

Exploring the Grief Experience Among Bereaved Pet Owners

by

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Abstract

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This thesis is an exploration of the grief that pet owners experience resulting from the death of pet with attention towards complicated grief. The first study involved a content analysis of 75 call notes recorded by volunteers of the Ontario Veterinary College Guelph Pet Loss Support Hotline following contact with bereaved pet owners from 2011 to 2012. Themes included; personal narrative, the grief experience, perceived social support; positive and negative emotions, callers' relationship with their pet, memorialization, coping methods, difficulty with euthanasia, and interaction with veterinary staff. The second study, a retrospective cross-sectional survey of 681 Canadian pet owners identified factors associated with complicated grief. Results indicate that individuals with low perceived social support and an anxious style of attachment with their pet are more likely to experience complicated grief following the death of their pet. Thesis findings enhance the understanding of factors associated with grief and complicated grief.

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Declaration of Work Performed

Liam Rémillard collaborated with his co-advisors Dr. Michael Meehan and Dr. Jason Coe and committee member Dr. David Kelton to design methods and statistical approaches for the respective chapters of this thesis.

Chapter 1: Literature Review and Objectives.

The literature review was written by Liam Rémillard with guidance from Dr. Michael Meehan and Dr. Jason Coe. Dr. David Kelton provided additional feedback.

Chapter 2: Exploring the Grief Experience Among Callers to a Pet Loss Support Hotline.

Liam Rémillard and Dr. Michael Meehan formulated the research question and objective. Liam Rémillard collected data from the Pet Loss Support Hotline archive of call notes. Liam Rémillard, Dr. Michael Meehan and Dr. Jason Coe formulated the methods for the content analysis. Data were coded by Liam Rémillard. Inter-rater reliability was assessed by having a research assistant, Meaghan Shoemaker, independently recode 20 randomly selected call notes. Categorization of codes, subthemes, and themes were reviewed and agreed upon by Liam Rémillard, Dr. Michael Meehan and Dr. Jason Coe. The first draft of the manuscript was written by Liam Rémillard and edited by all members of the advisory committee including Dr. Michael Meehan, Dr. Jason Coe and Dr. David Kelton.

Chapter 3: Exploring the Factors Associated with Complicated Grief Among Pet Owners.

Liam Rémillard and Dr. Michael Meehan formulated the research question and objective. The Grief due to Pet Loss Survey was designed and revised by Liam Rémillard, Dr. Michael

Meehan, Dr. Jason Coe, and Dr. David Kelton. Face-to-face recruitment of survey respondents in Guelph was carried out by two undergraduate research assistants, Jennifer Wilkinson, and Lana Vedelago. Online advertisements were posted by Liam Rémillard. LimeSurvey was utilized as the online host for the Grief due to Pet Loss Survey. Variables selected for regression analysis were agreed upon by Liam Rémillard, Dr. Michael Meehan, Dr. Jason Coe, and Dr. David Kelton. William Sears and Michelle Edwards were the statisticians that assisted with regression analysis and interpretation of findings. The first draft of the manuscript was written by Liam Rémillard and edited by all members of the advisory committee including Dr. Michael Meehan, Dr. Jason Coe and Dr. David Kelton.

Chapter 4: Conclusion

The first draft was written by Liam Rémillard and reviewed by Dr. Michael Meehan, Dr. Jason Coe, and Dr. David Kelton.

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List of Abbreviations

PLSH	Pet Loss Support Hotline
ICG	Inventory of Complicated Grief
CCAS	Comfort from Companion Animal Scale
PAQ	Pet Attachment Questionnaire
MSPSS	Multidimensional Scale of Perceived Social Support

Chapter 1

Literature Review and Objectives

Introduction

The *human-animal bond* is a commonly used term that refers to the relationship between a person and companion-animal (American Veterinary Medical Association, 2014). The concept of the human-animal bond has gradually become acknowledged in the literature within the last several decades (Hines, 2003). During this time domestic animals have become increasingly accepted in Western societies as companion animals and as family members (Spencer et al., 2006; Cohen, 2002; Walsh, 2009). One reason for the changing role and value of companion animals in societies is due to the documented health benefits of pet ownership (Friedmann et al., 2007; Wilson, 1987). Findings from the literature suggest that pet ownership including dogs and cats is capable of providing human physiological benefits such as reduced incidence of cardiovascular disease (Friedmann et al., 2007; Wilson, 1987), increased physical activity (Rogers et al., 1993), as well as social and psychological benefits including increased morale (Goldmeier, 1986), decreased loneliness (Zasloff and Kidd, 1994), social facilitation, and increased social capital (Wood et al., 2005). Research also indicates that a strong emotional connection or human-animal bond is integral to these positive human companion-animal interactions (Durkin, 2009). In fact, research suggests that companion animals serve as important attachment relationships in our lives and are valued just as highly as other important human attachment relationships (Durkin, 2009).

It follows that when this human-animal connection is disrupted by the death of a pet, owners will likely experience grief over their loss (Keddie, 1977; Lagoni et al., 1994; Ross and Baron-Sorensen, 1998). Although not all bereaved individuals will experience the full range of possible symptoms, a normal grief reaction has been characterized by components such as crying, looking

back at the past, longing for the deceased, and the conflicting urge to look forward from the loss (Parkes, 1998). In addition, traditional symptoms of grief have included a lack of perceived strength, increased emotional distance from people, feelings of guilt, inactivity, irritability, anger, and hostility (Lindemann, 1944).

When the normal grief symptoms persist, individuals may experience complicated grief which is characterized by long-term functional impairments that exist beyond what may be considered a normal adaptive period (Prigerson et al., 1995). Symptoms of complicated grief include; separation distress such as loneliness, preoccupied thoughts about the deceased; and traumatic distress including mistrust, anger and shock (Prigerson and Jacobs, 2001). Complicated grief is of particular importance because it is considered a maladaptive response to loss, where symptoms of functional impairment may last months to years following the death and can severely impact the long term psychological and physical health and well being of people who are grieving (Prigerson et al., 1995). Complicated grief has also been found to exist in relation to grief due to pet loss for some people (Adams et al., 2000). It is currently estimated that 30% of pet-owners that have experienced pet death experience a severe form of grief as a result of the death of their pet (Adams et al., 2000). This number is of concern considering only 10-20% of the general public have been identified to experience complicated grief in relation to the death of a close human-human relationship (Middleton et al., 1996; Prigerson et al., 1995). At present, research exploring complicated grief due to pet loss is limited, and the extent to which behavioural and psycho-social factors are associated with pet loss complicated grief is unknown. Considering the serious psychological health implications associated with complicated grief, it is imperative that future research explore complicated grief resulting from pet loss in order to

identify the psychological, behavioural and demographic factors contributing to bereaved pet owners' experience of complicated grief. Further understanding of complicated grief among pet owners will inform veterinarians and grief counsellors about how to support pet owners grieving the death of their pet, especially those who may experience complicated grief.

Human-Animal Bond

Living with a companion-animal has become an accepted part of Western society, with approximately 32.3% of all households in the Canada owning dogs and 35.5% owning cats (Perrin, 2009). This relationship between humans and animals has been termed the human-animal bond and was described by Konrad Lorenz in 1979 (Hines, 2003). The importance that pet owners place on their human-animal relationship is evident as pet owners have been noted to describe their companion animals as family members similar to the role of children (AVMA, 2000; Brody, 2001; Bulcroft and Albert, 1987; Cain, 1985). Additional examples of the family relationship between companion animals and their owners involve pet owners referring to themselves as their pet's parent (AVMA, 2000), allowing cats and dogs to sleep on a family member's bed (Gallup, 1996), and making sacrifices such as absences from work to care for their pet as they would if a family member was ill (AVMA, 1998). Based on the literature, the relationship between humans and animals is becoming increasingly common and accepted (AVMA, 2000).

In addition to pets providing companionship for pet owners, research suggests that pet ownership affords psychological, physical, and social benefits for the owner. Psychological benefits include decreased depression (Tower and Nakota, 2006), decreased loneliness (Zasloff and Kidd, 1994)

and increased morale (Goldmeier, 1986), while the physical benefits include decreased blood pressure (Friedmann et al., 2007; Wilson, 1987), increased parasympathetic neural activity for stress reduction (Motooka et al., 2006), and increased physical activity (Rogers et al., 1993). Lastly, the social benefits of companion animal ownership include increased social capital and social facilitation (Wood et al., 2005); i.e. pet ownership provides opportunities for social contact and interaction. Research also indicates that a strong emotional connection or human-animal bond is integral to these positive human-animal interactions (Durkin, 2009). In fact, research suggests that pets serve as important attachment relationships in our lives and are valued just as highly as other important human attachment relationships (Durkin, 2009).

The Grief Experience

Early research exploring grief and bereavement described the symptoms of people experiencing grief following loss to include disinterest in relationships, irritability, anger, and social withdrawal (Lindemann, 1944). Since the inception of the terminology used to describe grief, bereavement, and loss, several theorists have provided different perspectives on how to define the grief experience. For instance, Engel (1961) describes grief as an illness, Bowlby (1980) describes grief as an adaptive process to the death of a human, and Cowles (1996) argues that grief is not limited to human loss but can also result from the loss of an object similar to the loss of a human. As such, it has been argued that the concept and definition of grief historically is ambiguous (Dunne, 2004; Cowles and Rogers, 1991). Grief has been recently defined as an “adaptive, universal, and highly personalized response to the multiple losses that occur at the end of life. This response may be intense early on after a loss manifesting itself physically, emotionally, cognitively, behaviourally, and spiritually; however, the impact of grief on daily life

generally decreases with time” (Widera and Block, 2012, pp. 259). In other words, the experience of grief is intense shortly after the death; however, it is a normal and adaptive for the symptoms of grief to decrease as time progresses. Traditionally, grief ensues after the death of a close human friend or loved one (Bowlby, 1980); however, there are many other avenues that may elicit a grief response due to a similar emotional attachment (Cowles, 1996). For instance, common life situations that have been found to elicit a grief-like response include job-loss (Amundson and Borgen, 1982; Kaufman, 1982) and divorce (Clinebel, 1984). In addition to grief reactions due to the death of a loved one or an unexpected life situation, the death of a pet has also been shown to be associated with grief reactions in humans (Archer and Winchester, 1994; Carmack, 1985; Field et al., 2009; Adams et al., 2000).

While the initial symptoms of grief outlined by Lindemann (1944) included somatic distress, preoccupation with the image of the dead, guilt, hostility and loss of patterns, the currently accepted symptoms of grief include “denial, anger, disbelief, yearning, anxiety, sadness, helplessness, guilt, sleep and appetite changes, fatigue, and social withdrawal” (Widera and Block, 2012, pp.259). These symptoms often decrease in intensity in the days or weeks following the loss (Diagnostics and Statistical Manual-V, 2013). The normal experience of grief may last up to two months in duration (Diagnostics and Statistical Manual-V, 2013).

Models Explaining the Grief Process

A number of theoretically driven models have been developed to describe the grief process. Grief has been described in terms of phases (Bowlby, 1980; Rando et al., 1983; Parkes, 1998), grief clusters (Lindemann, 1944), stages (Kübler -Ross, 1969), themes (Carter, 1989), tasks

(Worden, 1996), and trajectories (Bonanno, 2009). Similar to the challenge of identifying an operational definition for grief, there are problems identifying a single grief model that accurately describes the grief process. Among the grief models there are notable similarities and differences.

The commonalities include (1) all of the models describe the process of grief in response to the death of a human (Bowlby, 1980; Rando et al., 1983; Parkes, 1998; Lindemann, 1944; Kübler - Ross, 1969; Carter, 1989; Worden, 1996; Bonanno, 2009); (2) most of the researchers make use of stages or phases to describe the process of grief (Bowlby, 1980; Dunne, 2004; Kübler -Ross, 1969; Rando et al., 1983; Parkes, 1998); (3) there are common stages including shock or disbelief at the death, confusion on how to handle the death and move forwards, anger at themselves or others, and adaptation or resolution; (4) not everyone goes through all the phases (Dunne, 2004; Kübler -Ross, 1969); lastly (5) the experience of grief is not a linear process (Dunne, 2004; Kübler -Ross, 1969; Parkes, 1998).

Although there are commonalities among the grief models, there are also notable differences. The first difference is that the models do not adhere to a similar sequence of stages. Secondly, none of the models explicitly identify an anticipated time to progress through the respective stages of grief. The final difference among the models concern the intended use of the models, as the grief models are either prescriptive or descriptive. Prescriptive models are used by counsellors to identify the stages of grief among their clients whereas descriptive models describe the grief experience. With models offering different perspectives on how to identify and describe grief, the construct of grief becomes difficult to describe and measure.

Specific to pet loss, Sife (2005) has adapted the Kübler-Ross 5-stage model of grief. The Kübler-Ross 5-stage model has been the only grief model that has been adapted to the experience of grief resulting from the death of a pet published in the peer-reviewed literature. Sife modified and added to the Kübler-Ross model by stating that there are 5-6 stages of grief that are similar to the stages outlined by Kübler-Ross yet unique to the experience of pet-loss. Although these stages share some similarities to the original Kübler-Ross model, there is a unique difference with Sife's model specific to the guilt that may be unique to the loss of a pet surrounding the cause of death. Sife argues that pet owners may feel guilty about the death of the pet for a variety of reasons. They may feel guilty if they believe they could have prevented their pet's death, or are remorseful for not doing more for their pet while it was still alive. Sife also notes that the cause of death is an area where pet-loss differs from human loss since pet-owners face unique challenges when the death of the pet was accidentally caused by the owner, or when the pet was euthanized.

Pet-loss Grief

While there are similarities in the experience of grief when comparing human loss and pet loss, there are also noteworthy differences that are inherent to the loss of a pet. In turn, these unique factors associated with pet loss may be associated with the experience of grief. Research suggests that the experience of pet-loss grief may differ from human grief in terms of the lack of societal recognition of pet-loss grief (Hunt and Padilla, 2006; Quackenbush and Glickman, 1984), the nature of the human-animal bond (Sharkin and Knox, 2003; Weisman, 1991), and the process of pet-loss grief itself (Sife, 2005; Quackenbush and Graveline, 1985; Hunt, 2006).

In their work studying grief resulting from the death of a pet, Hunt and Padilla (2006) found that a unique feature to pet-loss is the lack of acceptance by society of this form of grief. In addition, when Quackenbush and Glickman (1984) explored adjustment to pet-death, the investigators identified that bereaved pet-owners experienced a lack of sensitivity and ridicule from friends and family within their support network. As such, the lack of social acceptance that pet owners experience may exacerbate the experience of grief due to pet-loss.

The nature of the bond people have with their pets may be different from the bond that people have with other humans (Sharkin and Knox, 2003). Pet owners often mention that their pets are a unique form of attachment since they provide them with unconditional love that is difficult to match in human relationships (Sharkin and Knox, 2003). Furthermore, bonded pet-owners have mentioned that the emotional bond they experience with their pets can sometimes feel stronger than the bonds they have with their family and friends (Weisman, 1991) Therefore, evidence is developing to indicate that the relationship between humans and animals may share similarities as well as differences from the relationships that people may share with members of their own species. Ultimately the difference in attachment could result in differences in the way pet owners experience grief following the death of a pet.

In terms of the grief experience following the death of a pet, researchers have identified factors that may exacerbate the grief. Both euthanasia (Adams et al., 2000; Davis et al., 2003, Sharkin and Knox, 2003) and accidental death (Planchon et al., 2002) have been found to be associated with the grief reaction. Adams et al. (2000) noted that approximately 30% of clients from

Ontario veterinary practices experienced severe grief within two months following the death of their pet. The study utilized the Grief Experience Inventory (Sanders et al., 1985).

Complicated Grief

Complicated grief is characterized by “a unique pattern of symptoms following bereavement that is typically slow to resolve and can last years if left untreated” (Lichtenthal et al., 2004, pp.637).

Complicated grief is often used in the literature to describe prolonged, intensified, or unresolved forms of grief (Lichtenthal et al., 2004), often involving the presentation of specific grief symptoms at a time beyond that which is considered adaptive (Kristjanson et al., 2006). A systematic review of complicated grief literature identified symptoms of complicated grief to include “separation distress, such as longing and searching for the deceased, loneliness, preoccupation with thoughts of the deceased; and symptoms of traumatic distress, such as feelings of disbelief, mistrust, anger, shock, and detachment from others” (Kristjanson et al., 2006, pp.6). The primary investigators of this systematic review estimate 10-20% of the human population experiences complicated grief at any one particular time (Kristjanson et al., 2006). The researchers also compiled a list of factors found to be associated with complicated grief including insecure attachment styles, “childhood abuse and serious neglect, childhood separation anxiety, close kinship or relationship to the deceased, marital closeness, support and dependency” (Kristjanson et al., 2006, pp.6).

Differentiating complicated grief from normal grief involves using measures that are specifically designed to identify complicated grief. Two tools have been developed to assess complicated grief (Prigerson et al. 1995; Horowitz et al., 1997). The first is a 19-item self-report Inventory of

Complicated Grief (ICG) developed by Prigerson et al. (1995). The measure was designed to identify and measure the behavioural, cognitive, and emotional symptoms that are associated with complicated grief. Research has established the ICG to be a reliable measure of complicated grief (Cronbach's alpha = 0.94) (Prigerson et al., 1995). Providing an alternative complicated grief assessment measure to the ICG, Horowitz et al. (1997) created a 30-item self-report questionnaire to measure complicated grief. The newer measure has been found to have poor internal consistency (Cronbach's alpha=0.49-0.58) (Horowitz et al., 1997). Although the two measures offer different diagnostic criteria for complicated grief, there are several common symptoms present in both. The common symptoms include "yearning, searching, disbelief, loneliness, emptiness, numbness, avoidance" (Forstmeier and Maercker, 2007, pp.203). In addition, both Prigerson et al. (1995) and Horowitz et al. (1997) acknowledge that complicated grief cannot be diagnosed less than 6 months following the death.

In a study comparing the diagnostic criteria for complicated grief used by Prigerson et al. (1995) compared to Horowitz et al. (1997), Forstmeier and Maercker (2007) indicate that 4.2% of their study population suffered from complicated grief under Horowitz' diagnostic criteria, whereas 0.9% of a similarly representative population suffered from complicated grief under Prigerson's diagnostic criteria (Forstmeier and Maercker, 2007). The study population utilized by Forstmeier and Maercker was restricted to bereaved individuals between the ages of 65-96 residing in urban townships. The non-representative population used by Forstmeier and Maercker (2007) may have contributed to the decreased prevalence of complicated grief when comparing to prevalence estimates reported by Kristjanson et al. (2006). The researchers concluded that the diagnostic test provided by Horowitz et al. (1997) was more inclusive and less strict than that by Prigerson et al.

(1995) since the Horowitz et al. (1997) test provided more generous prevalence estimates (Forstmeier and Maercker, 2007). Based on the premise that the Prigerson et al. (1995) model has greater alpha scores, and a more conservative prevalence estimate for complicated grief, this measure appears to be the more appropriate measure of complicated grief due to the death of a pet.

One challenge that has been identified to researching the area of complicated grief is the lack of recognition of complicated grief by past and present editions of the *Diagnostic and Statistical Manual (DSM)* (Lichtenthal et al., 2004). The DSM is a categorization system for mental disorders that is dedicated towards aiding health care professionals diagnose and characterize mental diseases through defined symptoms and diagnostic criteria (American Psychiatric Association, 2013). Some researchers argue that there is too much overlap between the symptoms of complicated grief and normative grief (Rando et al., 2012; Wakefield, 2012). Although there has been debate, the construct of complicated grief is generally accepted within the published literature (Forstmeier and Maercker, 2007; Lichtenthal et al., 2004). For the purposes of this thesis, complicated grief involves functional impairment greater than six months following the death of a pet, with symptoms consistent with the ICG diagnostic criteria (Prigerson et al., 1995).

Disenfranchised Grief

Disenfranchised grief is a term that refers to an experience of loss or bereavement that is “not openly acknowledged, publicly mourned or socially supported” (Doka, 1989, pp.4). Situations where disenfranchised grief has been shown in our society stem from deaths due to suicide

(Andriessen, 2011), aborted or miscarried pregnancies (Lang et al., 2011), or even personal bankruptcies and foreclosures (Herrmann, 2011). Part of the reason pet owners may experience complicated grief stems from the perception that grief due to the death of a pet may be considered a form of disenfranchised grief (Cordaro, 2012; Adams et al., 2000). It is hypothesized that grief due to the death of a pet is not recognized as a legitimate form of grief due to parts of society not recognizing the legitimacy of the human-animal bond (Cordaro, 2012). It may be common for bereaved pet owners to attempt to isolate themselves from their social support network in fear of ridicule or mockery at the reaction they have to the death of their pet (Cordaro, 2012). In addition, Adams et al. (2000) found that negative societal attitudes towards pet death were risk factors for grief among bereaved pet owners. Although little research has been published about disenfranchised grief due to pet loss, Cordaro suggests that pet-loss grief is a form of disenfranchised grief, and that disenfranchised grief negatively impacts pet bereavement (Cordaro, 2012). As such, the disenfranchised nature of pet loss grief may predispose pet owners to experience complicated grief.

Predisposing Factors Associated With Grief

Given the overlap of symptoms between normative grief and complicated grief, one may assume that if there is an association between a predictor variable and normative grief, this association may also exist when examining the association between the variable and complicated grief resulting from pet loss. Further research is needed to better characterize these possible associations.

Strength of Attachment to Pet

As a result of the strong emotional connection that can exist between a person and companion-animal, research has demonstrated that there is a positive association between the strength of the attachment between an owner and their pet, and the intensity of the grief reaction (Archer and Winchester, 1994; Gerwolls and Labtt, 1989; Goose and Barnes, 1994). In other words, the stronger the emotional connection, the greater the intensity of grief. As such, research examining complicated grief among pet owners should consider the strength of the human-animal attachment as a predictor of the grief experience.

Attachment Style

Researchers have explored not only the strength of attachment relationships but also the quality or style of an attachment relationship (Bowlby, 1980; Levy and Blatt, 2008). This research can be used when exploring human-animal attachment relationships and the grief experience.

Bowlby suggested that the attachment style an individual has as an infant is an important indicator of a person's reactions to future attachments (Bowlby, 1980). Bowlby also proposed that infant relationships can be classified as either secure or insecure (Bowlby, 1980). These styles of attachment developed in childhood have been shown to persist with a person into adulthood. Bowlby and Ainsworth initially defined two subgroups of the insecure attachment style – anxious or avoidant (Bowlby, 1980; Ainsworth et al., 1978). People displaying an anxious insecure style of attachment worry about the responsiveness, availability and attentiveness of their spouse or partner (Fraley, 2010), whereas people displaying an avoidant insecure style of attachment are less reliant on others and less likely to communicate with others (Fraley, 2010). Research suggests that attachment anxiety and avoidance may influence the severity of the grief experience following the death of a spouse (Fraley and Bonanno, 2004; Stroebe et al., 2005).

Research by Zilcha-Mano, Mikulincer and Shaver (2011) explored how pet owners differ in their degree of anxious or avoidant attachment styles with their pets. Results from this study indicate that people with an anxious attachment to their pet have a more intense grief reaction to the death of their pet when compared to people with a higher pet avoidant attachment. Therefore, people displaying an anxious style of attachment toward their pet may be more predisposed to experience a higher severity of grief compared to people displaying an avoidant style of attachment toward their pet. As such, research examining complicated grief among pet owners should consider the animal attachment style as a predictor of the grief experience.

Social Support

Research has examined how household structure and social support may affect the grief experience of individuals that have experienced the death of a pet. In one study by McCutcheon and Fleming (2001), the researchers explored how various predictor variables, including household structure, affect how an individual adjusts following the death of their pet. Results indicate that owners who lived alone at the time of the pet's death experienced greater psychological distress than owners who lived with others. Similar studies by Planchon and Templer (1996), Archer and Winchester (1994), and Goose and Barnes (1994) further confirm that living alone is a predictor for increased grief severity following the death of a pet. In addition to the living status of the pet owner, research by Field et al. (2009) indicates that pet owners' degree of perceived social support from friends, family and a special person is associated with the severity of the grief experience. As such, findings from Field et al. (2009) suggest that a greater perceived presence of social support is associated with a lower intensity of grief. There appears to be a consensus in the literature regarding the association between social

support and the degree of grief experienced; however, the impact of this predictor variable is still unknown with respect to the association with the experience of complicated grief following the death of a pet warranting further study.

Pet Owner Demographics

Research initiatives have explored to what extent different age groups – youth, middle aged, senior citizens – are at increased risk to experience grief resulting from the death of a pet.

Research by McCutcheon and Fleming (2001) indicates that young people experience a greater degree of anger and hostility resulting from the death of a pet when compared to the elderly.

Similarly, research by Planchon and Templer (1996) suggests an inverse correlation between the owner's age at the time of the death and the grief severity. As such, research examining complicated grief among pet owners should consider the age of the owner as a predictor of the grief experience.

Although there is little published literature concerning the association between complicated grief and gender, there appears to be a consensus that females experience a greater severity of normative grief when compared to males. Studies by Goose and Barnes (1994), Wrobel and Dye (2003), McCutcheon and Fleming (2001), and Planchon and Templer (1996) analyzed gender as a predictor of grief resulting from the death of a pet, and each study demonstrated that females experience greater grief severity than males. As such, research examining complicated grief among pet owners should consider gender as a predictor of the grief experience.

Pet Ownership Characteristics

Research has indicated that length of ownership is not associated with the severity of the grief reaction following the death of a pet (Archer and Winchester, 1994). Past research has also explored how the species of pet may influence the grief experience. Archer and Winchester (1994) explored the impact of species on the grief experience and results from this study suggest that species did not impact the severity of grief when comparing cat and dog owners. Given that research by Archer and Winchester (1994) is the only literature that has explored the effect of length of ownership and species on the grief experience, these are areas deserving of further attention in future grief research.

Death Process

As with human studies, the context of the death has also been explored in the pet bereavement literature. Archer and Winchester (1994) found that there was a positive association between the suddenness of the pet's death and the severity of the grief experience among the study subjects. In similar studies, McCutcheon et al. (2001) and Quackenbush and Glickman (1984) suggest that pet-owners who have had a pet pass away by means of a natural death experienced more severe grief when compared to individuals that have had a pet pass away through euthanasia. *Natural deaths* include deaths that exclude euthanasia, pets that ran away, were adopted, or died by sudden accident (McCutcheon et al., 2001). In contrast, research by Adams et al. (2000) suggests that euthanasia is a predictor for severe grief. Given the lack of consensus and minimal research exploring this area, both the suddenness and context of the pet's death should be explored in future grief research.

As is the case with normal grief resulting from the death of a close friend or family member, the symptoms accompanying grief following the loss of a pet are intense immediately after the death, yet subside as time progresses (Widera and Block, 2012). Similarly, findings from Gerwolls and Labott (1989) indicate that symptoms of grief generally decrease as time progresses following the death of a pet. In contrast to these findings, Archer and Winchester (1994), suggest that the amount of time since the pet has passed away is not a predictor of the severity of the grief experience for bereaved pet owners. There is clearly a lack of consensus among normative grief literature on the association between time since death and grief severity. That said, the premise of complicated grief is that the symptoms of functional impairment may persist from 6 months to years following the death (Prigerson et al., 1995). As such, research examining complicated grief among pet owners should account for the time since the pet died as a possible predictor of the grief experience to explore if symptoms decrease over time.

Memorialization Practices

Research has explored how the act of memorializing the deceased through funerals and rituals may impact the degree of grief experienced by surviving individuals. Although there is little published research exploring the effects of memorializing the loss of a pet, there is a body of research in the human-loss literature. Romanoff and Terenzio (1998) explored the impact of memorialization for people experiencing complicated and disenfranchised grief. Findings from this article suggest that rituals to memorialize the death may be important for complicated and disenfranchised grievers in order to accept the death. Furthermore, Romanoff and Terenzio suggest that the presence of a supportive community is essential for individuals experiencing disenfranchised forms of grief. Therefore, memorialization may have a profound impact on

disenfranchised individuals experiencing complicated as a means of reducing the incidence of complicated grief.

Despite that there are no universally acceptable rituals to memorialize the death of a pet, over the past decade there have been significant advancements for pet owners to memorialize their pets (Chur-Hansen, 2010). New companies and services are dedicated towards memorialization products for pets including personalized urns, cremation ceremonies, personalized plaques, and even paw-prints to name a few (Sife, 2005). Memorialization services alike help grieving pet owners move through the grief process and attain closure from the death of their pet (Chur-Hansen, 2010; Sife, 2005). Despite this body of information, there is a dearth of research exploring the effect of memorialization on bereaved pet-owners especially in relation to complicated grief warranting further study.

Veterinary Interaction

Research has explored how client communications with veterinarians and veterinary staff may impact the client's grief experience. More specifically, a subset of research has explored areas of the veterinary-client interaction where communication may falter. Research by Adams et al. (2000) found that the professional support from the veterinary team was a risk factor for severe grief among Ontario veterinary clients. In addition, research by Nogueira-Borden et al. (2010) has demonstrated that some veterinarians do not fully explore client feelings or expectations within euthanasia discussions. In addition, findings from this research suggest that some veterinarians do not facilitate active client involvement when defining the pet's condition, or pursue collaboration on goals for treatment or euthanasia. As such, the literature suggests that

veterinary client communication about end-of-life decisions is an area where communication may break down which may impact a client's grief experience. For these reasons, the veterinary-client communication and dialogue should be further explored to see if this has an impact on the degree of grief and complicated grief bereaved pet owners experience following the death of a pet.

This literature review has demonstrated that grief due to pet loss is a real experience and at times may encompass experiences of complicated and disenfranchised grief. Considering the psychological health impacts associated with complicated grief, this thesis explores the grief experience among bereaved pet owners with emphasis towards identifying factors associated with complicated grief. Better understanding of the factors associated with complicated grief can improve the provision of support to people at the time of their pet's death.

Mixed methods research

This thesis utilizes a mixed-method approach to achieve the research objectives. A qualitative content analysis of written notes is utilized in Chapter 2 to better understand the construct of grief among a convenience sample of bereaved pet-owners experiencing grief. This approach was utilized in order to capture the broadest range of data as related to the grief experience given the minimal research that has qualitatively explored grief among bereaved pet owners.

Qualitative research is ideal for research in an area where little is known (Mayan, 2001).

Findings from the content analysis informed the development of a quantitative survey used in Chapter 3 to be distributed to the general public that included; previously validated measures of complicated grief, pet attachment, social support, general health; and open-ended questions about

pet ownership characteristics and socio-demographic questions. Chapter 3 involved a quantitative logistic regression analysis whereby a priori hypothesis on predictors of complicated grief were assessed among the study population.

Thesis objectives

The primary objectives were:

1. To explore and describe the construct of grief due to pet death within a subset of the pet owning population that is experiencing grief (Chapter 2).
2. To explore and describe the construct of complicated grief due to pet death, with specific attention to the psychological, behavioural and socio-demographic predictors of complicated grief (Chapter 3).

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Chapter 2

Exploring the Grief Experience Among Callers to a Pet Loss Support Hotline

Written as an original research article in the style of the *Journal of Anthrozoös*

Abstract

Pet owners can form strong bonds with their pets that can equal, and in some cases surpass the depth of the bonds to humans (Ross and Baron-Sorensen, 1998). Research has shown that grief due to the death of a pet is similar to the grief of people who have experienced the death of a significant other (Archer and Winchester, 1994; Gerwolls and Labtt, 1989). In addition, for many pet owners their grief can be disenfranchised (Cordaro, 2012) and severe (Adams et al., 2000). Support groups and helplines for people who are experiencing grief are commonplace in society (Turner, 1997). However, only recently have hotlines emerged in growing numbers to provide assistance for pet owners in dealing with the death of their pets. At present there is minimal research evaluating the grief experience among bereaved pet owners.

The present study aimed to explore the grief experience among callers to the Ontario Veterinary College Guelph Pet Loss Support Hotline. This research involved content analysis of 75 written notes recorded by hotline volunteers between the years of 2011-2012 capturing the nature and content of a call received by the Pet Loss Support Hotline. General themes emerging from the content analysis include telling a personal narrative, the grief experience, support, positive and negative emotions experienced, caller's relationship with their pet, memorialization after the pet dies, methods to cope with the loss, difficulty with the decision to euthanize, and interaction with veterinary staff. Findings suggest allowing clients to tell the story of their pet may decrease their grief response following the death of their pet. Veterinarians, support workers, and counsellors should enquire about the people within the pet owners support network, and also how the pet owner plans to cope with loss. Mental health professionals should be well informed of local

memorialization and counselling services directed towards bereaved pet owners for clients that have experienced the death of a pet.

Introduction

Companion-animals have become an accepted part of Western society, with over half of Canadian households owning at least one dog or cat (Perrin, 2009). The relationship between humans and animals, known as the human-animal bond, has become increasingly acknowledged in the literature (Hines, 2003). The strong emotional connection that pet owners have with their pets can equal, and in some cases surpass the depth of the bonds to humans (Ross and Baron-Sorensen, 1998). As a result, when a pet dies the separation of this bond may elicit a grief reaction for the owner (Archer and Winchester, 1994; Field et al., 2009; Goose and Barnes, 1994).

Grief has been defined as a natural response to loss involving symptoms of perceived lack of strength, increased emotional distance from people, feelings of guilt, inactivity, irritability, anger, and hostility (Parkes, 1998; Lindemann, 1944). Research has also explored the similarities and differences between the traditional grief response to human loss and that stemming from the death of a pet (Sife, 2005; Cowles, 1996). The literature suggests that the experience of pet-loss grief may differ from human grief in terms of the lack of societal recognition of grief associated with pet-loss (Hunt and Padilla, 2006; Quackenbush and Glickman, 1984), the process of pet-loss grief itself (Sife, 2005; Quackenbush and Graveline, 1985; Hunt and Padilla, 2006), unique aspects of the human-animal bond (Sharkin and Knox, 2003; Weisman, 1991), and the ethical challenge of euthanasia (Quackenbush and Glickman, 1984).

Past research has explored the socio-demographic, behavioural and psychological factors that are associated with the grief experience resulting from the death of a pet; however, the majority of

literature in this area has utilized quantitative methods to understand the grief experience (Archer and Winchester, 1994; Field et al., 2009; Goose and Barnes, 1994; Hunt and Padilla, 2006).

Although prior quantitative studies offer insight towards variables associated with the grief experience among bereaved pet owners, results from this research are a product of chosen predictor variables for analysis. In short, findings from past research may not have accounted for the breadth of variables associated with grief resulting from the death of a pet. Qualitative research methods offer an approach to inductively explore in depth a topic that has minimal research. As such, qualitative methods offer an opportunity to further explore pet-loss grief in a hope of furthering our understanding of grief associated with pet loss.

A greater understanding of the grief experience resulting from the death of a pet will help to develop best-practice guidelines for health professionals supporting pet owners experiencing grief from the loss of their pet. Findings may be relevant to veterinary staff, counsellors and support groups. The objective of this study was to explore and describe the construct of grief due to pet death within a subset of the pet owning population that is experiencing grief.

Materials and Methods

The study protocol was approved by the University of Guelph Research Ethics Board (REB 11DC002).

Design

This study consisted of a qualitative content analysis of call-notes written by volunteers of the Ontario Veterinary College's Pet Loss Support Hotline (PLSH). Calls were received from pet owners who had experienced the death of a pet.

Procedure

Data Collection

Call notes, also referred to as volunteer notes and summary notes, consisted of notes written by the Ontario Veterinary College's PLSH volunteers detailing their conversation with callers from the general public. Callers to the PLSH include individuals that had experienced the death of their pet, individuals contemplating euthanizing their pet, and veterinarians or members of the veterinary staff seeking bereavement resources. As the objective of this study was to further explore the grief experience resulting from the death of a pet, only call notes involving callers who discussed the death of their pet were included in the analysis. Call notes from 2011-2012 were identified and subsequently analyzed. The calls ranged in duration from a few minutes to an hour in duration whereby the PLSH volunteer listened to the comments and concerns of the caller. A total of 19 PLSH volunteers recorded call notes included in this study. All follow-up calls made by the 19 volunteers were also included in the content analysis. Follow-up calls are provided by volunteers to callers that request a PLSH volunteer make an additional phone call to follow up at a later date.

Content Analysis

An inductive content analysis was used to identify common content in the form of phrases and sentences among the call notes. The first stage involved defining the unit of analysis for the

initial codes, which included single words, and groups of words or phrases mentioned in the call notes. Codes were then developed by the author starting with call notes from 2012 and working backwards through the call notes until data saturation was achieved (i.e., no new codes emerged from subsequent call notes) (Kristie and Given, 2008). As new codes emerged from the data previously coded call notes were reassessed for the newly developed codes. Each developed code was subsequently described in a codebook (Appendix A.1). Inter-rater reliability was assessed by having a research assistant independently recode 20 randomly selected call notes using the final codebook.

Subsequent to the coding process similar codes were grouped into subthemes, followed by similar subthemes grouped into themes.

Microsoft Excel V.2013 was used for data imputation and calculation of frequency counts (Microsoft, 2013).

Results

A total of 75 call notes were coded representing all calls to the PLSH in 2011 and 2012. Data saturation was considered to be reached at the 65th call note and was confirmed by coding an additional 10 call notes whereby no further codes were developed. The final codebook had a total of 99 coding categories. Nine themes emerged from the content analysis of PLSH call notes including personal narrative, the grief experience, support, emotions, relationship with pet, memorialization, coping mechanisms, decision to euthanize, and veterinary interaction (Figure

2.1). The author and research assistant had an acceptable inter-rater agreement of 0.9 through Cohen's Kappa.

Personal Narrative. The most prominent theme appearing in 97.3% (73/75) of call notes involved callers telling a story about the history of their pet ownership. Within this theme there were four subthemes; description of pet's illness, disease or death; other household pets and replacement of the deceased pet; description of the pet's physical attributes and behaviour; and description of the pet's life prior to their illness, disease or death.

Description of the pet's illness, disease or death - The most frequently recorded personal narrative in 91.7% (67/73) of call notes involved the owner talking about their pet's illness, disease, or perceived cause of death. This subtheme explored the progression and onset of the pet's illness or disease. About one third (n=24) of call notes recorded events leading up to the actual death of the pet including the progression of how their pet became ill and subsequently passed away. Similarly, nearly one third (n=22) of written notes described the unexpected nature of the death of the caller's pet. Examples of unexpected causes of death included sudden death of unknown cause (n=9), killed by predator (n=3), or hit by car (n=2). The unexpected nature of the pet's death was identified to negatively impact each of the callers. In addition, many of the call notes captured early onset disease symptoms (n=21) prior to diagnosis such as decreased appetite (n=11), lethargy (n=4), or reduced signs of affection towards the owner (n=6).

Other household pets and replacement of the deceased pet - The second subtheme present in 45.2% (33/73) of the call notes captured personal narratives about other pets that the caller

owned or was considering adopting. Other pets were mentioned in addition to discussion of the pet that had passed away in all instances. Within this subtheme, notes on the caller recalling similarities and differences between the surviving pet and the pet that died in terms of behaviour and appearance were recorded (n=15). Callers' plans to replace their deceased pet (n=21) to fill a void created by the death of their previous pet were also noted in the call notes. Occasionally callers questioned the volunteer about an appropriate time frame to replace their pet (n=5), or whether it was appropriate to replace their pet (n=2).

Description of the pet's physical attributes and behaviour - The third subtheme present in 38.4% (28/73) of the call notes involving a personal narrative included details of the caller describing their pet's unique physical attributes or behaviour. The call notes also often indicated that callers would recall unique aspects of their pet's physical appearance (n=15). For instance, when describing the physical appearance of their pet, callers recalled their pet's attractiveness with respect to their fur colour (n=8) and unique characteristics of that breed or species (n=7). For instance, one call note indicated that the caller's dog was "the envy of the people at the dog park since she had a beautiful coat of fur". Behaviours described included; activities that the pet enjoyed (n=9) such as spending time outdoors or following the owner around their house; behaviours of affection that the pet would show to the owner (n=4); and the pet's behavioural response to specific commands (n=2).

Description of pet's life prior to illness, disease or death - The fourth subtheme present in 35.6% (26/73) of the call notes including a personal narrative described aspects of the caller's pet's life in terms of how they came to acquire the pet, the length of relationship they had with their pet,

and also their pet's living conditions. When commenting on how callers acquired their pet, the volunteer notes included that the callers either adopted a rescue pet (n=7), the pet was brought into their home as a "family pet" when they were young (n=4), or they purchased their pet from a breeder (n=3). Often notes indicated the duration of ownership that they cared for the pet ranging in years from 0-22. Lastly, callers would speak to the past living conditions of their pet while it was alive describing if their pet was an outdoor or indoor pet, if their pet was adopted from a shelter or rescued (e.g. from an abusive owner) to better inform the PLSH volunteer.

The Grief Experience. The grief experience theme was reported in 74.7% (56/75) of call notes, and describes the consequences and challenges resulting from the death of their pet that the callers experienced. There were two sub-themes; the consequences of grief; and the triggers of grief.

Consequences of grief – Consequences of grief were described in 87.5% (49/56) of call notes including details of the caller's grief experience and comprised of three distinct subsets; mental challenges (71.4%, 35/49); behavioural disruptions (38.8%, 19/49); and physical symptoms (26.5%, 13/49). Mental challenges referred to changes in the callers' mental state including the volunteers use of the terms "regret" (n=16), "guilt" (n=16), and "depression" (n=10).

Behavioural disruptions referred to interruptions in the caller's routine day-to-day activities such as "time off from work" (n=9), "difficulty performing daily activities" (n=9), and also "missing routine" (n=5). Physical Symptoms referred to changes in the callers' physical state including the use of the terms "feeling sick" (n=10), "difficulty sleeping" (n=5), and "no appetite" (n=2).

Grief triggers - The second subtheme was described in 41.1% (23/56) of call notes including details of the caller's grief experience and describes grief triggers. Grief triggers consisted of visual reminders within the caller's life that would trigger memories of their pet. The four areas of grief triggers included specific locations (n=8), animal belongings (n=7), unclassified triggers (n=6), or pictures of the pet that had passed away (n=3). Specific locations that acted as grief triggers (n=8) included walking by areas of their house that they thought were associated with their pet (n=7), or driving by community parks where they had walked their pets (n=2). Examples of grief triggers that involve the animal's belongings (n=7) included their bed (n=3), toys (n=2), or food bowl (n=2). Unclassified triggers (n=6) were noted when the caller recalled experiencing a grief trigger without identifying the specific cause. Lastly, volunteer notes indicated that a minority of callers (n=3) had difficulty looking at pictures of their pet.

Support. The role of supportive people was recorded within 72.0% (54/75) of the call notes and described people identified as emotionally supporting callers through their grief. Within the theme of supportive people, there were two separate subthemes – the perceived presence or absence of social support.

The perceived presence of support was depicted in 68.5% (37/54) of the call notes within the support theme and referred to supportive people. Support was identified to come from one of nine categories including support groups (n=21), family (n=19), friends (n=11), other (n=9), significant others (n=6), members of the veterinary clinic (n=4), counselling services (n=3), neighbours (n=3), religion (n=2). In 31.5% (17/54) of call notes referencing support pet owners reported that they had no supportive people to rely on for emotional support and understanding.

Common examples among the call notes included comments that the callers had “no friends” or “no friends they can turn to” (n=11), their “family has moved away” (n=5), or they “live alone” (n=5).

Emotions. The theme of emotions was identified in 69.3% (52/75) of the call notes and was divided into two subthemes of negative and positive emotions. Negative emotions were depicted within 88.5% (46/52) of call notes within the emotions theme, and positive emotions were depicted within 55.8% (29/52). Both positive and negative emotions were depicted within 44.2% of the call notes (23/52).

Negative emotions - There were six categories within this subtheme; sadness, shock, anxiety, weakness, anger, and fear. The most frequently recorded negative emotion was sadness, which was mentioned in 82.6% (n=38) of call notes including an emotion. Example words describing a caller’s sadness included “sad,” (n=7) “tough” (n=4) and “rough” (n=1). In addition, call notes described callers using emotional metaphors (n=10) such as feeling as though they had a “hole in their heart,” or the loss being “heartbreaking”. Finally, call notes reported that callers were “missing” (n=11) or “longing for” (n=1) their pet. Shock was mentioned in 21.7% (n=10) of call notes and commonly identified by callers being in a state of shock (n=6), or confusion (n=4) resulting from the loss. The emotion of anxiety was identified in 17.4% (n=8) of call notes including an emotion and referred to callers feeling “overwhelmed” (n=1), “stressed” (n=3) or “anxious” (n=5) about the death of their pet. The fourth negative emotion, weakness, was identified in 17.4% (n=8) of call notes and included the use of the terms “insecure” (n=3), “weak” (n=2) or “empty” (n=3) resulting from the loss. Anger was identified in 10.9% (n=5) of

the call notes including an emotion and related to callers having general anger resulting from the death of their pet (n=4), or a caller having anger towards the volunteer for not being able to answers their veterinary-based medical questions (n=1). The final negative emotion that emerged within this theme was fear, identified in 4.3% (n=2) of the caller call notes and characterized as callers expressing a feeling of fearfulness about their future life without their pet (n=2).

Positive emotions - Within the subtheme of positive emotions, there were three categories; empowerment, happiness, and love. Empowerment was mentioned in 68.9% (n=20) of positive emotion call notes and referred to callers feeling empowered as a result of working through their grief. Statements such as “I am having a good day,” or “I am doing better now” were identified in the call notes as statements of empowerment. The second positive emotion of happiness, which was present in 27.6% (n=8) of positive emotion call notes, always referred to how callers felt about the call from the hotline volunteer. The third positive emotion was love, which was presented in 17.2% (n=4) of positive emotion call notes where feelings of “love” were referenced by the volunteer that the caller expressed towards their deceased pet.

Relationship with pet. The relationship with pet theme captured the descriptions of the relationship between the caller and their pet, and was identified in 64.0% (48/75) of call notes. Three subthemes within the theme of the relationship with pet were identified; the role of the pet; previous experience with pet ownership and pet-loss; and the function of the pet.

The role of the pet - The role of the pet subtheme was present in 41.7% (20/48) of call notes where relationship with the pet was referenced and refers to words or phrases used to describe

the caller's relationship with their pet including "friendship" (n=8), "companion" (n=6), "family" (n=3), and "bond" (n=3). Similarly, the volunteers often wrote the caller as having classified their pet as being their "favorite", or "unique", or "different".

Previous experience with pet ownership and pet-loss – This subtheme was present in 35.4% (17/48) of call notes under the theme relationship with pet and was characterized by descriptions of callers talking about whether this was their first time euthanizing their pet (n=7), this was their "only pet" (n=6), whether this was their first experience of pet-loss (n=5), and if this was their "first" time owning a pet (n=2).

Function of the pet – Volunteer call notes that described pets as having a specific function in the caller's life were present in 25.0% (12/48) of call notes and describes the pet as providing a supportive role in the caller's life (n=11). Pets were referred to as providing "support" (n=7) or "comfort" (n=3) often to help the owner "get through difficult times". In addition to support, in one call note the pet was depicted by the caller to "provide meaning to their life" (n=1). Lastly, call notes identified that two callers saw their pet as being a "strong part of their life".

Memorialization. The theme of memorialization was identified in 52% (39/75) of call notes and referred to activities that callers performed to commemorate the pet's death. Example memorialization behaviours included "funerals," "wakes," or "ceremonies" (n=30). Other common acts of memorialization captured in the call notes included printing photo memories and creating collages (n=14). Less common examples included "purchasing paw prints" (n=3),

“lighting candles” (n=3), “preserving clips of fur” (n=3), “ purchasing plaques” (n=1), or “acquiring tattoos” of the pet’s paw (n=1).

Coping Mechanisms. The theme of coping mechanisms includes strategies identified from the volunteer notes that callers used to cope with the loss of their pet and emerged in 46.7% (35/75) of call notes.

Reading pet-loss or bereavement literature was identified in 31.4% (11/35) of coping mechanism call notes. Writing letters to their deceased pet was a common coping mechanism and present in 22.9% (8/35) of coping mechanism call notes. Visiting neighborhood animals such as friend’s pets (n=3), stray cats or dogs in the neighborhood (n=2), or animals at an animal shelter (n=2) was also mentioned within 20.0% (7/35) of the coping theme. Seeking counselling and/or support services was present in 20.0% (7/35) of call notes within the coping mechanism theme whereby callers sought help from pet-loss support groups other than the Pet Loss Support Hotline (n=5), as well as mental health professionals including counsellors and psychiatrists (n=2). Active involvement in the home and community was identified in 14.3% (5/35) of call notes within the coping mechanism theme and involved callers “keeping busy” by carrying out daily activities, meeting with friends, and volunteering at local humane societies. Religious activities were identified in 5.7% (2/35) of call notes within the coping mechanism themes and involved callers praying for their deceased pet, asking for forgiveness from god, or praying for strength. The final coping mechanism present in 5.7% (2/35) of call notes pertained to callers using drugs including prescribed tranquillizers (n=1) or self-medicated drugs such as cannabis (n=1) to manage their grief.

Decision to Euthanize. The decision to euthanize encompassed call notes about callers' comments or concerns with respect to ending the life of their pet and appeared in 40.0% (30/75) of call notes. Two subthemes emerged from the data involving the callers' difficulties with the decision to euthanize, and justifying their decision to euthanize.

Difficulty with the decision to euthanize - The struggles that the callers faced with euthanasia were present in 83.3% (25/30) of call notes within the theme of euthanasia and characterized by callers not wanting to see the pet further suffer (n=10), callers mentioning general "difficulty" about whether this was the "best choice" for their pet (n=8), and callers commenting on the expense of treatment costs to preserve life (n=7). Specifically, callers encountered difficult cost-related decisions that included the costs of treatment versus euthanasia (n=5), and comparing the costs associated with euthanasia versus diagnostic testing (n=2).

Justify decision to euthanize - Callers justified and rationalized their decision to euthanize their pet among 33.3% (10/30) of call notes within the theme of euthanasia. Common justifications depicted within the transcribed notes involved the owner not wanting to see their pet suffer (n=7), and reassurance that the decision to euthanize was best for their pet (n=4).

Veterinary Interaction. This theme appearing in 29.3% (21/75) of call notes describes the interactions that the caller had with veterinary staff including the veterinarians and veterinary technicians just prior to their animal's death. The call notes described verbal caller-veterinary staff interactions perceived as either; negative (24%, n=18), or positive (9.3%, n=7). Reasons for

the negative interactions with the veterinary staff include frustration about costs associated with treatment (n=5), concerns surrounding pain management (n=5), the veterinarian's judgment surrounding the diagnosis/prognosis of their pet (n=4), unnecessary diagnostics/treatments (n=3), lack of communication between the veterinarian and the client (n=3), and a lack of compassion by the veterinarian for the clients situation (n=2). In contrast, callers' positive interactions involved pet owners feeling pleased with the service that the veterinary staff provided (n=5), and thankful for how their veterinarian informed them of their pet's health condition (n=2).

Discussion

This research project offers a detailed exploration of the grief experience among 75 bereaved pet owners that contacted a PLSH, offering insight towards areas for future exploration in the field of pet bereavement. In addition the findings inform a number of areas that will benefit veterinarians and counsellors with information to better understand the grief experience associated with the death of a pet.

Findings from the personal narrative theme suggest that pet owners experiencing grief may look for opportunities to share stories about their pet's behaviours, attributes, or illness to another person willing to listen. Pet owners informing the volunteer about their pet appeared to be a common component of many conversations within the present study. While some people may feel uncomfortable asking a pet owner to tell them details about their pet's life and death for fear of upsetting that person, the study suggests otherwise. The act of telling stories has been shown to be a useful counselling process whereby an individual is asked to develop a description of life events (White and Epston, 1990). This form of therapy has been successfully used in counselling

sessions to assist people experiencing grief (Bosticco and Thompson, 2005; Neimeyer, 1999; Neimeyer et al., 2010). The present research suggests that the spontaneous act of telling a story, in this case about their pet's death, may assist callers in their bereavement following the death of their pet. In the present study, the PLSH callers were not influenced by pre-determined interview questions, or encouraged to probe for opinions on topics related to pet death or grief. As such, the candid nature of the conversations between the PLSH volunteers and callers appears to have allowed the callers to spontaneously share their thoughts (i.e., tell their story). Support of owners following the loss of their pet should consider including the practice of storytelling following the death of a pet as a process that may assist pet owners in managing the grief that can be experienced following the death of a pet.

Almost three-quarters of the call notes described the consequences of the grief experience. The consequences of grief identified in the present study appear to highlight much of the grief process described in the literature. Archer et al. (1994) in a study exploring people's grief experience resulting from the death of a pet, found that bereaved pet owners often showed signs of initial numbness, disbelief, preoccupation, a loss of part of themselves, and being drawn towards reminders of their pet. Pet owners grief experience as captured in PLSH call notes used in the present study captured active experiences of grief from callers to the PLSH. One of the unique characteristics of the grief experience among the callers was the intensity of the grief consequences. Callers described important symptoms of grief including disruptions in their day-to-day routine, and the need to take time off work to grieve. With some callers having experienced the death of their pet in upwards of 22 years, these findings suggest that at least a subset of pet-owners may experience long-term grief following the death of their pet equating to

what has been described as a complex or complicated form of grief (Prigerson et al., 1995). Understanding factors that may predispose an individual to complex or complicated grief following the death of their pet may better prepare veterinary personnel and counsellors in their efforts to support people through their grief experience following the death of a pet.

In the present study support from people in a caller's life was identified from the call notes. Almost half of the call notes referred to a caller's perceived presence or absence of support people in their lives. Research has shown that with an increase in perceived social support, adjustment following the death of a pet is improved (Field et al., 2009). In the present study it was found that broader social support can also impact the grief experience. Past studies have explored the impact of friends, family and special persons (Field et al., 2009); whereas, the present study enhances our understanding that other support networks including, coworkers, neighbours, support groups and veterinary staff may act as supportive people influencing a person's grief process. Practical implications suggest that veterinarians may need to consider exploring a client's social support network at the time of an animal's death in order to ensure the client is not left on their own to cope with the grief experience that may follow.

Findings from the theme of emotions suggest that most grieving pet owners experience a wide array of negative and positive emotions following the death of their pet. Although past research has explored the experience of grief following the death of a pet (Archer and Winchester, 1994; Sife, 2005; Hunt and Padilla, 2006), few have qualitatively explored the array of emotions experienced. The negative emotions identified through calls to the PLSH included sadness, fear, anxiety, uncertainty, anger, and weakness. Knowledge of the array of negative emotions may

offer a better understanding of grief and the adverse emotions that bereaved clients may experience. A number of positive emotions experienced by owners at the time of the death of their pet were also identified in the current study including happiness, empowerment and love. Interestingly, call notes that identified the emotion of happiness often made reference to the caller feeling happy as a result of the support offered by the PLSH service. This highlights the importance listening services such as the PLSH for assisting bereaved pet owners with their experience of grief. Findings from this research has demonstrated that people experiencing grief due to pet-loss experience a wide array of emotions and knowledge of these emotions may serve to provide additional information for supportive services.

In the present study, call notes often referenced information describing the human-animal bond or relationship that existed between the owner and their pet. Given that past research has shown that pet owners who had a stronger attachment with their pet experienced greater levels of grief (Ross and Baron-Sorensen, 1998; Sife, 2005; Toray, 2004), it is not surprising that this theme emerged from the call notes. The present study indicates that understanding the strength of the human animal bond is critical to understanding the grief experience. It is therefore important during end of life discussions that veterinary personnel assess the owner's relationship with their pet as this information may provide insight into the potential impact of the animal's death on the pet owner's grief experience.

In the present study many of the call notes identified how pet owners readily spoke of memorializing their pet to cope with the pet's death. Although there is a void in past research that has explored the impact of memorialization on the severity of grief among bereaved pet

owners, findings from the call notes suggest that memorialization following the death of a pet may be important for assisting the grief process. In addition to memorialization practices, pet owners carried out previously identified coping mechanisms to cope with their grief including reading, writing, and community involvement; each of the coping mechanisms have been demonstrated in the literature to aid bereaved pet owners in their experience of grief (Chur-Hansen, 2010; Sife, 2005). To support pet owners during end of life discussions it may be important for veterinary personnel to explore memorialization alternatives that are available to the client. Print resources should be available to pet owners before or after the euthanasia with information on pet-loss and memorialization. In addition, it may also be beneficial for counsellors to be aware of the benefit memorialization along with alternative coping mechanisms may have for a bereaved client.

In the present study, the call notes indicated just over a third of the callers questioned their decision to euthanize their pet. It appeared callers had difficulty with the decision as a result of their belief in the morality, and the expenses of treatment versus euthanasia. The findings reinforce the important role veterinary personnel have in assisting owners in managing their grief as a result of the death of their pet. Adams et al. (2000) has shown that the euthanasia process is a contributing factor in the severity of the grief experience. The results from Adams et al. (2000) pointed to veterinary personnel's management of the end of life experience and the impact it can have on the severity of an owner's grief experience. The present research suggests that veterinary-client end-of-life discussions need to be handled with care, and that veterinary personnel should develop ways to address clients' opinions on the morals and ethics related to euthanasia. It is important for veterinary practices to be aware that the veterinary-client

interaction may play a crucial role in influencing the grief experience of an owner following the death of their pet. Dedicated training of veterinary staff should be considered by practice owners to educate and prepare staff for dealing with the moral conflict and emotional responses an owner can have to the death of their animal.

The findings of the present study offer insight into the grief experience among bereaved pet owners through documented comments and concerns recorded by volunteers of the PLSH. However, the call notes from which the findings were made represent the volunteer's interpretation of the call rather than a firsthand account of the pet owner's grief experience. Future research in this area should consider the use of verbatim transcripts of calls to a PLSH to further examine the unique grief experience of callers to a PLSH. In addition, the findings of the present study represent calls made to one PLSH over an extended period of time. As a result, the generalizability of the findings from the research are limited. Future research should look at opportunities to use standardized call note protocols among a number of distress hotlines in order to broaden the scope of research in this area.

Of the volunteers that operate the PLSH, there were differences in the detail provided in the call notes depending on which volunteer took the call. For instance, some volunteers wrote detailed notes of their conversation with the caller, whereas others only wrote a few lines of text. As a result, the present study may not have captured the complete extent to which certain themes were represented across the 75 calls made to the PLSH. Despite this limitation, with data saturation being reached within the content analysis, an extensive array of information on the grief experience has been captured from this unique population. In the future, standardizing call notes

through continued training of volunteers and use of call note templates would allow for more consistent recording of information which would benefit future research in to understanding pet owner's grief experience.

Although the findings of the present study add to the understanding of the grief experience associated with pet-loss, the PLSH callers involved in the current study may differ in their grief experience from the general pet owning population. The population utilized in the content analysis is not a random sample of pet owners from the general public, rather a group of individuals that actively contacted a support hotline. As such, the PLSH callers should be considered a subset of the general pet owning public that may be experiencing grief differently from people that experienced pet death yet did not contact a PLSH hotline. Future research should consider examining findings of the present study relating to the grief experience associated with the loss of a pet among the general population of pet owners.

Conclusion

This study has shown that grief resulting from the death of a pet is a legitimate experience. Findings from this research suggest that the strength of attachment with the pet and degree of perceived social support contribute to the grief experience among individuals who have experienced the death of a pet. This research also illuminates personal narratives and memorialization as possibly important coping mechanism among bereaved pet owners that warrant further investigation. Lastly, this research has highlighted that decisions surrounding the euthanasia of a pet was difficult for the population of owners included in this study. Through knowledge of factors associated with the grief experience that have emerged from this study,

veterinarians and counsellors will be better positioned to assess and support pet owners through their grief experience following the death of their pet.

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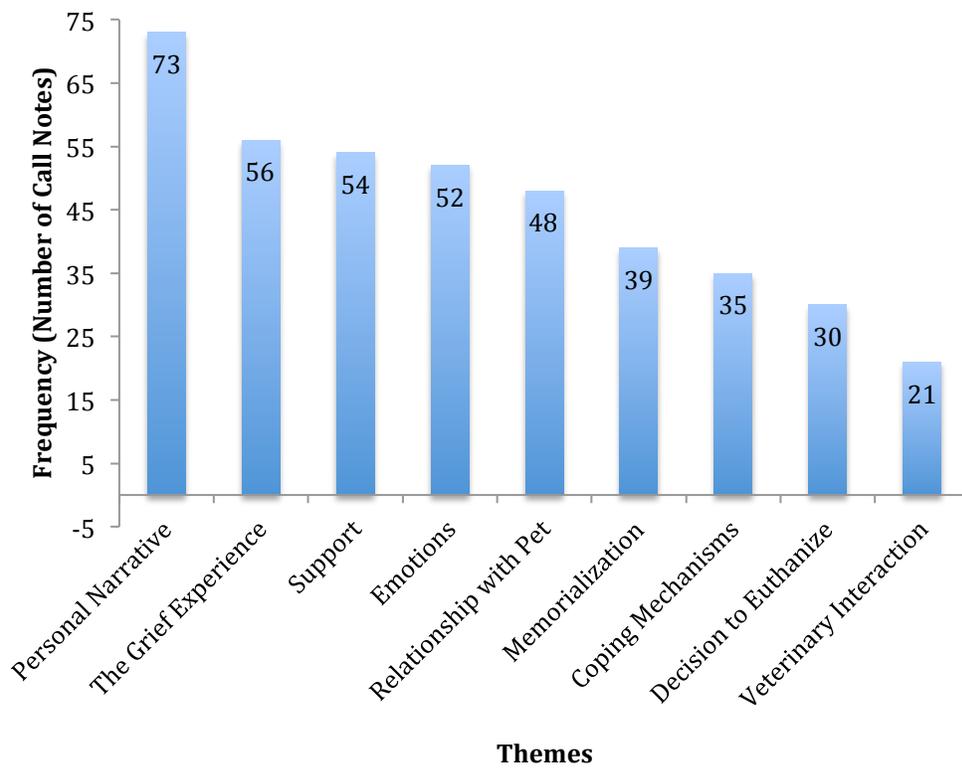


Figure 2.1. Frequency counts for the nine themes emerging from the content analysis of 75 call notes from 2011-2012 detailing conversations between callers to the Ontario Veterinary College Pet Loss Support Hotline and hotline volunteers.

Chapter 3

Exploring the Factors Associated with Complicated Grief Among Pet Owners

Written as an original research article in the style of the *Journal of the American Veterinary*

Medical Association

Abstract

Objective – To identify factors associated with complicated grief among a population of Canadian pet owners.

Design – Retrospective cross-sectional survey.

Sample Population – 519 participants over 18 years of age, residing in a Canadian city greater than 100,000 in population. Participants must have experienced grief due to the death of their pet at some point prior to survey completion.

Procedures – Respondents completed an online ‘grief due to pet loss’ survey including validated measures of complicated grief, pet attachment, social support; and socio-demographic questions. Multivariable logistic regression analysis assessed the relationship between predictor variables and complicated grief.

Results – Pet owners perceiving greater social support were significantly less likely to experience complicated grief resulting from pet death than those perceiving lower social support (-0.339, CI=-0.519,-0.158). Pet owners with a high anxious style of attachment to their pet were significantly more likely to experience complicated grief resulting from pet death compared to owners with a low anxious style of attachment (1.317, CI=0.930,1.704). Pet owners with a high avoidant style of attachment to their pet were significantly less likely to experience complicated grief resulting from pet death when compared to pet owners with a low avoidant style of attachment (-1.504; 95% CI=-2.389,-0.620).

Conclusions – A pet owner’s previous attachment style with their pet and strength of perceived social support following the death of their pet influence complicated grief; therefore, veterinarians and grief counsellors need to be aware of these factors before and after euthanasia.

Introduction

The human-animal bond refers to the relationship between a person and companion-animal.¹ Companion animals have become increasingly accepted in Western societies and even considered equal to family members by some pet owners.²⁻⁴ In addition to unconditional love,⁵ companion animal ownership has been noted to provide pet owners with cardiovascular benefits from the increased physical activity,⁶ psychological benefits including decreased loneliness,⁷ and increased social capital.⁸

Considering that an emotional connection can exist between a person and companion-animal, it follows that when this bond is severed by the death of the animal, the person is likely to experience a grief response to the loss.^{9, 10} While a normal grief reaction for pet owners to the loss of their pet is characterized by; emotions of sadness, anger and guilt; somatic symptoms involving inappetance and insomnia; and psychological challenges including the perception of seeing or hearing the pet,¹¹ it is estimated that 30% of pet owners experiencing grief resulting from the death of a pet undergo a severe form of grief.¹² Complicated grief is characterized by prolonged, intensified, or unresolved forms of grief,¹³ including symptoms of traumatic distress and separation distress that may last years if left untreated.¹⁴

The number of pet owners experiencing severe grief is higher than the estimates of 10-20% that experience complicated grief following the death of a human which is of concern for the pet-owning population.^{15, 16} This leads to the belief that there may be differences in the relationships that people have with their pets which may predispose them to a different grief experience and an increased risk for complicated grief when the pet dies. At present, research exploring

complicated grief due to pet-loss is limited, and it is unknown the full extent to which socio-demographic, psychological, and behavioural factors are associated with complicated grief due to pet-loss. Given the long-term psycho-social and behavioural impacts of complicated grief, it is imperative that research explore complicated grief among bereaved pet owners in order to assist veterinarians in identifying clients that may be at greater risk of complicated grief following the death of their pet.

The objective of the present study was to survey a population of the Canadian general public to better understand the socio-demographic, psychological, and behavioural factors associated with complicated grief due to pet loss.

Materials and Methods

The study protocol was approved by the University of Guelph Research Ethics Board (REB 11DC002).

Design

This study utilized a retrospective cross-sectional survey design.

Participants

Participants were male or female, over the age of 18 years, residing in a Canadian city with a population greater than 100,000,¹⁷ that had experienced grief due to the death of their pet at some point prior to the survey (Appendix B.1). The survey was available online through LimeSurvey which is a publically accessible survey hosting website.¹⁸ Compensation for participants

consisted of a chance to win a single \$25 prepaid MasterCard[®] through random selection of all participants.

Survey Design

The Grief due to Pet Loss Survey included; validated measures about complicated grief,¹⁶ the strength of attachment,⁷ social support,¹⁹ and attachment style²⁰; demographic questions about age, gender, living status, education; and attitudinal questions about whether the death of the pet was unexpected, if they were the primary caretaker for the pet, if this was their first pet, if this was their first experience of pet death, if they cared for multiple pets at the time their pet died, actions they performed to memorialize their pet, the amount in time since the pet's death, the species of the pet, if they felt guilty for not taking better care of the pet, if they felt responsible for the death of the pet, and if the emotions they experienced resulting from the death of their pet were of greater intensity to those that they have felt after the passing of a human loved one. The complete survey can be found in Appendix B.2.

Complicated grief was measured by the Inventory of Complicated Grief (ICG).¹⁶ Respondents answer 19 items measured on a 5-point scale (0=never, 1=rarely, 2=sometimes, 3=often, 4=always). Items from the ICG were modified by substituting the word "pet" for the words "individual" or "person" (e.g. "I feel bitter over my *pet's* death"). Individuals who score greater than 25 on the ICG are defined as experiencing complicated grief and have been shown to have significantly poorer mental, physical, and social health when compared to individuals scoring 25 or less.¹⁶ Consensus indicates that for the ICG to be an accurate measure of complicated grief it

must be used 6 months after the death.^{16,21} This scale has established internal reliability (Cronbach's alpha 0.94).¹⁶

The strength of attachment was measured by the Comfort from Companion Animal Scale (CCAS).⁷ This scale measures the strength of emotional comfort owners received from their pets. The scale consists of 11-items ranked on a 4-point likert scale (1-strongly disagree, 2-disagree, 3-agree, 4-strongly agree). Items are summed and then averaged providing a single score reflecting the strength of the human-animal relationship. Higher scores indicate greater perceived comfort from the pet. This scale has established internal reliability (Cronbach's alpha 0.85).⁷

Perceived social support was measured by the Multidimensional Scale of Perceived Social Support (MSPSS).¹⁹ The MSPSS measures the perception of availability of emotional supports from three networks including friends, family and special persons. The MSPSS is a 12-item measure, rated on a 7-point likert scale (1- very strongly disagree, 2-strongly disagree, 3-mildly disagree, 4-neutral, 5-mildly agree, 6-strongly agree, 7-very strongly agree) with 4-items for each of the three sources of social support (friend, family, and special person). Scores are summed and averaged for items pertaining to each of the three sources of social support to compare the perceived support from each of the three sources. Additionally, the scores from the three sources of social support were averaged to provide a general score representing total perceived social support from all measured sources. Higher scores indicate greater perceived social support. The MSPSS has been shown to have good internal reliability (Cronbach's alpha 0.85).¹⁹

The Pet Attachment Questionnaire (PAQ) developed by Zilcha-Mano et al. (2011) assesses the style of the human-animal relationship.²⁰ This scale measures the degree of anxious or avoidant attachment style that pet owners have to their pets. Pet owners displaying an anxious style of attachment “have intense intruding worries that something bad may happen to their pet, a strong desire for closeness with them, and serious doubts about their own value in their pet’s eyes”.²² In contrast, pet owners displaying an avoidant style of attachment “feel discomfort with physical and emotional closeness with their pet, strive to maintain emotional distance from their pets, and prevent their pets from intruding on their personal space”.²² The PAQ is divided into two subsections assessing avoidance (13 items) and anxious attachment to pets (13 items). Items are scored on a 7-point likert scale (1=strongly disagree, 4=neutral/mixed, 7=strongly agree) where respondents are asked to identify the extent to which each item describes their feelings and thoughts about their relationship with their pet. The scale has been shown to have good internal reliability with a Cronbach’s alpha of 0.87 for the avoidance scale, and 0.86 for the anxiety scale.²⁰ The items corresponding to anxious attachment are summed and averaged to produce a single anxious attachment score. In addition, items corresponding to avoidant attachment are summed and averaged to produce a single avoidant attachment score. The pet attachment anxiety scale has been shown to have a test-retest reliability coefficient of 0.75, and pet avoidant attachment had a test-retest reliability coefficient of 0.80.²⁰

Data Collection - Two methods of recruitment were utilized. The first form involved two research assistants (RA’s) soliciting a convenience sample of customers at three grocery chains within the city of Guelph, Ontario. The research assistant’s informed customers about the study outside each store, and inquired about their eligibility to participate. Eligibility was based on

individuals having experienced the death of a pet in the past. There was no restriction on the amount of elapsed time between the death of the pet and the time of completing the survey. Interested participants were given an information card with a link and a quick response code to the online survey. The information card can be found in Appendix B.3. Respondents completed an electronic consent to participate in research online prior to being granted access to the survey (Appendix B.4). The second method of recruitment involved posting digital advertisements on two online advertisement websites – Kijiji²³ and Craigslist.²⁴ The advertisements were posted in a total of 50 Canadian cities with a population >100,000. Ten variations of the advertisement were created so that the advertisements could be posted concurrently on the online advertising sites which prohibit concurrent posting of identical advertisements. A variant of the advertisement can be found in Appendix B.5. Each day, past postings were deleted and new postings were created in 10 new cities to keep the advertisement close to the front page of the animal section in the respective advertising sites. Recruitment occurred from August-December, 2013.

Statistical analysis – Data were imported into Statistical Package for the Social Sciences v.22 (SPSS) for descriptive statistical analysis.²⁵ Regression analyses were performed using Stata/IC 10.1.²⁶ Statistical significance was set at $\alpha=0.05$ (two-tailed) unless otherwise stated.

Respondents with less than 6-months in duration between the time of completing the survey and the death of their pet were excluded from the regression analysis since complicated grief can only be diagnosed greater than 6-months from the time of death.^{16, 27}

The association between experiencing complicated grief (yes or no) and the selected predictor variables was assessed using a logistic regression model. The dependent variable was complicated grief.¹⁶ The independent variables included in model development were the strength of attachment composite score,⁷ pet attachment avoidance score,²⁰ pet attachment anxiety score,²⁰ social support score,¹⁹ gender (male versus female), age in years, current living arrangements with other people (alone versus with others), income status (<\$25,000, \$25,001-50,000, \$50,001-75,000, \$75,001-100,000, >\$100,000), unexpected pet death (yes or no), time since the pet has passed in months, species of pet (feline, canine, other), whether they were the primary caretaker of the pet (yes or no), whether this was their first pet (yes or no), whether this was their first experience of pet-loss (yes or no), and whether the owner had other pets at the time of death (yes or no). Scale measures were treated as continuous items.²⁸

Spearman rank correlation analyses were used to assess collinearity between predictor variables with a cut-off of 0.7; similarly, variance inflation factor analysis was used to assess collinearity with a cut-off of 10.²⁹ Independent variables were screened using univariable regression with a significance level cut-off value of $P \leq 0.20$ in order to determine their unconditional association with complicated grief.²⁹ Variables meeting this criteria were included in a backwards step-wise model building process. Variables removed through backwards selection were confirmed that the variable was not a significant predictor for complicated grief through likelihood ratio tests with p-values >0.05 until all remaining variables were significant at $p \geq 0.05$.

Interactions between variables that remained in the model following the stepwise backwards selection were assessed. Interaction terms were created by regressing the two independent

variables and the interaction term on the dependent. Significant interaction terms were included in the multi-variable model.

All variables were assessed for confounding, and were considered confounders when a change of 20% or greater in the value of a main effects coefficient was identified following the removal of the variable from the final model.²⁹ Variables that were identified to be confounders were retained in the final model.

Influential observations were assessed through Pearson residuals, standardized residuals, deviance residuals, leverage, and delta-beta values. Outliers were identified by evaluating standardized residuals using a cut-off value of $|3|$. The Hosmer-Lemeshow goodness of fit test for binary data was used to assess if the model fits the data with a group of values of 5, 10, 15 and 20. If $p > 0.05$, there was the assumption that the model fit the data.

Results

Socio-demographics – A total of 681 respondents completed the online survey. Of the 681 respondents, 519 had experienced the death of their pet at least 6 months prior to completing the survey. Of the 519 respondents, 91.0% (n=467) were female, the mean age was 40 (SD 13.34; median 39; range 18 – 74). Forty percent (205) of respondents had a college diploma, 25.8% (132) had a bachelor's degree, 21.3% (109) had a high school diploma, 4.7% (24) had a master's degree, 3.7% (19) had not completed high school, 3.7% (19) had a professional degree, and 0.8% (4) had a doctoral degree. The majority of respondents 84.3% (418) lived with other people including spouses, significant others, children, or housemates, whereas 15.7% (78) lived alone.

Income designations were as follows; 32.1% (136) earned \$25,001-\$50,000, 29.7% (126) earned ≤\$25,000, 18.4% (78) earned \$50,001-\$75,000, 13.4% (57) earned \$75,001-\$100,000, and 6.4% (27) earned >\$100,000. Further information on the socio-demographics of the respondents can be found in Tables 3.1 and 3.2.

Among survey respondents, 29.8% (125) were classified to be experiencing complicated grief. Survey respondents perceived they had a strong strength of attachment to their pet that had died with an average score of 3.79 (SD 0.43) out of 4 on the CCAS.⁷ Survey respondents perceived high overall social support from their friends, family and special persons with an average MSPSS score of 5.32 out of 7 (SD 1.40).¹⁹ Survey respondents perceived the source of highest social support from a special person (significant other) 5.72 out of 7 (SD 1.59), followed by family 5.21 out of 7 (SD 1.69) and finally friends 4.99 out of 7 (SD 1.59). Respondents did not score highly on either the anxiety or avoidance subscales with average scores of 2.11 out of 7 (SD 0.81) and 1.27 out of 7 (SD 0.48) respectively.²⁰ Respondents scoring low on both of the scales are indicative that they have a continuing sense of attachment security.²²

Nearly two-thirds of respondents, (63.3%; 315) completed the survey based on their dog that had died, whereas 31.3% completed the survey based on a cat (156), and 5.4% (27) referred to other pets such as horses, hamsters, rabbits or reptiles. The vast majority of respondents, 88.8% (453) were the primary caretaker for their pet that had died. Over three-quarters of respondents, 79.0% (406) reported that this was not their first pet. The majority of respondents, 71.2% (363) owned other pets at the time of the death of their pet whereas 28.8% (147) solely owned the pet at the time of its death.

Approximately two thirds of respondents, 65.0% (336) reported that this was not their first experience of pet death, whereas 35.0% (181) reported that this was their first experience of pet death. The death of their pet was considered to be “unexpected” for 57.8% (288) of respondents. Just over one third of respondents agreed that they felt responsible for their pet’s death 36.7% (237), 50.6% (259) did not feel responsible for their pet’s death, and the remainder were indifferent 12.7% (65). When asked if respondents felt guilty that they did not take better care of their pet, 46.8 % (240) of respondents agreed, 45.7% (234) did not feel guilty, and the remainder were indifferent 7.4% (38). Nearly all respondents, 97.1% (n=504) memorialized their pet using at least one act of memorialization (e.g., having their pet cremated, purchasing an urn for the cremated remains, performing actions with body or remains, photo memory on display, purchasing paw-prints, writing letters to the deceased pet, creating a memory box or, organizing a funeral or ceremony). The mean period of time that had passed since the death of a participant’s pet was just under 3 years (35 months) with a range from 6 – 480 months (SD 38 months), median time was just over 2 years (26 months).

Comparison to Human Death – When respondents were asked if the emotions experienced following the death of their pet were of greater intensity to what they have felt when a close friend/family member has passed away 57.9% (n=383) agreed, 22.4% (113) disagreed, and 17.7% (89) had a neutral response.

Factors associated with complicated grief

The variables that were statistically associated with complicated grief through univariate analysis at the liberal p-value of 0.2 included the strength of attachment, anxious pet attachment style, avoidant pet attachment style, social support, gender, and age.

The final main effects model included social support, anxious pet attachment style, and avoidant pet attachment style (Table 3.3). There were no statistically significant interaction terms or evidence of collinearity among these variables. Species was identified to be a confounder for avoidant pet attachment style and remained in the final model.

When accounting for style of attachment, pet owners who perceive greater social support from friends, family or special persons are significantly less likely ($p < 0.001$) to experience complicated grief resulting from the death of a pet than those who perceive they have lower social support (coefficient, -0.339; 95% confidence interval, -0.519, -0.158). Pet owners with a high insecure anxious style of attachment with their pets were significantly more likely ($p < 0.001$) to experience complicated grief resulting from the death of a pet when compared to pet owners with a low insecure anxious style of attachment (coefficient, 1.317; 95% confidence interval, 0.930, 1.704). Lastly, pet owners with a high insecure avoidant style of attachment with their pets are significantly less likely ($p < 0.01$) to experience complicated grief resulting from the death of a pet when compared to pet owners with a low insecure avoidant style of attachment (coefficient, -1.504; 95% confidence interval, -2.389, -0.620). Species of pet was identified as a confounder for avoidant style of attachment, yet species of pet was not significant in the final model (coefficient, 0.385, 95% confidence interval, -0.211, 0.892)

Analysis of the model residuals, leverage, and delta beta was conducted; however, all responses were socially plausible. As such, there was no reason to remove any individual observations from the model.

Analysis of the fit of the model, using the Hosmer-Lemeshow goodness of fit test indicated that the model fits the data ($p=0.94$, groups=10). Repeating the Hosmer-Lemeshow test with other group numbers ranging from 5-20 indicated that the variation in the group numbers does not affect the overall conclusion that the model fits the data as all p-values were non-significant ($p>0.05$).

Discussion

This research project offers a detailed exploration of the factors associated with complicated grief among 519 Canadian pet owners that have experienced the death of their pet prior to completing the *Grief due to Pet Loss Survey*. This study provides further information towards socio-demographic and behavioural factors that can contribute to complicated grief following pet loss. Findings from this research may be utilized to; improve the practice of veterinarians, counsellors, social support workers; and education of veterinary students to better understand and support bereaved pet owners.

Findings of the present study suggest that pet owners with a higher perceived presence of social support from family, friends, or special persons may be less likely to experience complicated grief resulting from the death of a pet compared to pet owners with a low perceived presence of social support. This result is consistent with previous research from Field et al. (2009) which

suggests that a pet owner's degree of perceived social support from friends, family and a special person (spouse or partner) is associated with the severity of the grief experience.³⁰ Findings from Field et al. (2009) indicated that a greater perceived presence of social support is associated with decreased grief severity. Although Field et al. (2009) demonstrated an association between social support and grief severity, the construct of complicated grief was not explored in this study. The present study supports that a higher perceived presence and availability of social support from friends, family and a special person is associated with a decreased probability of complicated grief. These findings suggest that having a supportive network of people following the death of a pet is important for bereaved pet owners and is an important consideration for those in positions that interact with a pet owner at the time of or following their animal's death.

Knowledge of the associations between perceived social support and complicated grief offer practical implications for veterinary practice and other support services. Veterinarians specifically would be behooved to inquire about a client's perceptions of the availability of their social support networks when discussing end-of-life decisions for the client's pet. This will allow veterinarians to identify when alternative resources such as a pet loss support hotline, pet loss support group or other forms of support may be needed by a client to assist them with managing their grief. Educational materials should be provided and developed for veterinarians, veterinary students, counsellors and support workers so that they are well informed of the role of social support in the grief experience among bereaved pet owners and how to console pet owners with low perceived social support. Future research should explore the impact of alternative avenues of social support including work colleagues, extra-curricular groups on an individual's risk for experiencing complicated grief.

Although the mean attachment anxiety and avoidance scores were low for the study population, findings from the present study indicated that pet owners with a high anxious style of attachment to their pet were more likely to experience complicated grief resulting from pet death compared to owners with a low anxious style of attachment. Conversely, individuals demonstrating a high avoidant style of attachment to their pet were less likely to experience complicated grief resulting from pet death when compared to pet owners with a low avoidant style of attachment. Previous research by Field et al. (2009) and Zilcha-Mano et al. (2011) have explored the associations between pet attachment style and grief severity.^{30, 20} Both studies have demonstrated that pet owners displaying an anxious style of attachment may be more predisposed to grief compared to pet owners displaying an avoidant style of attachment. Although previous research by Field et al. (2009) and Zilcha-Mano et al. (2011) has demonstrated an association between attachment style and grief severity, the current study adds to this by exploring this relationship in the context of complicated grief.^{30, 20} Veterinarians should consider inquiring about the relationship between the client and their pet prior to or at the time of the animal's death. Through the use of open-ended questions during end-of-life conversations, veterinarians may be able to identify an insecure anxious style of attachment if the owner is overly concerned about their pet, and displays a persistent need to be in near proximity to their pet at all times. If clients' comments on their relationship suggest they have or had an anxious insecure style of attachment with their pet, veterinarians should consider a discussion with their client about the availability of additional counselling services to make these clients aware of additional support resources. It is imperative that veterinarians are able to identify factors associated with complicated grief among their

clients including low perceived social support and anxious pet attachment style so that these clients can be directed towards further counselling.

Within this study, the species (feline, canine, or other) of the respondent's pet was identified to be a confounder for an avoidant style of pet attachment. As a confounder, the species of a pet mutually influences both the degree of avoidant attachment style and the probability of experiencing complicated grief. Despite past research indicating that species of pet is not a predictor of the experience of grief,³¹ findings from the present research suggest that species of the pet may influence complicated grief through its impact on avoidant style of pet attachment. Interestingly, research by Zilcha-Mano et al. (2011) identified an association between avoidant attachment style and species. Results from this research indicate that "people with an avoidant attachment orientation are more likely to own cats".²⁰ Since cats are known to behave independently,³² Zilcha-Mano et al. (2011) supports that this independence contributes to the development of an avoidant human-animal attachment with this species. Although the impact of the confounder can not be identified from the regression model, future research into complicated grief should account for the possible relationship between insecure styles of attachment and the species of pet a client cares for.

When exploring the demographics of the respondents, findings of the present study do not indicate that the age of the pet owner is a predictor for complicated grief. Findings from the present study contradict past research that has demonstrated that younger pet owners are more prone to a severe grief response when compared to older pet owners.^{33, 34} Similarly, the present study suggests that the gender of the pet owner is not a predictor for complicated grief despite

the known associations between females and grief severity that exist among normative pet bereavement literature.^{33, 35, 36} It is possible age and gender does not play a role in complicated grief or do not play a role in complicated grief when accounting for attachment style and social support.

One limitation of this study is that the survey was only available online thereby preventing the Canadian public without access to the internet, currently estimated at 21%, from participating.³⁷ Further, it is likely that only a proportion of the Canadian population with access to the internet actively browse the advertisement websites used in the present study. Although recruitment at local grocery stores was conducted in order to increase the sample size and target a broader range of survey respondents, this recruitment strategy was limited to a single Ontario city. Although a larger variation in participants may have been attained by face-to-face recruitment in additional Canadian cities, both time and financial constraints made this avenue of recruitment impractical. In addition, aside from face-to-face recruitment within Guelph, ON, participants were recruited through online advertisements from urban cities with populations greater than 100,000 people. As a result, rural pet owners perceptions about pet-loss grief were not captured in this study. The selection biases introduced through the recruitment strategies employed may have an impact on the generalization of the findings from the present study beyond the current study population. Future research exploring complicated grief resulting from the death of a pet should consider recruiting an even more inclusive sample of the pet-owning population. Representative sampling from urban and rural communities should be utilized and the survey should be equally accessible through print and electronic media. In addition, there is a high proportion of females represented

in this study. To capture the opinions of a representative sample of the Canadian general public, the opinions of males need to be further explored.

Further, there may have been self-selection bias within this study. As selection bias is an issue for attitudinal surveys, in our case grief is a strong emotional response to loss and some respondents may find it difficult to complete the questionnaire due to the emotional difficulty in answering personal questions about their experience of pet loss. In contrast, the survey may have attracted bereaved pet owners as an outlet to share their experience of grief. Therefore, it is difficult to determine if findings from Chapter 3 over or underrepresent the prevalence of complicated grief among the general population of bereaved pet owners. Finally, some retrospective components of the survey design may be subject to respondent recall bias; therefore, it is possible that respondents may not accurately remember their past behaviours or attitudes toward their deceased animal.

Conclusion

This study has demonstrated that pet owners with low perceived social support and a high anxious style of attachment with their pet are more likely to experience complicated grief following the death of the pet. Further, pet owners displaying avoidant attachment styles are less likely to experience complicated grief. The findings support the need for veterinarians to be aware of individuals with low social support or an anxious style of attachment, so that these individuals may be directed towards supplementary grief counselling services.

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Table 3.1. Descriptive statistics for the categorical explanatory variables explored in the Grief due to Pet Loss Survey between August 2013 - December 2013 of the 519 Canadian pet owners that had a pet pass away greater than or equal to 6 months ago.

Attitudinal Measures		N	Percent	Non-Response (n ; %)
I felt responsible for the passing of my pet	Strongly Disagree	150	29.3	7; 1.3
	Disagree	109	21.3	
	Neutral	65	12.7	
	Agree	68	13.3	
	Strongly Agree	120	23.4	
I felt guilty for not taking better care of my pet	Strongly Disagree	143	27.9	7; 1.3
	Disagree	91	17.8	
	Neutral	38	7.4	
	Agree	97	18.9	
	Strongly Agree	143	27.9	
The emotions that I felt were of greater intensity to those that I have felt after the passing of a human loved one	Strongly Disagree	54	10.7	16; 3.1
	Disagree	59	11.7	
	Neutral	89	17.7	
	Agree	120	23.9	
	Strongly Agree	181	36.0	
Did you memorialize your pet?	No	15	2.9	0; 0
	Yes	504	97.1	
What species of pet did you have?	Feline	156	31.3	21; 4.0
	Canine	315	63.3	
	Other	27	5.4	
Was this your first pet?	No	406	79.0	5; 1.0
	Yes	108	21.0	
Was the death of your pet unexpected?	No	210	42.2	21; 4.0
	Yes	288	57.8	
Were you the primary caretaker of your pet?	No	57	11.2	9; 1.7
	Yes	453	88.8	
Was this your first experience of pet loss of your own pet?	No	336	65.0	2; 0.4
	Yes	181	35.0	
Did you own other pets at the time your pet passed away?	No	147	28.8	9; 1.7
	Yes	363	69.9	

Table 3.2. Descriptive statistics for the continuous explanatory variables explored in the Grief due to Pet Loss Survey between August 2013 - December 2013 of the 519 Canadian pet owners that had a pet pass away greater than or equal to 6 months ago.

Attitudinal Measures	N	Mean	SD.	Min.	Max.	Non-Response (n ; %)
Age of Pet	512	40.01	13.34	18	74	7; 1.3
Human Animal Bond	506	3.79	0.43	1.00	4.00	13; 2.5
Time Since Loss (Months)	519	34.61	37.82	6	480	0; 0
Pet Attachment Orientation - Anxiety	471	2.11	0.81	1.00	7.00	48; 9.2
Pet Attachment Orientation - Avoidance	480	1.27	0.48	1.00	6.54	39; 7.5
Social Support	485	5.32	1.40	1.00	7.00	34; 6.6

Table 3.3. Multivariable logistic regression model of associations between psychological, behavioural and demographic variables and complicated grief among 501 Canadian pet owners who completed the Grief due to Pet Loss Survey between August 2013 - December 2013 and experienced the death of a pet greater than or equal to 6 months ago while controlling for species as a confounder.

Variable	Coeff.	Significance	SE	95% CI
Social Support	-0.339	0.000	0.092	-0.519, -0.158
Pet Attachment Anxiety	1.317	0.000	0.197	0.930, 1.704
Pet Attachment Avoidance	-1.504	0.001	0.451	-2.389, -0.620

Chapter 4

Conclusion

The research described in this thesis was used to explore individuals' grief experience resulting from the death of a pet with particular attention towards the experience of complicated grief. The human-animal bond refers to a strong emotional connection between a pet-owner and their pet (Ross and Baron-Sorensen, 1998); however, when a pet dies, the separation of this bond may elicit a grief reaction for the owner (Archer and Winchester, 1994; Field et al., 2009; Goose and Barnes, 1994). While for most pet owners a normal grief reaction due to pet loss is characterized by negative emotions (Parkes, 1998; Lindemann, 1944), somatic symptoms, and psychological challenges (Dunne, 2004), it is estimated that 30% of pet owners experience a severe grief (Adams et al., 2000). Although complicated grief has yet to be explored among pet owners, complicated grief is of particular importance among this population because the symptoms associated with complicated grief may last for years following the death and can severely impact the long term psychological and physical health and well being of people who are grieving (Prigerson et al., 1995). Past research suggests that the lack of societal acceptance of pet-loss grief may be associated with the severity of the grief experience (Cordaro, 2012). The present thesis aimed to better understand the grief experience resulting from the death of a pet, and also identifies predictors of complicated grief among bereaved pet owners.

Summary of Findings

In Chapter 2 of the thesis the construct of grief due to pet death was explored and described within a subset of the pet owning population that is experiencing grief. This study consisted of a qualitative content analysis of 75 call-notes recorded by volunteers of the Ontario Veterinary College's Pet Loss Support Hotline (PLSH) from 2011-2012. Content analysis was utilized to identify common content in the form of phrases and sentences among the call notes. The PLSH

call notes were a convenience sample. Call notes were coded from 2012 working backwards through the call notes until data saturation was achieved (Kristie and Given, 2008). Similar codes were grouped into subthemes, followed by similar subthemes grouped into themes. Nine themes emerged from the content analysis of PLSH call notes including personal narrative, the experience of grief, support, emotions, relationship with pet, coping mechanisms, memorialization, veterinary interaction, and decision to euthanize.

The personal narrative theme was defined by callers telling stories of their pet's life including physical attributes, behaviours, and describing their pet's illness, disease or death. Callers would also speak to the role, function and importance of the pet in their lives to provide the volunteer with greater context about their loss. This theme suggests that pet owners experiencing grief look for opportunities to share stories about their pet's life to another person willing to listen.

Callers were noted to experience behavioural, psychological and somatic consequences that were associated with their experience of grief. Common consequence of grief included callers experiencing regret or guilt, requiring absence from work, and feeling sick. Also noted within the grief experience were grief triggers that would trigger memories of the deceased pet. Common grief triggers included specific locations and animal belongings. These findings suggest that pet owners experience a wide array of symptoms following the death of their pet with a subset experiencing severe symptoms of functional impairment.

Within the theme of support, a number of callers commented on their perceived presence or absence of a support network that they could turn to for support. Family, friends, coworkers,

neighbours, support groups and veterinary staff were identified as common support networks among callers. It was apparent that having a strong social support network was important to people experiencing grief.

Callers experience negative emotions including sadness, shock, anxiety, weakness, anger, and fear; and positive emotions such as empowerment, happiness, and love. Knowledge of the emotional response to grief allows us to better understand how grief manifests in bereaved pet owners.

The relationship with pet theme detailed the role of the pet in the callers lives, the callers' previous experience with pet ownership and pet-loss, and the function of the pet in the owners' lives. This theme encompasses the human-animal bond or relationship that existed between the owner and their pet. This theme indicates that the strong emotional connection between a pet owner and their pet is a feature of the grief experience.

Grieving pet owners use coping mechanisms such as reading pet-loss or bereavement literature, writing letters to the deceased, spending time with other animals, and community involvement to manage their grief. In addition, memorialization practices were common among callers and often included ceremonies or photo memories. To support clients during, before, and after euthanasia, it may be important that pet owners are made aware to explore available memorialization alternatives and common coping mechanisms.

The theme of veterinary interaction detailed the communication between the caller and the veterinary staff and was either negatively or positively perceived by the caller. Negatively perceived veterinary interactions included concerns about costs of treatment, poor veterinarian-client communication, and unnecessary diagnostics/treatments, whereas positive interactions involved some pet owners feeling pleased with the service provided by the veterinary staff. Also associated with the veterinary interaction, one-third of callers questioned the morality or expense involved with euthanasia. Findings from the present study suggest that pet owners' perception of the veterinary-client interaction influences the experience of grief.

In Chapter 3 factors associated with the construct of complicated grief due to pet death were examined with specific attention towards the psychological, behavioural and socio-demographic predictors of complicated grief. This chapter made use of a survey to assess predictors of complicated grief within a sample of the Canadian general public. Participants were male or female, over the age of 18 years, residing in a Canadian city with a population greater than 100,000 (Statistics Canada, 2011) that had experienced grief due to the death of their pet at some point greater than six months prior to completing the survey. Respondents completed a grief due to pet loss survey that included; previously validated measures of complicated grief (Prigerson et al., 1995), pet attachment strength (Zasloff and Kidd, 1994), pet attachment style (Zilcha-Mano et al., 2011), social support (Zimet et al., 1988); and socio-demographic questions. Multivariable logistic regression analysis was utilized to assess the relationship between predictor variables and complicated grief. Just under one-third of respondents in the study were found to be experiencing complicated grief. The findings of the study further confirm that a higher perceived presence and availability of social support from friends, family and a special person is associated with a

decreased probability of complicated grief (Field et al., 2009). Findings also suggest that pet owners with an anxious style of attachment are more likely to experience complicated grief resulting from the death of a pet. Pet owners displaying an overly anxious style of attachment are identifiable since these individuals are overly concerned about their pet, and display a persistent need to be in near proximity to their pet at all times (Parish-Plass, 2013). The findings also suggest that pet owners with an avoidant style of attachment are less likely to experience complicated grief resulting from the death of a pet when compared to pet owners with low pet attachment avoidance. Pet owners displaying an avoidant style of attachment were pet owners that maintained emotional distance from their pets when they were alive, and express less distress and yearning once the pet has died (Parish-Plass, 2013). Species of the respondent's pet was identified to be a confounder for an avoidant style of pet attachment. This means that the species of pet may influence both the avoidant attachment style and the probability of complicated grief. Although it is not possible to estimate the impact of the confounder from the regression model, there is sufficient evidence to support that species influences the association between avoidant attachment style and complicated grief.

From the two studies conducted within this thesis, there are common findings that help us to better understand the experience of grief. Chapter 2 and 3 have served to identify (1) the factors associated with grief severity before the death of the pet, (2) the factors associated with grief severity after the death of the pet, and (3) the signs and symptoms of grief.

Factors associated with grief before the death of the pet - There have been 3 factors associated with grief severity that occur before the pet dies; the attachment with the pet (Chapter 2 and 3);

the decision to euthanize (Chapter 2); and veterinary interaction (Chapter 2). Findings from Chapter 2 suggest that the callers are attached and highly bonded with their pets that had passed away. Call notes identified past relationship with their pet by describing their pet's physical attributes, behaviours, and functions of the pet within their life. Similarly, findings from Chapter 3 suggest that the attachment style pet owners have with their pet influences their experience of complicated grief. Present study results indicate that pet owners with high pet attachment anxiety are more likely to experience complicated grief resulting from the death of a pet when compared to pet owners with low pet attachment anxiety. In addition, results suggest that pet owners with high pet attachment avoidance are less likely to experience complicated grief resulting from the death of a pet when compared to pet owners with low pet attachment avoidance. Findings from Chapter 2 and 3 reinforce the need to differentiate between attachment style and attachment strength for researchers exploring predictors of grief among bereaved pet owners. The veterinarian-client interaction (Chapter 2) was also an important factor associated with grief before the pet died. Callers commented on how their positive or negative interactions with members of the veterinary team influenced their experience of grief. In addition, some callers noted difficulties with the euthanasia process (Chapter 2). Clients were concerned over the morality of euthanasia and the financial expense to preserve life. As pet owners' perceptions of veterinary interactions influence their experience of grief, this study reinforces the need for veterinarians to handle sensitive discussions among veterinary clients with care.

Factors associated with grief after the death of the pet - This thesis has identified five possible factors associated with grief after the death of the pet to include the degree of perceived social support (Chapter 2 and 3), grief triggers (Chapter 2), telling a story (Chapter 2); coping

mechanisms (Chapter 2); and memorialization (Chapter 2). Findings from Chapter 2 suggest that the presence or absence of social support played a role in the grief experience. When the call notes indicated that callers had social support available to them, they would speak to how appreciative they were that they had someone they could turn to for assistance. On the contrary, when callers perceived that they have a limited social network of people they could turn to, this posed challenges for the callers. For some callers, they perceived a complete absence of a social network to turn to for assistance, whereas others acknowledged that they have a social network, yet did not feel that they could turn to these people for help. Results from Chapter 3 add to findings from Chapter 2, and suggest that an increase in perceived social support from friends, family and special persons may be associated with a decrease in the likelihood of complicated grief. Given that pet loss grief is a socially disenfranchised form of grief, the association highlighted in Chapter 3 reinforces the necessity for social support and social acceptance of grief due to pet death. Grief triggers have also been identified to be associated with the severity of grief among callers from Chapter 2. Common grief triggers included places that the caller associated with the pet, and also pet belongings. Contact with the physical reminders of their pet was challenging for callers as these objects or locations reminded the callers of their past relationship with their pet.

Findings from Chapter 2 suggest that the vast majority of callers wanted to share their story of their pet's life with the hotline volunteer after the death of their pet. Although it is unknown to what extent telling a story was therapeutic for the callers, callers wanted to share their story to inform the volunteer of the attachment and past relationship they had with their pet. Coping mechanisms have also been mentioned among PLSH callers in Chapter 2 as a means to reduce

the severity of the grief experience. Coping mechanisms often involved forms of activity to keep the caller busy and avoid reminders of their pet. Lastly, memorialization practices have been highlighted in Chapter 2 as ways in which pet owners can accept the death of their pet and move forwards with their lives. Common memorialization practices involved ceremonies, actions with the remains, and photo memories.

Signs and symptoms of grief - The signs and symptoms of grief that have emerged from this thesis involve the consequences of grief (Chapter 2), and the emotions of grief (Chapter 2). The consequences of grief include the psychological, behavioural and somatic consequences. These consequences provide a description on the impact of grief and bereavement on pet owners.

Whereas for some callers the consequences are minimal, of concern, some callers have been noted to mention severe behavioural consequences involving symptoms of functional impairment. Functional impairment noted among call notes in Chapter 2 involve absence from work, and difficulty performing daily activities. Further exploring functional impairment among pet owners, Chapter 3 identified approximately one-third of the general public of pet owners experience complicated grief. Also helping to describe the signs and symptoms of grief are the emotions experienced by PLSH callers in Chapter 2. Findings from Chapter 2 highlighted the array of positive and negative emotions among grieving pet owners.

Limitations

Limitations of this thesis include the generalizability of research findings and the self-selection bias of selected study populations. The generalizability of findings from both Chapter 2 and 3 to the general public of pet owners is limited by methodological issues. The main constraint

encountered from Chapter 2 is the source of data used for the content analysis. Call notes represent the volunteer's interpretation of the call rather than a firsthand account of the pet owner's grief experience. In addition, there were differences in the detail provided in the call notes depending on which volunteer took the call. As such, volunteers may have missed valuable information from the call, or possibly over-represented caller comments. Within Chapter 3, generalizability of findings may be restricted due to the selection of respondents. Although there was the intention to acquire a broad sample of the general public, the decisions about where the survey was posted and the accessible format of the survey may have excluded certain demographics. With the survey being solely accessible online, I may not have not captured the opinions of pet owners without access to a computer, or pet owners that have access to a computer yet are not actively searching classified advertisement networks. In addition, respondents were sampled from urban cities with populations greater than 100,000 people. As a result, people within rural townships were not targeted in this study.

The population utilized in Chapter 2 was not a random sample of pet owners from the general public, rather a convenience sample of individuals that actively contacted a PLSH hotline. As such, the PLSH callers should be considered a subset of the general pet owning public that may be experiencing grief differently from people that experienced pet death yet did not contact a PLSH. As selection bias is an issue for attitudinal surveys, in the present study grief is a strong emotional response to loss and some respondents may find it difficult to complete or may not be interested in sharing their grief experience on the questionnaire from Chapter 3. In contrast, the survey may have attracted bereaved pet owners as an outlet to share their experience of grief.

Therefore, it is difficult to determine if findings from Chapter 3 over or underrepresent the prevalence of complicated grief among the general population of bereaved pet owners.

Key Recommendations

From this thesis there are several recommendations that can be made enhance the quality of service provided by social support workers and counsellors, improve training of the Pet Loss Support Hotline, increase the training of veterinary students, and improve veterinary practitioners understanding of pet loss grief and how they may influence pet owners grief.

- As telling a story has been demonstrated to be a part of the grief experience, veterinarians, veterinary staff, support workers, counsellors, and PLSH volunteers should look for opportunities to allow clients the time and space to share their thoughts and opinions.
- Veterinarians should collaborate with counsellors to develop a resource pamphlet to offer pet owners before, during, or after euthanasia. This pamphlet should consider information on the experience of pet-loss grief, memorialization, normalize common coping mechanisms, and contact information for pet loss support hotline support groups and counsellors.
- Further training for veterinarians, veterinary students and counsellors to support the communication needs of bereaved pet owners.
- Veterinarians, counsellors and support workers should consider inquiring about the specific people bereaved clients can turn to for support before or after their pet is euthanized.

- Complicated grief should be reconsidered for inclusion in the *Diagnostics and Statistical Manual-V* (American Psychiatric Association, 2013) to increase knowledge of complicated grief among health-care professionals.

Future Research

Research exploring the grief experience among bereaved pet owners should utilize verbatim transcripts from distress hotlines. With verbatim transcripts, volunteer biases are removed and the generalizability of findings will be increased. In addition, future research explaining and exploring the construct of complicated grief should consider pets as attachment figures capable of triggering complicated grief when the attachment is separated through the death of the pet. Future research exploring complicated grief should also consider surveying a random sample of pet owners. This sample should represent both urban and rural pet owners and be available through electronic and print media. With a more inclusive sample of pet owners, findings will be easily generalizable to the broader pet owning population.

Although this study has suggested factors associated with grief and complicated grief, what remains unknown is the best practice for counselling people experiencing complicated grief. Future research should explore how to mitigate the symptoms of complicated grief and decrease the prevalence of complicated grief in this population. Whereas the current study involved cross-sectional analyses, future research should employ longitudinal designs to better understand how the intensity of complicated grief changes over time. This may be achieved through cohort studies assessing the effectiveness of alternative counselling practices to mediate symptoms of complicated grief among bereaved pet owners.

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Appendix A

Exploring the Grief Experience Among Callers to a Pet Loss Support Hotline

- A.1. Themes, subthemes and codes emerging from the content analysis of 75 call notes from 2011-2012 detailing conversations between PLSH volunteers and callers.

Appendix A.1. Themes, subthemes and codes emerging from the content analysis of 75 call notes from 2011-2012 detailing conversations between PLSH volunteers and callers.

Theme	Subtheme	Coding category	Code	Example from PLSH Call Notes	
Personal Narrative	<i>Description of the pet's illness, disease or death</i>		Events leading to death	"He was diagnosed with cancer in August and went in for treatment the following month"	
		Unexpected death	Unknown cause	"I found him on the floor at home"	
			Predator	"I think the coyotes got him"	
			Hit by car	"Hit by a car"	
		Symptoms	Decreased appetite	"She stopped eating her food"	
			Lethargy	"Kinda lethargic for a while"	
			Decreased affection towards owner	"Mitzzy didn't like being petted on her belly anymore"	
		<i>Other household pets and replacement of the deceased pet</i>		Similar behaviour or appearance to deceased pet	"The dogs always nipped at the news paper"
				Replacement of pet	"Thinking about getting another yorkie"
			Question time frame of replacement	"Do you think it is too soon to get a new pet?"	
			Question appropriateness of replacement	"I'm not sure I want to get another pet merely to replace Jazz"	
	<i>Description of the pet's physical attributes and behaviour</i>	Unique physical appearance	Pet	"The envy of the people at the dog park since she had a beautiful coat of fur"	
			Breed	"Such a beautiful breed with very striking features"	
			Activities pet enjoyed	"She loved being outside in the back yard"	
			Behaviours of affection	"We always laid on the couch to watch TV together"	

			Response to commands	“Coco was super smart, she could walk on her hind legs on command”
	<i>Description of pet’s life</i>		Rescue pet	“We saved him from an abusive home”
			Family pet	“Our family dog”
			Breeder	“Purchased at a breeder in Acton”
Grief Experience	<i>Consequences of grief</i>	Mental challenges	Regret	“I regret not being there for him”
			Guilt	“Overwhelmed with guilt”
			Depression	“So depressed”
		Behavioural disruptions	Absence from work	“Time off from work”
			Difficulty performing daily activities	“Can’t pull myself to do anything anymore”
			Missing routine	“Missing routine”
		Physical Symptoms	Sickness	“Feeling sick”
			Difficulty sleeping	“Difficulty sleeping”
			Difficulty eating	“No appetite”
	<i>Grief Triggers</i>	Locations	Areas of house	“I cant walk by the laundry room anymore without thinking of him”
			Community parks	“Cry when I walk through the park”
		Animal belongings	Bed	“Bed is still beside mine... won’t move it”
			Toys	“Hard to see her squeak toy”
Food bowl			“Can’t pull myself to throw out the bowl”	
		Unclassified triggers	“Always triggers crying”	
	Pictures	“Feel bad when I see Frank’s picture on the mantle”		
Support	<i>Presence</i>		Support groups	
			Family	“My kids understand”
			Friends	“Maureen [friend] helps me through it”
			Other	“The fire chief was really kind”
			Significant others	“It was my boyfriends dog too so he understands my

				grief”
			Members of the veterinary clinic	“Vet tech was sympathetic”
			Counselling services	“Seeing a counsellor every Tuesday”
			Neighbors	“Our neighbor Janine came by to express her condolences”
			Religion	“Doing lots of praying at the church”
	<i>Absence</i>		No friends	“No friends to turn to”
			No family	“No family in California”
			Live alone	“Live alone”
Emotions	<i>Negative</i>		Sadness	“Sad”
			Shock and uncertainty	“Still in shock”
			Anxiety	“Anxious”
			Weakness	“Insecure”
			Anger	“Just so angry at the way it happened”
			Fear	“Not sure what I’ll do without her”
	<i>Positive</i>		Empowerment	“I am having a good day”
			Happiness	“I’m really happy you called”
			Love	“Loved him so much”
Relationship with pet	<i>The role of the pet</i>		Friendship	“Good friendship”
			Companion	“My best companion”
			Family	“Like a family member”
			Bond	“Strong bond”
	<i>Previous experience with pet ownership and pet-loss</i>		First time euthanizing	“First time euthanizing”
			Only pet	“She was my one and only pet”
			First experience of pet-loss	“Never had a pet of mine die before”
			First time owning a pet	“My first pet”
	<i>Function of the pet</i>		Support	“Provides support”
			Comfort	“Comforting having Babbs around”
		Provides meaning	“Provided meaning to their life”	
Memorialization		Common	Funerals	“Had a funeral”
			Wakes	“Mini-wake”

			Ceremonies	“Buried Lily in the backyard and my brother said a few words”
			Photo or collage	“Photos printed”
		Less Common	Paw prints	“Buying paw prints at a spot in Toronto”
			Lighting candles	“Lighting candles on our night table”
			Clips of fur	“Preserving clips of fur”
			Plaques	“Purchased a plaque”
			Tattoos	“Got a new tattoo”
Coping Mechanisms			Reading	“Read a great book called <i>how to roar</i> ”
			Writing letters	“Writing a letter to him”
		Visiting neighborhood animals	Stray cats or dogs	“Visiting neighborhood animals”
			Friend’s pets	“Seeing Sophie’s dog today
			Animals at an animal shelter	“Walking animals at an animal shelter”
			Counselling	“Seeing a counsellor to cope with the loss”
			Other support groups	“Going to a Peel region support group”
			Active involvement	“Volunteering now”
			Religious Involvement	“Praying for forgiveness”
			Drug use	“Marijuana helps”
Decision to Euthanize	<i>Difficulty with the decision to euthanize</i>		Stop suffering	“Don’t want to see him further suffer”
			Right decision?	“Don’t know if I made the right decision”
			Expense of treatment	“Couldn’t afford the surgery”
	<i>Justify decision to euthanize</i>		Don’t want to see pet suffer	“I didn’t know whether to try treatment and prolong the misery or just end it”
			Reassurance	“I just want to know that what I did was best for her”
Veterinary Interaction	<i>Negative</i>		Cost of treatment	“Couldn’t believe it was that expensive”
			Pain management	“She was in pain the whole time and they didn’t do anything about it”

			Veterinarian's judgment	"Had to get a second opinion"
			Unnecessary diagnostics/treatments	"The bill was full of stuff I didn't even know they did"
			Lack of communication	"Disconnect with the vet"
			A lack of compassion	"It's like they don't even care, they just wanted me gone"
	<i>Positive</i>		Pleased with the service	"Happy with how they handled everything"
			Thankful	"The vet sat me down and told me about Emma's condition in a really respectful way"

Appendix B

Exploring the Factors Associated with Complicated Grief Among Pet Owners

- B.1. Canadian cities with a population greater than 100,000 that the online advertisements were posted from August 2013 – December 2013 to recruit respondents.
- B.2. Grief due to Pet Loss Survey.
- B.3. Information card given to customers at Guelph grocery chains from August 2013 – December 2013.
- B.4. Consent to Participate in Research for respondents completing the *Grief due to Pet Loss Survey*.
- B.5. Advertisement to recruit respondents for the *Grief due to Pet Loss Survey* posted on online advertisement websites in Canadian cities with a population greater than 100,000 from August 2013 – December 2013.

Appendix B.1. Canadian cities with a population greater than 100,000 that the online advertisements were posted from August 2013 – December 2013 to recruit respondents.

City	Province
Toronto	ON
Montreal	QC
Calgary	AB
Ottawa	ON
Edmonton	AB
Mississauga	ON
Winnipeg	MB
Vancouver	BC
Brampton	ON
Hamilton	ON
Quebec City	QC
Surrey	BC
Laval	QC
Halifax	NS
London	ON
Markham	ON
Vaughan	ON
Gatineau	QC
Longueuil	QC
Burnaby	BC
Saskatoon	SK
Kitchener	ON
Windsor	ON
Regina	SK
Richmond	BC
Richmond Hill	ON
Oakville	ON
Burlington	ON
Greater Sudbury	ON
Sherbrooke	QC
Oshawa	ON
Saguenay	QC
Levis	QC
Barrie	ON
Abbotsford	BC
St. Catherines	ON
Trois Rivieres	QC
Cambridge	ON
Coquitlam	BC
Kingston	ON

Whitby	ON
Guelph	ON
Kelowna	BC
Saanich	BC
Ajax	ON
Thunder Bay	ON
Terrebonne	QC
St. John's	NL
Langley	BC
Chatham-Kent	ON

Appendix B.2. Grief due to Pet Loss Survey



Evaluating the Impact of Pet Loss on Pet Owners

REB# 11DC002

You are invited to participate in a research study conducted by Liam Rémillard (BHSc. MSc. Candidate) and Dr. Michael Meehan, Faculty Advisor for the Ontario Veterinary College (OVC) Pet Loss Support Hotline at the University of Guelph. The main purpose of this study is to gather information surrounding your thoughts and experiences on pet loss. This feedback will help us to better understand which factors influence the grief we experience following pet loss.

This survey should take approximately 30-40 minutes of your time. We will ask you some questions about the relationship you had with your pet, then a few basic demographic questions such as your age and gender. Questions may be left blank if you do not feel comfortable answering them.

A. The Relationship You had with Your Pet

To gain insight into the human-animal bond we are interested in the relationship you had with your pet. Can you describe what your pet meant to you and why? (i.e. What was so special about the relationship you had with your pet? What did you do together?)

Thinking back to the time when my pet was still alive.....

Response Choices

1=Strongly Disagree

2=Disagree

3=Agree

4=Strongly Agree

1. My pet provided me with companionship
 2. Having a pet gave me something to care for
 3. My pet provided me with pleasurable activity
 4. My pet was a source of constancy in my life
 5. My pet made me feel needed
 6. My pet made me laugh and play
 7. Having a pet gave me something to love
 8. I got comfort from touching my pet
 9. I enjoyed watching my pet
 10. My pet made me feel loved
 11. My pet made me feel trusted
-

The following section is intended to explore the relationship you had with your pet. Please rate each of the following statements from 1 (strongly disagree) to 7 (very much) concerning how strongly these statements represent your past relationship with your pet. Please check the box representing your degree of agreement or disagreement for each statement.

Thinking back to the time when my pet was still alive.....

Response Choices

1=Strongly Disagree

4=Neutral/Mixed

7=Strongly Agree

1. Being close to my pet was pleasant for me
2. I was often worried about what I'll do if something happened to my pet
3. I preferred not to be too close to my pet
4. Sometimes I felt that I forced my pet to show more commitment and desire to be close to me
5. I preferred to keep some distance from my pet
6. If I couldn't get my pet to show interest in me, I got upset or angry
7. Often my pet was a nuisance to me
8. Signs of affection from my pet bolstered my self-worth
9. I felt distant from my pet
10. I often felt that my pet didn't allow me to get as close as I would like
11. I wasn't very attached to my pet
12. I got angry when my pet didn't want to be close to me as much as I would like it to

13. If necessary, I would have been able to give away my pet without any difficulties
 14. I got frustrated when my pet was not around as much as I would like it to be
 15. I had no problem parting with my pet for a long duration
 16. I needed shows of affection from my pet to feel there is someone who accepts me as I am
 17. I got uncomfortable when my pet wanted to be close to me
 18. I felt frustrated if my pet didn't seem to be available for me when I needed it
 19. I got nervous when my pet got too close to me
 20. Without acts of affection from my pet I felt worthless
 21. I wanted to get close to my pet, but I kept pulling away
 22. I was worried about being left alone without my pet
 23. I tried to avoid getting too close to my pet
 24. I needed expressions of love from my pet to feel valuable
 25. When I was away from my pet for a long period of time I hardly thought about it
 26. I needed a lot of reassurance from my pet that it loved me
-

B. My Reactions to the Loss of My Pet

We are interested in how the loss of your pet may have affected you. Please circle the number next to the answer that best describes how you have been feeling over the past month. The blanks refer to the deceased pet. Please choose the description that comes closest to how you feel.

Response Choices

- 1=Never
- 2=Rarely
- 3=Sometimes
- 4=Often
- 5=Always

1. I find myself thinking about _____'s death
2. I think about _____ so much that it is hard for me to do things that I normally do
3. Memories of _____ haunt me
4. I feel I cannot accept the death of _____
5. I feel myself longing for _____
6. I feel drawn to places and things associated with _____
7. I feel disbelief over what happened
8. I feel stunned and dazed over what happened
9. Ever since he/she died, it has been hard for me to trust people
10. Ever since he/she died, I feel as though I have lost the ability to care for other people or I feel distant from people I care about
11. I feel lonely a great deal of the time since _____ died
12. I have pain in the same area of my body or have some for the same symptoms as _____
13. I go out of my way to avoid reminders of _____
14. I feel empty without _____
15. I hear the voice of _____ speak to me
16. I see the pet who died stand before me

17. I feel that it is unfair that I should live when this pet died
 18. I feel bitter over this pet's death
 19. I feel envious of others who have not lost pets
-

C. Supportive People

The following section explores some of the help or support you may have received in the time leading up to, and immediately after your pet's death. Please check the box representing your degree of agreement or disagreement for each statement.

Thinking back to just after my pet passed away.....

Response Choices

- 1=Very Strongly Disagree
- 2=Strongly Disagree
- 3=Disagree
- 4=Neutral
- 5=Agree
- 6=Strongly Agree
- 7=Very Strongly Agree

1. There was a special person who was around when I was in need
 2. My family really tried to help me
 3. There was a special person with whom I could share my joys and sorrows
 4. I got the emotional help and support I needed from my family
 5. I had a special person who is a real source of comfort for me
 6. My friends really tried to help me
 7. I could count on my friends when things went wrong
 8. I could talk about my problems with my family
 9. I had friends with whom I could share my joys and sorrows
 10. There was a special person in my life who cared about my feelings
 11. My family was willing to help me make decisions
 12. I could talk about my problems with my friends
-

Thinking back to my feelings just after my pet's passing...

Response Choices

- 1=Strongly Disagree
- 2=Disagree
- 3=Agree
- 4=Strongly Agree

1. I had nightmares about my pet's death
2. I felt lonely without my pet

3. I felt that I should have known that something bad could have happened to my pet
4. I felt guilty for not taking better care of my pet
5. I felt bad that I didn't do more to save my pet
6. I was angry at other people for contributing to the death of my pet
7. Memories of my pet's last moments haunted me
8. I wished that I had shown my pet more love
9. I felt responsible for the passing of my pet
10. The emotions that I felt were of greater intensity to those that I have felt after the passing of a human loved one
11. I was unable to look at pictures of my pet without becoming sad?
12. I wanted to connect with my pet in a spiritual capacity

We are interested in knowing about any other avenues you may have turned to for support. Please rank the following sources of support using a number scale, with 1 being the most supportive, 2 being the second most supportive avenue, and so forth. You can give multiple sources of support the same number ranking if you feel that they were equally supportive of you during your time of loss. *If you did not use a channel of support in the list, please indicate so by leaving the box blank.*

- Family
- Friends
- Significant Other/Partner
- Work Colleague
- Vet Clinic
- Counsellor/Therapist
- Support Group
- Crisis Centre
- Theological Figure
- Other (Please Specify)

We are interested in finding out what things others did to help support you at the time of your pet loss in order for us to gain a greater understanding of what is helpful advice for callers to the hotline. Please describe, using examples, what these people actually did to support and help you at the time of your pet's passing. For example, if "friend" had been selected as a form of support, one possible expansion would be to say that a close friend offered emotional support and helped with the memorialization of my pet.

In some situations, people around us may have a negative impact on our feelings at the time of pet loss either because of something the person says or does. If anyone had a negative impact on you please describe what happened and who were involved.

D. Interactions with the Veterinarian and Veterinary Staff

We are interested in what sort impact your veterinarian and veterinary staff may have had on you at the time of your pets passing. For the following statements some may be relevant and some may not be depending on whether your pet was put to sleep or not, please tick “not applicable if this is the case

When looking back to the time my pet passed away.....

Response Choices

1=Strongly Disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly Agree

1. It was a turning point for me when the veterinarian explained the diagnosis and/or prognosis of my pet
2. It was a turning point for me when I realized how sick my pet truly was
3. The veterinarian informed me of my pet’s condition in a respectful way
4. I have resentment with the veterinarian for how he/she informed me about the decisions I had to make about my pet’s future
5. The veterinarian offered useful advice about options for my pet
6. I was not pressured by the veterinarian to euthanize my pet
7. I was well informed about what would happen during the euthanasia process
8. I was given enough time to say my final farewells and goodbyes to my pet before the euthanasia
9. Something happened during the euthanasia process that I did not expect to happen
10. I would like to have been less involved in the euthanasia of my pet
11. I was given several options to memorialize my pet (e.g. personalized urn, memory box, picture frame)
12. I would have appreciated more effort made on behalf of the veterinarian to offer condolences after my pet passed away

13. In general, I am happy with how the veterinarian handled my pet's passing
 14. I feel that the veterinarian met all of my expectations
-

E. Remembering your Pet

We are interested in what some people might do when their pet passes away to memorialize them. Memorialization refers to the process of preserving memories, which can take a variety of forms. Common forms of memorialization include ceremonies to honor a pet and capturing memories of a pet with visual aids such as photographs. Please select which of the following acts of memorialization you carried out following the passing of your pet.

Thinking back to after my pet passed away.....

Response Choices

- 1=Yes (I did this)
- 2=No (I did not do this)
- 3=No (But I would have liked to do this)
- 4=Not applicable
- 5=Strongly Agree

1. I had an urn made for my pet
 2. I had a photo and/or album of my pet on display in my house
 3. I made a paw print of my pet
 4. I wrote a letter or a journal entry to my deceased pet
 5. I kept some form of a memory box with my pet's items
 6. I would talk to friends/family about my pet
 7. I had a funeral ceremony for my pet
 8. I buried my pet in a special place or pet cemetery
 9. I had my pet cremated
 10. I kept the cremated remains of my pet
 11. I scattered cremated remains of my pet
 12. I turned to theology/religion for answers and guidance
 13. I had difficulty with the memorial process
-

We understand that memorialization is a highly personal process and no two people experience loss in the exact same way. Please let us know if you did anything else to memorialize your pet that was not included in the above statements. In addition, please identify if these actions helped you move forwards from your loss.

F. Your Experiences in Close Relationships

In the following section we are interested in the relationships that people have with other people as well as the relationships they have with their pets. The statements below concern how you feel about “relationships” you have had with romantic partners/spouses/significant others. You do not need to be in a current relationship to respond to these statements. Please respond to each statement by checking the box to indicate your level of agreement.

Response Choices

1=Strongly Agree

4=Neutral

7=Strongly Disagree

1. I am afraid that I will lose my partner's love
2. I often worry that my partner will not want to stay with me
3. I often worry that my partner doesn't really love me
4. I worry that romantic partners won't care about me as much as I care about them
5. I often wish that my partner's feelings for me were as strong as my feelings for him or her
6. I worry a lot about my relationships
7. When my partner is out of sight, I worry that he or she might become interested in someone else
8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me
9. I rarely worry about my partner leaving me
10. My romantic partner makes me doubt myself
11. I do not often worry about being abandoned
12. I find that my partner(s) don't want to get as close as I would like
13. Sometimes romantic partners change their feelings about me for no apparent reason
14. My desire to be very close sometimes scares people away
15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am
16. It makes me mad that I don't get the affection and support I need from my partner
17. I worry that I won't measure up to other people
18. My partner only seems to notice me when I'm angry
19. I prefer not to show a partner how I feel deep down
20. I feel comfortable sharing my private thoughts and feelings with my partner
21. I find it difficult to allow myself to depend on romantic partners
22. I am very comfortable being close to romantic partners
23. I don't feel comfortable opening up to romantic partners
24. I prefer not to be too close to romantic partners
25. I get uncomfortable when a romantic partner wants to be very close
26. I find it relatively easy to get close to my partner
27. It's not difficult for me to get close to my partner
28. I usually discuss my problems and concerns with my partner
29. It helps to turn to my romantic partner in times of need
30. I tell my partner just about everything

31. I talk things over with my partner
 32. I am nervous when partners get too close to me
 33. I feel comfortable depending on romantic partners
 34. I find it easy to depend on romantic partners
 35. It's easy for me to be affectionate with my partner
 36. My partner really understands me and my needs
-

G. General Health

When people call the Pet Loss Support Hotline, some people mention how their pet loss has impacted their general health. With this in mind, we are interested in how your general health has been *over the past few weeks*. Please answer ALL the questions by checking the answer which you think most nearly applies to you.

Response Choices

1=Not at all

2=No more than usual

3=Rather more than usual

4=Much more than usual

1. Have you been feeling perfectly well and in good health?
2. Have you been feeling in need of a good tonic (alcoholic drink)?
3. Have you been recently feeling run down and out of sorts?
4. Have you recently felt that you are ill?
5. Have you recently been getting any pains in your head?
6. Have you recently been getting a feeling of tightness or pressure in your head?
7. Have you recently been having hot or cold spells?
8. Have you recently lost much sleep over worry?
9. Have you recently had difficulty in staying asleep once you are off?
10. Have you recently felt constantly under strain?
11. Have you recently been getting edgy and bad-tempered?.
12. Have you recently been getting scared or panicky for no good reason?
13. Have you recently found everything getting on top of you?
14. Have you recently been feeling nervous and strung-up all the time?
15. Have you recently been managing to keep yourself busy and occupied?
16. Have you recently been taking longer over the things you do?
17. Have you recently felt on the whole you were doing things well?
18. Have you recently been satisfied with the way you've carried out your task?
19. Have you recently felt that you are playing a useful part in things?
20. Have you recently felt capable of making decisions about things?
21. Have you recently been able to enjoy your normal day-to-day activities?
22. Have you recently been thinking of yourself as a worthless person?
23. Have you recently felt that life is entirely hopeless?
24. Have you recently felt that life isn't worth living?
25. Have you recently thought of the possibility that you might make away with yourself?

26. Have you recently found at times you couldn't do anything because your nerves were too bad?
 27. Have you recently found yourself wishing you were dead and away from it all?
 28. Have you recently found that the idea of taking your own life kept coming into your mind?
-

H. Background Information

Gender (circle one): M F

Age: _____

Living status at the time of your call (circle one):

- with family
- with friends
- with a partner
- with acquaintances
- single

Marital status at the time of your call (circle one):

- married
- in a relationship
- divorced
- widowed
- single

What is your highest level of education completed?

- Less than Highschool
- Highschool
- College
- Bachelors Degree
- Masters Degree
- Doctoral Degree
- Professional Degree

What is your annual income level?

- \$0 – \$25,000
- \$25,000- \$50,000
- \$50,000- \$75,000
- \$75,000- \$100,000
- >\$100,000

What was the approximate date that your pet passed away (MM/YYYY)? (____ / _____)

We understand that this can be a difficult subject to discuss, but if you can do so, please briefly write or indicate the reasons/circumstances surrounding or causing the loss of your pet (e.g. cancer, terminal disease)

Was the death of your pet unexpected? (circle one): Yes No

What species of pet did you have?

Were you the primary caretaker of your pet? (circle one): Yes No

Was this your first pet? (circle one): Yes No

Was this your first experience of pet loss of your own pet? Yes No

Did you own other pets at the time your pet passed away? Yes No
If yes, how many and what kind(s) of pets?

By being involved in this study you have the opportunity to receive feedback about the research findings. Please check one of the statements below:

Yes, I would like to be contacted regarding the findings of this survey.

Please contact me at (email or phone number): _____

May we also contact you for future studies of the OVC Pet Loss Support Hotline?

Yes, I would also like to be contacted for future surveys regarding the OVC Pet Loss Support Hotline

No, I would NOT like to be contacted for future surveys regarding the OVC Pet Loss Support Hotline

No, I would NOT like to be contacted regarding the findings of this survey. Please remove my name and contact information from your file.

Thank you for your participation in our survey. If you have any questions regarding this survey or the OVC Pet Loss Support Hotline, please contact Liam Rémillard at Lremilla@uoguelph.ca (226-821-5221) or Dr. Michael Meehan at mmeehan@uoguelph.ca (519 824 4120 ext. 58951).

Please remember to sign and attach the included consent form with your survey.

Appendix B.3. Information card given to customers at Guelph grocery chains from August 2013 – December 2013.

Front:

**UNIVERSITY
of GUELPH**

Have you experienced the death of a pet?

If so, we would appreciate to hear about your experiences for a graduate research study concerning the impact of pet loss on pet owners. Information on reverse →

Reverse:

You can access the survey in one of two ways:

1. Scan the QR Code below:



2. Copy this web address below:
www.Pet-Loss-Survey.com

Appendix B.4. Consent to Participate in Research for respondents completing the *Grief due to Pet Loss Survey*.

Consent to Participate in Research

You are invited to participate in a research study conducted by Liam W. Rémillard (MSc. Candidate) and Dr. Michael Meehan; who is the Faculty Advisor for the Ontario Veterinary College (OVC) Pet Loss Support Hotline at the University of Guelph.

PROCEDURES

If you decide to volunteer to participate in this study, we would like you to consider agreeing to a brief survey. The survey involves answering a few questions about your relationship with your pet and your experience of loss and bereavement. This survey should take no more than 30-40 minutes of your time. It is important to note that at any time during the survey you have the right to withdraw from this study. By being involved in this study you have the opportunity to receive feedback about the research findings. Please tell us if you would like to be contacted again (by phone or email) to receive information about these findings. We respect your privacy so if you do not want to be contacted again in the future please tell us and we will remove your phone number and details from our file. The information you provide will be evaluated by the primary investigator.

POTENTIAL RISKS AND DISCOMFORTS

We are aware that by providing feedback about your pet may be emotional for you; we hope that these emotions will not be upsetting. We are here to listen to you and are trained to be emotionally supportive and respectful at all times.

CONFIDENTIALITY

Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study. The information you provide will only be accessible to the primary and secondary investigators. The primary investigator will store all data relating to the surveys in a lockable filing cabinet in Dr. Meehan's room which is securely locked.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may exercise the option of removing your data from the study. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise that warrant doing so.

RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You

are not waiving any legal claims, rights or remedies because of your participation in this research study. This study has been reviewed and received ethics clearance through the University of Guelph Research Ethics Board. You have the right to receive feedback about the results from this study via email. If you have questions regarding your rights as a research participant, contact:

Research Ethics Coordinator
University of Guelph
437 University Centre
Guelph, ON N1G 2W1

Telephone: (519) 824-4120, ext. 56606
E-mail: sauld@uoguelph.ca
Fax: (519) 821-5236

I have read the information provided for the study “Evaluation of the Ontario Veterinary College Pet Loss Support Hotline” as described herein. By selecting "YES", I agree to participate in this research study.

Yes
No

Appendix B.5. Advertisement to recruit respondents for the *Grief due to Pet Loss Survey* posted on online advertisement websites in Canadian cities with a population greater than 100,000 from August 2013 – December 2013.

OVC Research Study on Pet Loss

My name is Liam Rémillard and thank you for your interest in my research. I am a Masters student who is researching the relationship we have with pets and how we respond emotionally when they pass away. If you have experienced the death of a pet in the past we would appreciate your involvement. We are interested in learning more about the grief that pet owners experience due to pet loss. The results of our findings will help us understand how to better support people through their grief. This research has been granted Research Ethics Approval through the University of Guelph (REB 11DC002). If you have any questions or require any assistance, please don't hesitate to email me again and leave a phone number and I can talk to you personally.

We are very aware that pet loss is a very personal experience and one that can be upsetting. As such we have provided a link to the OVC Pet Loss Support Hotline (below) which has information and resources and other hotline support numbers that may be helpful for you (<http://www.ovc.uoguelph.ca/petloss/about/>)

Finally, this survey is completely voluntary and you can choose to not answer any questions or stop answering the survey at any time. In appreciation for your time, if you choose to do the survey, we can put your name in for a draw to receive a gift card worth \$25. When you complete the survey please feel free to email and I can put your name in for the draw. If your name is chosen I will then contact you via email to organize sending it to you. Please email for the link/url to the online survey.

Kind Regards,
Liam W. Rémillard MSc (Epidemiology Candidate)