Pet Bonding and Pet Bereavement Among Adults

Kelli Brosam

Eastern Illinois University

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Pet Bonding and Pet Bereavement Among Adults

By

Kelli Brosam

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
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2001

I HEREBY RECOMMEND THAT THIS THESIS BE ACCEPTED AS FULFILLING THIS PART OF THE GRADUATE DEGREE CITED ABOVE

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Abstract

This study was designed to examine the relationship between the intensity of bonding and grief responses among adults following the death of their dogs or cats. Three hypotheses were considered: 1) The strength of the bond between an adult and a pet will predict the intensity of grief following the death of that pet. Specifically, adults who are more strongly bonded with a pet will experience more intense grief following the death of that pet than adults who are less strongly bonded. 2) Regardless of type of animal, women will be more highly bonded to pets, and women will report more intense grief than men. 3) Regardless of gender, individuals will be more highly bonded with dogs than with cats, and individuals' grief responses will be more intense following the death of a dog than following the death of a cat. To test these hypotheses, 108 adults completed survey materials that included the Pet Attitude Scale (PAS) and a modified version of the Texas Revised Inventory of Grief (TRIG). Participants were recruited from Lake Land College and a local veterinary facility. Results supported the first and second hypotheses. There was a trend in the predicted direction for the third hypothesis regarding bonding and both past and present grief; however, the results were not significant. Implications of the findings and suggestions for further research are addressed.
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Val: Our numbers game is over -- the percentages are through ... we are 0 and 100%, my friend. The taste is bittersweet, isn't it? Your humor and sheer nonsense kept me tethered to the notion of endurance more than once. SNL awaits you, Val! So glad we did grad school together. This is loosely related to the subject of my thesis, but I was wondering ... who did let the dogs out?

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"What it is transmitted in those moments of physical contact no one knows for sure. But somehow the simple act of touching becomes a channel for transformation -- a conduit through which the closeness, warmth, and energy of life seem to flow from one being to another."

~ Love, Miracles, and Animal Healing ~
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Pet Bonding and Pet Bereavement Among Adults

The relationship between humans and pets dates back to the beginnings of civilization. According to researchers who studied the remains of prehistoric camps, the relationship between dogs and humans dates back at least 10,500 years when wild dogs provided protection to cave dwellers in exchange for a portion of the meat obtained while hunting (Nieburg & Fischer, 1982). In fact, a 14,000-year-old human skeleton was discovered in an ancient near-Eastern burial ground, with its arms wrapped around a dog’s skeleton (Arkow, 1987). Mugford (1977) suggests that dogs were kept as “house pets” as early as 3000 BC and that ancient Egyptians domesticated cats about 5,000 years ago. Furthermore, Egyptian cats gained goddess status at about 1500 B.C. and retained that status until about 350 A.D. In tribute to “Basket,” the cat icon of the goddess of feminine qualities, Egyptians adorned their domestic cats with jewels, and owners even allowed their cats to eat from their own plates (Lanci-Altomare, 2000).

The kinship between humans and animals has been thriving ever since. According to a survey conducted by the Kansas City American Marketing Association (KC-AMA, 1997), about 58 million households in the United States include pets. The American Pet Products Association (1999) estimates that approximately 124 million dogs and cats are kept as pets in this country, and that 60% of American households include one of these pets; 47% include a dog and 53% include a cat.

Information posted on the Internet by the KC-AMA (1997), exemplifies the lengths to which Americans are willing to go to provide for and pamper their pets. According to this website, the pet supply industry is an estimated $20 billion business annually. Bakeries that feature gourmet dog treats have surfaced across the country, and consumers are seeking out products like clothing, fancy toys, and even expensive furniture for their pets. Recently, a $9,400.00 pet castle was advertised in the Christmas edition of a popular catalog. Additionally, health of their pets has become a major
consideration for many pet owners, giving rise to the sales of posture-correct food bowls, homeopathic medicines, and pet massages. In fact, residents from some larger cities can take their pets to health clubs, such as “Total Dog” in Los Angeles. The growing pet supply market is an obvious manifestation of the strong human-animal relationships that influence it.

Research focusing on the relationship between humans and animals is not new, although the study of the emotional and psychological bonding between humans and their pets is a fairly recent development (Ross & Baron-Sorensen, 1998); and recently, researchers have shown a growing interest in and concern for human-animal bonds. Psychologists explain bonding (or attachment) as a tie of loyalty, sentiment, or affection to any significant object, even an inanimate one, that fills a particular need.

Pets undoubtedly have various meanings to different people and therefore, the type of bonds established between people and their pets vary widely. People who keep animals for purely utilitarian reasons, such as farmers who get cats to rid the barn of rats and mice, are likely to accept the pet’s death without a great deal of grief; the animal in such a case filled a practical need, but an emotional attachment may not have been particularly strong. At the other end of the continuum are a small number of people who, perhaps because of exclusion from human company, have unreasonably strong attachments to their pets (Keddie, 1977). For many people, however, the bond with a pet is strong without being overwhelming (Nieburg & Fischer, 1982). Fogle (1995) asserts that humans gain a great deal of pleasure from canine and feline companionship; pets allow their owners to feel loved and secure, and they induce laughter. People derive pleasure from talking about their pets, as well as to their pets, even though most individuals realize that the animal likely lacks the ability to understand what is actually being said (Schoen & Proctor, 1995). Ross and Baron-Sorensen (1998) claim that people experience contentment when they watch their dog or cat play, and they feel loved when
their pet greets them in an enthusiastic manner.

Lagoni, Butler, and Hetts (1994) examined some of the factors influencing pet ownership. They maintain that anthropomorphism, neoteny, and allelomimetic behaviors all tend to increase the probability of a human-pet bond. Pet owners anthropomorphize their pets when they attribute human traits, such as human emotions, thoughts, and behaviors to their pets. By anthropomorphizing, a pet owner may perceive that mutual communication occurs between the individual and the pet. For instance, a pet owner may remark that her cat hid from her because the pet felt “embarrassed” for sliding into the door while chasing a toy. Lagoni et al. believe that this perception is an important variable in the formation of the human-animal bond.

Neotenic characteristics common in some animals, including puppies and kittens, consist of large round eyes, rounded foreheads, and shortened muzzles or noses. Some breeds of dogs (e.g., Shih Tzus and Pomeranians) and cats (e.g., Persians and Himalayans) possess neotenic characteristics throughout adulthood. These characteristics are said to be similar to those found in human infants. In fact, Lagoni et al. (1994) claim that humans have, either consciously or unconsciously, selectively bred dogs and cats to some degree for neotenic characteristics because these features evoke care-giving behaviors from at least some human adults.

Allelomimetic behaviors occur when animals imitate or appear to imitate human behaviors. Dogs tend to exhibit allelomimetic behaviors more often than cats. For example, a dog may appear to imitate a human’s singing by howling along with his owner, or an animal may seem to dance while jumping on his or her back legs. When these allelomimetic behaviors occur, individuals tend to anthropomorphize their pets; thus, increasing the likelihood of a human-pet bond (Lagoni et al., 1994).

Lagoni et al. (1994) suggest several theories of how humans and animals form attachments. One theory emphasizes the idea that behavioral responsiveness toward pets
influences the bond formed with that pet (i.e., caring for and nurturing pets makes individuals feel wanted). Another theory suggests that dominance influences the human-pet bond, as an individual assumes the position of being the pet’s master. A third theory is descriptive of the affectionate attachment between an individual and pet that strengthens over time. A final theory suggests that human-pet bonds form simply as a result of the owner’s close proximity to and familiarity with the animal.

According to a number of studies, pets are often regarded as not just companions, but also as important members of the family’s social system (Carmack, 1985; Nieburg & Fischer, 1982; Quackenbush & Glickman, 1984; Ross & Baron-Sorensen, 1998; Weisman, 1991), and as having interactive social roles (Quackenbush, 1984). Rynearson (1978) suggests that humans and pets are significant attachment figures for one another; under normal circumstances they share complementary attachment, and at times of stress, they may temporarily seek out the other for affection. In a study of 122 families with dogs, Sandra and Randolph Barker (1988) found that nearly a third of the participants felt closer to the dog than to anyone else in the family. Similarly, a recent survey conducted by The American Animal Hospital Association revealed that 48% of female respondents reported that they relied more heavily on their pets than on their partners or family members for affection (1996). Nieburg and Fischer (1982) suggested that pets soften the world by providing unconditional acceptance without seeking much in return. Conversely, “human affection must be gained with a great deal of effort and sacrifice” (1982, p. 3).

A number of studies have delineated the physical, psychological, and social benefits resulting from pet ownership. Garrity, Stallones, Marx, and Johnson (1989) found that pet ownership alone failed to predict depression; however, pet ownership and strong attachment to the pet was significantly related to enhanced emotional well being and lower levels of depression among elderly individuals. Other researchers have
reported a reduced risk of heart disease (Anderson, Reid, & Jennings, 1992) and an increased survival rate following a heart attack among pet owners (Friedmann, Katcher, Thomas, & Lynch, 1980). Jenkins (1986) compared the blood pressures of 20 pet owners in their homes while petting their dogs and while reading aloud; the results indicated that these individuals exhibited significantly lower blood pressure while engaging in the former activity compared to the latter. Positive attitudes toward pets have been associated with happiness for unmarried individuals, but not for married persons (Connell & Lago, 1984).

Pet ownership, however, is not always associated with positive outcomes. Stallones, Marx, Garrity, and Johnson (1990) found that individuals between the ages of 21 and 34 who were strongly attached to their pets were at risk of having fewer human social supports. In the same study, the researchers found that when strong attachments to pets existed in the absence of human supports for individuals between the ages of 35 and 44, the attachment was associated with emotional distress. Another study demonstrated no relationship between pet attachment and measures of physical and psychological well being among elderly women (Miller & Lago, 1989). Furthermore, Grossberg, Alf, and Vormborck (1988) could not reproduce positive effects on blood pressure in stressful situations that were previously reported in the literature. Therefore, while the bulk of the research conducted to date suggests that pets contribute to human emotional and physical health, the relationship between pet attachment and well-being is indeed complex (Johnson, Garrity, & Stallones, 1989).

While a variety of animals provide affection and intimacy, it is the dog, through both observation and tradition, that ranks as the world's most popular pet (Fogle, 1995). Jeffrey Moussaieff Masson (1997) attributes our affinity for dogs to the fact that, like ourselves, dogs belong to a social species and, therefore, form "friendships." Cats, on the other hand, belong to a solitary species. Constance Perrin (1995), a cultural
anthropologist, offers an interesting reason for the fact that humans feel such strong emotions toward and sometimes inexplicable attachment to dogs. She claims that because dogs frequently demonstrate intense protective loyalty, humans feel secure, and often perceive the dog as the caregiver. This, she asserts, creates a profound sense of attachment to the dog -- a type of closeness we experienced with our mothers when we were children. Elaborating on Perrin's ideas, psychiatrist Eleanora M. Woloy (1990) suggests that there is something deeply healing about tapping into the kind of closeness dogs provide. "Loving -- and being loved by -- this attentive, present creature," Woloy wrote, "helps heal the disappointment we felt as kids, when we became aware that we had to cope with the world on our own; it mitigates one of our most primal struggles, between the wish to merge with another and the need to separate" (1990, p. 20).

Although research shows that dog owners have a significantly higher degree of attachment to their pets than do cat owners, Zaslof (1996) claims that relationships with pets often are evaluated based on behaviors that mainly pertain to human-dog interactions, such as taking walks, traveling together, grooming, and training the animal. Zaslof found that when items more descriptive of dog behavior were eliminated, (e.g., "my pet makes me feel safe" and "I get more exercise because of my pet"), dog owners and cat owners showed similar scores on the Comfort from Companion Animal Scale (CCAS; Beck & Katcher, 1983). Similarly, a study of veterinary hospital clients reported significantly higher scores among dog owners than cat owners on the Relationship Maintenance subscale of the Pet Attachment Survey (PAS; Holcomb et al., 1985), but found no difference between dog and cat owners on the Intimacy scale of the same instrument. "Relationship maintenance" was defined by various behaviors broadly related to physical interaction, such as training, grooming, and obedience of the animal. "Intimacy" was defined by attitudes surrounding emotional importance and physical proximity, such as regarding the pet as a family member, enjoying physical closeness, and
seeking comfort from the animal.

Studies have shown that human-pet bonding, as assessed through self-reports, also varies according to gender of the pet owner. Kidd and Kidd (1985) found that boys described giving and receiving affection from their pets as much as girls did, but reported loving their pets to a significantly lesser degree. Brown, Richards, and Wilson (1996) suggest that boys may actually love their pets as much as girls do, but that boys are less willing to disclose their feelings for the animal.

Although an individual may derive pleasure from a human-pet bond, he or she runs the risk of experiencing loss when the bond is broken (Ross and Baron-Sorensen 1998). Loss is defined by Lagoni et al. as “an ending or a point of change and transition” (1994, p. 32). Lagoni et al. suggest that each individual determines the impact of loss based on criteria unique to one’s self; significance of any loss is thus best judged by the individual who is actually experiencing it. Any unwilling separation or loss of objects of attachment elicits many forms of emotional distress and personality disturbance that can be defined as grief (Bowlby, 1980). Grief is a normal and natural response to loss (Kubler-Ross, 1974), and is the necessary process for healing the emotional wounds caused by loss or the anticipation of loss (Lagoni et al., 1994).

Research has shown that, in general, the behavior of pet owners at the time of their pet’s death parallels in many ways the stages that have been described as characteristic of bereavement after human death (Gerwells & Labott, 1994; Quackenbush & Glickman, 1984). According to the cumulative work of Bowlby (1980), Worden (1982), Rando (1984), and Kubler-Ross (1969), a grief-stricken individual passes through three predictable stages: 1) shock and denial; 2) emotional pain and suffering; and 3) acceptance and resolution. Similarly, Ross and Baron-Sorensen (1998) found that behavioral manifestations of grief and pet loss include anger, anxiety, guilt, and in some extreme instances, suicidal thoughts. Pets provide people with physical, social, and
emotional benefits; therefore, when the pet dies, the owner often experiences a deep sense of loss and grief.

Quackenbush and Glickman (1984) explored how a pet’s death might influence the usual behavior patterns of individuals whose ages ranged from ages 12 to 83 years. They found that 93% of the respondents experienced some disruption in their daily routines, and that overall, social activities diminished for 70% of the individuals. They asserted that the impact of a pet’s death on its owner’s life is related to the breaking of the bond that the owner had formed with the pet. The results of Carmack’s (1985) study support their contention. Carmack found that pet owners who came for counseling after the loss of a pet consistently reported that they had had difficulty sleeping, eating, and functioning on the job. Additionally, they agonized over the insensitivity of their families and friends, finding it intolerable that others did not acknowledge their loss. In fact, Carmack asserted that the death of a pet might severely impair the communication system within a family unit if a grieving pet owner feels indifference from other family members.

In a recent study on endured stress levels, the death of a pet was the most frequently reported trauma experienced by middle-aged couples (Lagoni, Butler, & Hetts, 1994). The 242 participants were asked to rate the stress level associated with 48 events they sustained, including death of a spouse, divorce, marriage, loss of children, an arrest, loss of a job, and death of a pet. The couples reported that the deaths of their pets were less stressful than the deaths of human members of their immediate families but more stressful than the deaths of other relatives. Ross and Baron-Sorensen (1998) attribute this development to the fact that people are choosing to have fewer children, and consequently often view their pets as their children.

Researchers in several studies have investigated the impact of pet death on the owner in comparison with the death of a significant human. The findings of Rajaram, Garrity, Stallones, and Marx (1993) indicate that the loss of a pet is associated with fewer
depressive symptoms than is the loss of a significant human, especially that of a spouse. Similarly, the findings of Archer and Winchester (1994) indicate that although the reaction after pet death parallels the reaction to that after human death, negative affect appears to be less pronounced than one would expect following a significant human loss. Gerwells and Labott (1994) found that, with few exceptions, the grief experience associated with the death of a pet is similar to that associated with the loss of a significant human; specifically, individuals reporting deeper relationships with their pets had more difficulty adjusting to the loss. The results of Gerwells’ and Labott’s study were established by asking respondents what their pets meant to them. Responses were arranged into order of emotional importance. Responses such as “baby” and “loved” were rated high, “protector” and “pet” rated low, and “friend,” in between. In Carmack’s (1985) study, some clients reported that losing their husband or wife would be less difficult than losing their pets, and that people often grieve more following the death of their pet than following the death of their own relative. Ross and Baron-Sorensen (1998) attribute findings like Carmack’s to the fact that humans share relationships with animals that they may not share with people. For example, a wife who feels neglected by her husband may find comfort in the fact that she is needed by her pet.

It is reasonable to assume that the intensity of bonding with a pet influences the extent to which one grieves for the animal after it dies. The findings in a study of adolescents substantiate this assumption. Brown et al. (1996) found that the strength of a bond between an adolescent and his or her pet predicted the intensity of bereavement following the death of that animal. (The pets represented in the study conducted by Brown et al. included a variety of animals, such as dogs, cats, horses, and rabbits). Keddie asserted that the depth of grief that accompanies the death of a pet is not only intensified, but also occurs more frequently in owners who have “nonconventional bonds” with their pets (1977). Such a bond was described as overdependence on the pet.
or an insistence on a special relationship with an animal in which the relationship with the pet is seen as a substitute for a human relationship.

Although an individual may experience intense emotional reactions following the death of a pet, cultural stereotypes dictate that he or she minimize overt displays of grief (Nieburg & Fischer, 1982). People who experience a significant human loss typically receive sympathy and support in our society. Yet even though many individuals consider their pets to be members of their family, they receive little or no support when their pet dies, and there are virtually no socially established rituals for mourning a pet or for supporting a bereaved owner through a loss (Carmack, 1985; Ross & Baron-Sorensen, 1998; Weisman, 1991). Weisman articulated this notion: “While pet ownership is praised and its virtues celebrated, corresponding grief is often trivialized and not recognized as truly significant” (1991, p. 241). Because the loss of a pet is often belittled by others with remarks, such as “you can always get another cat (or dog),” people are frequently torn by conflicting needs to behave in a socially acceptable way and to express their sorrow openly. Society’s unwillingness to legitimize the responses of those who openly grieve and mourn pet death often alters the normal and natural course of bereavement for pet owners, who are made to feel that their pet is viewed as insignificant by others, and that their emotions about and reactions to the death of their pets are inappropriate (Quackenbush & Glickman, 1984).

Grosse and Barnes (1994) found gender differences in grief responses associated with the death of a dog or cat among adults. They investigated antecedents of the human grief response related to pet loss, using three clinical bereavement scales from the Grief Experience Inventory (Sanders, Mauger, & Strong, 1985): Despair (DES), Social Isolation (SI), and Somatization (SOM). The DES scale measures thoughts and feelings associated with a pessimistic outlook on life (e.g., apathy); the SI scale measures indications of social withdrawal (e.g., a need to be alone); and the SOM scale measures
the presence of somatic symptoms which tend to occur under stress (e.g., headaches). Their results show that women had a more intense grief response than men on the DES scale only. The researchers attribute this outcome to the assumption that men’s responses were “masked” in a reluctance to express feelings of despair, which is consistent with the conclusions of Brown et al. (1996) in their study with children. Research by Quackenbush and Glickman (1984) yielded similar results to those of Grosse and Barnes (1994). They found that 79% of the 138 adolescents seeking therapy for pet bereavement were girls; however, they argue that many boys grieve just as profoundly as do girls.

Lagoni et al. (1994) assert that societal attitudes are changing, and some men are displaying various manifestations of grief; however, deep-rooted cultural expectations continue to result in females being more willing than males to admit and express feelings of despair. Obviously, gender differences may be explained in more than one way; therefore, it is difficult to determine whether boys truly experience less grief or if they are reluctant to disclose due to the social pressure to be less expressive than girls (Brown et al., 1996).

The purpose of the current study is to examine the relationship between the intensity of bonding and grief responses among adults (men vs. women) following the death of their pets (dogs vs. cats). Additionally, the level of grief responses in relation to bonding intensity will be examined.

The hypotheses being tested are as follows: 1) The strength of the bond between an adult and a pet will predict the intensity of grief following the death of that pet. Specifically, adults who are more strongly bonded with a pet will experience more intense grief following the death of that pet than adults who are less strongly bonded. 2) Regardless of type of animal, women will be more highly bonded to pets, and women will report more intense grief than men. 3) Regardless of gender, individuals will be more highly bonded with dogs than with cats, and individuals’ grief responses will be more
intense following the death of a dog than following the death of a cat.

Method

Participants
The sample for the present study included 108 participants. These individuals ranged in age from 18 to 81 years, with a mean age of 32.29 (SD = 16.56). There were 28 men who lost a dog (mean age = 32.64, SD = 16.43), 20 men who lost a cat (mean age = 27.90, SD = 17.07), 32 women who lost a dog (mean age = 34.62, SD = 18.48), and 28 women who lost a cat (mean age = 32.39, SD = 14.08). The mean length of time since the deaths of the participants' pets was 22.02 months (SD = 18.15). Participants were mainly students from Lake Land College. Some participants were recruited from a local veterinary facility. Participation was voluntary, and no individuals were paid. Each of the participants was at least 18 years old, and had experienced the death of a dog or cat within the 5 years immediately preceding the study.

Materials
Materials included the Pet Attitude Scale (PAS; Templer, Salter, Dickey, Baldwin, & Veleber, 1981) and a modified version of the Texas Revised Inventory of Grief (TRIG; Faschingbauer, 1981). Although the TRIG was normed on populations of people who had experienced the death of a significant human, it was also used in a previous study that examined the grief experience of individuals who had lost a pet through death (Brown, et al., 1996). The PAS and TRIG were counterbalanced in order to minimize potential sequence effects. Participants were also asked to provide demographic information (e.g., respondent's age, gender, and type of pet). (See Appendix A for a copy of the demographic information form).

The PAS is a self-report inventory that is designed to measure the favorableness of respondents' attitudes towards their pets. (See Appendix B for a copy of the PAS). The PAS is comprised of 18 items, which are scored on a 7-point Likert scale (1=strongly
disagree to 7=strongly agree). To minimize the influence of the acquiescence response set, seven of the items are directionally transposed. In other words, these items are negatively, rather than positively, stated (e.g., “Animals belong in the wild or in zoos, but not in the home”). Each of these seven items was reverse-scored. Thus, a higher number indicates stronger bonding. The scale contains items related to three dimensions: (1) Love and interaction (e.g., “I frequently talk to my pet”); (2) Pets in the home (e.g., “I like house pets”); and (3) Joy of pet ownership (e.g., “I really like seeing pets enjoying their food”).

According to Templer et al. (1981), the PAS is a stable and internally consistent instrument, as demonstrated by a Cronbach’s Alpha coefficient of .93 (p < .001), and it has good test-retest reliability (r = .92, p < .001). Concurrent validity was established by the significantly higher PAS scores of kennel workers than the mean score of social work students (Templer et al, 1981). Although the PAS has been found to be a psychometrically sound instrument, it is limited, however, by its focus on the mental aspects of health (Wilson, Netting, & New, 1987).

The TRIG is a self-report inventory that is designed to evaluate the strength and nature of an individual’s reaction to bereavement. (See Appendix C for a copy of the TRIG). This instrument was not designed to assess bereavement regarding the loss of a pet specifically; therefore, for purposes of the present study, items that referred to a “person” were rewritten to say “pet.” For example, “I found it hard to sleep after this person died” became “I found it hard to sleep after my pet died.”

The main body of the TRIG is divided into three parts. The first part includes eight items, one of which was omitted (“I felt a need to do things that the deceased had wanted to do”), as it was not appropriate for this study. The seven items in the first part of the TRIG deal with feelings and actions immediately following the pet’s death (e.g., “I was unusually irritable after my pet died”). Reactions are registered on a 5-point Likert
scale ranging from completely true to completely false. A total, called a “past” score, is
obtained by summing across the seven items. Higher scores indicate higher levels of
grief.

The second part of the TRIG features 13 statements about present feelings (e.g., “I
still want to cry when I think of my pet who died”). Again, a 5-point Likert scale is used
to assess levels of grief. A total (called a “present” score) is obtained by summing across
the 13 items.

The third part of the TRIG contains five true/false items (e.g., “I feel that I am
functioning about as well as I was before the death”). This part of the TRIG was
eliminated for this study because at least two of the items are obviously more relevant to
the death of a human, such as a respondent’s feeling that he or she has the same illness as
the deceased and a respondent’s attendance at the funeral of the deceased.

Reliability figures for TRIG subscales range from .70 to .90 (Brown et al., 1996).
Test-retest reliability for the items that are included in the first part of the TRIG is .77 and
the split-half reliability is .74 (Faschingbauer, 1981). Coefficient alpha is .86 for the
second part of the TRIG and the split-half reliability is .88 (Faschingbauer, 1981).

In the present study, TRIG past grief scores and TRIG present grief scores were
highly correlated with each other, \( r (108) = .790, p < .01 \), which supports comparable
findings in the literature. Similarly, TRIG past grief scores and TRIG present grief scores
were positively and significantly correlated with each other in each of the four groups:
men who lost a dog, men who lost a cat, women who lost a dog, and women who lost a
cat; \( r (28) = .702, p < .01, r (20) = .502, p < .05, r (32) = .873, p < .01, \) and \( r (28) = .750, \n\ p < .01, \) respectively.)

Procedure

The Lake Land College participants were required to sign informed consent
documents before the surveys were distributed; however, the researcher did not see the
sheets once they were signed. (See Appendix D for a copy of the informed consent document). To maintain anonymity, an envelope was provided at the front of the testing location, and participants were asked to place their signed documents in that envelope so that the researcher was unable to identify them.

The PAS and TRIG were administered in a classroom setting at Lake Land College to participants who had experienced the death of a dog or cat within the 5 years immediately preceding the study. Completion of the two surveys took approximately 15 minutes. Upon completion of the survey materials, respondents were given debriefing statements and thanked for taking part in the project. (See Appendix E for a copy of the debriefing statement).

Participants recruited from a local veterinary facility completed the surveys and then mailed the materials back in a stamped envelope addressed to the student researcher. An information form, which included a description of the study and a modified version of the debriefing statement, was enclosed with their survey packets for the veterinary recruits. (See Appendix F for a copy of the information form included in survey packets for veterinary facility recruits). Anonymity was maintained because no identifying information was revealed.

Analysis

Participants were assigned to a group depending on whether they had lost a dog or a cat. The measurement scales that were adopted for each of the variables were as follows: in the first design, for degree of bonding, an interval/ratio measurement scale was used, and for gender of owner and type of pet, nominal measurement scales were used. In the second design, for intensity of grief responses, an interval/ratio measurement scale was used, and for gender of owner and type of pet, nominal measurement scales were used. In the third design, for the predictor variable, degree of bonding, an interval/ratio measurement scale was used, and for the predicted (criterion) variable,
intensity of grief, an interval/ratio measurement scale was used.

A 2 (gender of owner) x 2 (type of pet) analysis of variance (ANOVA) was conducted to examine degree of bonding. A 2 (gender of owner) x 2 (type of pet) ANOVA was also conducted to examine intensity of grief responses. Pearson product-moment correlation coefficients were used to examine the relationship between the degree of bonding and the intensity of grief responses. Additionally, correlation coefficients were calculated separately for each of the following four groups: men who lost a dog, men who lost a cat, women who lost a dog, and women who lost a cat.

Results

Of the 108 adults who completed the PAS and the TRIG, 60 (56%) were dog owners and 48 (44%) were cat owners. Sixty (56%) of the respondents were women and 48 (44%) were men.

To test Hypothesis 1, that adults who are more strongly bonded with a pet will experience more intense grief following the death of that pet than adults who are less strongly bonded, a series of Pearson product-moment correlation coefficients were calculated. Results indicate that the PAS bonding scores were positively and significantly correlated with both the TRIG past grief scores, $r (108) = .416, p < .01$. and the TRIG present grief scores, $r (108) = .543, p < .01$. (See Table 1).

A series of Pearson product-moment correlation coefficients were calculated in order to examine the relationship between bonding and grief in the following four groups: men who lost a dog (MD), men who lost a cat (MC), women who lost a dog (WD), and women who lost a cat (WC). For MD, bonding scores on the PAS were positively and significantly correlated with present grief scores on the TRIG, $r (28) = .447, p < .05$. However, for MD, bonding scores were not significantly correlated with past scores on the TRIG. For MC, bonding scores on the PAS were positively and significantly correlated with present grief scores on the TRIG, $r (20) = .541, p < .05$. Bonding scores
for MC were not significantly correlated with past scores on the TRIG; however, they were positive and in the predicted direction, $r(20) = .396, p = .084$. For WD, bonding scores on the PAS were positively and significantly correlated with past grief scores, $r(32) = .411, p < .05$ and present grief scores, $r(32) = .443, p < .05$ on the TRIG. For WC, bonding scores on the PAS were positively and significantly correlated with past grief scores, $r(28) = .475, p < .05$ and present grief scores, $r(28) = .499, p < .01$ on the TRIG.

To further examine the relationship between bonding and past grief, a series of Fisher's $z$ tests were conducted to identify the differences in relevant pairs of correlation coefficients: WD, WC, MD, and MC. Similar analyses were conducted on the same pairs for bonding and present grief. The results of these comparisons yielded no significant differences.

To test the hypotheses that women will be more highly bonded to pets than men and that adults will be more highly bonded to dogs than cats, a 2 (gender of owner) x 2 (type of pet) analysis of variance (ANOVA) was conducted. Results indicate that there was no significant interaction between gender and type of pet, $F(1,104) = 1.12, p > .05$. (See Figure 1). There was also no main effect of type of pet, $F(1,104) = .023, p > .05$. However, the main effect for gender was significant, $F(1,104) = 29.94, p < .001$. Specifically, women had significantly higher bonding scores ($M = 110.48, SD = 10.99$) than men ($M = 95.71, SD = 17.23$). (See Table 2).

Because the TRIG yields a past and present grief score, two 2 (gender of owner) x 2 (type of pet) ANOVAs were conducted in order to test the hypotheses that women report more intense grief than men following the death of a pet and that adults grieve more following the death of a dog than following the death of a cat. Analyses indicate that there was no significant interaction between gender and type of pet for either past grief, $F(1,104) = .067, p > .05$ (See Figure 2) or present grief, $F(1,104) = .591, p > .05$. 
Bonding and Bereavement 18

(See Figure 3). There was also no main effect of type of pet for either past grief, $F(1,104) = 3.21, p > .05$ or present grief, $F(1,104) = 2.32, p > .05$. However, the main effect of gender was significant for both past grief, $F(1,104) = 10.18, p < .05$ and present grief, $F(1,104) = 21.62, p < .05$. Specifically, women had significantly higher past and present grief scores ($M = 14.43, SD = 6.37$ and $M = 34.05, SD = 11.62$, respectively) than men ($M = 11.06, SD = 4.59$ and $M = 24.73, SD = 9.35$, respectively). (See Table 2).

Discussion

The primary hypothesis that guided the current study postulated that the strength of the bond between an adult and a pet will predict the intensity of grief following the death of that pet. Results revealed that the PAS bonding scores were positively and significantly correlated with both the TRIG past and TRIG present grief scores, indicating that adults who are more strongly bonded with a pet will indeed experience more intense grief following the death of that pet than adults who are less strongly bonded. These findings replicate and extend those from a study conducted by Brown et al. (1996), in which they found that the strength of a bond between an adolescent and his or her pet predicted the intensity of bereavement following the death of that animal.

To test their hypothesis, Brown et al. administered background questionnaires, Companion Animal Bonding Scales (CABS; Poresky, Hendrix, & Mosier, 1987), Companion Animal Semantic Differential, also referred to as the Pet Attitude Scale, (PAS; Poresky, Hendrix, & Mosier, 1988), and Texas Revised Inventory of Grief Scales (TRIG; Faschingbauer, 1981) to 55 adolescents who had recently experienced the death of a pet. The CABS is a self-report measure designed to evaluate behavior indicative of the formation of a human-animal bond. The PAS, although the same name, is a different instrument than the one used in the current study. The PAS in the Brown et al. study assesses an individual’s perception of a childhood pet. The TRIG, which was the instrument used to assess grief in the present study, is designed to evaluate the strength
and nature of an individual's reaction to bereavement. Collectively, the data from these instruments supported their hypothesis.

Similarly, Gerwells and Labott's (1994) work has demonstrated that individuals reporting stronger attachments with their pets had more difficulty adjusting to the loss. Specifically, individuals with stronger and more intimate relationships reported higher levels of despair, anger, loss of control, depersonalization, somatization, and rumination 6 months after the loss when compared with individuals who were less strongly bonded to their pets. "The same emotional intimacy that allows us to find joy and comfort in another living thing is a source of great emotional turmoil when the bond is broken by death" (Gerwells & Labott, 1994, p. 183).

The current findings also support Quackenbush and Glickman's (1984) notion that the special bond an individual forms with a pet makes the animal's death all the more difficult. The authors of this descriptive study examined the provision of social work services in a veterinary hospital to individuals who were distressed about a pet's illness or death. They observed that the bereavement of pet owners (seen by social workers) had a noticeable impact on their lives, affected their emotional status and their ability to work, and disrupted their social interactions with other individuals. In fact, 93% of the subjects experienced some disturbance in their daily routine. The reactions of these individuals was attributed to the fact that the strong emotional human-animal bond that was formed had been broken.

The current findings produced mixed results when the strength of the relationship between bonding and grief was examined in the four groups: men who lost a dog (MD), men who lost a cat (MC), women who lost a dog (WD), and women who lost a cat (WC). Results indicate that bonding for the WD and WC groups was positively and significantly correlated with both past and present grief; whereas, bonding for the MD and MC groups was positively and significantly correlated with present grief, but not with past grief.
Although a significant correlation was not found for MD and MC with past grief, the findings were in the predicted direction.

Further examination of the relationship between bonding and past grief and bonding and present grief was conducted to identify the differences in relevant pairs of correlation coefficients. The results of these comparisons revealed no significant differences. A possible explanation for these findings is that the relatively small sample size might have influenced the results. The sample size for the current study included 28 men who had lost a dog, 20 men who had lost a cat, 32 women who had lost a dog, and 28 women who had lost a cat. Ideally, at least 30 participants would have been represented in each of the four groups, because the probability of selecting deviant samples is less likely when statistics are calculated from larger samples. Additionally, although no significant differences were found in relevant pairs of correlation coefficients, all findings were positive and in the predicted direction.

The second hypothesis, that regardless of type of animal, women will be more highly bonded to pets, and women will report more intense grief than men, was supported, in that women had significantly higher bonding scores on the PAS and significantly higher (past and present) grief scores on the TRIG than did the men. These findings are consistent with those from a study conducted by Grosse and Barnes (1994); when they examined the antecedents of the human grief response associated with the death of a pet, they found that female pet owners indicated a stronger response in feelings of despair than did male pet owners. Furthermore, because women are routinely the principal caregivers for pets, they not only feel the primary, immediate loss when these animals die, but also the secondary losses of daily routines and rituals (Lagoni et al., 1994). Perhaps most importantly, these findings support the social stereotypes, which dictate that men are expected to be in control of their emotions, remain strong, and refrain from asking for help (Lagoni et al., 1994; Ross & Baron-Sorensen, 1998). Societal
expectations for men are generally diametrically opposite of those imposed on women. Men are expected to mask their feelings; conversely, women are socialized and expected to be empathic and to freely express their emotions (Brown, et al., 1996; Lagoni et al., 1994; Ross & Baron-Sorensen, 1998).

Carol Staudacher (1991) asserts that men often adopt various coping styles to avoid openly displaying their grief. These coping styles include remaining silent, engaging in solitary mourning or “secret” grief, and becoming immersed in activities. These coping styles, Staudacher maintains, which are avoidance responses to grief, permit men to control the expression of their emotions. In turn, these avoidance responses make it difficult to resolve their losses because grieving usually requires identifying, expressing, and releasing emotions.

Although the women’s bonding and grief scores were higher than the men’s, it is difficult to determine whether the women were actually more highly bonded to their pets and experienced more intense grief after their losses, or if they were simply more willing to truthfully report their feelings of intimacy with and reaction to their pets’ deaths. For instance, although Grosse and Barnes (1994) found gender differences in grief responses associated with the death of a dog or cat among adults, they attributed their findings to the assumption that the men’s responses may not have been completely forthright because men are generally discouraged by society to express feelings of despair.

The third hypothesis, that regardless of gender, individuals will be more highly bonded with dogs than with cats, and that individuals’ grief responses will be more intense following the death of a dog than following the death of a cat, was not supported. There was, however, a trend in the predicted direction of this hypothesis regarding bonding and both past and present grief. Perhaps the belief that the dog is “favored” is due to the fact that dog owners engage in a whole repertoire of interactive activities that cat owners likely do not, such as playing outdoor games, walking, and training the
animal. Furthermore, dogs are likely to serve as the ideal model of animal companionship, Zasloff (1996) explains, because the broad range of behaviors displayed by dogs is akin to those displayed in human companionship.

Zasloff demonstrated that when two items pertaining to dog behavior were included on the Comfort from Companion Animal Scale (CCAS; Beck & Katcher, 1983), dog owners showed a significantly higher level of bonding than cat owners. However, when only the 11 items more descriptive of the emotional nature of the relationship were included, there were no differences in the scores of dog owners and cat owners. Perhaps then, the PAS incorporated items that were truly indicative of the perceived level of emotional comfort that dog owners and cat owners received from their pets, thus more accurately assessing the role of bonding.

Moreover, it is possible that the trend over the past several years toward women in the workforce has influenced cat ownership, as opposed to dog ownership. It is estimated that 60% of all American women work outside of the home today (Employment Spot, 2001). Because cats are more self-sufficient than dogs, leaving one’s workplace to tend to a pet may not be feasible. In this case, it would seem likely that cats would gain more and more popularity over time. Additionally, a number of studies have shown that not only dogs, but pets in general, are considered family members.

A particularly interesting feature of this study is that many participants included personal notes about their pets with their completed surveys. Some individuals commented on their relationships with their pets and how completing the surveys evoked unexpected or renewed feelings of sorrow about their deceased animal companions (“It is always good to remember, but often hard”). A few individuals used cliches, (i.e., “Time heals all wounds”) ostensibly, in an attempt to comfort themselves. Others noted that although they missed the companionship they shared with their animals, they felt consoled by the fact that their pets were no longer suffering. One person expressed that,
although a long period of time had passed, her husband still grieves over the death of their
dog. A 67-year-old respondent answered the item on the demographic information form
that asks for the pet’s age at the time of its death as follows: “Put at peace Jan.11 -- 16
yrs. old -- Feb. 26.” Some individuals elaborated on the way in which their pets died (i.e.,
“he was poisoned,” “attacked by two Pit Bulls,” “another cat”) or where they died (i.e.,
“in my arms”). Although personal notes were not requested, the additional comments
provided by some of the respondents provided further evidence of the bond that was
forged between the owner and his or her pet.

Some limitations of this research should be acknowledged. The fact that the
current study involved a community sample obtained from college students and veterinary
clients makes it difficult to estimate how representative the sample was of the general
population of individuals whose pets have died. On one hand, individuals who were very
distraught may have been missed, whereas others who were not very distressed may have
been overlooked. Furthermore, the geographical area in which the data were collected
yielded a homogenous (almost all Caucasian) sample that was not necessarily
representative of the cultural diversity of American adults as a whole.

Another factor that may have influenced the results is social desirability. The fact
that bonding and bereavement were being measured was apparent to the participants, as
this was explained before administration of the surveys. Consequently, although
participants were instructed to answer honestly, it is possible that some individuals
answered in a more positive manner than they might have otherwise. Additionally, due to
the fact that participation was voluntary, it is impossible to determine whether
individuals’ responses would have differed significantly from the responses of non-
volunteers.

The fact that bonding was measured after the death of a pet may have affected the
results of the study because bonding may be influenced by what is referred to as “mood-
state dependence” (Leventhal & Tomarken, 1986), an event in which one’s memories of past events are actually influenced by one’s current emotional state. Regarding the present study, a pet owner’s perception of bonding with his or her pet may not be an accurate portrayal of the closeness shared at the time the animal was alive. The tendency to idealize a deceased loved one is not an unusual occurrence (Leventhal & Tomarken, 1986). In order to produce optimal results, one would prefer to measure the strength of bonding before the death of a pet; however, it was impractical to do so in the current study.

Another limitation of the current study may be that participants were not asked whether their pets were indoor or outdoor animals. An indoor pet would have been in closer proximity to owner, and as a result, likely had more interaction with the owner. This fact may have influenced the strength of the bond that was formed between the individual and the animal.

Although research has demonstrated that any person who owns a pet is in a position to form a deep attachment to the animal (Ross & Baron-Sorensen, 1998), there has been little empirical investigation of the implications of pet death in mental health treatment (Sharkin, 1990). The results of the current study may provide insights and valuable information to therapists who wish to increase their awareness and understanding of the bereavement that results from the death of a pet. Understanding the significance of the relationship an individual shared with his or her pet is probably the therapist’s first step in directing the client through his or her loss and facilitating successful resolution of grief. Therapists who recognize the impact of individual human-pet bonds might lend support to grieving clients by allowing them to acknowledge the bonds they shared with their pets and to admit their sense of loss. The client’s loss is likely legitimized as significant and genuine if the therapist acknowledges the client’s feelings about a deceased pet and recognizes the significance of the bond that was shared
with the animal.

Support groups for bereaved pet owners, which are becoming increasingly popular (Ross & Baron-Sorensen, 1998), may also be advantageous to those experiencing pet loss. In this environment, bereaved pet owners benefit from the shared experiences of others and learn that they are not isolated in their losses. Clinical experience has shown that when an individual has not been allowed to express his or her grief freely, the recovery time from loss is prolonged. “Grief denied is grief retained” (Lanci-Altomare, 2000, p. 5). Conversely, when grief is freely expressed, the recovery time from loss can be greatly reduced (Lagoni et al., 1994).

Research has also shown that clients want their veterinarians not only to be competent doctors, but also compassionate confidantes (Lagoni et al., 1994). Therefore, it may be beneficial for both veterinarians and therapists to collaborate and develop working relationships with one another. There has been a recent trend toward what is referred to as “bond-centered practices,” in which “veterinary care is focused where the medical needs of animals and the emotional needs of humans coincide” (Lagoni et al., 1994, p. 54). In a bond-centered practice, each human-animal relationship is assessed and acknowledged on an individual basis. Both medical-based and support-based services are concurrently achieved by extending veterinary care beyond an animal’s medical needs. This service creates a continuum of care, which ranges from simple compassionate communication techniques to in-depth structured counseling sessions. In bond-centered practices, an emphasis is placed on the veterinarian’s ability to respond to the pet owner’s perception of the human-animal bond, as opposed to the way the veterinarian sees it.

Future studies of pet bereavement might investigate possible cultural differences in adjusting to a pet’s death. Death is inevitable and one of the few universal experiences of all living beings. However, different concepts of death and associated beliefs and values must certainly influence attitudes and the bereavement process of individuals.
within different ethnic groups. Because death has a variety of meanings for individuals from different cultural backgrounds, general attitudes toward animals, and specific attitudes in relation to pet loss, therefore, likely vary.

Another important area for research involves the impact of pet loss on physically impaired individuals who rely on animals for assistance and subsequently form a strong attachment to them. Service animals are often viewed by their owners as extensions of themselves (Lagoni et al., 1994). Furthermore, these animals provide disabled individuals not only with companionship, but also with self-sufficiency and confidence that would be difficult to achieve independently. Because physically impaired people are frequently isolated due to restricted interactions with society at large, the human-animal bonds that are formed may be greatly magnified. Consequently, bereavement resulting from the animal's death may be exacerbated.

In summary, the current findings demonstrate that the strength of the bond between an adult and a pet will indeed predict the intensity of grief following the death of that pet. Results also suggest that regardless of type of animal, women will be more highly bonded to pets, and women will report more intense grief than men. However, significant results were not obtained for the notion that regardless of gender, individuals will be more highly bonded with dogs than with cats, and individuals' grief responses will be more intense following the death of a dog than following the death of a cat. If individuals thought of their pets simply as animals with utilitarian purposes, the effect of pet loss on the human-animal bond would not be so vital. Overall, this study has confirmed, however, that many individuals are strongly bonded to their pets and consequently, experience a deep sense of loss when that bond is broken.
References


Houston: Honeycomb.


Appendix A

Demographic Information

Your gender

Your age

Pet’s age at the time of death

Your pet that died was a: dog cat

Length of pet ownership

How long ago did your pet die? years months

Number of pets in the household at the time of the pet’s death (counting the one that died)

Number of people in the household at the time of the pet’s death

Was your pet was euthanized (put to sleep)? yes no

Your pet died (or was euthanized) due to an: illness accident
Appendix B

The Pet Attitude Scale

Please answer each of the following questions as honestly as you can, in terms of how you feel right now. This questionnaire is anonymous and no one will ever know which were your answers. So, don’t worry about how you think others might answer these questions. There aren’t any right or wrong answers. All that matters is that you express your true thoughts on the subject.

Please answer by circling one of the following seven numbers for each question:

1. I really like seeing pets enjoy their food.

2. My pet means more to me than any of my friends.

3. I would like a pet in my home.

4. Having pets is a waste of money.

For example, if you slightly disagree with the first item, you would circle 3.

Thank you for your assistance.

1. I really like seeing pets enjoy their food.

2. My pet means more to me than any of my friends.

3. I would like a pet in my home.

4. Having pets is a waste of money.
5. Housepets add happiness to my life (or would if I had one).

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6. I feel that pets should always be kept outside.

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7. I spend time every day playing with my pet (or I would if I had one).

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8. I have occasionally communicated with my pet and understood what it was trying to express.

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9. The world would be a better place if people would stop spending so much time caring for their pets and started caring more for other human beings instead.

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10. I like to feed animals out of my hand.

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11. I love pets.

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12. Animals belong in the wild or in zoos, but not in the home.

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13. If you keep pets in the house you can expect a lot of damage to furniture.

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<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>strongly disagree</td>
<td>moderately disagree</td>
<td>slightly disagree</td>
<td>unsure</td>
<td>slightly agree</td>
<td>moderately agree</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>

15. Pets are fun but it's not worth the trouble of owning one.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>strongly disagree</td>
<td>moderately disagree</td>
<td>slightly disagree</td>
<td>unsure</td>
<td>slightly agree</td>
<td>moderately agree</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>

16. I frequently talk to my pet.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>strongly disagree</td>
<td>moderately disagree</td>
<td>slightly disagree</td>
<td>unsure</td>
<td>slightly agree</td>
<td>moderately agree</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>

17. I hate animals.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>moderately disagree</td>
<td>slightly disagree</td>
<td>unsure</td>
<td>slightly agree</td>
<td>moderately agree</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>

18. You should treat your housepets with as much respect as you would a human member of your family.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>strongly disagree</td>
<td>moderately disagree</td>
<td>slightly disagree</td>
<td>unsure</td>
<td>slightly agree</td>
<td>moderately agree</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>
Appendix C

Texas Revised Inventory of Grief
Part I

Think back to the time your pet died and answer all of these items about your feelings and actions at that time by indicating whether each item is Completely true, Mostly true, Both true and false, Mostly false, or Completely false as it applied to you after your pet died. Circle the best answer.

1. After my pet died, I found it hard to get along with certain people.
   
<table>
<thead>
<tr>
<th>Completely true</th>
<th>Mostly true</th>
<th>Both true and false</th>
<th>Mostly false</th>
<th>Completely false</th>
</tr>
</thead>
</table>

2. I found it hard to work well after my pet died.
   
<table>
<thead>
<tr>
<th>Completely true</th>
<th>Mostly true</th>
<th>Both true and false</th>
<th>Mostly false</th>
<th>Completely false</th>
</tr>
</thead>
</table>

3. After my pet's death, I lost interest in my family, friends, and outside activities.
   
<table>
<thead>
<tr>
<th>Completely true</th>
<th>Mostly true</th>
<th>Both true and false</th>
<th>Mostly false</th>
<th>Completely false</th>
</tr>
</thead>
</table>

4. I was unusually irritable after my pet died.
   
<table>
<thead>
<tr>
<th>Completely true</th>
<th>Mostly true</th>
<th>Both true and false</th>
<th>Mostly false</th>
<th>Completely false</th>
</tr>
</thead>
</table>

5. I couldn't keep up with my normal activities for the first 3 months after my pet died.
   
<table>
<thead>
<tr>
<th>Completely true</th>
<th>Mostly true</th>
<th>Both true and false</th>
<th>Mostly false</th>
<th>Completely false</th>
</tr>
</thead>
</table>

6. I was angry with my pet whom had died and left me.
   
<table>
<thead>
<tr>
<th>Completely true</th>
<th>Mostly true</th>
<th>Both true and false</th>
<th>Mostly false</th>
<th>Completely false</th>
</tr>
</thead>
</table>

7. I found it hard to sleep after my pet died.
   
<table>
<thead>
<tr>
<th>Completely true</th>
<th>Mostly true</th>
<th>Both true and false</th>
<th>Mostly false</th>
<th>Completely false</th>
</tr>
</thead>
</table>
Part II

Now answer all of the following items by checking how you presently feel about your pet’s death.

1. I still want to cry when I think of my pet who died.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false

2. I still get upset when I think about my pet who died.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false

3. I cannot accept my pet’s death.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false

4. Sometimes I very much miss my pet who died.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false

5. Even now it’s still painful to recall memories of my pet who died.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false

6. I am preoccupied with thoughts about my pet who died.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false

7. I hide my tears when I think about my pet who has died.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false

8. No one will ever take the place in my life of my pet who died.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false

9. I can’t avoid thinking about my pet who has died.
   - Completely true
   - Mostly true
   - Both true and false
   - Mostly false
   - Completely false
### 10. I feel it's unfair that my pet died.

<table>
<thead>
<tr>
<th>Completely</th>
<th>Mostly</th>
<th>Both</th>
<th>Mostly</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>true</td>
<td>true</td>
<td>true and false</td>
<td>false</td>
<td>false</td>
</tr>
</tbody>
</table>

### 11. Things and people around me still remind me of my pet who died.

<table>
<thead>
<tr>
<th>Completely</th>
<th>Mostly</th>
<th>Both</th>
<th>Mostly</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>true</td>
<td>true</td>
<td>true and false</td>
<td>false</td>
<td>false</td>
</tr>
</tbody>
</table>

### 12. I am unable to accept the death of my pet who died.

<table>
<thead>
<tr>
<th>Completely</th>
<th>Mostly</th>
<th>Both</th>
<th>Mostly</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>true</td>
<td>true</td>
<td>true and false</td>
<td>false</td>
<td>false</td>
</tr>
</tbody>
</table>

### 13. At times I feel the need to cry for my pet who has died.

<table>
<thead>
<tr>
<th>Completely</th>
<th>Mostly</th>
<th>Both</th>
<th>Mostly</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>true</td>
<td>true</td>
<td>true and false</td>
<td>false</td>
<td>false</td>
</tr>
</tbody>
</table>
Appendix D

Informed Consent

I, _____________________________, state that I voluntarily agree to participate in a research project conducted by Kelli Brosam, graduate researcher (under the supervision of Dr. William Addison, Eastern Illinois University).

This research is being conducted in order to examine the relationship between the intensity of bonding and grief responses of adults following the death of their pets. The specific task I will perform will involve completing two surveys. This task will take approximately 15 minutes to complete.

I acknowledge that Kelli Brosam has explained the task to me fully, has informed me that I may withdraw from participation at any time without prejudice or penalty, has offered to answer any questions that I may have concerning the procedure, and has assured me that any information that I provide will be used for research purposes only and will be kept confidential.

My signature below indicates that I am willing to participate in the research project conducted by Kelli Brosam.

______________________________  ________________
Researcher                      Date                       Participant           Date
Appendix E

Debriefing Statement

Purpose of Study: The purpose of the study is to examine the relationship between the intensity of bonding and the grief responses of adults following the death of their pets. The researcher expects to find: 1) The strength of the bond between an adult and a pet will predict the intensity of grief following the death of that pet. Specifically, adults who are more strongly bonded with a pet will experience more intense grief following the death of that pet. 2) Regardless of type of animal, women will be more highly bonded to pets, and women will report more intense grief than men. 3) Regardless of gender, individuals will be more highly bonded with dogs than with cats, and individuals’ grief responses will be more intense following the death of a dog than following the death of a cat.

Results: Individuals who may find this subject matter distressing may contact the Eastern Illinois University Counseling Center at (217) 581-3413 or The Coles County Mental Health Center at (217) 348-7666. If you would like a copy of the results of this study, you may leave a message for me, Kelli Brosam, in the Psychology Department at Eastern Illinois University at (217) 581-2127, or you can e-mail me at kellib@hotmail.com.

Thank you for your participation -- without it, this study would not have been possible.
Appendix F

Information Form
(included in survey packets for veterinary facility recruits).

I am collecting data for my master's thesis, (Clinical Psychology; Eastern Illinois University) and I would greatly appreciate your participation by filling out these surveys. The nature of this study involves pet loss -- specifically, the death of a dog or a cat. For purposes of my study, your dog or cat must have died no more than 5 years from now. After you have completed the surveys, please send them back to me in the enclosed self-addressed, stamped envelope. Thank you so much for taking a few minutes of your time to help make my thesis a success.

Results: Individuals who may find this subject matter distressing may contact the Eastern Illinois University Counseling Center at (217) 581-3413 or The Coles County Mental Health Center at (217) 348-7666. If you would like a copy of the results of this study, you may leave a message for me, Kelli Brosam, in the Psychology Department at Eastern Illinois University at (217) 581-2127, or you can e-mail me at kellib@hotmail.com.
Table 1

Correlations Between Strength of a Bond and Intensity of Grief

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bonding</td>
<td>--</td>
<td>.416**</td>
<td>.543**</td>
</tr>
<tr>
<td>2. Past Grief</td>
<td>--</td>
<td></td>
<td>.790**</td>
</tr>
<tr>
<td>3. Present Grief</td>
<td></td>
<td></td>
<td>--</td>
</tr>
</tbody>
</table>

n = 108
** p < .01, two-tailed.
Table 2

Mean Bonding Scores and Grief Scores as a Function of Gender and Pet

<table>
<thead>
<tr>
<th>Pet</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dogs</td>
<td>97.11</td>
<td>19.52</td>
</tr>
<tr>
<td>Cats</td>
<td>93.75</td>
<td>13.64</td>
</tr>
<tr>
<td>Total</td>
<td>95.71</td>
<td>17.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dogs</td>
<td>12.00</td>
<td>5.08</td>
</tr>
<tr>
<td>Cats</td>
<td>9.75</td>
<td>3.52</td>
</tr>
<tr>
<td>Total</td>
<td>11.06</td>
<td>4.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRIG (Past)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dogs</td>
<td>26.71</td>
<td>9.99</td>
</tr>
<tr>
<td>Cats</td>
<td>21.95</td>
<td>7.79</td>
</tr>
<tr>
<td>Total</td>
<td>24.73</td>
<td>9.35</td>
</tr>
</tbody>
</table>

Note. A higher score indicates stronger bonding and more intense grief.

PAS scoring range: 18-126

TRIG (Past) scoring range: 7-35

TRIG (Present) scoring range: 13-65
Figure 1

Mean Bonding Scores of Men and Women
According to Type of Pet
Figure 2

Mean Past Grief Scores of Men and Women According to Type of Pet
Figure 3

Mean Present Grief Scores of Men and Women According to Type of Pet