

EDITORIAL



# Balancing care and concern: Exploring the psychological impacts – Both positive and negative – of working with and caring for animals in AAS and HAI

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## Editorial for the special issue

Within the realms of human-animal interaction (HAI) and animal-assisted services (AAS), there exist positive and beneficial aspects for both humans and animals, which are commonly shared within the literature. Both areas share a long, intertwined history of human-animal relationships, yet they remain distinct in purpose and scope. In recent years, more attention has been paid to ensuring better preparedness with calls for greater attention to the well-being and welfare of animals who are included in these interactions. Despite the raised awareness of the need for well-being, an inherent component of the work includes emotional and psychological wounds for both animals and humans.

## Animal welfare and well-being

Animal welfare is defined as the physical and mental state of an animal in relation to the conditions in which it lives and dies. The terms “animal welfare” and “animal well-being” have both been used to describe the state of an animal, and while they are often used interchangeably, there are nuanced distinctions in their usage (Moberg, 2000). Although well-being may be interpreted as a more positively framed term, welfare encompasses the full spectrum of experiences, from negative to positive. For this reason, most scientists and welfare researchers prefer the term welfare, as it reflects both adverse and favorable states in a measurable framework. The concept of quality of life (QoL) is also used, especially in reference to companion animals. Like welfare, quality of life can be described as good or poor. However, while welfare can refer to short-term states (e.g., lasting a few hours or days), quality of life is generally applied to longer timeframes, typically spanning several days or more (Broom, 2006, 2014).

Both welfare and QoL can be assessed using a variety of indicators, including behavioral, physiological, and health-related measures. The term well-being is more commonly associated with the emotional state of the animal – how it feels about its experiences – whereas quality of life relates to the cognitive appraisal of an animal's situation over time (Green and Mellor, 2011). Naturally, an

animal that encounters more positive experiences is said to have a better quality of life than an animal that has accrued more negative experiences (Miller *et al.*, 2022). One effective way to foster positive emotions in animals is by offering them regular opportunities for positive affective engagement – that is, experiences that elicit pleasurable emotional states. In the context of animal-assisted services, this often involves creating positive human-animal interactions (HAI), where the animal is not just present but actively enjoys and benefits from the social contact. These interactions might include gentle touch, play, cooperative tasks, and calm companionship – activities that align with the animal's natural social behaviors and preferences. By ensuring that these encounters are mutually rewarding, we not only enhance the animal's welfare but also strengthen the human-animal bond, ultimately improving the quality and effectiveness of the intervention.

## Working with animals in HAI or AAS settings

HAI broadly refers to the dynamic, mutual relationships between humans and animals across both everyday life and structured professional contexts – from pet ownership and working dogs to veterinary care and animal sheltering. In contrast, AAS encompasses intentional, goal-directed services and interventions that incorporate animals to achieve specific human health, education, or psychosocial outcomes, governed by established protocols and outcome measures.

Working and interacting with animals can be rewarding and is a passion for many animal lovers and often why individuals gravitate toward fields, where they are able to work with and care for animals. The downside is that welfare dynamics can be perpetually taxing, leading to physical and psychological harm to stressed animals as well as empathic strain, moral stress, vicarious trauma, and compassion fatigue among the humans who professionally care for and love them.

As more programs involving animals populate across healthcare, education, criminal justice, courtrooms, and airports, it becomes

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imperative to address the multifaceted risks for the animals in these roles that may be overwhelmed, burdened, fatigued, or unqualified. There is no 'official' regulating body to ensure adequate preparation, stress management strategies, and pervading anthropomorphism.

Many handlers lack formal education or training in animal behavior, thus unintentionally expose their animals to chronic stress or unsafe situations. Not knowing what they do not know, handlers may put their dogs in situations that can lead to misinterpretation of stress signals such as lip licking, yawning, or avoidance behaviors (Glenk, 2017), potentially causing higher stress and fear or at the least, negative interactions. Glenk's (2017) research showed that dogs working in clinical settings presented elevated salivary cortisol levels (a reliable biomarker of stress) during sessions with unfamiliar patients or heightened sensory stimulation. Another study highlighted that 57% of "therapy" dogs displayed physiological signs of stress during visits, yet their handlers were unaware of their dog's discomfort (Ng *et al.*, 2014).

Additionally, a growing body of research suggests that a handler's stress can influence the welfare of the animals they work with, affecting both behavior and physiological stress markers. While identifying signs of poor welfare is important, it only captures one aspect of the broader concept of animal welfare. Welfare is increasingly understood as a spectrum that ranges from very poor to very good (Broom, 2022). To gain a comprehensive understanding of animals' welfare, it is essential to consider indicators of positive well-being in addition to negative ones. The idea of evaluating positive welfare in AAS animals is a relatively new development and has only recently gained attention (Miller *et al.*, 2022). It is important to examine whether therapy dogs experience positive affective states from interacting with patients.

Through the One Health and One Welfare perspectives, within an AAS environment, animal welfare is directly connected to recipient welfare and vice versa. One suggested definition of One Health is the recognition that the health of humans, animals and ecosystems are interconnected. "It involves applying a coordinated, collaborative, multidisciplinary and cross-sectoral approach to address potential or existing risks that originate at the animal-human-ecosystems interface" (Mackenzie and Jeggo, 2019).

Domesticated animals have undergone thousands of years of coevolution with and selection by humans, and positive human social interactions is thought to be a core component of their welfare, especially for dogs. Lawrence *et al.*, 2019, found four key defining features of welfare – positive emotions, positive affective engagement, quality of life, and happiness, which all can be applied to therapy animals. An animal experiencing a positive affective and affiliative state during AAS would likely enhance the value and benefits of the intervention for the human participant. In other words, interactions with an animal that is comfortable, happy, and highly sociable are likely to be more therapeutic and enjoyable for the human recipient, than those with an animal that finds these interactions either neutral, stressful, or aversive (Miller *et al.*, 2022).

Handlers are not immune to the emotional costs of this work. Working with dogs that support people in these domains often become a part of the identity of their handlers, leaving them crushed or devastated upon their dog's need to retire or in their passing. Handlers engaged in AAS can also experience empathic strain as they witness human suffering while managing their animal partner's welfare and over time, this can lead to compassion fatigue or burnout. The constant balancing of attending to the human participant's needs while safeguarding their dog's needs can cause a cumulative strain for handlers. When developing procedures and policies in facilities that include AAS, it is essential to consider the risk of compassion fatigue and empathic strain among the handlers.

Other animal-loving individuals who choose to work with animals professionally or on a volunteer basis also run the risk of compromised

welfare and well-being. Veterinarians, zoo staff, and animal shelter and rescue workers all face significant occupational risks. High rates of compassion fatigue, secondary traumatic stress, and burnout are well-documented in these fields (Nett *et al.*, 2015). For example, a 2019 Centers for Disease Control (CDC) study found veterinarians are between two to four times more likely to die by suicide than the general population (Tomasi *et al.*, 2019). Another survey of 11,627 veterinarians in the United States demonstrated that veterinarians are more apt to experience current serious psychological distress and have experienced suicidal ideation when compared with the general US population (Nett *et al.*, 2015). Animal shelter staff and volunteers also experience high levels of compassion fatigue, empathic strain, and burnout. Wolf *et al.* (2024) found that 85% of shelter workers experience moderate to high levels of burnout. Additionally, almost 91% had high secondary traumatic stress scores (Wolf *et al.*, 2024).

## Conclusion

As often expressed in the literature, further research and ethical considerations are warranted in all of the areas addressed above. Advances in disciplines, such as welfare science, veterinary behavioral medicine, psychology, and social work, offer promising venues for developing more comprehensive welfare assessment tools, refining ethical protocols, and establishing workplace policies that support the mental health of human professionals while psychologically, physically, and physiologically safeguarding animal welfare.

## CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

## ETHICS STATEMENT

The authors confirm that the research meets any required ethical guidelines, including adherence to the legal requirements of the study country.

## AUTHOR CONTRIBUTIONS

All authors contributed equally to the development of this article.

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## DATA AVAILABILITY

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