Companion animals and disasters: The role of human services organisations

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ABSTRACT

INTRODUCTION: Companion animals have often been treated as an afterthought, or ignored, by those involved in planning for and responding to disasters. This omission in planning for the needs of companion animals has been predicated upon a failure to recognise the emotional bond between many people and their companion animals. This has resulted in significant costs for humans and animals in many disasters. This article serves to raise issues regarding the responsibilities of human service organisations (HSOs) for animal-inclusive disaster risk reduction (DRR).

METHOD: This article develops a conceptual base for the consideration of the inclusion of animals in disaster planning and response within human services organisations. By first establishing the legitimacy of the human-animal bond and the requirement for human services organisations to develop their disaster planning, an exploration of the literature explores the rationale for the inclusion of companion animals within DRR.

FINDINGS AND IMPLICATIONS: A clearly demonstrated relationship between DRR and the presence of companion animals is evidenced within the literature. Delays in evacuation due to the lack of facilities for companion animals, the loss and grief experienced by those forced to abandon their animals, and the particular vulnerabilities of those living in isolation or in homeless situations attest to the importance of animal-inclusive planning. Those living with animals may be more inclined to commit to DRR if the needs of their animals are included in planning. A mandate for organisational and professional responsibility for the inclusion of companion animals is established.

CONCLUSION: For effective DRR, human services organisations have a professional and ethical imperative to include companion animals in their disaster planning and response.

KEYWORDS: animals, disasters, social work, human services, social work education

The relationship between people and companion animals in the disaster context

In the past, there has been a clear philosophical and practical demarcation between services geared towards the needs of humans and those addressing the needs of animals. Human service organisations (HSOs), the term we are using to inclusively describe organisations employing both *c.adamson@auckland.ac.nz* social workers and other related disciplines) have historically seen the needs of animals as tangential to the work which they do (Ryan, 2011) and, as a result, have often overlooked the central role that animals play in many people's lives. The limited literature that exists indicates that human services have tended to exclude animals from consideration (Ryan, 2011; Walker, Aimers, & Perry, 2015), and that there has been little specific training for social workers about the significance of animals in people's lives (Risley-Curtiss, 2010).

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The idea that the needs of animals and humans are distinct has also shaped emergency management and disaster response, which has been based upon the assumption that human life is of paramount importance and that the plight of animals is of secondary concern (Irvine, 2006; Potts & Gadenne, 2014). As a result, the needs of companion animals have often been poorly catered for, both in planning for and response to disasters (Austing, 2013). Responsibility for companion animals has often been poorly defined or relegated to animal-focused charities (Wittnich & Belanger, 2008). Where animals have been taken into account, they have generally been viewed as risks which need to be managed, with little regard given to the psychosocial role they play in many people's lives.

In recent years, however, an understanding has developed that the welfare of companion animals is something which must be taken into account when planning for, and responding to, disasters (Appleby & Stokes, 2008). This recognition stems from increasing public concern for the wellbeing of companion animals and recognition that there are significant social costs in failing to plan for the wellbeing of animals during disasters (Glassey, 2010), and that adequate planning for the needs of companion animals can significantly lessen the human and economic impact of disasters (Austing, 2013). Recent significant disasters - such as Hurricane Katrina in New Orleans in 2005 and the Canterbury earthquakes in Aotearoa New Zealand in 2010-11 - have contributed to a reframing of the role that companion animals play within human lives, and have provided the imperative for animal-informed planning in disaster risk reduction (DRR).

There have also been broader societal changes in the understanding of the relationship between humans and animals (Ryan, 2011). Use of the noun phrase *companion animal*, the term that we use within this article, denotes a perceptual shift in the relationship, from animals-as-chattels, to pets, and now to the status of companion. This is not a completed transition in human thinking about animals: the status of farmed animals, not the purview of this article, is perhaps less clear and remains framed within a focus on economic production and animal welfare rather than, as we argue here, a relationship within an ecological context.

Although there is increasing recognition of the need to bring an awareness of companion animals into the work done by human services (Hall et al., 2004; Walker et al., 2015), we believe that there is more that HSOs could be doing to include the needs of animals when planning for disaster response and recovery. In this article, we explain why we believe that this is important and the potential benefits of such animal-inclusive planning. This article will look briefly at the importance of disaster response planning and why HSOs need to engage in it. We will then consider two levels on which HSOs can achieve animal inclusivity: first, we will discuss how practitioners working with those affected by disaster could include a greater focus on animals in their work and why it may be beneficial to better understand the relationship between companion animals and their carers. We will then consider what HSOs can do at an organisational level to plan for, and respond to, disasters in an animal-inclusive manner.

Human service organisations and disaster response planning

Disaster response planning is a growing field which emphasises the need for rigorous preparation in order to minimise the impact of disasters. HSOs have a crucial role to play in building community resilience, aiding in the immediate response to disasters and the longer-term work of rebuilding communities. Despite this important role, HSOs have often been absent when disaster response planning is taking place and as a result often respond alongside official efforts rather than being effectively integrated with them (van Heugten, 2014). The Christchurch earthquakes of 2010 and

THEORETICAL RESEARCH

2011 provided a timely reminder of the need for HSOs in Aotearoa New Zealand to engage in pro-active disaster response planning (van Heugten, 2014).

Within human services, this planning will involve developing contingency plans in order to ensure continuity of service after a disaster has occurred. Practically, this could involve making sure information for staff and clients is up to date and backed up off-site and that appropriate supplies are available when needed (van Heugten, 2014). Externally, disaster response planning will involve working with other organisations and officials in order to ensure that disaster response efforts are co-ordinated and effectively meet peoples' needs (van Heugten, 2014).

Table-top exercises provide one means for HSOs to think about how their organisation might respond to a disaster scenario. These conceptual exercises involve one or more organisations working through a predetermined scenario in order to understand how a disaster could unfold, the role that each organisation would play and to identify the shortcomings in existing plans (Savoia et al., 2009). The complexity and realism of such exercises can range from simple discussions to multi-day role plays.

Animals as part of the family: how society's understanding of companion animals is changing

It is clear that many people have a high degree of attachment to the companion animals that they care for (Sable, 2013) and that these animals, viewed as family members, form an integral part of their lives (Walsh, 2009a). This central role that animals play in many people's lives is reflected by findings in a recent Aotearoa New Zealand survey which found that most people thought of animals as part of the family (Glassey, 2010). For many individuals and families, companion animals provide a constant source of comfort and affection (Coombs, Eberlein, Mantata, Turnhout, & Smith, 2015) and may come to be integral parts of their lives, providing routine, stability and emotional richness for those with whom they live (Trigg, Thompson, Smith, & Bennett, 2016). Companion animals can play an especially significant role in the lives of children and may be a significant source of emotional support (Melson, 2003), especially when other sources are unavailable (DeGue, 2011). An understanding that animals are part of the family is increasingly being advocated for human service workers in order to more accurately reflect the ecologically embedded role and function of companion animals in many people's lives (Walsh, 2009b): this therefore has major implications for when the lives of humans and animals are disrupted by disaster.

Companion animals and disasters: lives at risk

In order to understand how human services can better support people in a disaster context, it is worth understanding the way companion animals affect how humans respond to disasters. For many people, the idea of leaving their companion animals behind during a disaster is unthinkable and there is a strong correlation, for example, between having companion animals and failure to evacuate in accordance with disaster warnings (Heath, Kass, Beck, & Glickman, 2001; Hunt, Bogue, & Rohrbaugh, 2012). The presence of companion animals during a disaster often leads to people staying in dangerous situations or attempting to evacuate with them, even if this places people and animals at increased risk (Hesterberg, Huertas, & Appleby, 2012). Tragically, there are many examples where people have died attempting to save their companion animals (Thompson, 2013). Where evacuation is possible, there is a risk that the evacuee will become stranded, or have reduced independence, with the added burden of caring for an animal in unfamiliar and potentially unsuitable environments (Ellis, 2007).

Where animals are not evacuated in a disaster, members of the public will often enter disaster zones illegally in order to feed or rescue animals (Edmonds & Cutter, 2008; Irvine, 2006). Having to evacuate without companion animals can be a traumatic experience for many (Awadi, Hunt, & Johnson, 2008), especially if adequate preplanning is not in place. Finding temporary accommodation which is companion animal friendly can be difficult in a post-disaster context, and this may force some people to make difficult decisions such as separation from, or even abandonment of, companion animals. This was the fate for many owners of companion animals after the Christchurch quakes, with consequent negative effects for both humans and animals (Potts & Gadenne, 2014). Owners may also choose to live in substandard accommodation if suitable animal-friendly housing options are not available.

It is an unfortunate reality that animals are often victims of disaster, even with the best planning and preparations in place. The death of a companion animal can be a traumatic experience in a person's life, resulting in strong feelings of grief and loss (Awadi et al., 2008; King & Werner, 2011). The loss of a companion animal during a disaster may come on top of family separation and/or other significant trauma (Zottarelli, 2010), and is associated with experiencing significant distress (Lowe, Rhodes, Zwiebach, & Chan, 2009), and a higher likelihood of psychological problems, such as depression and stress-related disorders (Awadi et al., 2008).

The death of a companion animal may mean that an individual loses a significant source of support, further complicating their recovery from a disaster (Evans & Gray, 2012). Even if an animal has not died, there may be significant feelings of loss or guilt if an animal has had to be left behind or given up due to circumstances resulting from a disaster (Potts & Gadenne, 2014). Given the widespread speciesism in society, there is a risk that those who have lost a companion animal may not have their feelings of grief validated or acknowledged by those around them (Morley & Fook, 2005), resulting in a lack of required support (Donohue, 2005). Adding to this, those with poor support networks, such as isolated older people or the homeless, are likely to be disproportionately affected by the loss of a companion animal, in comparison to those with more extensive support systems.

What this means for human service workers who are in a disaster context

We suggest that understanding the importance of people's relationships with companion animals should guide the work of human service workers who are responding to disasters. Organisations should make sure that workers responding to disasters are aware of the how an understanding of the human-animal bond should inform the work they do. For example, during the assessment phase, human service workers could include companion animals when using tools such as eco-maps or genograms, thus gaining an understanding of the relationship between client and animal (Sable, 2013; Walsh, 2009a). Asking about companion animals may provide a means of building rapport (Evans & Perez-y-Perez, 2013) and can elicit important information about relationships and family functioning (Walsh, 2009b). If human service workers are not aware of the need to ask such questions, it is likely that significant information may be missed.

Despite the risks and vulnerabilities associated with the bond between humans and animals at the time of disasters, it is imperative that human service workers recognise that, due to the strength of attachment relationships, companion animals can also be a source of support during and after disasters, increasing resiliency and aiding in recovery from grief and losses. Companion animals can provide a range of physiological and psychological benefits to individuals (Wells, 2009) and can encourage people to prepare for disasters as well as assist people in their recovery from

THEORETICAL RESEARCH

disaster (Thompson et al., 2014). For some people, companion animals provided a valuable means of managing stress following the Canterbury earthquakes (Coombs et al., 2015; Potts & Gadenne, 2014). With this knowledge base for human service practice, we now turn to the organisational responsibilities of HSOs for the inclusion of companion animals within disaster planning.

The role of organisations in animal-inclusive disaster planning

In recognising the human-animal bond as a fundamental attachment relationship, requiring inclusion in both assessment and loss and grief support, we have delineated some fundamental practice requirements for those working within HSOs. These best practice implications therefore provide a mandate for organisations to structure disaster response according to animalinclusive principles. In this section, we consider animal-inclusive disaster response both within and beyond the HSO. Within organisations, the importance of companion animals to service users suggests the need for proactive planning in regard to the organisational response to service users and their animals, including recognition of the need for animal-friendly accommodation and transport, and the particular needs of vulnerable populations. Beyond the organisational boundary, the imperative emerges for organisations to locate themselves within networks, policy and legislation for disaster risk and response.

Animal-inclusive planning in organisations

Organisational-level commitment to animalinclusive practice in disaster response is essential. As a result of failures to plan in advance, ad hoc responses to meet the needs of animals have been a recurring feature in disasters (Heath & Linnabary, 2015) and there has been a tendency for individual HSOs to fail to incorporate, or to ignore, the human–animal bond in their planning and operations. There are a range of practical barriers that, in ignoring this bond, may prevent evacuation with companion animals, such as difficulty finding pet-friendly accommodation and inability to transport animals (Heath et al., 2001; Hunt et al., 2012).

When planning to meet emergency accommodation needs post-disaster, HSOs should take into account the benefits of allowing owners to stay with their companion animals (Coombs et al., 2015). Emergency shelters are often ill equipped to take companion animals and evacuees are likely to face difficulties finding accommodation such as rental housing that is willing to accept companion animals (Evans & Perez-y-Perez, 2013). Recognising this, HSOs may be able to proactively identify pet-friendly accommodation for evacuees and those requiring re-housing following a disaster, and to ensure that HSO workers and service users are aware of their existence (Heath & Linnabary, 2015; Hunt et al., 2012). HSOs may also be able to work with animal welfare organisations such as the Society for Prevention of Cruelty to Animals (SPCA) and animal-fostering groups to make sure that emergency shelters for animals are available and accessible to evacuees (Morley & Fook, 2005). Ideally, emergency shelter for companion animals will be provided alongside welfare centres of evacuees as is recommended by the Ministry of Civil Defence and Emergency Management (2010); however, this does not always occur in Aotearoa New Zealand (Evans & Perez-y-Perez, 2013) and is currently being developed within the SPCA National Plan (personal communication from SPCA, May 24, 2016).

Disasters do not impact on all segments of the population equally and it has been found that vulnerable populations are more likely to experience the loss of a companion animal than other sections of the population (Zottarelli, 2010). HSOs should be aware of the fact that vulnerable populations such as older people, or those living with disabilities, may face particular challenges when it comes to evacuating with, or caring

for, animals after a disaster. There is some evidence to suggest that, for individuals with poor support networks, strong attachment to companion animals is co-associated with the experience of greater levels of stress and depression (Antonacopoulos & Pychyl, 2010). These findings could indicate that those who rely on a companion animal as a key support may require additional assistance from human services. Related to this are findings that those with poor support networks are also affected more by pet loss than those with strong support networks (Lowe et al., 2009). These findings highlight the importance of understanding the role of companion animals in the lives of the vulnerable.

HSOs have an ethical mandate to work proactively with vulnerable populations to ensure that they have the ability to evacuate safely with their animals. This might include ensuring that they have appropriate animal carriers or that animals are micro-chipped in case of separation from their humans (Palika, 2006). Proactive networking could assist with an animal-inclusive identification of the nature of assistance that neighbours and their animals may require. HSOs should also consider developing registers of vulnerable people who may be required to evacuate with their companion animals, for example, those using seeing-eye or assistance dogs (Mills, 2015). This type of information, which could be easily obtained prior to a disaster, could prove vital to those responding to a disaster.

Of particular interest is research showing that addressing the needs of companion animals can provide a means to connect to populations which may typically be difficult to reach (Thompson et al., 2014). For example, companion animals may play a significant role in the lives of the homeless, who may welcome services which provide support or assistance with their companion animals. In this way, HSOs may be able to use an increased awareness of the humananimal bond to build rapport with these vulnerable population groups. When considering vulnerable groups which may need assistance following a disaster, vulnerable animals themselves should also be taken into account. As with humans, older animals or those with health problems may require specialised care or assistance. For some carers of companion animals, this can be a significant burden which HSOs may be able to lessen by encouraging advance planning.

Pro-active planning such as table-top exercises and inclusion of animal welfare items within assessment checklists, can potentially assist organisations to conduct animal-inclusive interventions within a disaster context. Advance planning by service users, assisted by those working in HSOs, can assist those living with companion animals to establish awareness of emergency shelters for pets. Pre-existing provision for emergency animal shelters, such as the memorandum of understanding signed between Women's Refuge and the SPCA in May 2013, has proved to be only as good as local and regional services have been able to develop and sustain. So, while national-level agreements signify a move towards animal-inclusive policy, organisational-level commitment is required for effective practice.

Working with other organisations

Beyond the individual organisation, the welfare of companion animals alongside their humans becomes a vital issue for organisational cooperation, policy and legislation. Past failures to meet the needs of animals in disasters reflect a tendency to exclude animals in legislation relating to disaster planning and response (White, 2012). The widely publicised plight of companion animals following Hurricane Katrina was a turning point internationally when it came to recognition of the needs of companion animals in disasters (Wan, 2006). Widespread acceptance that there were major failings in planning for companion animals during Hurricane Katrina lead to a new law being passed in the United States:

THEORETICAL RESEARCH

the Pets Evacuation and Transportation Standards Act (PETS) (Mike, Mike, & Lee, 2011). This new legislation required the Federal Emergency Management Agency (FEMA) to ensure that local and state disaster management plans take into account the needs of pets and service animals (Mike et al., 2011).

Aotearoa New Zealand has seen similar developments in national planning for animals in disasters, with the Ministry for Primary Industries now taking a national co-ordinating role. This is a substantial move forward as the disaster management framework in the Civil Defence Emergency Management Act had previously resulted in considerable regional variance in the planning for affected animals (Glassey, 2010).

There are some practical options that human services organisations can take to assist in systems-level planning for disasters in an animal-inclusive manner. Disasters, while affecting whole communities, share some impact characteristics with other crises and extreme stressors, such as in the case of domestic violence. As acknowledged previously, however, memoranda of understanding (such as the SPCA-Refuge agreement) and the ongoing work towards developing SPCA and Civil Defence and Emergency Management compatibility are only as effective as the ability of local agencies to implement these agreements. HSOs are operationally central to implementing such accords across traditional agency boundaries. DRR strategies emphasise preparatory planning for disasters. The effectiveness of the Christchurch hospital social work response in the Canterbury earthquake, for instance, was in part attributed to the prior training completed alongside civil defence organisations (Corin, 2011) and planning such as table-top exercises are widely used within DRR (see, for example, https:// www.fema.gov/emergency-planningexercises). At an agency level, proactive disaster planning can be adapted to be animal-inclusive, in relation to attachment

relationships, identification of vulnerable populations and practical needs for petfriendly accommodation and transport.

In order to more effectively meet the needs of clients, HSOs should invest in developing connections with organisations and agencies concerned with the welfare of animals well before disasters strike (Heath & Linnabary, 2015). For example, relationships could be built with vets in order to ensure that those who have suffered the loss of an animal receive appropriate referral information. This could serve the dual role of identifying those who need support and better educating veterinarians about the traumatic effects of pet loss (Donohue, 2005). There also needs to be further networking in order to ensure that the practical needs of clients regarding their companion animals will be met during disasters.

As well as helping people meet practical needs, HSOs have the ability to advocate for the needs of animals, supporting policy changes or initiatives which will help keep animals and their owners together during disasters (Sable, 2013). They also have a broader role in promoting an understanding of the importance of animals in many people's lives, a role that we now argue should be promoted within social work education.

Conclusion

Companion animals play an important role in the lives of many New Zealanders and it is important that human service workers and organisations have an understanding of this. In order to respond effectively during and following disasters, HSOs need to engage in considerable planning and preparation. Analysis of recent disasters has shown the extent to which companion animals affect people's wellbeing and the decisions that they make. Given this knowledge base, we believe that any planning done by HSOs must include an understanding of the human–animal bond and how HSOs can support the maintenance of this bond. In

ORIGINAL ARTICLE THEORETICAL RESEARCH

order to assist HSOs to do this, we have identified a range of practical steps that could be taken to ensure that responses to disasters are animal-inclusive.

References

Antonacopoulos, N. M. D., & Pychyl, T. A. (2010). An examination of the potential role of pet ownership, human social support and pet attachment in the psychological health of individuals living alone. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals, 23,* 37–54.

Appleby, M. C., & Stokes, T. (2008). Why should we care about nonhuman animals during times of crisis? *Journal of Applied Animal Welfare Science*, 11(2), 90–97. doi:10.1080/10888700801925612

Austing, J. (2013). Shelter from the storm: Companion animal emergency planning in nine states. *Journal of Sociology & Social Welfare*, 40(4), 185–210.

Awadi, H. A., Hunt, M., & Johnson, M. (2008). Psychological sequelae of pet loss following Hurricane Katrina. Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals, 21, 109–121.

Coombs, S., Eberlein, A., Mantata, K., Turnhout, A., & Smith, C. M. (2015). Did dog ownership influence perceptions of adult health and wellbeing during and following the Canterbury earthquakes? A qualitative study. Australasian Journal of Disaster and Trauma Studies, 19(2), 67–76.

Corin, C. (2011). The Christchurch hospital social work service response in the first hours after the Christchurch earthquake of 22nd February 2011. *Aotearoa New Zealand Social Work*, *23*(3), 58–62.

DeGue, S. (2011). A triad of family violence: Examining overlap in the abuse of children, partners and pets.
In C. Blazina, G. Boyraz, & D. Shen-Miller (Eds.), *The psychology of the human–animal bond* (pp. 245–262).
New York, NY: Springer. doi:10.1007/978-1-4419-9761-6_14

Donohue, K. M. (2005). Pet loss: Implications for social work practice. *Social Work*, *50*(2), 187–190. doi:10.1093/ sw/50.2.187

Edmonds, A. S., & Cutter, S. L. (2008). Planning for pet evacuations during disasters. *Journal of Homeland Security & Emergency Management*, 5(1), 1–20.

Ellis, C. (2007). Katrina and the cat: Responding to society's expendables. *Cultural Studies Critical Methodologies*, 7(2), 188–201. doi:10.1177/1532708606288652

Evans, N., & Gray, C. (2012). The practice and ethics of animal-assisted therapy with children and young people: Is it enough that we don't eat our co-workers? *British Journal of Social Work*, *42*(4), 600–617. doi:10.1093/ bjsw/bcr091

Evans, N., & Perez-y-Perez, M. (2013). Will Marley come home? An exploration of the impacts of the Canterbury earthquakes on people's relationships with their companion animals. *Aotearoa New Zealand Social Work Review*, 25(2), 7–17.

Glassey, S. (2010). Recommendations to enhance companion animal emergency management in New Zealand. (No. 1.0). Wellington, New Zealand: Mercalli Disaster Management Consulting. Hall, M. J., Ng, A., Ursano, R. J., Holloway, H., Fullerton, C., & Casper, J. (2004). Psychological impact of the animal– human bond in disaster preparedness and response. *Journal of Psychiatric Practice*, *10*(6), 368–374.

Heath, S. E., Kass, P. H., Beck, A. M., & Glickman, L. T. (2001). Human and pet-related risk factors for household evacuation failure during a natural disaster. *American Journal of Epidemiology*, *153*(7), 659–665. doi:10.1093/ aje/153.7.659

Heath, S. E., & Linnabary, R. D. (2015). Challenges of managing animals in disasters in the U.S. Animals, 5(2), 173–192. doi:10.3390/ani5020173

Hesterberg, U. W., Huertas, G., & Appleby, M. C. (2012). Perceptions of pet owners in urban Latin America on protection of their animals during disasters. *Disaster Prevention and Management*, *21*(1), 37–50. doi:10.1108/09653561211202692

Hunt, M. G., Bogue, K., & Rohrbaugh, N. (2012). Pet ownership and evacuation prior to Hurricane Irene. *Animals*, 2(4), 529–539. doi:10.3390/ani2040529

Irvine, L. (2006). Animals in disasters: Issues for animal liberation activism and policy. *Animal Liberation Philosophy and Policy Journal*, 4(1), 1–16.

King, L. C., & Werner, P. D. (2011). Attachment, social support, and responses following the death of a companion animal. *Omega: Journal of Death & Dying*, 64(2), 119–141.

Lowe, S. R., Rhodes, J. E., Zwiebach, L., & Chan, C. S. (2009). The impact of pet loss on the perceived social support and psychological distress of hurricane survivors. *Journal of Traumatic Stress*, 22(3), 244–247.

Melson, G. F. (2003). Child development and the humancompanion animal bond. *American Behavioral Scientist*, 47(1), 31–39. doi:10.1177/0002764203255210

Mike, M., Mike, R., & Lee, C. (2011). Katrina's animal legacy: The Pets Act. *Journal of Animal Law and Ethics*, 4(1), 133–160.

Mills, K. (2015). Animal attachment and disaster resilience in vulnerable communities. *Australian Journal of Emergency Management*, 20(2), 60–61.

Ministry of Civil Defence & Emergency Management. (2010). Welfare in an emergency director's guideline for civil defence emergency management groups [DGL 11/10]. (No. 1.0). Wellington, New Zealand: Author.

Morley, C., & Fook, J. (2005). The importance of pet loss and some implications for services. *Mortality*, *10*(2), 127–143. doi:10.1080/13576270412331329849

Palika, L. (2006). When disaster strikes.... *Dog World*, *91*(2), 39–43.

Potts, A., & Gadenne, D. (2014). Animals in emergencies: Learning from the Christchurch earthquakes. Christchurch, New Zealand: Canterbury University Press.

Risley-Curtiss, C. (2010). Social work practitioners and the human–companion animal bond: A national study. *Social Work*, 55(1), 38–46.

Ryan, T. (2011). Animals and social work: A moral introduction. New York, NY: Palgrave Macmillan.

Sable, P. (2013). The pet connection: An attachment perspective. *Clinical Social Work Journal*, *41*(1), 93–99. doi:10.1007/s10615-012-0405-2

ORIGINAL ARTICLE

THEORETICAL RESEARCH

- Savoia, E., Testa, M. A., Biddinger, P. D., Cadigan, R. O., Koh, H., Campbell, P., & Stoto, M. A. (2009). Assessing public health capabilities during emergency preparedness tabletop exercises: Reliability and validity of a measurement tool. *Public Health Reports (1974)*, 124(1), 138–148.
- Thompson, K. (2013). Save me, save my dog: Increasing natural disaster preparedness and survival by addressing human–animal relationships. *Australian Journal of Communication*, 40(1), 123–136
- Thompson, K., Every, D., Rainbird, S., Cornell, V., Smith, B., & Trigg, J. (2014). No pet or their person left behind: Increasing the disaster resilience of vulnerable groups through animal attachment, activities and networks. *Animals*, 4(2), 214–240. doi:10.3390/ani4020214
- Trigg, J., Thompson, K., Smith, B., & Bennett, P. (2016). An animal just like me: The importance of preserving the identities of companion–animal owners in disaster contexts. *Social and Personality Psychology Compass*, 10(1), 26–40. doi:10.1111/spc3.12233
- van Heugten, K. (2014). *Human service organisations in the disaster context*. New York, NY: Palgrave Macmillan.
- Walker, P., Aimers, J., & Perry, C. (2015). Animals and social work: An emerging field of practice for Aotearoa New Zealand. Aotearoa New Zealand Social Work Review, 27(1), 24–35.
- Walsh, F. (2009a). Human–animal bonds I: The relational significance of companion animals. *Family Process*, 48(4), 462–480. doi:10.1111/j.1545-5300.2009.01296.x
- Walsh, F. (2009b). Human–animal bonds II: The role of pets in family systems and family therapy. *Family Process*, 48(4), 481–499. doi:10.1111/j.1545-5300.2009.01297.x
- Wan, W. (2006). A lesson from Katrina: Pets matter, *The Washington Post*. Retrieved from http://www. washingtonpost.com/wp-dyn/content/article/2006/01/02/ AR2006010200442.html
- Wells, D. L. (2009). The effects of animals on human health and well-being. *Journal of Social Issues*, *65*(3), 523–543. doi:10.1111/j.1540-4560.2009.01612.x
- White, S. (2012). Companion animals, natural disasters and the law: An Australian perspective. *Animals (2076– 2615), 2*(3), 380–394. doi:10.3390/ani2030380
- Wittnich, C., & Belanger, M. (2008). How is animal welfare addressed in Canada's emergency response plans? *Journal of Applied Animal Welfare Science*, *11*(2), 125–132. doi:10.1080/10888700801925976
- Zottarelli, L. K. (2010). Broken bond: An exploration of human factors associated with companion animal loss during Hurricane Katrina. *Sociological Forum, 25*(1), 110–122. doi:10.1111/j.1573-7861.2009.01159.x