Companion Animal Caregiving and Well-Being

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Abstract Much of the research on human-animal interaction measures the impact of the presence of a companion animal or the interaction with a specific type of animal on human well-being. Little attention has been given to measurement of the animal's well-being and the impact of a companion animal's declining health or death on the human caregiver. Caring for a sick or aging animal can be time consuming, emotionally draining, and financially expensive. Some of the conflicting results in the human-animal interaction literature may be accounted for by such factors as the level of attachment to the animal, involvement with the animal, and in particular the age and health status of the animal. Research challenges and the need to recognize and measure the effects of companion animal caregiving are discussed, particularly in the context of chronic illness, aging, and bereavement.

Keywords Animal assisted therapy · Pet therapy · Stress reduction · Pets · Companion animals · Life course · Family life cycle · Child development · Caregiving · Stress · Aging · Health · Well-being · Bereavement · Human-animal interaction · Human-animal bond · Lifespan

Benefits of Companion Animals

The presence of a companion animal can have a positive effect on an individual's health status (Amiot, Bastian, & Martens, 2016; Friedman & Son, 2009). Relationships with animals may function as a form of social support that has health and well-being benefits (McNicholas & Collis, 2006). Therapeutic benefits of animals have been demonstrated in a variety of settings (McCardle, McCune, Griffin, Esposito, Freund, 2011) but findings related to the benefits of companion animals on owner well-being are inconsistent (Barker & Wolen, 2008; Headey, 2003; Herzog, 2011; Parslow, Jorm, Christensen, Rodgers, & Jacomb, 2005). Not all pets provide direct benefits such as companionship and exercise. And demands such as making time for

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an animal's needs or managing behavioral problems can create stressors for the pet owner (Serpell, 1996; Voith, 2009).

Having a pet serves as a resource that can buffer the impact of stressful events (Siegel, 1993). While both cat and dog owners often consider their pets to be family members (Arahori et al., 2017), the domestication history of the dog makes it a closer companion (Udell, Dorey, & Wynne, 2010). Benefits of companion animals may vary by the level and type of attachment. Individuals with high levels of attachment may consider their pet to be a family member, while others may see the pet as a working or practical companion. Companion animals develop attachment to humans as well, and this has been demonstrated for both dogs (Udell & Brubaker, 2016) and cats (Vitale, Behnke, & Udell, 2019).

For all their potential benefits, companion animals often have shorter life spans than humans (Triebenbacher, 2006). Aging takes its toll on pets much faster than it does on humans, and dealing with a sick or aging pet can be tough. Aging or ill animals may require additional care that is sometimes demanding (Christiansen, Kristensen, Sandøe, & Lassen, 2013). When a chronic disease or physical limitations manifest, the human caregiver usually adapts and makes the changes necessary to give the pet comfort. Often these adaptations become of part of the person's everyday life. The emotional and financial strains of caring for an ill or aging pet can manifest as caregiver stress, which in turn affects an individual's well-being.

Family Caregiving and Stress

Since many pet owners consider their pets to be family members (see chapter "Integrating Pets into the Family Life Cycle" Bures, 2021), it makes sense to examine this form of human animal interaction as a family caregiving relationship. A family caregiving framework can be used as a tool to consider how companion animal illness and death may affect the well-being of their human caregivers. A substantial body of research exists on family caregiving (Pearlin, Mullan, Semple, & Skaff, 1990; Schulz & Sherwood, 2008; Schulz, Beach, Czaja, Martire, & Monin, 2020). Extending this concept to caring for pets can illuminate some of the challenges of pet ownership and attachment.

Caregiving can be a chronic stress experience (Schulz & Sherwood, 2008). It is associated with extended periods of physical and psychological strain and is characterized by unpredictability and uncontrollability. It can require high levels of attentiveness and potentially create secondary stress in family and work relationships. The level of chronic stress exposure from caregiving is dependent on the intensity of care provided and the level of suffering of the care recipient (Schulz et al., 2020).

Caregiver stress is not one size fits all. The stress of caregiving is a combination of circumstances, experiences, responses, and resources unique to each caregiver. As a result, it has different impacts on each caregivers' health and behavior (Pearlin et al., 1990). In their seminal work, Pearlin et al. outline what is known as the Stress Process Model of caregiving. This model describes caregiving as an adaptive developmental process comprising four domains: the context of the stress, the caregiving stressors, the mediators of stress, and the stress outcomes. Considering caregiver stress as a

process shifts the attention to the interrelationships among the conditions leading to stress. For example, stress may be caused by interactions between the animal's health status, the costs of care, and the impact of caregiving on family and work relationships.

The stress of companion animal caregiving needs to be framed in its social context. Social ties may serve as a primary source of emotional support for individuals but, at the same time, social ties have the potential to be extremely stressful, such as close family relationships (Umberson & Karas Montez, 2010). To date there has been limited research on the impact of the relationship between the caregiver and care-receiver on caregiver well-being (Penning & Wu, 2015). Measurement of the impact of caregiving differs by age, gender, and type of caregiving as well as by the type of measure used.

There is little evidence from population-based studies that family caregivers, in general, have worse physical health than comparable non-caregiving groups (Roth, Fredman, & Haley, 2015). Yet there is substantial evidence that caregivers experience symptoms of emotional distress. It may be that stress is not generated by providing care as much as it is by observing a family member struggling with a serious medical condition (Monin & Schulz, 2009).

Like human caregiving, the impact of companion-animal care on caregiver well-being likely varies by marital status, gender, race/ethnicity, and socioeconomic status. Studies of gender differences in caregiving reveal that controlling for stressors and resources reduces the gender differences in physical health and depression to levels comparable to that observed in non-caregiving samples. These findings support stress-and-coping theories on gender differences in caregiving and are consistent with observations that men and women experience stress differently (Pinquart & Sörensen, 2006).

Caregiver Burden

Advances in veterinary medicine mean that companion animals may live longer than in previous decades and that those with health issues may receive advanced care while still at home. With age, animals slow down. They may get aches and pains or develop chronic illnesses. Younger cats and dogs may also develop chronic conditions including kidney disease, epilepsy, or thyroid problems, which can make aging more difficult for the animal. Both aging and progressive illness can cause caregiver burden for an animal's human family. For individuals already burdened with caregiving for a human family member, an aging pet may create an additional burden (Connell, Janevic, Solway, & McLaughlin, 2007).

Companion animal illness may elevate caregiver burden for pet owners, but successful treatment of the condition may alleviate this burden. In a sample of dog owners, treatment of a dermatological condition that resulted in good skin disease control had no additional burden (Spitznagel et al., 2019). For dogs with epilepsy, treatment was associated with overall quality of life (Nettifee, Munana, & Griffith, 2017). Dogs with poorly controlled epilepsy or reactions to medications were reported to have lower quality of life.

To assess companion animal caregiver burden, Spitznagel, Jacobson, Cox, and Carlson (2017) used an adaptation of the Zarit Burden Interview (ZBI; see Zarit, Reever, & Bach-Peterson, 1980), replacing the words 'your relative/spouse' with 'your pet' in each item. Several items that were not relevant to the human–companion animal relationship were omitted, resulting in 18 items. Items in the adapted ZBI include feeling that it is painful to watch your pet age, feeling strained about your pet, experiencing a negative impact on social life, and having concerns about money. A score greater than 19 on the ZBI reflects "significant burden." In their matched sample, Spitznagel et al. reported average scores of 25.42 for caregivers of pets with a chronic or terminal disease and 13.96 for owners of healthy pets.

Understanding caregiver burden in the context of companion animals is important for understanding the owner's responsibilities and the veterinarian's roles and responsibilities for the care of seriously and terminally ill animals (Goldberg, 2017). Caregiver burden is a subjective and dynamic concept (Chou, 2000). Something considered a burden by one person may be acceptable to another. And as caregiving needs change, the perceived burden may change as well. But overall, for owners of companion animals with chronic or terminal illnesses, caregiver burden is linked to multiple negative psychosocial outcomes, including raised levels of stress, depressive and anxious symptoms, and lower quality of life (Spitznagel et al., 2017; Spitznagel, Jacobson, Cox, & Carlson, 2018).

Companion Animal Illness and Loss

The life span of companion animals is relatively short, making the loss of an animal family member more common than the loss of a human family member (Cowles, 1985; Triebenbacher, 2006). For children, the loss of a pet may represent their first permanent loss; for adults, it may represent the loss of a beloved companion. Aging varies by species and breed, making it often difficult to characterize normal aging in companion animals (Szabó, Gee, & Miklósi, 2016).

Companion animal quality of life (QOL) is often a concern when there is an illness or advanced age. QOL extends beyond simple health to all dimensions of an animal's life (McMillan, 2003). Assessing QOL in companion animals is important for determining their well-being (McMillan, 2003; Mullan, 2015). Declining QOL is a common stressor for caregivers. There are numerous tools for assessing QOL in humans, but development and validation of tools to measure animal QOL has lagged (Belshaw, Asher, Harvey, & Dean, 2015; Mullan, 2015). Villalobos (1994) developed a Quality of Life Scale for terminally ill pets. The "HHHHHMM" Scale scores pets on a scale of 1 to 10 (ideal) on seven dimensions: hurt, hunger, hydration, hygiene, happiness, mobility, and more good days than bad. A score greater than 35 is considered acceptable.

One common theme related to the death of a pet is support from the veterinarian (Adams, Bonnett, & Meek, 2000; Ellwood, Simmonds, & Walker, 2001; Christiansen et al., 2013). Another is the need to deal with grief (Testoni et al., 2019). A study

by Adams et al. (2000) found that 27% of participants experienced severe grief following the death of their cat or dog. Notable risk factors for grief included level of attachment, type of death, societal attitudes toward pet death, and veterinary support. These findings are consistent with results from an analysis of online responses to an article on the topic of losing a companion animal. Using qualitative thematic analysis, Laing and Maylea (2018, p. 221) identified four major themes: strength of the bond, anthropocentrically disenfranchised grief, anticipatory grief in the context of euthanasia, and the need for professional support.

Studying companion animal loss can be challenging because it may be difficult to share vulnerable and personal information (Furman, 2006). Individuals may be reluctant to share their grief for fear of ridicule (Gage & Holcomb, 1991). The loss of a pet can be disruptive to the family system (Triebenbacher, 2006; Walsh, 2009). The decision to proceed with euthanasia, which requires ending the life of another living being, can be a distinctive feature of the companion animal grief process (Reisbig, Hafen, Siqueira Drake, Girard, & Breunig, 2017). The decision related to the timing of euthanasia can be fraught with ethical and emotional strain, a topic that is often overlooked (Knesl et al., 2017).

Pet loss can be complicated and may result from things other than death of the animal (Walsh, 2009). For example, individuals with assistance animals may be separated due to retirement, reassignment, or death (Villalobos, 2019). Pet loss may also result from divorce (Fossati, 2020; Rook, 2014) and custody agreements based on child welfare. The loss of a pet impacts family functioning, and the associated grief may disrupt the lives of individual family members.

Heath care systems need to explicitly recognize the levels of grief and sadness experienced by some pet owners (Mohanti, 2017). In 2017, a 61-year old woman sought emergency treatment for heart-attack-like symptoms following the death of her dog (Maiti & Dhoble, 2017; Watson, 2017). She was diagnosed with broken heart syndrome, a temporary condition that is also known as stress-induced cardiomyopathy. The death of a companion animal can be like the loss of a family member (Carmack, 1985; Morris 2012) and can be a significant loss for individuals and families (Ellwood et al., 2001; Triebenbacher, 2006). The loss of a pet can be especially distressing if it was associated with a deceased spouse or regular social activities (McNicholas et al., 2005).

Bereavement

Individuals who have lost a companion animal may experience denial, both of the animal's illness and the finality of its death, and feel anger that may be directed at the veterinarian (Cowles, 1985). An individual's level of attachment to their pet may affect how they deal with illness and loss of the animal (Serpell, 1996). In a sample of owners with euthanized pets, attachment to the pet was positively associated with feelings of sorrow and anger, and cancer diagnosis was negatively related to feelings of anger and guilt (Barnard-Nguyen, Breit, Anderson, & Nielsen, 2016). These

experiences are consistent with the five stages of grief—denial, anger, depression, bargaining, acceptance—described by Kübler-Ross and Kessler (2005).

Yet grief does not follow prescribed stages. Doka and Davidson (2014, p. 2) describe individual differences that may affect the way grief manifests itself:

- the nature of the loss;
- the relationship and the attachment to the loss;
- circumstances surrounding the loss;
- the extent of, and response to, prior loss;
- the psychology and personality of the bereaved;
- personal variables such as health, lifestyle, and stress management; and a variety of social variables including age, gender, developmental level, social class, cultural and religious beliefs; and
- practices, family, and external and internal support.

Indeed, the main factors related to grief after the loss of a human relation (anger, guilt, grief, and intrusive thoughts) are often present after the loss of a pet (Uccheddu et al., 2019). Like human attachment, companion animal attachment is characterized by both attachment anxiety and avoidance (Zilcha-Mano, Mikulincer, & Shaver, 2011). Attachment anxiety is associated with closeness; avoidance is associated with emotional distance. Individuals with higher companion-animal attachment anxiety were found to grieve the death of a pet; those with higher avoidant attachment were relatively indifferent to the loss of their pet.

Using the Mourning Dog Questionnaire, a tool developed to assess owners' grief over the loss of a companion dog, the researchers found substantial variations in grief, likely due to individual differences in the way their grief is expressed (Uccheddu et al., 2019). Other results measuring grief and attachment demonstrate that dog owners tend to view human and animal relationships on the same continuum, not as separate entities. An understudied dimension of companion animal relationships is gender, as most respondents in studies of pet loss are female (Packman, Bussolari, Katz, & Carmack, 2016). Arguing that men grieve differently from women, not less, Packman et al. demonstrate that men have strong relationships with their dogs and experience deep grief at their loss.

Following the death of a companion animal, increased psychological support may help owners better cope with grief (Testoni, De Cataldo, Ronconi, & Zamperini, 2017) and professional support may be needed (Carmack, 1985; McCutcheon & Fleming, 2002). Effective communication from the veterinarian and veterinary team can help owners make conscious and informed end-of-life decisions and offer support (Testoni et al., 2017, 2019).

Support following the loss of a companion animal can be essential since the loss of a pet often goes unvalidated. The death of a companion animal may be accompanied by feelings of disenfranchised grief (Habarth et al., 2017; Packman, Bussolari, Katz, Carmack, & Field, 2014; Spain, O'Dwyer, & Moston, 2019; Testoni et al., 2017; Walsh, 2009). Friends, family, and the broader community may not recognize the loss of a pet as a "real loss" (Packman et al., 2014). Disenfranchised grief results from

the experience of a loss that is either unacknowledged or considered insignificant. Consequently, the bereaved is unable to express their grief (Spain et al., 2019).

Dealing with disenfranchised grief may have an impact on an individual's psychosocial functioning. In this context, self-compassion training may have positive effects for bereaved pet owners (Bussolari, Habarth, Phillips, Katz, & Packman, 2019). Self-compassion may also moderate the relationships between grief severity and depression as well as between social constraints and depression. The social constraints related to grieving for the loss of a pet can have negative impacts on mental health and functional outcomes (Habarth et al., 2017).

Continuing Bonds

As pets increasingly are considered family members, there is a parallel belief that pets have an afterlife (Davis, Irwin, Richardson, & O'Brien-Malone, 2003; Fidler, 2004; Testoni et al., 2017). Companion animals may be "granted a form of personhood that extends into the spiritual realm" (Magliocco, 2018, p. 62). The allegory of the Rainbow Bridge, an afterlife where companion animals are restored to their healthy states and await a reunion with their person, offers one example of a continuing bond, and serves as a tool for dealing with the loss of a pet:

> Just this side of heaven is a place called Rainbow Bridge.
>
> When an animal dies that has been especially close to someone here, that pet goes to Rainbow Bridge. There are meadows and hills for all of our special friends so they can run and play together. There is plenty of food, water and sunshine, and our friends are warm and comfortable. All the animals who had been ill and old are restored to health and vigor. Those who were hurt or maimed are made whole and strong again, just as we remember them in our dreams of days and times gone by.
>
> The animals are happy and content, except for one small thing; they each miss someone very special to them, who had to be left behind. They all run and play together, but the day comes when one suddenly stops and looks into the distance. His bright eyes are intent. His eager body quivers. Suddenly he begins to run from the group, flying over the green grass, his legs carrying him faster and faster.
>
> You have been spotted, and when you and your special friend finally meet, you cling together in joyous reunion, never to be parted again. The happy kisses rain upon your face; your hands again caress the beloved head, and you look once more into the trusting eyes of your pet, so long gone from your life but never absent from your heart.
>
> Then you cross Rainbow Bridge together…. (Author unknown, Brandes, 2009)

Both level of attachment to a companion animal and the length of the relationship are positively related to grief (Planchon, Templer, Stokes, & Keller, 2002). Coping with the loss of a companion animal can be complicated if the owner perceives that they have little social support (Rémillard, Meehan, Kelton, & Coe, 2017). Recommendations from a study of callers to a pet-loss support hotline included asking individuals to talk about their pet and exploring the strength of the caller's support network. Overcoming grief and finding ways to facilitate expressions of grief, such as memorials, may be necessary for posttraumatic growth (Spain et al., 2019).

Maintaining an emotional attachment, or continuing bonds, can facilitate grief reactions and mediate the impact of the loss of a companion animal on the bereaved owner (Packman, Carmack, & Ronen, 2012). These continuing bond expressions can include: recalling favorite memories, sensing an ongoing connection with the pet, thinking they heard or felt their pet; talking to their deceased pet; dreaming of the pet; holding on to collars or toys that belonged to their pet; creating memorials in tribute to their deceased pet; and having thoughts of being reunited with their pet (Habarth et al., 2017; Packman et al., 2012, p. 339).

Continuing bonds may help an individual resolve their grief, not by ending their relationship with their pet but by redefining it. Children often use continuing bonds to cope with the loss of a companion animal (Schmidt et al., 2020). This varies by the child's developmental stage and the level of attachment. For adults, the level of maintenance of continuing bonds for pets was similar to that for spouses (Packman, Field, Carmack, & Ronen, 2011). Maintaining a connection to a decreased pet through continuing bonds may be comforting, distressing, or both. Like grief, continuing bonds are unique to the individual and evolve over time (Packman et al., 2012).

Conclusion

To understand the impact of the decline and death of companion animals on their owners and caregivers, researchers need to understand both the context of care and the emotional toll of caregiving. Human-animal interaction researchers increasingly draw on the family caregiving and bereavement literatures to better understand the consequences of the health and loss of a companion animal for individual well-being. Research on companion animal caregiving and loss may help to clarify conflicting findings related to the concept of a general "pet effect" on human health and well-being (Herzog, 2011).

One of the primary findings of human-animal interaction research has been that HAI increases well-being and reduces psychological distress, but more research is needed to clearly articulate the mechanisms of this relationship (Crossman, 2017). While the benefits of relationships with companion animals over their lives are considered worth the challenges that come with illness and death, the loss of a pet can cause extreme distress. The growing research on companion animal bereavement, particularly in association with euthanasia, is helping to illuminate this issue. Longitudinal research following the death of a companion animal may prove to be informative as well (Planchon et al., 2002).

In this chapter, the focus has been on companion animals whose owners have some form of attachment and maintain ownership. These relationships described cannot be expected with individuals who do not develop attachment and give up their animals. It should be noted that there is a separate literature on companion animal relinquishment, typically to animal shelters (see Arbe Montoya, Rand, Greer, Alberthsen, & Vankan, 2017; Lambert, Coe, Niel, Dewey, & Sargeant, 2019; Protopopova & Gunter, 2017).

A growing body of research on the consequences of companion-animal illness and loss for owner well-being builds on earlier companion-animal attachment research, as well as the broader literature on caregiving and grief. Advances have been made in the measurement of companion animal caregiver burden (Spitznagel et al., 2017) and grief following the loss of a pet (Uccheddu et al., 2019). Looking forward, researchers can explore the adaptation and testing of other health-related measures such as quality of life and general health. For example, self-rated health is frequently used as a general measure of human health and well-being (see Garbarski, 2016). Proxy reports of health have been shown to predict mortality as effectively as self-rated health (Ayalon & Covinsky, 2009), suggesting that a pet owner's report of an animal's health could be a reliable indicator. General measures of companion animal health should also be included in studies when possible.

There is also a need for better measurement of the owner's relationship with the companion animal in households with multiple animals, such as status within the companion-animal hierarchy. The inconsistency of instructions for individual animal selection in research shows a lack of standardization of studies of human–animal relationships more generally (Thompson, O'Dwyer, Bowen, & Smith, 2018). Researchers should explicitly consider the implications of companion animal selection methods (e.g., favorite pet) in an effort to match selection instructions with the specific research aims.

Future studies on the health and well-being effects of companion animal caregiving and loss should employ more rigorous research methodologies. Research findings to date have been consistent with the broader literature on grief, bereavement, and well-being, yet many studies have been based on convenience samples from veterinary clinics or online groups. There is a need for increased interdisciplinary collaboration and the inclusion of pet-related questions in longitudinal and population-based health surveys (McCune et al., 2014). While challenging, it would be useful to have study samples drawn from defined populations that would allow for well-being comparisons between companion animal owners and nonowners, as well as between caregivers and non-caregivers.

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