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A Scoping Review of Forced Separation Between People and Their Companion Animals

Jasmine Montgomery, Zhanming Liang, and Janice Lloyd

College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville, Australia

ABSTRACT


People often form strong emotional attachments with their companion animals. When this relationship is threatened by forced separation, people may take risks to their safety and wellbeing to protect and stay with their companion animal. This scoping review maps concepts, evidence, and impacts of forced separation between people and their companion animals in the categories of domestic violence, homelessness, and natural disasters. Five relevant databases were searched: Medline Ovid, Psycinfo, Scopus, CINAHL, and EMCARE Ovid. Forty-two articles on the human–animal bond and situations of separation were included in the analysis, which revealed devastating results for companion animals, with death and loss of the animals prominent across all three categories of forced separation. Significant psychological distress and an increased risk to safety in people were found across all three categories. Risks people took to avoid forced separation included failing to evacuate to safety during natural disasters, delaying fleeing an abusive relationship, and prolonged homelessness while waiting for pet-friendly accommodation. Responsibility (who is responsible for the animal) and the cultural belief of human wellbeing as superior to that of animals emerged as major themes. This scoping review identified the extent of research evidence and gaps in the domains of domestic violence, health, homelessness, natural disasters, and animal welfare. It will assist researchers, policy makers, and service providers working in these areas in understanding the characteristics and the complexities of situations involving forced separation of people and their companion animals to optimize supports.

KEYWORDS

Companion animals;
domestic violence;
homelessness; human–
animal interaction; natural
disasters

The strong emotional attachment (bond) between humans and companion animals (pets) is well established in the scientific literature (Applebaum et al., 2021). An international survey of dog and cat owners found that people highly valued the relationship they had with their pets (Human Animal Bond Research Institute [HABRI], 2022). The survey

CONTACT Jasmine Montgomery  jasmine.montgomery@my.jcu.edu.au  College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville Campus, Douglas 4811, Townsville, QLD, Australia

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found 95% of people considered their pets to be family, 92% reported relinquishing their cat or dog would not be an option under any circumstances, and 90% described the relationship as close.

The human–animal bond is defined by the American Veterinary Medical Association [AVMA] (2023) as “a mutually beneficial and dynamic relationship between people and animals that is influenced by behaviors considered essential to the health and wellbeing of both.” The relationship between people and companion animals provides for people’s emotional needs, such as providing feelings of safety, consistency, stability (Applebaum et al., 2021), and a sense of belonging (Blazina et al., 2011). When people are feeling stressed, they will often seek out their pets for comfort and reassurance to alleviate feelings of distress (Applebaum et al., 2021). Research indicates there are health benefits for people who have strong bonds with their pets, such as reduced anxiety, depression, social isolation (Friedmann et al., 2010), and improved cardiovascular health (Allen et al., 2002). While there are many health benefits from forming a strong relationship with a companion animal, people are often willing to risk their health, wellbeing, and safety to protect their pets (Day, 2017). When people are faced with situations of potential loss or separation from companion animals, such as disaster, homelessness, or domestic violence, this can lead to considerable distress (Blazina et al., 2011).

Across the globe, 33% of people live with pets. Dogs are the most popular, with 471 million pet dogs, followed by pet cats, with 370 million worldwide (Zebra, 2023). The majority of pet owners are families with children (Animal Medicines Australia [AMA], 2022), and the most common reason people get a dog, cat, or bird is for companionship (AMA, 2022). However, the strong emotional attachment shared between people and animals may result in vulnerability for both in circumstances where the bond is threatened (Volant et al., 2008).

For the purpose of this scoping review, the definition of vulnerability refers to a human’s belief that they are “susceptible to harm, negative outcomes and unprotected from unpredictable danger or misfortune” (Perrig-Chiello et al., 2016, p. 89). These circumstances include the domains of domestic violence, risk of homelessness, homelessness, disasters, and other crisis situations where the human–animal relationship is threatened by potential and/or forced separation (Volant et al., 2008). In times of crisis, pets may be susceptible to animal cruelty/abuse (Volant et al., 2008) and/or death (Thompson, 2013). The areas of domestic violence, homelessness, and natural disasters were the focus of the scoping review and will be outlined below.

Crisis Situations and the Human–Animal Bond

Domestic violence is traditionally understood as power and control between former or current intimate partners (Australian Institute of Health & Welfare [AIHW], 2021). Family violence expands on intimate partners and includes all members of a family, such as siblings, children, and parents (AIHW, 2021). There are four main categories of domestic and family violence: physical abuse, sexual abuse, psychological abuse, and coercive control (AIHW, 2021). Often people in domestic and family violence situations live in terror and experience threats to persons, pets, or property (Tiplady et al., 2012). An Australian report on domestic violence and companion animals in the state of New South Wales

(NSW) (Dam & McCaskill, 2020) found 81% of people reported their current or previous partner had threatened to harm or kill their pet, and 55% reported their current or previous partner had actually killed the pet. A study on the link between domestic violence and animal abuse in Ireland found the risk to people's safety increased when seeking help or leaving the abusive relationship, and the companion animal, if left behind, was at risk of further abuse, such as being killed in retaliation (Allen et al., 2006) or used as a coercive control tool (Flynn, 2000). Fleeing domestic violence adds further layers of vulnerability including homelessness and additional challenges, such as accessing accommodation that allows people and their pets to stay together (Dam & McCaskill, 2020).

Financial costs, housing policies, and a shortage of suitable facilities impact on people's ability to keep their pet when faced with a housing crisis (Slatter et al., 2012), and the risk of homelessness often increases following a disaster (Graham & Rock, 2019). Disasters can result in injury or death and can affect community connection, health and wellbeing, and domestic and family violence (Australian Business Roundtable for Disaster Resilience & Safer Communities [ABRDRSC], 2021). Natural disasters are impacted by climate change (such as floods, fire, earthquakes) and are increasing in both severity and frequency (ABRDRSC, 2021). Companion animals are extremely vulnerable at times of natural disasters; they rely on their owners to survive and care for them and are often subject to lack of food, water, and shelter, injury, and death (LaFontaine, n.d.).

An excruciating situation is that of forced separation (Walsh, 2009). In times of housing crisis, natural disasters, or domestic violence, people may be forced to separate from their pets and leave them behind. Forced separation may lead to feelings of intense grief, guilt, and trauma (Walsh, 2009) and a decline in psychosocial functioning (Lowe et al., 2009). The intensity of the response varies depending on the level of emotional attachment (Shore et al., 2003) and situation (Walsh, 2009). For example, the emotional attachment between survivors of domestic violence and their companion animals may be significant due to sharing the experience of abuse (Tiplady et al., 2012), which makes a deliberate act of cruelty or death of a pet particularly torturous (Walsh, 2009). At times of natural disasters, people may find themselves making the agonizing decision not to evacuate to a place of safety, so that they can stay with and protect their pets (Travers et al., 2017), while others may be forced to abandon them (Thompson et al., 2012). The loss of a companion animal after a natural disaster is associated with increased anxiety and acute stress, contributing to the impact of short and long-term mental health, such as depression (Hunt et al., 2008). Homelessness because of housing issues is another vulnerable situation that may expose people to violence and exploitation leading to chronic health issues and unemployment (AIHW, 2021). Adding to the complexity, attempting to locate pet-friendly accommodation to avoid separation can contribute to increased psychological distress (Cleary et al., 2021) for people and their companion animals.

Understanding the complex issues of people and their pets who share an emotional bond in times of crisis will help optimize supports for people, animals, human services, and animal welfare groups. However, research on the experiences and consequences that people with companion animals face in areas of potential and/or forced separation is limited. Therefore, a scoping review was undertaken to map the evidence and understand the effects of forced separation at times of situational change/crisis to identify gaps in the literature.

Methods

The Arksey and O'Malley (2005) framework, which involves five stages, was used to guide the process of the review and it followed the PRISMA guidelines (Page et al., 2021). The review process included detecting and selecting articles, extracting the data, and analyzing and reporting the findings. The databases searched were Medline Ovid, Psycinfo, Scopus, CINAHL, and EMCARE Ovid. The authors clarified concepts, population, and outcomes of interest related to the research questions. To enhance familiarity with the literature, the initial pilot search focused on companion animals and situational change. The first author completed a pilot search with the Medline Ovid database to identify relevant articles and keywords most used in relevant research. Databases were selected by the most relevant to human–animal research. A concept map was developed containing two main concepts of pet and situational change (see the online supplemental file for key words and concept map). The Boolean operator was utilized to combine concepts one and two. The characteristics of methodology, year, country, population, separation category, focus of research and main actions and outcomes of forced separation were analyzed. No date limitations were set. No ethical approval was required to complete the scoping review.

The review process was guided by the following research questions:

- 1) What are the impacts on and experiences of people and their companion animals when faced with a crisis that may lead to changes in their safety, wellbeing, and living arrangements?
- 2) What are the interventions that people and their companion animals received or could have received when faced with a crisis that may lead to changes in their safety, wellbeing, and living arrangements?

Inclusion and Exclusion Criteria

Peer-reviewed journal papers written in English presenting research findings on adults sharing a strong emotional attachment with a pet and who had experienced a situational change or event were included. All types of methodologies were included to allow different traits of measuring situational change and the human–animal relationship. Grey literature such as reports and government documents, conference abstracts, letters, reviews, editorials, and books were excluded. Animals excluded were wildlife, zoo animals, livestock, rodents, and working animals.

Selection of Sources

The database search was completed over a three-week period between March and April 2022. Citations from the search were uploaded to Endnote 20 software. The citations were then transferred to Covidence software, which allowed the authors to screen without influence from other authors, with the aim to reduce bias (Covidence, n.d.). Authors one and three screened 157 titles and abstracts. The second author resolved seven conflicts. Full-text reviews were completed based on the inclusion criteria. Forty-two articles were included in the review. [Figure 1](#) provides a summary of the screening process.

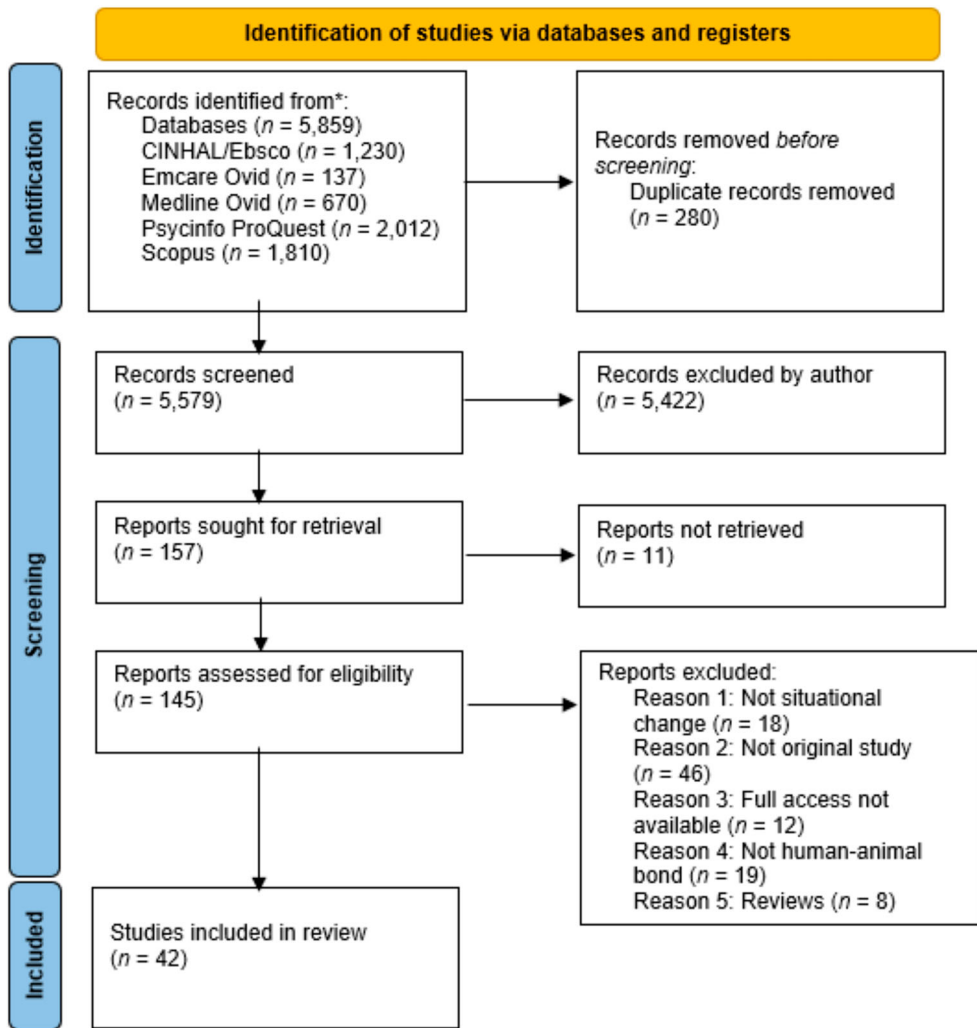


Figure 1. PRISMA diagram showing the flow of the information through the phases of the review.

Results

Table 1 contains the full list of articles, described by separation event (domestic violence, health, homelessness, housing, natural disaster), research focus, method, and recruitment/target population.

Characteristics: Cause of Separation

The articles included in the review were sectioned into the main causes of separation: domestic violence ($n = 18$), natural disasters ($n = 13$), homelessness ($n = 8$), health, ($n = 2$), and housing ($n = 1$). For analysis purposes, health and housing were grouped under the homelessness category.

Table 1. Description of the 42 articles by separation event: Domestic violence (1–18), Health (19–20), Homelessness (21–28), Housing (29), Natural disaster (30–42).

Reference no.	Author (year)	Title	Focus of research	Methods	Recruitment/target population
<i>Domestic violence articles</i>					
1	Allen et al. (2006)	Domestic violence and the abuse of pets: Researching the link and its implications in Ireland	The link between animal abuse and domestic violence	Qualitative methods Questionnaire completed in written form – staff supported completion if required, analysis not stated	Women’s emergency shelters in Ireland. <i>n</i> = 23
2	Ascione (1998)	Battered women’s reports of their partners’ and their children’s cruelty to animals	The prevalence of animal abuse and domestic violence	Quantitative methods Surveys, • Battered Partner Shelter Survey Descriptive strategy	Women’s emergency shelters in the US. Staff administered
3	Ascione et al. (2007)	Battered pets and domestic violence	Domestic violence and animal abuse and children wellbeing	Quantitative methods Comparative study Surveys • Conflict Tactic Scales • Battered Partner Shelter Survey • Families and Pets Survey Descriptive statistics, cross-tabulations, and parametric and nonparametric analyses, logistic regressions	Convenience sampling, non-shelter group from community, shelter group from emergency shelters in US. <i>n</i> = 221
4	Barrett et al. (2020)	Animal maltreatment as risk marker of more frequent and severe forms of intimate partner violence	The relationship between animal abuse, types of domestic violence, and abuse severity.	Quantitative methods Surveys, • Partner Treatment of Animal Scale • Revised Conflict Tactic Scale Checklist of Controlling Behaviour ANOVA tests	Women’s emergency transitional shelters in Canada. Staff administered surveys. Purposive sampling. <i>n</i> = 86
5	Barrett et al. (2018)	Help-seeking among abused women with pets: Evidence from a Canadian sample	The role of animal abuse and women’s help seeking or deterrence of help seeking (Main focus on role of animal abuse)	Quantitative methods Surveys, • Partner Treatment of Animals’ Scale • Revised Conflict Tactic Scale • Additional Likert Scale ANOVA tests	Women’s emergency transitional shelters in Canada. Staff administered surveys. Purposive sampling. <i>n</i> = 86

6	Carlisle-Frank et al. (2004)	Selective battering of the family pet	Beliefs, perceptions, behaviors of abusers; companion animals as property, a scapegoat, stress/ environment	Quantitative methods Comparative study (pet abusers and non-pet abusers), • Sentient Being Scale • Hassle Stressors Scale • Unrealistic Expectations Scale Chi-square, two-tailed unpaired <i>t</i> -tests, regression model	Women's domestic violence shelters in the US. Written questionnaires provided by staff in US. <i>n</i> = 34
7	Collins et al. (2018)	A template analysis of intimate partner violence survivors' experiences of animal maltreatment: Implications for safety planning and intervention	The relationship of animal abuse in women and children and barriers to leave	Qualitative methods (Part of a mixed-method study) • Pet Treatment Survey Semi-structured survey completed in written form (No verbal or audio interviews recorded), template analysis	Convenience sampling. Women's domestic violence agencies across western US. Survey completed by staff writing answers verbatim, or participants completed themselves. Response rate estimated 35.4%. <i>n</i> = 103
8	Faver and Strand (2003)	To leave or to stay? Battered women's concern for vulnerable pets	The role of animal abuse and difference in geographical location	Quantitative methods Surveys, • Domestic Violence Pet Abuse Survey Descriptive statistics, logistic regression analyses	Two rural and four urban women's domestic violence shelters in the US. Estimated response rate 5.7%. <i>n</i> = 41
9	Fitzgerald et al. (2019)	Animal maltreatment in the context of intimate partner violence: A manifestation of power and control?	The connection of animal abuse and domestic violence	Quantitative methods Surveys, • Partner's Treatment of Animals Scale • Revised Conflict Tactic Scale Correlation matrix	Women's emergency shelters in Canada. <i>n</i> = 86
10	Flynn (2000)	Woman's best friend: Pet abuse and the role of companion animals in the lives of battered women	The role of pets in domestic violence (relationship)	Quantitative methods Likert scale	Women's emergency shelters in Canada. Staff administered. <i>n</i> = 111
11	Hardesty et al. (2013)	Coercive control and abused women's decisions about their pets when seeking shelter	Connection of animal abuse, domestic violence, and decision making	Qualitative methods Face-to-face interviews, grounded theory	Women's domestic violence shelter in the US. Staff identified participants. Researchers completed interview. <i>n</i> = 19
12	Hartman et al. (2018)	Intimate partner violence and animal abuse in an immigrant-rich sample of mother-child dyads recruited from domestic violence programs	Connection of animal abuse and domestic violence	Quantitative methods Surveys, • Revised Conflict Tactic Scale • Pet Treatment Survey • Cruelty to Animals Inventory Logistics regression analysis	Women's domestic violence shelters in the US. Staff selected participants and administered surveys. <i>n</i> = 291

(Continued)

**Table 1.** Continued.

Reference no.	Author (year)	Title	Focus of research	Methods	Recruitment/target population
13	Simmons and Lehmann (2007)	Exploring the link between pet abuse and controlling behaviors in violent relationships	Connection of animal abuse and domestic violence	Quantitative methods Surveys, • Likert Scale • Checklist of Controlling Behaviors Descriptive analysis, chi-square, two-tailed <i>t</i> -test	Women's urban domestic violence shelter in US. <i>n</i> = 1,283
14	Strand and Faver (2005)	Battered women's concern for their pets: A closer look	Connection of animal abuse and domestic violence (decision making)	Mixed methods Quantitative survey for participants, • Pet Abuse Survey Qualitative interview with domestic violence worker in rural shelter, frequency distributions, descriptive statistics, contingency tables, chi-square analyses, phi-coefficient	Two (rural & urban) women's domestic violence shelters in US. Response rate 38% urban, 58% rural. <i>n</i> = 51
15	Taylor et al. (2018)	People of diverse genders and/or sexualities caring for and protecting animals' companions in the context of domestic violence	The role of companion animals in domestic violence through the lens of diverse genders	Qualitative methods (Part of a mixed-method study) Online survey, three open-ended questions from a 42-item questionnaire focusing on experience for qualitative approach, thematic analysis (Scales below are from larger quantitative study) • Pet Attitude Scale • Liking People Scale • Kessler Psychological Distress Scale • Multi-dimensional Scale of Perceived Social Support	Recruitment through social media and e-mails to organizations in Australia and UK. Estimated response rate 27.24%. <i>n</i> = 137
16	Tiplady et al. (2012)	Intimate partner violence and companion animal welfare	Effect of domestic violence on the companion animal	Quantitative methods Survey questionnaire, telephone interviews	Recruitment through the Australian public with advertising posters, radio, animal welfare, IPV victim support websites, newspaper articles. <i>n</i> = 26

17	Tiplady et al. (2018)	The animals are all I have: Domestic violence, companion animals, and veterinarians	Issues of domestic violence, animal abuse, and vet care	Qualitative methods Semi-structured interviews	Recruitment through domestic violence crisis line or stayed at a women's domestic violence shelter in Queensland, Australia. Participants selected by staff at refuge and directed to researcher. <i>n</i> = 13
18	Volant et al. (2008)	The relationship between domestic violence and animal abuse	Domestic violence, animal abuse rural/urban (Victoria, Australia)	Quantitative methods Comparative study (administered via telephone), quantitative questionnaire, chi-square, <i>t</i> -test	Recruitment through women's domestic violence shelters in Victoria, Australia, and non-domestic violence group from neighborhood community houses. <i>n</i> = 204
<i>Health articles</i>					
19	Applebaum et al. (2020)	How pets' factor into healthcare decisions for COVID-19: A One Health perspective	Decision making in the context of health care (COVID-19) and pets	Mixed methods Online questionnaire survey, • Multidimensional Scale of Perceived Social Support, Convergent comparison design, multinomial logistic regression models, grounded theory	Non-probability sampling, recruitment through social media interest groups. Adult pet owners in the US. <i>n</i> = 2,772
20	Canady and Sansone (2019)	Health care decisions and delay of treatment in companion animal owners	Decision making in the context of accessing health care and pets	Quantitative methods Surveys, • Interpersonal Support Evaluation List • Monash Dog Ownership Relationship Scale Comparison groups, linear regression analysis	US community sample recruited via Amazon Mechanical Turk companion animal owners. <i>n</i> = 148 (questionnaire) <i>n</i> = 263 (comparison groups)
<i>Homelessness articles</i>					
21	Cleary et al. (2021)	The unbreakable bond: The mental health benefits and challenges of pet ownership for people experiencing homelessness	To explore the experiences of pet owners who are or were homeless	Qualitative methods Face-to-face interviews, narrative thematic analysis	Recruitment through homeless services in Sydney, Australia. <i>n</i> = 2
22	Cronley et al. (2009)	Homeless people who are animal caretakers: A comparative study	Differences in characteristics between homeless with animals and homeless without animals declining housing out of concern for their animals	Quantitative methods Nonprobability purposive sampling, cross-tabulations, bivariate correlations	Data collected from client's self-reports collected from the Homeless Management Information System in the US. Homeless people who report caring for animals with homeless people who do not report caring for animals. <i>n</i> = 4,100

(Continued)



Table 1. Continued.

Reference no.	Author (year)	Title	Focus of research	Methods	Recruitment/target population
23	Kidd and Kidd (1994)	Benefits and liabilities of pets for the homeless	To examine the attachment and correlation of people owning pets in childhood and level of attachment in adult hood	Qualitative methods Face-to-face interviews	Recruitment from soup kitchens and outreach centers in the US. Homeless adults. $n = 105$
24	Labrecque and Walsh (2011)	Homeless women's voices on incorporating companion animals into shelter services	To examine the nature of animal caretaking among female, homeless shelter residents	Qualitative methods Face-to-face interviews, phenomenological/content analysis	Homeless shelters in Canada. $n = 51$
25	Scanlon et al. (2021)	Homeless people and their dogs: Exploring the nature and impact of the human companion animal bond	To explore the nature of the human-companion animal bond between UK homeless owners and their dogs	Qualitative methods Semi-structured interviews, thematic analysis	Homeless or risk of homeless participants recruited through a UK housing service. $n = 20$
26	Singer et al. (1995)	Dilemmas associated with rehousing homeless people who have companion animals	To assess the nature and consequences of human/animal relationships amongst the homeless	Quantitative surveys • Lexington Attachment to Pets Scale. • Beck Hopelessness Scale Statistical analysis: <i>t</i> -test	Homeless people seeking a veterinary clinic for homeless pet owners in the US. $n = 66$
27	Slatter et al. (2012)	Homelessness and companion animals: More than just a pet?	To explore the extent to which homelessness impacts on the ability to have animal companions	Qualitative methods Semi-structured interviews, descriptive analysis	Clients of a homeless health Outreach Team in Australia. $n = 26$
28	Wusinich et al. (2019)	"If you're gonna help me, help me": Barriers to housing among unsheltered homeless adults	To examine barriers accessing housing, services, and experiences surviving on the street	Qualitative methods Interviews, critical realist framework, thematic analysis	Stratified random sampling, recruitment through unsheltered homeless participants in the US. $n = 43$
<i>Housing Articles</i>					
29	Shore et al. (2003)	Moving as a reason for pet relinquishment: A closer look	The relationship between bonding and relinquishment for moving	Qualitative methods Open-ended questionnaires – telephone surveys, • Human-Animal Bond Scale (exact scale not stated)	Recruitment through a human society (charity organization) in the US. Response rate 68.4%. $n = 57$
<i>Natural disaster articles</i>					
30	Brackenridge et al. (2012)	Dimensions of the human-animal bond and evacuation decisions among pet owners during Hurricane Ike	To examine pet owner evacuation in a post-Katrina PETS Act environment	Quantitative methods Surveys, • Lexington Attachment to Pets Scale • Miller-Rada Commitment to Pets Scale Bi-variate descriptive statistics, logistic regressions	A self-survey mailed to postcodes of pet-owning residents in Harris County in the US that had been under a mandatory evacuation order. $n = 120$

31	Coombs et al. (2015)	Did dog ownership influence perceptions of adult health and wellbeing during and following the Canterbury earthquakes? A qualitative study	Health perceptions of healthy adults during and post-earthquake	Qualitative methods Interviews, thematic analysis	Purposive sampling, recruitment through word of mouth from the Christchurch city and townships. Participants were women who owned a dog at the time of the earthquake in New Zealand. $n = 7$
32	Farmer and DeYoung (2019)	The pets of Hurricane Matthew: Evacuation and sheltering with companion animals	Companion animals and evacuation decision making with a focus on pets of Hurricane Mathew	Mixed methods Open-ended questionnaire, stated-choice surveys, thematic analysis, chi-square analysis	Convenience sampling, recruitment through social media of owners who lived in areas affected by Hurricane Matthew in the US. $n = 214$
33	Heath et al. (2001)	Risk factors for pet evacuation failure after a slow-onset disaster	Risk factors for pet evacuation failure during a flood	Quantitative methods Evacuation-based questionnaire	Random telephone survey for pet-owning persons under evacuation notice. $n = 203$
34	Hunt et al. (2008)	Psychological sequelae of pet loss following Hurricane Katrina	To assess the psychological effects of pet loss post Hurricane Katrina	Quantitative methods Self-report online surveys, • Beck Depression Inventory • PTSD Symptom Scale Self-Report • Peri-Traumatic Dissociative Experiences Questionnaire • Stanford Acute Stress Reaction Questionnaire • Pet Attachment Questionnaire • Pet Bereavement Questionnaire MANOVA, ANOVA, Cohen's d analysis	Recruitment through relevant social media websites in the US. $n = 65$
35	Lowe et al. (2009)	The impact of pet loss on the perceived social support and psychological distress of hurricane survivors	Perceived social support and elevated psychological distress post disaster	Quantitative methods Likert scales, • Social Provisions Scale • Kessler-6 Scale Conservation of resources analysis	Recruitment from a New Orleans educational interventions in the US. A sample of low-income, African American single mothers post Hurricane Katrina with pet loss. $n = 365$
36	Taylor et al. (2015)	The preparedness and evacuation behavior of pet owners in emergencies and natural disasters	Pet owner emergency preparedness or anticipated evacuation behaviors in the context of an experienced disaster or emergency	Quantitative methods Online survey (based on evacuation), simple descriptive statistics, frequencies, cross-tabulations	Recruitment through social media. Australian pet owners who experienced a range of natural disasters or emergencies. $n = 352$
37	Thompson et al. (2012)	Pet ownership and the spatial and temporal dimensions of evacuation decisions	Evacuation decision-making to include or not include pets during Hurricane Gustav	Quantitative methods Surveys (focused on evacuation)	Recruitment through convenience sampling, rest stops along major evacuation routes (Gas stations, convenience stores, hotel). Response rate 65%. $n = 119$

(Continued)



Table 1. Continued.

Reference no.	Author (year)	Title	Focus of research	Methods	Recruitment/target population
38	Thompsons et al. (2017)	Animal ownership among vulnerable populations in regional South Australia: Implications for natural disaster preparedness and resilience	Preparedness/survival planning and animals for a bushfire emergency	Quantitative methods Surveys (based on preparedness, perceived risks/responses), univariate descriptive statistics, chi-square, independent <i>t</i> -tests analysis	Recruitment online from affected areas in South Australia and firefighting agency with animal owners threatened by bushfire in January 2014. <i>n</i> = 606
39	Trigg et al. (2016)	A moveable beast: Subjective influence of human-animal relationships on risk perception, and risk behavior during bushfire threat	Examination of the human–animal connections and risk perception and behavior in companion animals at times of bushfire	Qualitative methods Semi-structured interviews, critical incident framework, thematic analysis	Recruitment through social media and community notices (e.g., veterinary clinics). South Australian residents in bushfire-affected area. <i>n</i> = 25
40	Trigg et al. (2019)	Archotyping relationships with companion animals to understand disaster risk-taking propensity	To test an archetypal profiling approach to understanding animal-related, disaster risk-taking, motives of pet-owners	Quantitative methods Surveys, <ul style="list-style-type: none"> • Pet Attachment Questionnaire • Possession Attachment Scale • Incorporation into the Extended Self Scale • Emotional Significance Scale • Anthropomorphism Scale • Companion Animal Self Object Questionnaire • Mini-International Personality Item Pool Scales • Environmental Attitude Orientation Scale • Risk Propensity Scale • Pet-Owner Risk Propensity Scale • A “Moral Dilemma” Vignette • A Social-Desirability Bias Scale Exploratory two-step cluster analysis	Recruitment of Australian pet owners through social media online websites and Qualtrics, Provo, UT. Response rate 33%. <i>n</i> = 437

41	Yamazaki (2015)	A survey of companion animal owners affected by the East Japan Great Earthquake in Iwate and Fukushima Prefectures, Japan	To explore preparedness, evacuation, and required social support	Quantitative methods Self-administered surveys, • Questionnaire Regarding Disasters and Pets • Pet Attachment Scale • Disaster Preparedness Scale • Utilization of Support Scale • Need for Support Scale Chi-square, Pearson's product moment correlation, Spearman's rank correlation, <i>t</i> -tests	Recruitment handed out in person at veterinary hospitals in Japan and/or telephone or posted. Pet owners affected by the disasters of Fukushima and earthquake. Response rate 70.5%. <i>n</i> = 289
42	Zottarelli (2010)	Broken bond: An exploration of human factors associated with companion animal loss during Hurricane Katrina	To explore pre-existing characteristics of disaster vulnerability of people who experienced pet loss, and evacuation behaviors and pet loss/trauma	Quantitative methods Telephone interviews, bi-variate descriptive statistics, multivariate analyses	Random sampling of Hurricane Katrina survivors, recruitment through Gallup organization from a US database who sought assistance from the American Red Cross and affiliated organizations post Hurricane Katrina. Response rate 90%. <i>n</i> = 1,510

Characteristics: Country of Publication and Year

The data extracted were year, author, title, country, methods, and study population. Publication dates ranged from 1994 to 2021. Countries in the natural disaster category were the US ($n = 7$), Australia ($n = 4$), New Zealand ($n = 1$), and Japan ($n = 1$). Countries in the domestic violence category were the US ($n = 10$), Canada ($n = 4$), Australia ($n = 2$), Ireland ($n = 1$), and one combined article of Australia and the UK. The homelessness category countries were the US ($n = 7$), Australia ($n = 2$), Canada ($n = 1$), and the U.K ($n = 1$). For all categories of forced separation, the majority of articles were based in the US ($n = 24$).

Characteristics: Methods

Quantitative methods were adopted by 26 of the 42 studies reviewed; 13 were qualitative and three utilized a mixed methods design. The most common methods for gathering data were surveys and qualitative interviews. Two qualitative studies were from larger mixed methods studies.

Characteristics: Population

Thirty-one of the 42 studies included in the final review consisted of mostly female participants (73.81%). Of the 42 studies, 23 did not state ethnicity, 30 did not state level of education, and 12 did not state location. For the articles that did include these characteristics, most participants were White, had a high school level of education or above, received a low income, and were from urban locations. Dogs and cats were the most common companion animals mentioned ($n = 22/42$).

Area of Focus of Research

Natural disaster research focused predominately on evacuation behaviors (30, 32, 33, 37; see [Table 1](#)) and preparedness for a disaster when considering a companion animal (36, 38, 41). Three articles focused on decision making and risks taken because of their companion animal/s at times of disaster (31, 39, 40). The human psychological impacts of losing a companion animal post disaster were addressed by three articles (34, 35, 42).

The domestic violence literature primarily focused on the correlation between domestic violence and animal abuse, ranging between 1997 and 2019 (1, 3, 9, 11, 12, 13, 14). The focus on the relationship and role of companion animals in domestic violence situations have increased, with the first study conducted in the year 2000 (10) and more recently between 2018 and 2020 (5, 7, 8, 18, 15). Two articles (2, 4) researched the prevalence of domestic violence, and one article (6) researched the attitudes and beliefs of perpetrators from the survivor's perspective. Two articles (16, 17) had focused on the welfare of and outcomes for the companion animal.

The homelessness category largely focused on the human's decision making that impacted on their living arrangements and health (19, 20, 22, 28, 29). The human-animal bond at times of homelessness was researched by three articles (23, 25, 26), two articles (21, 27) focused on the welfare of the human at times of homelessness, and one article (24) studied the caretaker role of the companion animal while homeless.

Actions and Outcomes of Forced Separation

The literature revealed that people and their companion animals who are confronted with forced separation in crisis situations experience significant impacts on their health, well-being, and safety. The majority of actions people took across natural disaster situations are shown in [Table 1](#). Findings indicate people were forced to abandon their animals (30, 33, 34, 41, 42), evacuate with their animals (30, 37, 38, 41) or were forced to choose between animals to keep and leave behind in mixed evacuations (31, 32, 36, 37). Outcomes also show an increased risk to safety for both human and animals (30, 31, 32, 33, 35, 39, 40, 42), increased risk-taking behaviors of people to protect their animals and/or return for them during times of high danger (31, 36, 37, 39, 40, 41), death or loss of the animal, and increased psychological trauma, acute stress, and grief (31, 34, 35, 39, 42).

The main actions in domestic violence environments were that people would delay leaving an abusive relationship with their partner out of concern for their animal (1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 15, 17, 18), people were hesitant/concerned they would be forced to separate as repercussion when seeking professional services (1, 2, 11, 14), and/or were forced to flee and leave their pet with the abuser (4, 5, 6, 9, 10, 12, 14, 15) which increases the risk of being lured to return to the abusive relationship to protect the pet (4, 5, 6, 7, 10, 14, 15). The results indicate an increased risk of animal abuse (1, 2, 4, 5, 6, 8, 9, 11, 12, 13, 14, 15, 16, 17), an increased risk to safety for the domestic violence survivor (1, 6, 8, 9, 10, 13, 14, 15, 18), increased distress, trauma, and grief (3, 10, 11, 12, 14, 16, 17), and death of the animal (1, 3, 9, 11, 6). Outcomes of children witnessing abuse and experiencing distress were found (2, 6, 12, 14, 18), including an increased risk of children mirroring the abusive behavior to the animal, such as hurting or killing the pet (2, 3, 7, 18).

The main actions for the homelessness category were that people would stay with their animal over accessing non-pet-friendly accommodation (21, 22, 23, 25, 26, 27, 28) or were forced to separate and rehome their animal to access housing (23, 24, 27, 29). People were hesitant/concerned with trusting support services and the lack of pet-friendly services available (19, 21, 22, 23, 24, 25, 26, 27, 28). People with a lack of social supports were more likely to delay health treatment or hospitalization (19, 20). The main outcomes resulted in increased distress and grief due to potential or forced separation (21, 24, 25, 27, 29), an increased risk of prolonged homelessness (21, 22, 25, 26, 27, 28), and companion animals being rehomed, relinquished to shelters, abandoned, or euthanized (23, 24, 27, 29). Physical and psychological health benefits (23, 25, 26, 27) were found in people who had kept their pet while homeless.

Forced Separation Recommendations

Three main recommendations were found across the domestic violence literature: professional services to implement questions about pets when women seek refuge (1, 8, 10, 11, 13, 14, 17; see [Table 1](#)); housing women, children, and pets together (3, 4, 5, 7, 8, 10, 11, 16, 17, 18); and increasing collaboration with services that can help with animals (4, 5, 11, 15, 16). Issues of legislation implications for women and companion animals were discussed, with calls for tougher penalties for perpetrators and examining

perpetrators' motivations and attitudes (1, 6, 9, 10). The main recommendations from the natural disaster literature suggested that evacuation plans should include resources such as transport and shelters that are inclusive of animals, thus allowing people and pets to evacuate together (30, 31, 32, 33, 34, 35, 36, 37, 38, 40). The homelessness category's main recommendation was to ensure pet-friendly accommodation options are available that allow people and animals to live together (21, 23, 24, 26, 28).

Discussion

We believe this study represents the first scoping review of forced separation between people and their companion animals in the collective situations of domestic violence, homelessness, and natural disasters. The results reveal, across all three categories of forced separation, significant psychological distress and an increased risk to safety of people. The underlying concepts of human superiority to that of animals and responsibility (who is responsible for the animal) emerged as major themes and are central to the discussion.

The theme of "responsibility" emerged across all three separation categories, although no definition of responsibility was outlined in any article reviewed. How people value companion animals and the level of responsibility felt for them influence the risks taken and the treatment of them. Pets were taken into consideration only after a problem was recognized for the person amongst services and policy programs and were seen as a risk to people that required mitigation strategies. How people perceive the value of companion animals is complex and varies between different types of animals/pets within a household and in different situations (Trigg et al., 2016).

The review found catastrophic outcomes for pets in situations of forced separation, including death. Pets in crisis situations of forced separation were extremely vulnerable, and the animal's survival and safety were completely dependent on humans (Trigg et al., 2016). As a consequence, humans who felt a sense of responsibility for their pets and were forced to separate were placed at an increased risk to their safety and psychological well-being. This included reduced psychosocial functioning (Lowe et al., 2009), debilitated family function (Trigg et al., 2016), increased psychological trauma (Hunt et al., 2008; Zottarelli, 2010), acute stress, and peri-traumatic dissociation, which are significant predictors of Post-Traumatic Stress Disorder (PTSD) (Hunt et al., 2008), and increased worry, trauma, and guilt for their pets (Ascione et al., 2007; Cleary et al., 2021). The significant negative psychological impacts on people underline the deep connection between humans and animals and highlight that, when pets are not given equal consideration in policy/programs and people are not provided with sufficient support to stay with their pets, the wider community, including health and animal welfare sectors, may be impacted as the recovery process is hindered.

The perception of humans being valued more than pets (human superiority) complicates help seeking, with a flow-on effect of a lack of trust in service provision and fears of repercussions of forced separation between people and their pets (Hardesty et al., 2013). This has implications for services and mitigation strategies when developing policies, programs, and safety planning. The lack of trust could be justified when services, policies, and programs are designed to prioritize human safety above all else (Zottarelli,

2010). Humans as priority are clearly noted amongst service gaps in the area of domestic violence, where services are provided for people and their children, with a lack of focus on appropriate supports being available for the animals' safety and welfare. The latter often results in the pet being left with the abuser and at risk of further abuse/death as retaliation (Allen et al., 2006) or used as a means of coercive control (Flynn, 2000). Service gaps are widespread, as can be seen with a lack of pet-friendly accommodations or shelters for the homeless (Wusinich et al., 2019), and a lack of available transport and shelters during natural disasters (Farmer & DeYoung, 2019). The level of value of and responsibility for the companion animal has implications for the animals' welfare during times of crisis and the risks and decisions people are willing to make to protect them. In order to protect their pet, the risk to safety for the person increases in such circumstances where a person may refuse to evacuate without their pet or return for a pet during a disaster, prolong homelessness to stay with their pet, and delay leaving a violent relationship to protect the pet (Barrett et al., 2020; Trigg et al., 2016; Wusinich et al., 2019).

Who should be responsible for the welfare of both humans and animals requires collaboration, as it is not solely the person seeking help or refuge, or the services providing support, but rather the wider community (Allen et al., 2006). Human values of superiority over companion animals can also be noted through structural systems, with Western countries such as the UK, Australia, New Zealand, and the US considering animals to be the legal property of their owners (Best, 2021). The implications for how companion animals are perceived to be valued within society and the complexity of who is responsible, and the level of responsibility, impacts on the systemic level of legislation and mitigation strategies implemented that aims to protect people and companion animals from forced separation. Raising awareness across communities about the implications of forced separation is required to encourage policies, programs, and legislation to include companion animals and take collective responsibility for the welfare and safety of both people and pets in crisis situations (Allen et al., 2006; Faver & Strand, 2003; Flynn, 2000; Strand & Faver, 2005).

The review confirmed that the systematic attempts to mitigate risks for natural disasters have been implemented in the US and New Zealand. The US developed the Pets Evacuation and Transportation Standards Act [PETS] in 2006 following the devastating impacts of Hurricane Katrina in 2005. The PETS Act allows for financial aid to be distributed on federal authority for people and their pets on state and local levels during disasters (Hunt et al., 2008). New Zealand developed the Civil Defence and Emergency Management Plan [CDEM] in 2015, acknowledging the consideration of animal welfare during disasters (Coombs et al., 2015). Although including pets in policy and legislation is a positive direction for people and animals in natural disasters, Brackenridge et al.'s (2012) research examined the PETS in the US after Hurricane Ike in 2008 and found decisions made when evacuating were steady with findings prior to the PETS, indicating the Act had led to little progress (Zottarelli, 2010). While funds for transport and accommodation are required, other factors of logistics, awareness of shelters (Farmer & DeYoung, 2019) time to evacuate, the human–animal bond, perception of threat, and available resources impact on decisions that people make for themselves and their companion animals during disasters. They need to be considered to allow for people and their pets to safely evacuate together (Brackenridge et al., 2012).

To mitigate the risks of forced separation in situations of domestic violence, the Sheltering Animals and Families Together (SAF-T) program was developed in the US, which allows companion animals, women, and children to access accommodation as a family unit (Collins et al., 2018). Australia has followed the US and implemented SAF-T programs, however, few programs have been implemented and are logistically inadequate across the US and Australia (Barrett et al., 2018; Tiplady et al., 2018).

Animal welfare organizations in the US (Barrett et al., 2018) and Australia provide fostering programs for abused animals while people flee domestic violence (Tiplady et al., 2018). People fleeing domestic violence may be unaware of the programs available for their pets or are informed only after seeking shelter (Barrett et al., 2020). While the programs are important in assisting the wellbeing of animals and allow people to seek shelter, they inadvertently perpetuate forced separation from companion animals (Tiplady et al., 2018).

The animal fostering programs often have limited time frames (Barrett et al., 2018; Tiplady et al., 2018), resulting in increased stress from being separated from the companion animal (Strand & Faver, 2005) while attempting to find pet-friendly accommodation (Tiplady et al., 2018). The forced separation while seeking shelter is a barrier to leaving the abusive relationship (Barrett et al., 2018) and increases the risk of homelessness where people avoid forced separation (Collins et al., 2018). In addition to allowing for people and their pets to find safe shelter together (Ascione et al., 2007; Barrett et al., 2018; Faver & Strand, 2003; Tiplady et al., 2012; Tiplady et al., 2018), other factors need to be considered when developing policies and programs, including the overall health of the person and animal (Applebaum et al., 2020; Tiplady et al., 2012), financial situations, children and their concerns for the pets' welfare (Strand & Faver, 2005), logistics, availability and awareness of programs (Tiplady et al., 2018), the exploitation of the human–animal bond during and after leaving the abusive relationship (Collins et al., 2018), and permanent, affordable pet-friendly accommodation (Cleary et al., 2021; Strand & Faver, 2005).

Research Gaps

The complex nature of humans' views of pets and how they value them and the disparities surrounding beliefs about, attitudes to, and perceptions of responsibility for companion animals requires investigation. This would lead to a comprehensive understanding of the human–animal relationship and would focus on change to improve outcomes for both people and their pets at times of forced separation. The majority of the literature reviewed is focused on the physical abuse, rather than the emotional abuse, of the companion animal (Taylor et al., 2018). Further research on the impact of the human–animal bond as it relates to animal welfare during times of forced separation is required to assess the risks people are willing to take in order to avoid separation from their pet.

No article investigated the concept of forced separation from a pet as the primary focus area; rather, separation was considered in the context of a consequence of the crisis situation. Given the strong bond that many people have with their pets and the risks people are willing to take to stay and protect them during these situations, it is vital the concept and impact of forced separation be investigated in future research to improve support systems for people and their pets when faced with crisis situations.

The crisis situations of domestic violence, natural disasters, and homelessness have been researched separately. Future research evaluating the similarities and differences between the types of crisis events and the impacts of forced separation is required to develop an understanding on a broader scale. The evidence from this area of research could assist in policy options and the development of broad interventions for people and their pets at times of natural disasters, domestic violence, and homelessness, such as permanent pet-friendly crisis accommodation policies.

Many of the samples in the review were sourced from urban locations. People in rural or semi-rural locations may have companion animals or farm animals that are considered as pets that are also essential to livelihood, adding complex layers of risks and decision making when avoiding forced separation in crisis situations. People in semi-rural and rural locations should be studied further to develop a thorough understanding of the barriers experienced by those living in these locations that may lack resources, facilities, and supports.

Research evaluations of interventions were lacking, with only one natural-disaster paper (evaluating the PETS legislation in the US). Evidence-based science is required to inform policy decisions and practice. Further investigation into the interventions and safety measures provided before, during, and after crisis situations is needed to understand the unique experiences of people and their pets and the systematic barriers, gaps, strengths, and areas for improvement when developing policies and interventions that support the general community.

Limitations

This scoping review used a rigorous and transparent approach to map the areas (Arksey & O'Malley, 2005) of the human–animal bond and forced separation from companion animals in crisis situations. This included systemically retrieving studies (Arksey & O'Malley, 2005) on the human–animal bond in areas of domestic violence, natural disasters, and homelessness. While the review provides a critical evaluation and analysis of the results, it did not appraise the quality of the primary research articles. The study was limited to peer reviewed English articles, which may have missed valuable information from a global and cultural perspective. In addition, there may be articles on the human–animal bond, companion animals, and forced separation that were missed due to the many keywords associated with animals. Finally, the five databases used in this study are subject to journal subscription, meaning the journals may have limited access to some articles. Consultation was sought with the librarians to select the most relevant databases to minimize this limitation. Overall, this review was useful in identifying existing knowledge and highlighting areas of concern.

Conclusion

The scoping review assessed the knowledge and methodologies used in situations impacting forced separation from pets. The literature provided evidence of the increased risks of safety and psychological wellbeing for both humans and animals when people are forced to separate from their companion animals in situations of natural disasters, domestic violence, and homelessness. An intertwined theme of *human superiority and*

responsibility emerged, which suggested people and animals are impacted by human values (humans as superior) and the lack of consensus for shared responsibility of the welfare of the animal. This embedded anthropocentric view influences risk-taking behaviors, psychological distress, loss or death of pets, and a lack of trust in help seeking at times of crisis due to potential repercussions of forced separation. Further research into human values of pets and perceived levels of responsibilities would assist in raising awareness of the anthropocentric barriers that appear to impact mitigation strategies and increasing understanding that could support those developing programs and policies to design a comprehensive approach to supporting people and their pets.

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