

# Compassion Fatigue, Euthanasia Stress, and Their Management in Laboratory Animal Research

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This review is designed to assist both individuals and organizations involved in animal-based research to understand and appreciate the importance and potential risks of compassion fatigue and euthanasia stress. We reviewed current literature regarding compassion fatigue and euthanasia stress as they relate to the laboratory animal science community. Definitions, recognition, and mitigation steps are clarified. We offer educational and mitigation advice and present needs for future research on these topics that is related directly to the laboratory animal science community.

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Many people in diverse roles contribute to the success of animal welfare and research outcomes in laboratory animal research programs. These personnel include but are not limited to animal care and veterinary staff, researchers and their teams, facility management support, IACUC and compliance members, institutional officials, board members, vendors, security personnel, administrative staff, and all others involved in laboratory animal science programs. Any of these persons are potentially vulnerable to the moral stressors innate to working with animals in research, teaching, and testing.

Moral stress occurs when one is aware of the ethical principles at stake, but external factors prevent action.<sup>11</sup> This situation can happen in any profession.<sup>25</sup> An example in our industry is the performance of euthanasia. This activity is considered moral stress and is regarded as one of the most significant contributors to the development of compassion fatigue.<sup>11</sup> Although it is difficult to identify a specific definition of compassion fatigue across professions, it can be described as “the reduced capacity in being empathetic and the consequent behaviors and emotions resulting from knowing about a traumatizing event experienced or suffered by a person”<sup>20</sup> and is characterized by deep physical and emotional exhaustion.<sup>15</sup> Compassion fatigue results in reduced empathy for others (coworkers and loved ones) and can diminish the quality of medical care delivered to animals. The term “compassion fatigue” has been used interchangeably with the terms ‘burnout’ and ‘secondary traumatic stress,’ but there are slight variations in their inherent meanings. Burnout is a cumulative process associated with increased workload and institutional stress<sup>1</sup> and is not necessarily due to trauma.<sup>11,16</sup> Secondary traumatic stress (also called vicarious trauma) can occur even when a traumatizing event is not directly experienced by a person, but simply by hearing about a traumatizing event

experienced by someone else.<sup>21</sup> Some people feeling the weight of these stressors may not have the training, coping mechanisms, or support to identify and counteract these effects.

People working either directly or indirectly with research animals can experience forms of compassion fatigue. By expanding the conversation to include various groups such as the cagewash staff, IACUC members, administrative support staff, and vendors, we can become more holistic, unified, and inclusive in our support. As one author stated, empathetic and caring personnel provide humane and respectful care, and compassionate animal care is a foundation of good science.<sup>24</sup> Compassion fatigue has the potential to affect any of us. It can manifest from a single event to possibly endless daily situations that evoke feelings of secondary traumatic stress.<sup>14,15,21</sup> This stress can be as apparent as working on death-as-an-endpoint studies to as subtle as placing an animal order fully aware that most animals have euthanasia as study endpoints. Regardless of the situation, the influence can be profound. Awareness and recognition of the emotional effect of this work, inclusive of the diversity of roles in our field, is imperative.

The importance of the work within laboratory animal science does not denigrate the importance of the stress experienced by some in our field.<sup>24</sup> Also, although prevention and mitigation measures for compassion fatigue and euthanasia stress exist, these strategies may not be completely effective for every person working in our field.

Our goal is to review current literature related to this topic for the laboratory animal science community and to provide guidance for individual staff and institutions faced with the challenges of these stressors. We hope to educate the community and provide advice regarding policy development on these critical topics to our industry.

As a disclaimer, readers should know that we authors are not mental health professionals. Some recommendations are from our personal experience as veterinarians and diplomates of the American College of Laboratory Animal Medicine and are based on our knowledge and experience of managing these topics during our careers, information shared by colleagues, and the available literature that we had reviewed at the time of our submission. All definitions presented are modified from AVMA publications on work and compassion fatigue.<sup>2,3,21</sup>

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The materials and resources presented are for educational purposes—hopefully as they pertain to our field specifically. They are not a substitute for informed medical advice or training. Do not use this information to diagnose or treat a health problem without consulting a qualified health or mental health care provider. If you have concerns, contact your employee health services, health care provider, mental health professional, or your community health center.

## Definitions

Compassion stress is the unavoidable stress experienced when helping others in distress or harm's way. This stress is expected, natural, and unavoidable in the healthcare field and is derived from a sense of responsibility and desire to alleviate suffering. Unless addressed, compassion stress can escalate to compassion fatigue.

Moral stress occurs when one is aware of the ethical principles at stake, but external factors prevent actions. Both stressors are inherent in the laboratory animal field.

Compassion fatigue is a state of exhaustion and biologic, physiologic, and emotional dysfunction resulting from prolonged exposure to compassion stress. Persons that experience compassion fatigue feel overwhelmed from bearing the suffering of others but typically continue to perform euthanasia in the interest of their patients and biomedical research. Factors that may place persons at increased risk for experiencing compassion fatigue include high empathy, low emotional resiliency, a history of traumatic experiences, and the existence of unresolved trauma. Factors that affect the severity of compassion fatigue are the duration of the experience, the potential for recurrence, exposure to death and dying, and the presence of moral conflicts.

Compassion satisfaction is a degree of fulfillment, sense of purpose and satisfaction is derived from working as a care provider. This state can involve positive feelings toward colleagues, contributions to the work environment, or gratification from caregiving.

Euthanasia stress is the concept of being aware and psychologically challenged when faced with the task of euthanizing animals. Stress and or burnout responses may be deeply rooted in the close human–animal bond.<sup>12,13</sup>

## Background

Our field has already recognized that specific psychosocial hazards may be encountered when working with laboratory animals, including desensitization to certain procedures, such as euthanasia, the inability of staff to discuss their work with those outside the field, and the complexity of the human–animal relationship in the research setting.<sup>18</sup> These psychosocial hazards contribute to the development of compassion fatigue and euthanasia stress.

Compassion fatigue is “the change in empathetic ability of the caregiver in reaction to the prolonged and overwhelming stress of caregiving.”<sup>14,21</sup> Many equate this state to a secondary traumatic stress response—knowing about a traumatizing event experienced or suffered by another being may lead to the caregiver's reduced capacity or interest in being empathetic or bearing the suffering of patients. Secondary traumatic stress is the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced or suffered by another being.<sup>20</sup>

The concept of ‘euthanasia stress’ as a form of occupational stress has been introduced to the mental health support and veterinary communities within the past 2 decades.<sup>7,19,20</sup> It has

been described as a component of the compassion fatigue phenomenon, because euthanasia of animals has health implications akin to those experienced when caring for live animals or performance of other animal-related duties (for example, participating in infectious disease pathogenesis studies).<sup>7,20</sup> The laboratory animal science community is composed of persons who are trained and self-selected to be caring, compassionate, and empathetic individuals. These characteristics, along with the nature of the work, increase our risk to the condition of compassion fatigue.<sup>16</sup> Personnel directly engaged in euthanasia reported significantly higher levels of work stress and lower levels of job satisfaction, factors which may result in higher employee turnover, psychologic distress, and other stress-related conditions.<sup>17,20</sup>

Absence of personal community and societal support can be a unique and profound compounding moral stressor for those who work with, care for, and support laboratory animals.<sup>17</sup> Outside of the workplace, personnel may feel they have no one they can talk with about the stressors and the emotional effect of their work, because of the social stigma associated with animal research. Comparatively, very few of the human or animal care providers that experience compassion fatigue may be as affected by the degree of compounding moral stress as the laboratory animal community. One author specifically opined that euthanasia stress, experienced by research staff, can be classified as ‘emotional labor.’<sup>7</sup> At the workplace, staff may regulate their emotions to comply with expectations of stoicism, experiencing additional emotional labor.<sup>7</sup>

Strategies to minimize euthanasia stress that may contribute to compassion fatigue include an open atmosphere encouraging dialogue and expressions of grief, strong social support networks, explanations as to the necessity for the research, and openness in the recruitment and training phase of the occupational requirements involved in animal-based research, including euthanasia.<sup>7,17,19,21</sup> It is important to note that suggested prevention and mitigation techniques may not be protective for all.<sup>10,25</sup>

## Symptoms of Compassion Fatigue

The following descriptions have been modified from the Compassion Fatigue Awareness Project with permission.<sup>6</sup>

Feelings of apathy and isolation are at the top of the list of behaviors that can be expressed when a person experiences compassion fatigue; however, a wide variety of emotions can be felt and expressed.<sup>9</sup> Symptoms of compassion fatigue may include, but are not limited to: bottled-up emotions; sadness and apathy; inability to get pleasure from activities that previously were enjoyable; isolation; difficulty concentrating; feeling mentally and physically tired; chronic physical ailments; voicing excessive complaints about one's job, manager(s), or coworkers; lack of self-care; recurring nightmares or flashbacks; and substance abuse or other compulsive behaviors, such as overeating or gambling.

Compassion fatigue also can have systemic effects on the workplace.<sup>4,6,8</sup> Organizational symptoms of compassion fatigue include the following: high rate of employee absenteeism or excessive workers' compensation claims; high personnel turnover; change in coworkers' relationships; inability of teams to work well together; staff members challenging or breaking company rules; outbreaks of aggressive behavior among staff; inability of staff to complete assignments and tasks or to respect and meet deadlines; lack of flexibility among staff members or strong reluctance to change; negativity toward management; inability of staff to believe that improvement is possible; lack of a vision

for the future; effect on the quality of animal care or medical care; stress experienced by the animals and introduction of scientific variability; and Increased mistakes, safety breaches, or occupational health reports.

We recommend that institutions recognize the risks of compassion fatigue and euthanasia stress for all personnel involved in animal-based research programs. To mitigate these risks, institutions should evaluate and incorporate preventive and response measures into their animal program that consider the following: provide and assure training in stress management techniques, including recognition of symptoms of compassion fatigue and euthanasia stress in themselves and colleagues; prioritize improved education and awareness of the positive effect that animal care workers have in their fields; foster an environment that encourages open dialogue about euthanasia and its effect on employee health and behaviors; assist employees to identify their own personal social support systems (for example, peers, family, friends, other animals, pets at home, institutional management, institutional employee assistance programs); teach employees about compassion satisfaction and how to grow this within themselves; increase compassion satisfaction at the individual and organizational level; and provide access to counseling and ensure counselors are knowledgeable about how compassion fatigue impacts animal care providers, research staff, and others.

We suggest that managers and administrators in animal care facilities work with occupational health program leaders to address the psychosocial hazards of working with laboratory animals. Evaluating and establishing wellness programs to meet these needs is recommended. In addition, recognize that persons with heightened vulnerability to emotional distress diminished positive coping strategies, a heightened desire to relieve suffering, or a deep connection toward the animals under their care may be more affected by compassion fatigue and euthanasia stress; and acknowledge and recognize that the understanding of the value of the research may not be solely protective against compassion fatigue and or euthanasia stress. Furthermore, if employees wish to assess their own personal wellness, a validated survey (for example, the Professional Quality of Life [ProQoL] measure) should be used.<sup>22</sup> This survey is a screening tool and is not meant to be diagnostic.<sup>23</sup>

We sought to provide current literature relevant to compassion fatigue and euthanasia stress, discuss current practices, and offer recommendations for the laboratory animal research community. Our group wishes to stress that a broad contingency may be affected by these topics. We noted that caregivers from any profession can experience compassion fatigue and that this issue is not exclusive to the animal research community issue.<sup>5,6</sup> However, laboratory animal science personnel may feel the weight of societal pressures. One such example is the weight of the expectation to 'speak for those who cannot,' and another is the societal pressure to end all use of animals. Laboratory animal personnel are directly witnessing and overcoming these challenges daily. We wish to stress that many in our field are proud of the achievements they contribute as they deal with these issues.

We wish to share a few examples or possibilities for alleviation of workplace moral stress that can be addressed at the individual, work community, management, or institutional level that best supports the persons involved. First, well-trained staff members tend to experience less stress performing euthanasia and are often the first to aid those who are experiencing stress and compassion fatigue. Consider promoting round-table discussions involving all employees who have direct interaction with research animals, such that peers and colleagues

can support each other and exchange ideas on how they have personally managed burnout, moral stress, and compassion fatigue. Offering seminars regarding this topic to the local and regional laboratory animal community can be helpful.

Acknowledge that human-animal bonding may make euthanasia difficult for the primary caregiver. The option of having another trusted colleague perform the euthanasia should always be offered and provided when requested. Another suggestion is to establish a day or a monthly recognition or memorial for the institutional community to recognize the animals' contribution and the relationship bonds that have developed. Establishing a compassion or human enrichment working group within the unit or institution to focus on training and possibly monitor metrics related to these topics is another possibility. Finally, perhaps compassion fatigue awareness training might be formalized as part of the industry safety training at the institutional level, as is done for biologic, chemical, radiologic, and physical hazards related to participating in teaching, testing, and research with animal models. These suggestions are not comprehensive. Individual responses and the institutional focus related to operational mission, species usage, and study type may influence the strategies that are successful to meet a specific organizational or personal management need.

Employers should recognize the importance of expanding their understanding of compassion fatigue and euthanasia stress and helping employees to feel supported. Employees should receive training on how to navigate their own experiences with support from their managers and coworkers. Allowing employees to determine ways to honor the animals that have contributed their lives for scientific advancement and contribution to both human and animal health is an example to consider.

Our review found limited studies or metrics for measuring the success of mitigation efforts directly for the laboratory animal community. Focused research studies and definable metrics to determine effective education and mitigation efforts for our field are encouraged.

In summary, the importance of understanding and appreciating potential risks of compassion fatigue and euthanasia stress on individual personnel as well as organizations is crucial for the animal-based research community. Once these effects are recognized, then mitigation, prevention and education are central in anticipating and managing these stressors as they affect members of the work force as well as their employers.

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