms, treatment, and prevention of compassion fatigue. Participants then engaged in the Interactive Resiliency-Education and Planning Web-Based Project follow-up training that was both didactic and community building. Finally, the participants completed a one-day peer-to-peer training in which they learned skills for intervening with other professionals to help them lessen symptoms of and enhance resiliency to NACCF.

This study details the process of developing and measuring the impact of this "training-as-treatment" intervention with an NACP cohort. This simple standardized model of "training-as-treatment" has demonstrated both statistical and clin-

ical significance for lowering symptoms among the participants—with most results maintained upon follow-up.

Literature Review

The following is a review of the literature on stress, distress, stressors, and subsequent symptoms experienced in the nonhuman-animal care environments. This review relies predominately on the veterinary environment, not because this environment experiences a disproportionate amount of these exposures and experiences but rather because it reflects the majority of published investigations. Furthermore, since we are left without the benefit of any existing literature that offers evidence about the similarities and differences between the veterinary and shelter environments, we would hypothesize that some generalizations could be made from one nonhuman-animal environment to the next.

The toll on mental health and other human service professionals who work with people in pain is well established. Emotional, physical, cognitive, behavioral, relational, and spiritual symptoms experienced by professional helpers have been demonstrated to be related to working with traumatized and troubled clients (Farber, 1983; Hellman, Morrison, & Abramowitz, 1987; McCann & Pearlman, 1990; Marsh, 1997; Rank, 1997, 2000; Rank & Gentry, 2003; Rodolfa, Kraft, & Reilley, 1988; Sexton, 1999). Other writers have suggested that mental health professionals may experience countertransference reactions that imitate the symptoms of their clients (Herman, 1992; Pearlman & Saakvitne, 1995), including symptoms of posttraumatic stress disorder (PTSD) (Lindy, 1988; Pearlman & Saakvitne; Wilson & Lindy, 1994).

A related term, burnout, i.e., “the syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment” (Maslach, 1976, p. 56), has been used to describe the chronic effects that mental health professionals suffer as a result of interactions with their clients and/or the demands of their workplace (Cherniss, 1980; Farber, 1983; Freudenberg, 1974; Grosch & Olsen, 1994; Maslach & Goldberg, 1998; Sussman, 1992). Research has shown that mental health professionals are particularly vulnerable to burnout because of personal isolation, ambiguous successes, and the emotional drain of remaining consistently empathetic (McCann & Pearlman, 1990). Gentry and Baranowsky (1998) have expanded this definition to address the particular cognitive and schematic distortions that accompany and seem to exacerbate burnout symptoms. This definition reads: “Burnout is the chronic condition of *perceived* demands outweighing *perceived* resources.”

The negative impact of countertransference and burnout is compounded when mental health professionals work with trauma survivors (Danieli, 1982; Figley, 1983, 1995; McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995; Stamm, 1995). Professionals who listen to reports of traumatic stress, horror, human cruelty, and extreme loss can become overwhelmed and may begin to experience feelings of fear, pain, and suffering similar to those of their clients. They may also

experience PTSD symptoms similar to their clients', such as intrusive thoughts, nightmares, avoidance, and physiological arousal, as well as changes in their relationships to themselves, their families, friends, and communities (Figley, 1995; McCann & Pearlman; Salston, 1999). Several terms for this phenomenon have emerged including "vicarious traumatization" (McCann & Pearlman; Pearlman & Saakvitne), "secondary traumatic stress" (Figley, 1987; Stamm, 1995), and "compassion fatigue" (Figley, 1995). According to Figley (2002), compassion fatigue is "a state of tension and preoccupation with the traumatized patients by re-experiencing traumatic events, avoidance/numbing of reminders, and persistent arousal (e.g., anxiety) associated with the patient" (p. 145). Gentry and Baranowsky (1998) further described compassion fatigue as an interactive, or synergistic, effect among primary traumatic stress, secondary traumatic stress, and burnout symptoms in the life of an afflicted mental health professional.

While there is agreement among practitioners and researchers that there are indeed potential negative effects associated with professional caregiving, the causes, symptoms, course, and treatment of compassion fatigue continue to generate debate, conjecture, research, and publication. The symptoms associated with compassion fatigue may have multiple causality and are not necessarily due to demands encountered in professional contexts. A thorough assessment is required to confirm that these symptoms can be attributed to compassion fatigue. These commonly reported symptoms are summarized in Table 1.

Veterinary medicine has been recognized as one of the most caring professions (Gavzer, 1989) because it involves care for both human and nonhuman-animal health. Compassion fatigue, or the "cost of caring" (Figley, 1985), is common amongst veterinarians and nonhuman-animal care professional staff.

In 2001, Fakkema wrote a seminal article applying the concept of compassion fatigue to nonhuman-animal care. He noted that NACPs are at risk for compassion fatigue, as their love of animals and people is what brought them into this area of work. Compassion fatigue should not be confused with "burnout" but appears to feel the same. Compassion fatigue as noted by Figley is "a condition that is a result of a depletion of our internal emotional resources. This depletion occurs when a clinician/staff member provides care to clients who are experiencing an emotional situation. When a staff member is exposed to one or many of these critical incidents, compassion fatigue is experienced" (as cited in Mitchener & Ogilvie, 2002, p. 308).

The concern for NACP suffering is increasing as a result of the distress and burnout that cause many NACPs to escape through alcohol, drug abuse, and suicide. Three common themes associated with compassion fatigue are (1) stress related to euthanizing animals (Arluke, 1991; Frommer & Arluke, 1999; Hafen, Reisberg, White, & Rush, 2006; Owens, Davis, & Smith, 1981; Reeve et al., 2005; White & Shawhan, 1996); (2) lack of training to cope with emotional factors of such work (Hesketh and Shouksmith, 1986; Reeve et al., 2004; Timmins, 2006; Tinga, Adams, Bonnett, & Ribble, 2001; Williams, Butler, & Sontag, 1999;); and

Table 1 Symptoms of Compassion Fatigue

Intrusive Symptoms
Thoughts, images, and dreams associated with work experiences
Obsession and compulsion to help
Work encroaches upon personal time
Inability/unwillingness to “let go” of work-related matters
Inflated sense of power or importance (“savior”)
Feelings of inadequacy or impotency as a caregiver
Inappropriate sense of entitlement
Increased perception of danger
Perception of the world in terms of victims and perpetrators (“us and them”)
Avoidance Symptoms
Silencing response (avoidance of hearing/witnessing work’s traumatic material)
Depression—loss of enjoyment in activities/cessation of self-care activities
Loss of energy
Loss of hope or sense of dread at work and especially with people
Loss of competence/potency as a caregiver
Secretive self-medication/addiction (alcohol, drugs, work, sex, food, spending, etc.)
Relational dysfunction
Arousal Symptoms
Acute and chronic anxiety
Impulsivity/reactivity
Increased perception of demands/threats (in both job and environment)
Increased frustration/anger
Sleep disturbance
Difficulty concentrating
Change in weight/appetite
Somatic symptoms (e.g., headaches, GI disturbance, chronic pain, etc.)
Burnout Symptoms
Exhaustion
Depersonalization (i.e., “robot”)
Decreased effectiveness
Isolation
Diminished interest in activities
Decreased spiritual connection
Increased perception of demands
Decreased perception of resources
Imbalance between work and personal life

(3) lack of communication between veterinarian and human client and between veterinarian and staff members (Sanders, 1995).

Research suggests veterinarians are increasingly vulnerable to burnout in their profession (Elkins & Kearney, 1992; Dowling & Stitely, 1997; Jeyaretnam, Jones, & Phillips, 2000; Sanders, 1995). Zuziak (1991a, b, & c) explored four primary reasons for increased vulnerability to burnout: (1) personality type; (2) insufficient

veterinary school preparation for the “job as a whole”; (3) inability to communicate on a person-to-person level, particularly with staff members; and (4) inability to balance management and financial security concerns with concern for human and nonhuman animals. “The majority of veterinarians have a ‘perfectionist’ personality type,” Zuziak (1991a) indicates. “They are motivated, caring individuals, but at the same time, tend to be ‘people pleasers’ ” (p. 523). Zuziak’s research indicates that veterinarians are individuals who are already “psychologically set up for stress.” Elkins and Kearney (1992), who explored burnout among female veterinarians in the United States, also noted, “Most psychologists agree that the ability to cope with stress relates to personality type and childhood experience” (p. 606).

Zuziak (1991b) suggested that veterinary school does not teach students how to cope with euthanizing animals or how to support their human clients who are unhappy with the services provided. When veterinarians begin to lose sight of what their job responsibilities are, this may cause ongoing problems for themselves, staff, and the patient (nonhuman animal) and client (human). Unfortunately many veterinarians do not recognize when this happens. Zuziak (1991b) indicates that once veterinarians reach the goal of owning their own growing practice, they sometimes become preoccupied, and this contributes to distress and burnout.

Nonhuman-Animal Care Compassion Fatigue and Euthanasia

Euthanizing animals can be a traumatic experience for NACPs, especially for those individuals who do not recognize that their job can affect them personally and who do not receive emotional support from their co-workers, families, and friends. The research suggests that euthanizing nonhuman animals has a strong impact on NACPs experiencing nonhuman-animal care compassion fatigue. Hart and Hart (1987) estimate that veterinarians experience loss and death approximately five times more than general medical practitioners. They contend that the pain and emotional stress of these deaths are felt not only by the veterinarian but by the entire veterinary staff. Mitchener and Ogilvie (2002) refer to a shelter that received nearly seven thousand animals in 1995 (the majority of whom were cats and dogs). Of the animals received, 2,195 were adopted, and following a holding period, 2,422 were euthanized.

During the latter part of the 1980s, workshops, support groups, and conference sessions for veterinarians began to offer some coping and stress reduction techniques to alleviate stress associated with the involvement in numerous nonhuman-animal deaths on a regular basis (Hart, Hart, & Madder, 1990). Recognizing that euthanasia is a very difficult, stressful experience and speaking with other professionals who have the same experience are highly beneficial for veterinarians and veterinary staff. However, many veterinary professionals tend to suppress their emotions and do not seek help from others, which can lead to detrimental consequences. Hart, Hart, and Madder noted that “challenging circumstances involving

euthanasia regularly confront veterinarians and place them at risk for burnout, family disruption, and substance abuse." (p. 1299).

Owens, Davis, and Smith (1981) reported a pioneering workshop for NACPs that was designed to provide a supportive environment for those who euthanized animals.

It seems evident that technicians performing euthanasia on animals feel a need to vent their concerns about animals to the public (to get support and understanding from society at large as well as from their co-workers); to find constructive and effective methods for dealing with the feelings that accrue from killing animals; and to have a continuous support group that is not only sympathetic to their dilemma, but also shares other similar professional concerns. (p. 25)

When the painful effects of euthanizing are not addressed, consequences are not limited to the euthanasia technician (ET). Unresolved chronic stress places both the ET and nonhuman animal in danger, since the ET can become insensitive and numb to the task (Donald & Powell, 1989). The ET may not perform the steps correctly and/or hurry to complete the task, possibly causing discomfort to the nonhuman animal. Good teamwork, communication, and proper training can make the task of euthanizing nonhuman animals much less stressful for the human and nonhuman animal.

Donald and Powell (1989) suggest that workshops are beneficial for ETs, veterinary staff, and those not involved in euthanasia. With a better understanding of euthanasia and the emotions/stress/distress that come with such a task, all employees involved in nonhuman-animal care can support one another and build a stronger camaraderie among the veterinary practice/shelter workers.

Research regarding veterinarians and the stress and distress related to their work suggests that veterinarians are not provided adequate training on how to cope emotionally with their line of work, especially in relation to euthanizing nonhuman animals on a daily basis and effectively communicating with their clients and staff members (Gavzer, 1989; Scarlett, Salman, New, & Kass, 2002). It seems that veterinary schools do not emphasize the importance of recognizing the emotional needs of the students who will soon be practicing on their own, as well as the emotional needs of the client and the nonhuman-animal companion (Strand, Zapanick, & Brace, 2005; White & Shawhan, 1996).

Coleman, Salter, and Thornton (2000) state: "It is likely that academics continue to place too much emphasis on the delivery of large volumes of information and allow too little time for students to digest that information, to think critically about it or learn how to properly use it" (p. 130). These authors discuss a study that sought to determine what skills veterinarians should possess once they have graduated from veterinary school. The requirements for the new century, according to practicing veterinarians, included business management skills, computer literacy, and improved communication skills (in that order). Communication skills were not a top priority. The inability to communicate effectively, not only with the

client but with other staff members, can have a severe negative impact on a veterinary practice, as well as the mental health and well-being of each individual.

Nonhuman-animal care compassion fatigue is not a subject that should be taken lightly. Awareness is needed to prevent the emotional depletion of those everyday veterinary professionals who provide compassionate care to both the human client and the nonhuman-animal patient. "By recognizing the issues surrounding compassion fatigue and providing mechanisms within a practice to mitigate its effects, a practice can thrive by providing the finest in compassionate care" (Mitchener & Ogilvie, 2002, p. 310).

Methodology

This three-phased research study used a quasi-experimental design to investigate what effect, if any, the tailored nonhuman-animal care compassion fatigue modules had on compassion fatigue symptoms, as measured by three separate instruments on volunteer participants. The instruments were presented as a pre-training packet and a posttraining packet at all three interventions. These separate interventions were referred to as the Compassion Fatigue in Animal-Related Fields and consisted of (1) Accelerated Recovery Program; (2) Interactive Resiliency-Education and Planning Web-Based Project; and (3) Peer-to-Peer Accelerated Recovery Techniques.

The educational branch of the Humane Society of the United States (HSUS), Humane Society University (HSU), contributed enormous marketing and contact resources to this research project. The targeted population was U.S. residents over eighteen years old who were actively taking care of nonhuman animals and willing to participate in this research study. Special brochures were created and mailed to the entire HSU database (approximately 3,500 names), the HSUS Great Lakes, Southwest, and Pacific Northwest regional offices, and conferences where regional staff was exhibiting. The brochure was also electronically sent to the Shelter Partner list (approximately 900 addresses). Last, this program was advertised on the HSU website and other relevant nonhuman-animal welfare websites for several months and in the HSUS e-newsletter (2,000 subscribers).

In order to offset administrative costs, participants were charged a one-time registration fee of \$90 for all three modules. These fees were often, but not always, paid by an employer. HSU awarded certificates of completion to eligible participants for the first two modules. HSU presented the certificate, "Animal Care Compassion Fatigue Specialist," to those who completed the third module.

Procedures/Population

Module One: Accelerated Recovery Program In addition to marketing, HSU managed all the administrative tasks associated with the trainings (e.g., planned break and lunch menus) and determined each site location. Two of the present authors customized the established and standardized human healthcare sixteen-hour

Compassion Fatigue Specialist Training for nonhuman-animal stewards (Zaparanick, Gentry, & Baranowsky, 2002). The Compassion Fatigue in Animal-Related Fields: Accelerated Recovery Program (ARP) reviewed the associated concepts and symptoms and suggested interventions for compassion fatigue. A didactic and experiential approach was used with the material.

Between September and November 2003, these “training-as-treatment” interventions were scheduled in metropolitan areas in the Midwest, Southwest, and Northwest. Two of the trainings were held at a humane society and the other at a public service building. A total of fifty-seven adults attended these three training sites. Volunteer participants were self-selected and attended the training site of their choice. The same two instructors traveled to all site locations, and each participant received identical training manuals. The pretraining packets were completed prior to the commencement of the training, while the posttraining packets were distributed and collected at its conclusion. It took respondents approximately 30–45 minutes to complete the research packets.

Module Two: Interactive Resiliency-Education and Planning Web-Based Project The second phase, Compassion Fatigue in Animal-Related Fields: Interactive Resiliency-Education and Planning Web-Based Project, invited only those who attended the previous ARP module. HSU hosted this project, while the data collection occurred on another contracted server. Once participants initially logged onto the Web-Project site they were directed to go to the data collection site. Using their unique identification number assigned at the ARP training, they completed the same three scales and their demographic profile survey if they had not done so previously. Upon completion of this interactive web-based intervention, participants were again referred to the data collection website to complete the posttraining packet.

This online course offered literature and a Powerpoint presentation, followed by quizzes that tested participants’ comprehension of traumatic stress, burnout, grief and loss, and therapeutic interventions. Written assignments required participants to personalize this information and generated their own resiliency plans. Last, an online community was created where a moderator and the participants posted comments, questions, and responses.

Module Three: Peer-to-Peer Accelerated Recovery Techniques The third phase, Compassion Fatigue in Animal-Related Fields: Peer-to-Peer Accelerated Recovery Techniques, was a one-day training held at HSUS’s 2004 Animal Care Expo in Dallas, Texas. Like the online course, this was an invitation-only event for ARP attendees. Attendees were not compensated for expenses incurred in order to attend this training. This module reviewed and extended the information of the ARP module, with emphasis on the successes and obstacles since the previous intervention. The same two facilitators led this intervention, using the same didactic and experiential teaching style and the pre- and posttraining instrument packets.

Data Collection Measures

Three separate instruments were used to collect data: (1) Professional Quality of Life: Animal Care Provider (Pro-QOL); (2) State-Trait Anxiety Inventory (STAI) Form Y-1 and Y-2 (Animal-Related Fields Version); and (3) Trauma Recovery Scale (TRS). In addition, a demographic data profile survey was specially created for this study. This demographic survey contained seventeen questions, two of which were open-ended. These qualitative questions solicited information about the amount of job preparation and stress management training participants had experienced. Fortunately, all authors kindly allowed modifications to their instruments in order to accommodate nonhuman-animal service delivery systems. Minimal changes were made to these instruments to minimize threats to their psychometric integrity.

The Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales—Revision III (Stamm, 1995, 2002) was altered and became the Professional Quality of Life: Animal Care Provider. Like its predecessor, this thirty-item survey contains three subscales: compassion satisfaction ($\alpha = .87$), burnout ($\alpha = .72$), and trauma ($\alpha = .81$). Responses to this six-item Likert scale format (0 = never; 1 = rarely; 2 = a few times; 3 = somewhat often; 4 = often; 5 = very often) are intended to reflect the last thirty days of the respondents' experience. Compassion satisfaction refers to the extent to which people derive pleasure from their work. Burnout in this context is considered workplace experiences that produce feelings of hopelessness and a decrease in self-efficacy. Figley (1995) conceptualizes secondary traumatic stress as mirroring posttraumatic stress disorder, as defined by the *Diagnostic and Statistical Manual* (American Psychiatric Association, 2000).

The State-Trait Anxiety Inventory for Adults Form Y (Spielberger, Gorsuch, and Lushene, 1983) has two twenty-item forms: The Y-1 scale measures the level of state anxiety ($\alpha = .93$), while the Y-2 assesses trait anxiety ($\alpha = .91$). The four-item Likert scale format (1 = not at all; 2 = somewhat; 3 = moderately so; 4 = very much so) allows respondents to indicate how they felt over the last thirty days in their work. State anxiety scale measures a transitory or a situational condition as manifested by the experiences of tension, apprehension, nervousness, and worry. Trait anxiety scales examines the extent to which these same anxiety experiences are innately felt. Trait anxiety is considered to be an enduring feature of the individual.

The Trauma Recovery Scale (TRS) (Gentry & Baranowsky, 1999) was designed to measure relative recovery from traumatic stress. It has three parts. The first part asks individuals if they have been exposed to a traumatic event. If they respond affirmatively, they are then directed to the second portion. This second part seeks to identify the specific type of trauma and number of exposures. The third part inquires about trauma-related symptoms of the past week. This subjective score is taken from a mark placed by the participant on a ten-millimeter line with "0% of the time" at one end and "100% of the time" at the other. Cronbach's alpha for the TRS is .86 with a standardized item alpha of .88. The TRS has achieved significant

(.001) convergent validity with the Impact of Events Scale (Horowitz, Wilner, & Alvarez, 1979) with an $r = -.71$ ($n = 70$).

Results

A total of fifty-seven people attended the three ARP trainings. The first training was held in Ohio ($n = 11$) in September 2003, followed by one in Arizona ($n = 9$) in October 2003, and a concluding one in Oregon ($n = 37$) in November 2003. The following states had at least one representative in this study: Alabama, Alaska, Arizona, California, Colorado, Illinois, Massachusetts, Michigan, Ohio, Oregon, Texas, Washington, Wisconsin, and Puerto Rico.

This sample was mostly represented by females ($n = 56$; 98%). Seventy-two percent of the sample indicated that they lived with a significant other and with at least one nonhuman-animal companion. Several of the demographic questions instructed respondents to “check all that apply,” and so the summed responses exceeded the total sample size. The vast majority of the sample worked sometime in a shelter environment (68%), while 23 percent worked in a veterinary medicine setting, and still others (39%) indicated some other workplace environment (e.g., wildlife rehabilitation, animal sanctuary, pet store). For purposes of the analysis, the educational variable was compressed into a dichotomous variable: people with no college diploma and people with academic degrees. See Table 2 for these and other categorical variable details.

Table 2 Sample Totals for Demographic Categorical Variables

	N (%)		n (%)
Live with*:		Education	
Father/mother	2 (4%)	No HS diploma	2 (4%)
Significant other	41 (72%)	HS graduate	3 (5%)
Children	20 (35%)	GED	1 (2%)
Other relative	1 (2%)	Some college	25 (44%)
Other nonrelative	4 (7%)	Associate degree	7 (12%)
Nonhumans	41 (72%)	Bachelor’s degree	14 (25%)
Alone	1 (2%)	Master’s degree	2 (4%)
		Doctorate degree	3 (5%)
Professional identity*		Work setting*	
Shelter	38 (67%)	Shelter	39 (68%)
Veterinary medicine	30 (53%)	Veterinary medicine	13 (23%)
Other	29 (51%)	Other	22 (39%)
How many children do you have?		Number of cohabitating nonhumans	
0	27 (47%)	0	2 (4%)
1–2	21 (37%)	1–3	18 (32)
3–4	9 (16%)	4–8	24 (42%)
		9–33	13 (23%)

Note: Percentages are rounded and may therefore fall below or exceed 100%.

*Participants were able to choose from more than one category, which resulted in total percentages over 100.

It is significant to note that participants reported that in the previous thirty days on average, they had spent less than half of their workday with nonhuman animals ($M = 42.16$, $SD = 25.11$) and less than half with the public ($M = 41.02$, $SD = 22.46$). Similarly, in the previous thirty days, those surveyed indicated they had worked little over a forty-hour work week ($M = 42.80$, $SD = 13.32$). Participants reported experiencing their work as stressful on a typical day of work and on average 48 percent of the day. See Table 3 for more of the continuous variables.

Table 3 Sample Totals for Demographic Continuous Variables

	n	Range	M (SD)
Age	56	22–65 years	39.34 (9.32)
Worked daily with:			
Nonhumans	57	0–95 % of time	42.16 (25.11)
Public	57	5–100% of time	41.02 (22.46)
Perceive work as stressful	56	0–98% of day	48.43 (28.51)
Actual hours worked	55	0–84 hours/week	42.80 (13.32)
Coping strategies:			
Exercise	57		2.35 (1.13)
Talk to others	56		3.20 (.82)
Prayer/meditation	56	(0–4)	1.68 (1.57)
Smoke cigarettes	56	Never–Very often	.93 (1.58)
Drink alcohol	57		1.47 (1.32)
Take medications as prescribed	53		1.34 (1.80)
Play with nonhumans	56		3.59 (.73)
Overeat	57		1.88 (1.20)
Undereat	56		1.30 (1.19)

Note: All data are based solely on valid responses; that is, missing data are excluded. This accounts for the variation in the presented *n* values.

The results of the Pearson's correlational analysis in Table 4 show that two of the ten correlations were statistically significant. This analysis indicated an inverse relationship between working directly with nonhuman animals and the

Table 4 Correlations of Demographic Variables

	Age (<i>r</i>)	Work with Public (<i>r</i>)	Work with Nonhumans (<i>r</i>)	Perceive Work as Stressful (<i>r</i>)
Age	—			
Work with Public	.260			
Work with Nonhumans	-.406*	-.453**		
Perceive Work as Stressful	-.069	-.069	.103	
Actual Hours Worked	-.035	-.003	-.152	.205

* $p < .05$ ** $p < .001$

variables of age and working directly with the public. That is, the more the professionals worked directly with nonhuman animals, the younger they tended to be and the less they interacted with the public.

Next, using a repeated-measures ANOVA, the above pre- and post-ARP scores were measured against several demographic variables (level of education, number of children, number of cohabitating nonhuman animals, participation in the euthanasia process, witness to nonhuman-animal abuse, living with a significant other, living with nonhuman animals). The only significant interaction found was between the variable of education and compassion satisfaction, Wilks's $\Lambda = .90$, $F(1, 50) = 5.38$, $p < .01$. A post hoc independent t test was used with the change scores (i.e., mean difference between pre and post scores) and compassion satisfaction. The test was significant, $t(50) = 2.32$, $p = .02$. This result indicates that the compassion satisfaction score for those who were nondegreed (i.e., ranged from no high school diploma to some college) improved to a greater extent ($M = 4.35$, $SD = 4.62$) than for those with an academic degree ($M = 1.65$, $SD = 3.70$). Despite the gains made in their compassion satisfaction score, their post mean score did not exceed the mean score for those with an academic degree. That is, participants with a degree were still higher in their compassion satisfaction scores than those with no degree.

Accelerated Recovery Program

A reliability analysis using the Cronbach's alpha found all scales greater than .80 and each higher than the original scales. Paired-sample t tests were conducted to compare the ARP prescores with the ARP postscores. All scores were statistically significant, except for the secondary trauma subscale. The Pro-QOL Compassion Satisfaction subscale mean increased, as did the Trauma Recovery Scale. The mean scores for the Pro-QOL burnout and trauma subscales and the State-Trait Anxiety Inventory subscales decreased, all indicating improvement. See Table 5 for these details.

Table 5 Paired-Sample t Tests for the ARP Module Pre- and Postscores

	M (SD)						
	Λ	Pre	Post	T	df	p	n
Pro-QOL							
Compassion Satisfaction	.89	38.54 (7.15)	41.54 (5.60)	-4.96	51	.000*	52
Burnout	.81	21.71 (7.33)	18.76 (6.72)	5.11	50	.000*	51
Trauma	.84	19.61 (8.29)	18.92 (7.97)	.82	50	.419	51
STAI							
State	.94	39.45 (12.75)	33.43 (11.49)	4.21	41	.000*	42
Trait	.92	37.38 (10.34)	30.59 (9.24)	6.38	38	.000*	39
Trauma Recovery Scale	.88	78.51 (16.37)	84.25 (12.58)	-3.98	50	.000*	51

Note: All data are based solely on valid responses; that is, missing data are excluded. This accounts for the variation in the presented n values.

* $p < .001$

Interactive Resiliency-Education and Planning Web-Based Project

Paired-sample *t* tests were conducted to compare the Web Projects prescores with its postscores ($n = 13$). The results indicated that the mean burnout scores were unchanged, compassion satisfaction scores increased, and the trauma scores decreased. No significant differences were found. Owing to the small sample size in this and the next intervention, no further analyses were conducted.

Peer-to-Peer Accelerated Recovery Techniques

Again, paired-sample *t* tests were conducted to compare the Peer-to-Peer class prescores with its postscores. The results indicated that all mean scores were statistically significant and reflected the same directional changes as seen in the ARP. See Table 6 for these details.

Table 6 Paired-Sample *t* tests for the Peer-to-Peer Module Pre- and Postscores

	M (SD)					
	Pre	Post	<i>t</i>	<i>df</i>	<i>p</i>	<i>n</i>
Pro-QOL						
Compassion Satisfaction	42.17 (5.64)	44.00 (5.41)	-2.56	11	.026*	12
Burnout	15.67 (5.33)	13.08 (5.04)	2.77	11	.018*	12
Trauma	12.25 (5.99)	9.33 (6.72)	2.88	11	.015*	12
STAI						
State	31.25 (10.14)	28.33 (12.08)	2.23	11	.047*	12
Trait	32.20 (11.31)	30.30 (11.87)	2.75	11	.022*	10
Trauma Recovery Scale	85.84 (13.89)	88.25 (13.70)	-4.12	11	.002*	12

* $p < .001$ **Discussion**

While many aspects of this exploratory study prevent generalizations of the results from the training-as-treatment interventions to wider populations, it does present the first empirical data for effective treatment of NACCF.

The initial intervention, the ARP, furnishes the primary source of data and therefore is the foundation for this discussion. The ARP sample ($n = 57$) was largely made of U.S. female residents, whose averaged aged was thirty-nine and who lived with a significant other and with at least one cohabitating nonhuman-animal. These females indicated that they had mostly worked in the shelter environment for an average of forty-three hours per week in the previous thirty days.

Results indicate that the ARP has an ameliorative effect upon the subjective experiences of the respondents for compassion satisfaction, burnout, trauma recovery, and state and trait anxiety. However, it appears to have less effect for the resolution of unresolved secondary trauma experiences. This extrapolation may

be due in part to the design of the Pro-QOL trauma subscale, which may not measure the effects of trauma in the short term (literally from one day to the next) because of the lack of exposure and ability to monitor for the subscales symptomology checklist. This discrepancy requires further investigation.

The demonstrated effectiveness of the training-as-treatment method of intervention for lessening NACCF symptoms with the sample in this study provides an important pathway for future study and intervention development. Coaching treatment elements in a training curriculum designed to mature professional skills and enhance resiliency while lessening symptoms of compassion fatigue is advantageous on many levels. The potential for lessening employee burnout/compassion fatigue while boosting resiliency and effectiveness through nonthreatening and cost-effective group training merits further investigation. It is worth noting that not only was this intervention effective with the sample in this study, but the positive results were maintained upon follow-up six months after the first training event. From these preliminary results it seems clear that the nonhuman-animal care compassion fatigue training program is poised to offer both an ounce of prevention and a pound of cure to the symptom-saturated population of nonhuman-animal care professionals. Further investigation of the manualized two-day Accelerated Recovery Program for Nonhuman-Animal Care Compassion Fatigue is indicated by the results of this study. Furthermore, the authors have developed a Nonhuman-Animal Care Compassion Fatigue Prevention and Resiliency training that condenses this training into a one-day format. Comparisons of the training-as-treatment effects of the one-day and the two-day trainings are forthcoming.

Another finding from this study was the statistically significant shift in the scores for trait anxiety. Trait anxiety, as measured by the STAI, has previously been thought to be “character logical” and remain stable throughout one’s life, demonstrating minimal change relative to external events (Spielberger et al., 1983). The nonhuman-animal care compassion fatigue training module, with its emphasis upon self-regulation and lessening autonomic arousal, has demonstrated—at least with the sample from this study—a method for lowering trait anxiety, and this capacity deserves further investigation. We found no outcome studies in our literature review that demonstrated this significant lessening of trait anxiety.

Limitations

The exploratory study brought together a convenience sample of people whose organization had the resources to organize the training or were able to support them so they could attend or who themselves had the personal resources to participate. The generalizability of this study is limited by its design, sampling method, and sample size.

Another significant limitation stems from the double-barreled items in the Pro-QOL survey. It is not known if those surveyed were reacting to the humans, nonhuman animals, or perhaps both populations. Accordingly, the reader should not make any definitive distinctions between the human and nonhuman-animal

populations. Additionally, the Pro-QOL does not provide insight into whether compassion fatigue symptoms are caused only by the professional's work experience or whether they may be due, at least in part, to preexisting conditions and/or personal experiences. These issues should be explored in future studies addressing this area.

Implications for Social Work Practice

Risley-Curtiss, Holley, and Wolf (2006) recommend that the social work profession collaborate with other disciplines to build its knowledge base regarding the animal-human connection. As social workers become increasingly involved with the benefits of therapeutic intervention employing nonhuman-animal care, they need to understand more about the professionals involved with this care. Training as treatment is a therapeutic intervention that social workers can utilize to reach more professionals at risk for compassion fatigue who may be reticent to present for treatment otherwise. Social workers can play a major role in helping NACPs prevent and/or cope with NACCF. A new specialty in nonhuman-animal care compassion fatigue needs to be integrated into veterinary social work. (A veterinary social work program exists at the University of Tennessee–Knoxville College of Veterinary Medicine. This program is an intercollege collaborative effort with the College of Social Work.) By obtaining this additional education and training, social workers can conduct workshops, support groups, and conference sessions on prevention and treatment of NACCF. They will be able to lead these trainings locally or travel to different nonhuman-animal care facilities and veterinary hospitals to provide services on site. In addition to consultation at different facilities, a new professional career track is being created for social workers to be employed by veterinary hospitals, humane societies, and other shelters on a part-time or full-time basis. Shelters, humane societies, and social workers should combine forces with the Council on Social Work Education and the National Association of Social Workers to provide quality care and emotional support for human and nonhuman-animal clients. Social workers can provide grief counseling for staff and clients specializing in euthanasia of nonhuman-animal companions, in attempts to decrease and eventually eliminate nonhuman-animal care compassion fatigue. The opportunities for social work and nonhuman-animal care in the future are increasing. Compassion fatigue affects not only NACPs but also professionals who work with human beings on a daily basis. This research adds to the literature that focuses upon the development of compassion fatigue in healthcare and all human service professionals.

References

- Altschuler, E. L. (1999). Pet-facilitated therapy for posttraumatic stress disorder. *Annals of Clinical Psychiatry, 11*(1), 29–30.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.

- Arluke, A. (1991). Coping with euthanasia: A case study of shelter culture. *Journal of the American Veterinary Medical Association*, *198*(7), 1176–1180.
- Barker, S. B., & Dawson, K. S. (1998). The effects of animal-assisted therapy on anxiety ratings of hospitalized psychiatric patients. *Psychiatric Services*, *49*(6), 797–801.
- Baun, M. M., & McCabe, B. W. (2003). Companion animals and persons with dementia of the Alzheimer's type: Therapeutic possibilities. *American Behavioral Scientist*, *47*(1), 42–51.
- Cherniss, C. (1980). *Professional burnout in human service organizations*. New York: Praeger.
- Christian, J. E. (2005). All creatures great and small: Utilizing equine-assisted therapy to treat eating disorders. *Journal of Psychology and Christianity*, *24*(1), 65–67.
- Coleman, G. T., Salter, L. K., & Thornton, J. R. (2000). What skills should veterinarians possess on graduation? *Australian Veterinary Practitioner*, *30*(3), 124–131.
- Danieli, Y. (1982). Psychotherapists' participation in the conspiracy of silence about the Holocaust. *Psychoanalytic Psychology*, *1*(1), 23–46.
- Donald, R. L., & Powell, C. (1989). A piece of us dies every time. *Shelter Sense*, *12*(10), 1–4.
- Dowling, J. M., & Stitely, C. (1997, September/October). Killing ourselves over the euthanasia debate. *Animal Sheltering*, pp. 4–15.
- Elkins, A. D., & Kearney, M. (1992). Professional burnout among female veterinarians in the United States. *Journal of the American Veterinary Medical Association*, *200*(5), 604–608.
- Fakkema, D. (2001, March–April). The four phases. *Animal Sheltering*, pp. 39–40.
- Farber, B., (1983). The effects of psychotherapeutic practice upon psychotherapists. *Psychotherapy: Theory, Research and Practice*, *20*(2), 174–182.
- Figley, C. R. (1983). Catastrophe: An overview of family reactions. In C. R. Figley and H. I. McCubbin (Eds.), *Stress and the family, Vol. 2: Coping with catastrophe*. New York: Brunnel/Mazel.
- Figley, C. R. (1985). From victim to survivor: Social responsibility in the wake of a catastrophe. In C. R. Figley, (Ed.), *Trauma and its wake: The study and treatment of post-traumatic stress disorder* (pp. 398–415). New York: Brunner/Mazel.
- Figley, C. R. (1987). Toward a field of traumatic stress. *Journal of Traumatic Stress*, *1*(1), 3–16.
- Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. New York: Brunner/Mazel.
- Figley, C. R. (2002). Compassion fatigue: Psychotherapists' chronic lack of self care. *Journal of Clinical Psychology*, *58*(11), 1433–1441.
- Figley, C. R., & Roop, R. G. (2006). *Compassion fatigue in the animal care community*. Washington, DC: Humane Society Press.
- Freudenberger, H. (1974). Staff burn-out. *Journal of Social Issues*, *30*, 159–165.

- Frommer, S. S., & Arluke, A. (1999). Loving them to death: Blame-displacing strategies of animal shelter workers and surrenderers. *Society and Animals*, 7(1), 1–16.
- Gavzer, K. (1989). How do employees feel about working in a veterinary practice? *Journal of the American Veterinary Medical Association*, 195(2), 182–183.
- Gentry, J. E., Baggerly, J. J., & Baranowsky, A. B. (2004). Training-as-Treatment: The effectiveness of the Certified Compassion Fatigue Specialist Training. *International Journal of Emergency Mental Health*, 6(3), 147–155.
- Gentry, J. E., & Baranowsky, A. B. (1998). *Treatment manual for the Accelerated Recovery Program*. Toronto: Psych Ink.
- Gentry, J. E., & Baranowsky, A. B. (1999). *Compassion satisfaction manual: 1-day group workshop, Set III-B*. Toronto: Psych Ink.
- Grosch, W. N., & Olsen, D. C. (1994). Therapist burnout: A self psychology and systems perspective. In W. N. Grosch and D. C. Olsen (Eds.), *When helping starts to hurt: A new look at burnout among psychotherapists*. New York: W. W. Norton.
- Hafen, M., Reisberg, A. M. J., White, M. B., & Rush, B. R. (2006). Predictors of depression and anxiety in first-year veterinary students: A preliminary report. *Journal of Veterinary Medical Education*, 33(3), 432–440.
- Hanselman, J. L. (2001). Coping skills interventions with adolescents in anger management using animals in therapy. *Journal of Child and Adolescent Group Therapy*, 11(4), 159–195.
- Hart, L. A., & Hart, B. L. (1987). Grief and stress from so many animal deaths. *Companion Animal Practice*, 1(1), 20–21.
- Hart, L. A., Hart, B. L., & Madder, B. (1990). Humane euthanasia and companion animal death: Caring for the animal, the client, and the veterinarian. *Journal of the American Veterinary Medical Association*, 197(10), 1292–1299.
- Heimlich, K. (2001, October/November/December). Animal-assisted therapy and the severely disabled child: A quantitative study. *Journal of Rehabilitation*, pp. 48–54.
- Hellman, I. D., Morrison, T. L., & Abramowitz, S. L. (1987). The stresses of psychotherapeutic work: A replication and extension. *Journal of Clinical Psychology*, 42(1), 197–205.
- Herman, J. L. (1992). *Trauma and recovery*. New York: Basic Books.
- Hesketh, B., & Shouksmith, G. (1986). Job and non-job activities, job satisfaction and mental health among veterinarians. *Journal of Occupational Behavior*, 7(4), 325–339.
- Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of Events Scale: A measure of subjective stress. *Psychosomatic Medicine*, 41, 209–218.
- Jalongo, M. R., Astorino, T., & Bomboy, N. (2004). Canine visitors: The influence of therapy dogs on young children's learning and well-being in classrooms and hospitals. *Early Childhood Education Journal*, 32(1), 9–16.

- Jeyaretnam, J., Jones, H., & Phillips, M. (2000). Disease and injury among veterinarians. *Australian Veterinary Journal*, *78*(9), 625–629.
- Kogan, L. R., Granger, B. P., Fitchett, J. A., Helmer, K. A., & Young, K. J. (1999). The human-animal team approach for children with emotional disorders: Two case studies. *Child and Youth Care Forum*, *28*(2), 105–121.
- Kovacs, Z., Kis, R., Rozsa, S., & Rozsa, L. (2003). Animal-assisted therapy for middle-aged schizophrenic patients living in a social institution: A pilot study. *Clinical Rehabilitation*, *18*, 483–486.
- Kruger, K. H., & Serpell, J. A. (2006). Animal-assisted intervention in mental health: Definitions and theoretical foundations. In A. Fine (Ed.), *Handbook on animal assisted therapy: Theoretical foundations and guidelines for practice* (2nd ed., pp. 20–45). Amsterdam: Elsevier Academic Press.
- Lindy, J. D. (1988). *Vietnam: A casebook*. New York: Brunner/Mazel.
- Lutwack-Bloom, P., Wijewickrama, R., & Smith, B. (2005). Effects of pets versus people visits with nursing home residents. *Journal of Gerontological Social Work*, *44*(3/4), 137–159.
- Marsh, D. (1997). Serious mental illness: Ethical issues in working with families. In D. T. Marsh & R. T. Magee (Eds.), *Ethical and legal issues in professional practice with families. Wiley series in couples and family dynamics and treatment* (pp. 217–237). New York: John Wiley & Sons.
- Martin, F., & Farnum, J. (2002). Animal-assisted therapy for children with pervasive developmental disorders. *Western Journal of Nursing Research*, *24*(6), 657–670.
- Maslach, C. (1976). Burnout. *Human Behavior*, *5*, 16–22.
- Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied and Preventive Psychology*, *7*, 63–74.
- McCann, L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, *3*(1), 131–149.
- Mitchener, K. L., & Ogilvie, G. K. (2002). Understanding compassion fatigue: Keys for the caring veterinary healthcare team. *Journal of the American Animal Hospital Association*, *38*(4), 307–310.
- Odendaal, J. S. J. (2000). Animal-assisted therapy—magic or medicine? *Journal of Psychosomatic Research*, *49*, 275–280.
- Owens, C. E., Davis, R., & Smith, B. H. (1981). The psychology of euthanizing animals: The emotional components. *International Journal for the Study of Animal Problems*, *2*(1), 19–26.
- Pearlman, L. A., & Saakvitne, K. W. (1995). *Trauma and the therapist: Counter-transference and vicarious traumatization in psychotherapy with incest survivors*. New York: W. W. Norton.
- Rank, M. G. (1997). Critical incident stress debriefing. In W. Hutchinson & W. Emener (Eds.), *Employee assistance programs: A basic text* (2nd ed., pp. 315–329). Springfield, IL: Charles D. Thomas.

- Rank, M. G. (2000). Trauma and social work education. *Arête*, 24(2), 53–63.
- Rank, M. G., & Gentry, J. E. (2003). Critical incident stress: Principles, practices, & protocols. In W. Hutchinson & W. Emener (Eds), *Employee assistance programs: A basic text* (3rd ed., pp. 217–230). Springfield, IL: Charles D. Thomas.
- Reeve, C. L., Rogelberg, S. G., Spitzmuller, C., & DiGiacomo, N. (2005). The “caring-killing” paradox: Euthanasia-related strain among animal shelter workers. *Journal of Applied Social Psychology*, 35(1), 119–143.
- Reeve, C. L., Spitzmuller, C., Rogelberg, S. G., Walker, A., Schultz, L., & Clark, O. (2004). Employee reactions and adjustment to euthanasia-related work: Identifying turning-point events through retrospective narratives. *Journal of Applied Animal Welfare Sciences*, 7(1), 1–25.
- Reichert, E. (1998). Individual counseling for sexually abused children: A role for animals and storytelling. *Child and Adolescent Social Work Journal*, 15(3), 177–185.
- Risley-Curtiss, C., Holley, L. C., & Wolf, S. (2006). The animal-human bond and ethnic diversity. *Social Work*, 51(3), 257–268.
- Rodolfa, E. R., Kraft, W. A., & Reilley, R. R. (1988). Stressors of professionals and trainees at APA-approved counseling and VA medical center internship sites. *Professional Psychology: Research and Practice*, 19(1), 43–49.
- Rollin, B. E. (1986). Euthanasia and moral stress. *Loss, Grief, and Care*, 1(1–2), 115–126.
- Salston, M. D. (1999). Compassion fatigue: Implications for mental health professionals and trainees. Unpublished doctoral dissertation, Florida State University.
- Sanders, C. R. (1995). Killing with kindness: Veterinary euthanasia and the social construction of personhood. *Sociological Forum*, 10(2), 195–214.
- Scarlett, J. M., Salman, M. D., New, J. G., & Kass, P. H. (2002). The role of veterinary practitioners in reducing dog and cat relinquishments and euthanasias. *Journal of the American Veterinary Medical Association*, 220(3), 306–311.
- Sexton, L. (1999). Vicarious traumatization of counselors and effects on their workplaces. *British Journal of Guidance and Counseling*, 27(3), 393–303.
- Spielberger, C., Gorsuch, R. L., & Lushene, R. (1970, 1983). *Test manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Stamm, B. H. (1995). *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators*. Lutherville, MD: Sidran.
- Stamm, B. H. (2002). Professional Quality of Life Scale: Compassion Satisfaction/Fatigue Scale-Revised-III (Pro-QOL). Available on-line at http://www.isu.edu/~stamm/Pro-QOL_psychometric.html.
- Strand, E. B., Zapanick, T. L., & Brace, J. J. (2005). Quality of life and stress factors for veterinary medical students. *Journal of Veterinary Medicine Education*, 32(2), 182–192.

- Sussman, M. (1992). *A curious calling: Unconscious motivations for practicing psychotherapy*. New Jersey: Jason Aronson.
- Timmins, R. P. (2006). How does emotional intelligence fit into the paradigm of veterinary medical education? *Journal of Veterinary Medicine Education*, 33(1), 71–75.
- Tinga, C. E., Adams, C. L., Bonnett, B. N., & Ribble, C. S. (2001). Survey of veterinary technical and professional skills in students and recent graduates of a veterinary college. *Journal of the American Veterinary Medical Association*, 219(7), 924–931.
- White, D. J., & Shawhan, R. (1996). Emotional responses of animal shelter workers to euthanasia. *Journal of the American Veterinary Medical Association*, 208(6), 846–849.
- Williams, S., Butler, C., & Sontag, M. (1999). Perceptions of fourth-year veterinary students about the human-animal bond in veterinary practice and in veterinary college curricula. *Journal of the American Veterinary Medical Association*, 215(10), 1428–1432.
- Wilson, J. P., & Lindy, J. D. (1994). *Countertransference in the treatment of PTSD*. New York: Guilford Press.
- Zaparanick, T. L., Gentry, J. E., & Baranowsky, A. B. (2002). *Compassion fatigue in animal-related fields: Accelerated recovery program manual*. Toronto: Psych Ink Resources.
- Zuziak, P. (1991a). Stress and burnout in the profession, part 1: Veterinary practitioners dragged through traumatic times. *Journal of the American Veterinary Medical Association*, 198(4), 521–524.
- Zuziak, P. (1991b). Stress and burnout in the profession, part 2: Veterinary practitioners confront the destructive duo. *Journal of the American Veterinary Medical Association*, 198(5), 753–756.
- Zuziak, P. (1991c). Stress and burnout in the profession, part 3: Veterinarians find peace after war against stress and burnout. *Journal of the American Veterinary Medical Association*, 198(6), 941–944.