GRIEF SEVERITY AFTER THE LOSS OF A PET

by

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ABSTRACT

An overwhelming number of households in the United States consist of at least one pet. It is not uncommon for individuals to consider their pets to be part of the family. However, when a pet dies, the grief experienced afterwards typically goes unrecognized; this is called disenfranchised grief. Much of the research conducted on attachment and grief severity after the loss of a pet has focused specifically on traditional pets (dogs and cats) and not on nontraditional pets (other than dogs and cats). The current study examined attachment levels and grief severity among individuals who had recently experienced the loss of a pet, traditional and nontraditional, due to death. The current study also examined whether the manner in which a pet died (expected or unexpected) would have any relationship with grief severity. Finally, the current study examined whether there was a relationship between gender, attachment levels, and grief severity. The results found that traditional pet owners were significantly more attached to their pets and that they experienced a stronger grief response than owners of nontraditional pets. The manner in which a pet died also had a significant relationship with grief severity, with unexpected deaths being significantly associated with greater grief severity. Also, there was no significant difference found between male and female participants’ attachment levels or grief severity. These findings help to fill the gap in the literature by examining both traditional and nontraditional pet owners.
I. LITERATURE REVIEW

It is estimated that nearly two-thirds of households in the United States include at least one pet (Eckerd, Barnett, & Jett-Dias, 2016). Recent demographic studies have shown that there are now more households in the United States with pets than households with children (Rujoiu & Rujoiu, 2014). It is not uncommon for pet owners to consider their pets to be members of their family (Brown & Symons, 2016; Eckerd et al., 2016; Field, Orsini, Gavish, & Packman, 2009; Gosse & Barnes, 1994; Hunt & Padilla, 2006; Planchon, Templer, Stokes, & Keller, 2002). However, because most animals have a much shorter life span than humans (Brown & Symons, 2016; Eckerd et al., 2016; King & Werner, 2011; Wrobel & Dye, 2003), millions of families each year will experience the death of a pet (Sharkin & Bahrick, 1990; Sharkin & Knox, 2003). Although the death of a pet is a relatively frequent occurrence, the grief that follows is still generally unrecognized by society and mental health professionals (Eckerd et al., 2016; Sharkin & Bahrick, 1990). Also, much of the recent research on pet loss has produced inconsistent and often contradictory results (McCutcheon & Fleming, 2002). While attachment level has been the best predictor of grief severity (Brown & Symons, 2016; Cordaro, 2012; Eckerd et al., 2016; Field et al., 2009; Gosse & Barnes, 1994; Hunt & Padilla, 2006; McCutcheon & Fleming, 2002; Sharkin & Bahrick, 1990; Sharkin & Knox, 2003; Wrobel & Dye, 2003; Tzivian et al., 2014), research on the manner in which a pet dies as it relates to grief and gender differences among grieving pet owners has been highly inconsistent (Eckerd et al., 2016; McCutcheon & Fleming, 2002).
The Grief Process

Grief is defined as the series of responses by an individual who has recently experienced a significant loss or death (Kubler-Ross & Kessler, 2005). Research has shown that when dealing with a human related loss, grief is experienced through five predictable stages. Those five stages are denial, anger, bargaining, depression, and acceptance (Cordaro, 2012; Kubler-Ross, 1969; Kubler-Ross & Kessler, 2005; Wrobel & Dye, 2003). Denial is usually the first stage experienced immediately after the death of a significant individual. At this stage in the grief process, individuals commonly experience feelings of numbness and disbelief. It is difficult to fathom a reality in which the deceased individual simply does not exist anymore.

Anger is a stage that can take place in a variety of forms such as by engaging in blame. For example, those close to the deceased may blame themselves for doing nothing to stop their loved one’s death. Also, some individuals may blame the deceased for not taking better care of themselves (Cordaro, 2012; Kubler-Ross & Kessler, 2005).

Bargaining is a stage that can be experienced both before and after a significant loss. With bargaining experienced before a loss, an individual will commonly express their willingness to do whatever it takes to keep their loved one alive or to bring their loved one back to life (Kubler-Ross & Kessler, 2005). Because bargaining does not bring their loved one back from the dead, the reality of the loss often causes feelings of deep sadness and even guilt (Cordaro, 2012; Kubler-Ross & Kessler, 2005; Sharkin & Bahrick, 1990).

In the depression stage, an individual’s attention begins to focus on the present. During this stage in the grief process, individuals experience intense feelings of emptiness and darkness. It is not uncommon for an individual to feel as if the depression
may last forever. Individuals may begin to withdraw from life and wonder if there is any real reason to continue on without their loved one (Kubler-Ross & Kessler, 2005). Also, individuals in the depression stage often suffer from sleep disturbances, loss of appetite, and intense feelings of sadness (Cordaro, 2012). Depression after the death of a loved one is often viewed as unnatural within society. However, this stage of grief is very necessary to the healing process. It would be completely unnatural to not experience a period of depression after the death of a loved one (Kubler-Ross & Kessler, 2005). The final stage in the grief process is acceptance. At this stage, it is commonly thought that the grieving individual is completely over their loss. However, this is not the case. An individual may never be completely over their loss. The acceptance stage is really the point in which the grieving individual finally accepts their loss as permanent and they begin to work to establish a new normal. The Kubler-Ross model of grief is typically applied to situations where an individual has lost a significant human. However, this model has been adapted to situations where an individual has lost a companion animal (Cordaro, 2012; Kubler-Ross & Kessler, 2005).

**Attachment to Pets**

According to Sharkin and Bahrick (1990), most pets in the United States are owned specifically for companionship. Evidence suggests that this companionship has a positive effect on the owners’ overall welfare. For example, pet ownership can promote a sense of security and minimize the effects of social isolation, loneliness, depression, anxiety, and stress (Cordaro, 2012; Field et al., 2009; Sharkin & Bahrick, 1990; Sharkin & Knox, 2003). Research has shown that people form strong emotional attachments to their pets (Sharkin & Bahrick, 1990); it is not uncommon for people to describe being
more attached to their pets than to other people in their lives (Packman, Field, Carmack, & Ronen, 2011; Sharkin & Knox, 2003). Those who report high levels of attachment to their pets often describe the connection as being equal to that of their significant other, close relatives, or close friends (Cordaro, 2012; Hunt & Padilla, 2006). In fact, many people communicate with their pets as if they were children, sometimes even referring to them as their “baby” (Packman et al., 2011). While the emotional attachments made between humans and their pets are socially acknowledged, sadly the grief experienced as a result of the death of a pet is not (Sharkin & Bahrick, 1990).

**Grief and Pet Loss**

Grief that is not socially sanctioned or recognized by society, such as grief that is experienced after the death of a pet, is called disenfranchised grief. It is generally considered inappropriate to publicly mourn the death of a pet and it frequently goes unacknowledged by others (Cordaro, 2012; Packman et al., 2011; Wrobel & Dye, 2003). There is an apparent lack of socially acceptable mourning procedures and outlets for grief expression when pet loss is experienced, such as funerals. In respect to human loss, funerals have been proven to be crucial to the healing process (Wrobel & Dye, 2003). It is widely believed that because a pet is not human, the grief that is experienced should not be as intense even though the connection may be just as significant. It is often recommended that individuals replace their pets that have passed in order to overcome grief faster (Cordaro, 2012; Sharkin & Bahrick, 1990; Wrobel & Dye, 2003). Although it would not be appropriate to suggest that a person replace a husband or a wife that had recently passed, it is common to urge people to quickly replace pets that have passed (Packman et al., 2011). Disenfranchised grief can have serious consequences for the
individual in mourning, such as feelings of isolation, shame, and complicated grief. Complicated grief is a type of chronic grief that goes unresolved long after the typical grieving period (Cordaro, 2012, Wrobel & Dye, 2003).

Studies have shown that individuals who are grieving the loss of a pet progress through similar stages as individuals who are grieving the loss of a person. At first, pet owners commonly experience feelings of denial, disbelief, and numbness (Cordaro, 2012; Rujoiu & Rujoiu, 2013; Sharkin & Bahrick, 1990; Wrobel & Dye, 2003). This is usually followed by feelings of anger. Depending on the circumstances surrounding the pet’s death, pet owners may feel anger towards themselves or veterinary staff if the owner feels that there was not enough done to save their pet (Cordaro, 2012; Sharkin & Bahrick, 1990; Wrobel & Dye, 2003). After anger, pet owners usually begin to experience feelings of intense guilt, sorrow, and depression. At this point in the grief process, pet owners are often preoccupied with thoughts of their pet (Cordaro, 2012; Sharkin & Bahrick, 1990; Wrobel & Dye, 2003). Over time, pet owners will experience acceptance, which is the final stage in the grief process (Cordaro, 2012; Rujoiu & Rujoiu, 2013; Sharkin & Bahrick, 1990; Wrobel & Dye, 2003). However, it is important to note that these stages do not necessarily progress in this order. Some individuals may advance through these stages in a different order, while others may skip stages altogether (Cordaro, 2012). The literature describes several grief symptoms which are commonly reported among pet owners which include loss of appetite, difficulty sleeping, reduced social activities, and intense sadness (Brown & Symons, 2016; Cordaro, 2012; Hunt & Padilla, 2006; Sharkin & Bahrick, 1990). Other characteristics of grief commonly described by individuals
include crying, sadness, loneliness, and guilt (Eckerd et al., 2016; Tzivian, Friger, & Kushnir, 2014; Wrobel & Dye, 2003).

**Attachment Level and Grief Severity**

Previous research has suggested that an individual’s attachment level is an excellent predictor of both duration and intensity of grief experienced after a pet’s death (Brown & Symons, 2016; Cordaro, 2012; Eckerd et al., 2016; Field et al., 2009; Gosse & Barnes, 1994; Hunt & Padilla, 2006; McCutcheon & Fleming, 2002; Sharkin & Bahrick, 1990; Sharkin & Knox, 2003; Wrobel & Dye, 2003; Tzivian et al., 2014). A study conducted by Gosse and Barnes (1994), used the Grief Experience Inventory to assess grief severity among individuals who had lost a pet dog or cat. Within the Grief Experience Inventory, there are three subscales which include Despair, Social Isolation, and Somatization. It was determined that the owner’s level of attachment was a significant predictor of an individual’s grief severity across all three subscales mentioned (Gosse & Barnes, 1994). Studies have shown that pet owners who report stronger levels of attachment to their pet will experience a more prolonged period of grief (Cordaro, 2012; Gosse & Barnes, 1994; Sharkin & Knox, 2003; Wrobel & Dye, 2003). While there is no precise time limit, studies have found that grief usually begins to decline around six months but can last well over a year (Eckerd et al., 2016; Gosse & Barnes, 1994; Wrobel & Dye, 2003). In a study conducted by Wrobel and Dye (2003), it was determined that the average participant spent around 10 months grieving their pet. Also, research has shown that those who report being highly attached to their pet will experience more intense grief after their pet’s death (Brown & Symons, 2016; Cordaro, 2012; Eckerd et al., 2016; Gosse & Barnes, 1994; Hunt & Padilla, 2006; McCutcheon & Fleming, 2002;
Sharkin & Bahrick, 1990; Wrobel & Dye, 2003; Tzivian et al., 2014). It is not uncommon for individuals to report the death of a pet to be as significant as the death of a close friend, family member, or spouse (Cordaro, 2012; Gosse & Barnes, 1994; Planchon et al., 2002; Sharkin & Bahrick, 1990; Wrobel & Dye, 2003). This is especially true for individuals who report difficulties in developing attachment with other humans (Sharkin & Bahrick, 1990; Wrobel & Dye, 2003). One study comparing grief intensity among individuals who had recently lost a pet and a significant human found similar grief responses among participants at follow-ups of 2, 8, and 26 weeks. Some of the grief responses mentioned were crying, feelings of guilt, depression, anger, and difficulty sleeping (Planchon et al., 2002).

**Manner of Death and Grief Severity**

Current research surrounding grief severity and the manner in which an individual’s pet dies has produced inconsistent results (Eckerd et al., 2016; McCutcheon & Fleming, 2002). The human-animal relationship is unique in the sense that the owner may have to make the difficult decision to have their pet euthanized (Eckerd et al., 2016). It is estimated that each year around 2.5 million pets have to be euthanized (Sharkin & Knox, 2003). Both pet owners and veterinarians view euthanasia as beneficial in certain situations. For example, euthanasia may be the preferred option if a pet is suffering from an injury or a terminal illness (McCutcheon & Fleming, 2002; Sharkin & Knox, 2003; Tzivian et al., 2014). According to McCutcheon and Fleming (2002), pet owners who made the decision to euthanize experienced significantly less grief severity than pet owners whose pets died naturally. Researchers believe that not allowing a pet to suffer provides comfort to the owner (Planchon et al., 2002; Tzivian et al., 2014). However,
other studies suggest that pet owners who choose euthanasia experience higher grief severity than pet owners whose pets die naturally. Researchers believe that pet owners feel guilt and a sense of responsibility for their pet’s death (Hunt & Padilla, 2006; McCutcheon & Fleming, 2002; Sharkin & Knox, 2003; Tzivian et al., 2014).

Several studies have investigated whether an unexpected death would cause a more severe grief response than an expected death (Archer & Winchester, 1994; Eckerd et al., 2016; McCutcheon & Fleming, 2002; Wrobel & Dye, 2003). According to Archer and Winchester (1994), unexpectedness was positively correlated with grief intensity (Archer & Winchester, 1994; Eckerd et al., 2016). It is believed that higher grief intensity is due to the lack of mental preparation afforded with an unexpected death (Archer & Winchester, 1994). However, according to Field et al. (2009), no such relationship exists (Eckerd et al., 2016; Field et al., 2009). Researchers believe that when pet owners are aware that death is likely, they begin what is called the anticipatory grief process. Anticipatory grief is a grief-like process that begins when death is expected. The less intense grief severity is believed to be related to the grief process beginning prior to the pet’s death (Archer & Winchester, 1994). Other studies have shown that when a pet dies due to an accident, such as a car accident, owners will experience longer and more intense grief. Researchers believe that pet owners feel guilt and anger for not doing more to protect their pet (Brown & Symons, 2016; Hunt & Padilla, 2006; Planchon et al., 2002; Tzivian et al., 2014).

**Gender Differences and Grief Severity**

When examining the effects that gender differences have on pet loss, past research has yielded inconsistent results (Eckerd et al., 2016; McCutcheon & Fleming,
According to Gosse and Barnes (1994), both male and female participants reported being equally attached to their pets. Several studies reported that female participants experience higher grief severity than male participants (Eckerd et al., 2016; Sharkin & Knox, 2003; Wrobel & Dye, 2003), another study reported that female participants only experienced higher levels of despair than male participants (Eckerd et al., 2016; Gosse & Barnes, 1994; Hunt & Padilla, 2006; McCutcheon & Fleming, 2002; Sharkin & Knox, 2003; Wrobel & Dye, 2003), and other studies reported no significant difference between male and female participants (Eckerd et al., 2016). Researchers believe that these inconsistent results may be due to certain gender stereotypes (Gosse & Barnes, 1994). Past research has shown that females are far more likely to report and seek professional help after the loss of a pet than males (Gosse & Barnes, 1994; Hunt & Padilla, 2006; McCutcheon & Fleming, 2002).

The Current Study

Currently, there is a lack of research that assesses attachment levels and grief severity among individuals who have lost companion animals other than dogs and cats, or “nontraditional” pets. To date, research has focused solely on individuals who have lost traditional pets (Eckerd, et al., 2016). For the purpose of this study the term “traditional pet” will be used when referring only to cats and dogs (Vonk, Patton, & Galvan, 2016). The term nontraditional pet will be used when referring to pets other than cats and dogs. Examples of nontraditional pets include birds, fish, rabbits, hamsters, guinea pigs, turtles, lizards, and snakes (Schuppli, Fraser, & Bacon, 2014). The current study, which uses a correlational, survey-based design, will attempt to expand our current knowledge base and fill this void in the literature. In addition, further research could be of importance to
clinicians assisting individuals who have recently experienced the loss of a companion animal. Because past research has been inconsistent (Eckerd et al., 2016; McCutcheon & Fleming, 2002), the present study addresses the following as research questions.

**Research Questions**

The primary research questions are as follows:

1. Will attachment levels differ among owners of traditional and nontraditional pets?
2. Will grief severity differ among owners of traditional and nontraditional pets?
3. Will the manner in which the pet died contribute to differences in grief severity between owners of traditional and nontraditional pets?
4. Will there be gender differences in attachment levels among traditional and nontraditional pet owners?
5. Will there be gender differences in grief severity among traditional and nontraditional pet owners?
II. METHOD

Participants

The goal sample size for this study was between 150 to 200 total participants, and a total of 224 elected to participate. Recruitment for this study was conducted completely online. Recruitment posts were made on various social media and pet loss websites/forums (e.g., Reddit, Facebook, forums.grieving.com, and forums.rainbowsbridge.com). Eligible participants were required to be at least 18 years old and must have experienced the loss of a pet due to death within the last year at the time of data collection. All participants that did not meet these requirements were excluded from the final analysis. This inclusion criteria were required in hopes of receiving more accurate answers on each questionnaire/survey used. Participation in this study was completely voluntary with no form of compensation given.

Materials

Participants were asked to answer various demographic questions, as well as questions about their deceased pets. First, participants provided their gender, age, race, education level, marital status (single, married, or divorced), and occupation. Next, participants were asked about the type of pet they owned, the approximate amount of time since the death of their pet (Hunt & Padilla, 2006), the cause of death (natural causes, accident, terminal illness, or euthanasia), and whether the death of their pet was expected or unexpected (Eckerd, Barnet, & Jett-Dias, 2016). After completing the demographic portion of the study, participants were then shown instructions for answering each of the two questionnaires used in this study.
First, the CENSHARE Pet Attachment Scale (PAS; Holcomb, Williams & Richards, 1985) was used to assess the participants’ level of attachment to their deceased pet, and the participants were asked to answer each question with their recently deceased pet in mind. The PAS is a 27-item scale that measures the two dimensions of attachment, which are relationship maintenance and intimacy. The questions are answered on a 4-point Likert scale, with answers ranging from 1 (almost always) to 4 (almost never). Possible scores on the PAS range from 27 to 108. Some of the statements included on this survey are “You talk to your pet as a friend,” and “Your pet is aware of your different moods.” This survey was selected because it was shown to have acceptable internal consistency, construct validity, and reliability, with a Cronbach’s alpha of .86 (Holcomb, Williams, & Richards, 1985).

Second, the Pet Bereavement Questionnaire (PBQ; Hunt & Padilla, 2006) was used to assess the level of grief experienced by participants after the loss of their pet. The participants were asked to answer each question with their recently deceased pet in mind. The PBQ is a 16-item scale that measures the three factors commonly associated with pet bereavement, which are grief, anger, and guilt. The questions are answered on a 4-point Likert scale, with answers ranging from 1 (disagree strongly) to 4 (agree strongly). Possible scores on the PBQ range from 16 to 64. Examples of the questions included on this questionnaire are as follows: “I am very upset about my pet's death,” and “I feel lonely without my pet.” This questionnaire was selected because it was shown to have acceptable internal consistency, construct validity, and reliability, with a Cronbach’s alpha of .87 (Hunt & Padilla, 2006).
Procedure

The study was an online survey, so the location was wherever the participant accessed and completed the survey. All surveys were administered through the Qualtrics website, which is a secured online survey system. Only the primary investigator and the thesis committee chair had access to the data on the Qualtrics server. Surveys did not include any questions with directly identifying information (e.g., name, birthday). Consent was obtained prior to the completion of any survey items. After consent was given, participants were directed to the surveys. First, participants were asked to answer various demographic questions. Next, the participants were directed to the PBQ and the PAS. This study was intended to be completed in one session with a 10 to 15-minute time commitment. On average, it took participants nine minutes to complete the entire study.

Analysis

Once data collection was complete, data was cleaned to exclude any participants who did not meet the inclusion criteria or who did not complete any portions of the surveys. The scale scores of the PBQ and PAQ were then computed (summed) and analyzed in SPSS. The independent variables in this study were gender (male/ female), pet type (traditional/ non-traditional), and the manner in which the pet died (expected/ unexpected). The dependent variables in this study were the reported attachment levels and grief severity.

For research question 1, to assess whether attachment levels would differ among individuals who own traditional and nontraditional pets, an independent samples t-test was conducted. This allowed for a comparison between traditional and nontraditional pet owners. For research question 2, to assess whether grief severity would differ among
individuals who own traditional and nontraditional pets, an independent samples t-test was conducted. This allowed for a comparison between traditional and nontraditional pet owners. For research question 3, to assess whether the manner in which the pet died (expected or unexpected) would have a significant effect on grief severity between traditional and nontraditional pet owners, a Two-way ANOVA was conducted. For research question 4, to assess whether gender differences would affect attachment levels between traditional and nontraditional pet owners, a Two-way ANOVA was conducted. For research question 5, to assess whether gender differences would affect grief severity between traditional and nontraditional pet owners, a Two-way ANOVA was conducted.
III. RESULTS

There was a total of 224 individuals who elected to participate in this study. However, a total of 52 participants were excluded from the final analysis. One participant was excluded because they indicated that they did not wish to complete the survey on the consent form. Another 39 participants were excluded because they had not lost a pet within the last year at the time of data collection. Five participants were excluded because they were under 18 years old. Six participants were excluded because they failed to indicate what type of pet they had recently lost. One participant was excluded due to submitting an incomplete survey. In all, a total of 172 participants were included in the final analysis.

The demographic information collected from this study’s sample can be found in Table 1 below. The mean age of participants was 30.05 (SD = 9.09). The sample consisted of 49 (28.5 %) males and 123 (71.5 %) females. The majority of participants were White/ Caucasian 87.8 %, followed by Hispanic/ Latino participants 6.4 %, Asian/ Pacific Islander participants 3.5 %, those who reported Other ethnicity (1.7 %), and Black/ African American participants 0.6 %. When asked about marital status, the majority of participants indicated that they were single 59.9 %, while 39 % indicated that they were married, and 1.2 % indicated that they were divorced. When asked about education levels, 40.1 % of participants indicated that they received a bachelor’s degree.

When participants were asked about the type of pet that they had recently lost, a total of 104 (60.5 %) indicated that they had lost a traditional pet. For the purpose of this study, the term traditional pet was defined as a dog or cat. A total of 68 (39.5 %) participants indicated that they had lost a nontraditional pet. For the purpose of this study,
the term nontraditional pet was defined as any pet listed other than dogs or cats. A further breakdown of pet types listed by participants can also be found in Table 1. A majority of participants 35.5 % indicated that they had lost their pet within two months of completing the survey, 15.1 % of participants indicated that they had lost their pet within three to four months of completing the survey, 11 % of participants indicated that they had lost their pet within five to six months of completing the survey, 12.2 % of participants indicated that they had lost their pet within seven to eight months of completing the survey, 9.9 % of participants indicated that they had lost their pet within nine to ten months of completing the survey, and 16.3 % of participants indicated that they had lost their pet within eleven to twelve months of completing the survey. When participants were asked about the manner of their pet’s death, 33.1 % of participants indicated that their pet’s death was unexpected and 66.9 % indicated that their pet’s death was expected.

**Table 1** Demographic Information.

<table>
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<th></th>
<th>Mean or frequency</th>
<th>Range or %</th>
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<td>18-69</td>
</tr>
<tr>
<td>Gender</td>
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<tr>
<td>Male</td>
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<tr>
<td>Female</td>
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<td>71.5</td>
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<tr>
<td>Race/ ethnicity</td>
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<td>White/ Caucasian</td>
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**Table 1** Demographic Information. Continued

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<td>Asian/ Pacific Islander</td>
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<td>3.5</td>
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<td>Other</td>
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<td>1.7</td>
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**Marital status**

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<td>59.9</td>
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<td>Divorced</td>
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**Education level**

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<td>8.1</td>
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<td>Some college, no degree</td>
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<td>28.5</td>
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<td>Bachelor’s degree (e.g. BA, BS)</td>
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<tr>
<td>Professional degree (e.g. MD, DDS, DVM)</td>
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<td>Doctorate (e.g. PhD)</td>
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**Type of pet**

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<th>Category</th>
<th>Count</th>
<th>Percentage</th>
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<td>Dog</td>
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<td>35.5</td>
</tr>
<tr>
<td>Cat</td>
<td>43</td>
<td>25</td>
</tr>
<tr>
<td>Bird</td>
<td>15</td>
<td>8.7</td>
</tr>
</tbody>
</table>
**Table 1** Demographic Information. Continued

<table>
<thead>
<tr>
<th>Animal</th>
<th>Count</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferret</td>
<td>13</td>
<td>7.6</td>
</tr>
<tr>
<td>Rabbit</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Horse</td>
<td>6</td>
<td>3.5</td>
</tr>
<tr>
<td>Fish</td>
<td>5</td>
<td>2.9</td>
</tr>
<tr>
<td>Rat</td>
<td>5</td>
<td>2.9</td>
</tr>
<tr>
<td>Guinea Pig</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Hedgehog</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Lizard</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Snake</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Hamster</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Mouse</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Chinchilla</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Sheep</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Traditional/ nontraditional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>104</td>
<td>60.5</td>
</tr>
<tr>
<td>Nontraditional</td>
<td>68</td>
<td>39.5</td>
</tr>
<tr>
<td>Time since death</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 – 2 months</td>
<td>61</td>
<td>35.5</td>
</tr>
<tr>
<td>3 – 4 months</td>
<td>26</td>
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<tr>
<td>5 – 6 months</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>7 – 8 months</td>
<td>21</td>
<td>12.2</td>
</tr>
<tr>
<td>9 - 10 months</td>
<td>17</td>
<td>9.9</td>
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Table 1 Demographic Information. Continued

<table>
<thead>
<tr>
<th>Cause of death</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Natural causes</td>
<td>42</td>
<td>24.4</td>
</tr>
<tr>
<td>Accident</td>
<td>31</td>
<td>18</td>
</tr>
<tr>
<td>Terminal illness</td>
<td>41</td>
<td>23.8</td>
</tr>
<tr>
<td>Euthanasia</td>
<td>58</td>
<td>33.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected/ unexpected</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected</td>
<td>57</td>
<td>33.1</td>
</tr>
<tr>
<td>Unexpected</td>
<td>115</td>
<td>66.9</td>
</tr>
</tbody>
</table>

Participants’ scores on the PAS and the PBQ were summed in SPSS after completing data collection. Possible scores on the PAS ranged from 27 to 108 (Holcomb, Williams, & Richards, 1985), and the possible scores on the PBQ ranged from 16 to 64 (Hunt & Padilla, 2006). On the PAS for this study, participants’ scores ranged from 43 to 95. The mean score on the PAS was 75.68 (SD = 10.206). On the PBQ for the current study, participants’ scores ranged from 27 to 62. The mean score on the PBQ was 44.85 (SD = 7.295)

Research Question 1

An independent samples t-test was conducted to compare attachment levels among traditional and nontraditional pet owners. There was a significant mean difference found between traditional pet owners (M = 78.98, SD = 9.13) and nontraditional pet owners (M = 70.63, SD = 9.74); t (170) = 5.71, p = .000. These results suggest that
traditional pet owners formed a stronger attachment to their pets than nontraditional pet owners do.

**Research Question 2**

An independent samples t-test was conducted to compare grief severity among traditional and nontraditional pet owners. There was a significant mean difference in grief severity found between traditional pet owners ($M = 45.92$, $SD = 7.12$) and nontraditional pet owners ($M = 43.22$, $SD = 7.31$); $t (170) = 2.41, p = .017$. These results suggest that traditional pet owners experienced stronger grief severity after the death of their pet than nontraditional pet owners do.

**Research Question 3**

A Two-way ANOVA was conducted to determine the effect of the manner in which a pet died (expected vs. unexpected) and pet type (traditional vs. non-traditional) on grief severity. The main effect for traditional and nontraditional pet owners yielded an $F$ ratio of $F (1,168) = 5.06, p = .026$, indicating a significant difference between traditional pet owners ($M = 45.92$, $SD = 7.12$) and nontraditional pet owners ($M = 43.22$, $SD = 7.31$) on grief severity. The main effect for expected and unexpected deaths yielded an $F$ ratio of $F (1,168) = 8.16, p = .005$, indicating a significant difference between expected deaths ($M = 42.60$, $SD = 6.54$) and unexpected deaths ($M = 45.97$, $SD = 7.41$) on grief severity. However, there was no significant interaction found between the manner in which a pet died and pet type, $F (1,168) = .079, p = .778$.

**Research Question 4**

A Two-way ANOVA was conducted to determine the effect of gender and pet type on attachment levels. The main effect for gender yielded an $F$ ratio of $F (1,168) =$
.137, \( p = .712 \), indicating a nonsignificant difference between male pet owners \( (M = 75.55, SD = 8.926) \) and female pet owners \( (M = 75.73, SD = 10.707) \) in attachment levels. The main effect for traditional and nontraditional pet owners yielded an \( F \) ratio of \( F(1,168) = 22.01, p = .000 \), indicating a significant difference between traditional pet owners \( (M = 78.98, SD = 9.13) \) and nontraditional pet owners \( (M = 70.63, SD = 9.74) \) on attachment. Also, there was no significant interaction found between gender and pet type, \( F(1,168) = .571, p = .451 \).

**Research Question 5**

A Two-way ANOVA was conducted to determine the effect of participant gender and pet type on grief severity. The main effect for gender yielded an \( F \) ratio of \( F(1,168) = .504, p = .479 \), indicating no significant difference between male pet owners \( (M = 44.47, SD = 7.60) \) and female pet owners \( (M = 45.01, SD = 7.20) \) on grief severity. The main effect for traditional and nontraditional pet owners yielded an \( F \) ratio of \( F(1,168) = 5.24, p = .023 \), indicating a significant difference between traditional pet owners \( (M = 45.92, SD = 7.12) \) and nontraditional pet owners \( (M = 43.22, SD = 7.31) \) on grief severity. However, there was no significant interaction found between participant gender and pet type, \( F(1,168) = .078, p = .781 \).
IV. DISCUSSION

The purpose of this study was to explore attachment levels and grief severity among individuals who have recently lost a pet due to death. Because most of the previous research on pet loss has focused on individuals who have lost traditional pets, the main goal of this study was to expand our knowledge on individuals who have lost nontraditional pets. Past studies have indicated that an individual’s level of attachment to their pet is the best predictor of grief severity experienced after their pet’s death. One study examined grief severity among individuals who had lost a pet due to death and individuals who had experienced the death of a person. In both groups, the participants’ level of attachment was the most consistent predictor of grief severity (Eckerd et al., 2016). The current study also attempted to determine if gender would be associated with attachment levels and grief severity among pet owners. Previous studies of pet loss have shown inconsistent results when determining the relationship gender has on attachment and grief severity. Finally, this study examined whether the manner in which a pet died would have any significant interaction with grief severity experienced by grieving pet owners.

The first research question examined differences in attachment levels between owners of traditional versus nontraditional pets. It was assumed that attachment levels would not differ between traditional and nontraditional pet owners; however, this was not supported. There was a significant difference found in the attachment levels between traditional and nontraditional pet owners, with traditional pet owners being more attached to their deceased pets. A previous study conducted by McCutcheon and Fleming (2002) found no significant difference between the attachment levels of dog and cat owners;
therefore, it was believed that pet owners would be equally as attached to nontraditional pets as well (McCutcheon & Fleming, 2002). However, the current study suggests that traditional pet owners form stronger attachments than nontraditional pet owners with their pets. This could be due to the fact that traditional pet owners spend more time physically interacting with their pets than nontraditional pet owners (Wrobel & Dye, 2003).

The second research question examined the differences in grief severity between owners of traditional versus nontraditional pets. Due to the results of research question one, it was assumed that traditional pet owners would experience a more severe grief reaction than nontraditional pet owners because they reported being more attached to their pets. There was a significant difference found in the grief severity experienced by traditional and nontraditional pet owners, with traditional pet owners experiencing stronger grief severity. These results support the findings in prior research that the owner’s relationship with their pet, or their attachment level, is the best predictor of grief severity not the species of the animal (Archer & Winchester, 1994; McCutcheon & Fleming, 2002). In the current study, the correlation between attachment level and grief severity was $r = 0.453$, $n = 172$, $p < 0.01$. The significant positive correlation found between these two variables further supports the findings of this study and previous studies.

The third research question examined whether the manner in which the pet died would contribute to differences in grief severity between owners of traditional and nontraditional pets. As in research question two, traditional pet owners again were found to experience a higher level of grief severity than nontraditional pet owners. However,
when looking at the relationship between the manner of death (expected vs. unexpected) and pet type on grief severity, it was found that an unexpected death was related to a higher level of grief severity. Previous studies have found similar results when looking at the suddenness of a pet’s death. It is believed that when a pet owner knows that death is likely they begin the anticipatory grief process. The anticipatory grief process is thought to allow the pet owner to mentally prepare for the death of their pet before the actual death occurs. In turn, when a pet owner is afforded the ability to mentally prepare for their pet’s death, the grief severity experienced after will be lessened (Archer & Winchester, 1994; Eckerd et al., 2016). Although there were significant main effects for the type of pet lost and for the expectedness of the pet’s death on grief severity, there was no significant interaction found between the two variables.

The fourth research question examined whether there would be gender differences in attachment levels between traditional and nontraditional pet owners. When determining if gender would be related to attachment levels, this study found no significant differences among male and female participants. However, two previous studies looking at gender and attachment levels found that females reported significantly higher levels of attachment to their pets than male participants (McCutcheon & Fleming, 2002; Wrobel & Dye, 2003). These conflicting findings could have less to do with gender and more to do with a participant’s attachment style (Eckerd et al., 2016). When looking at attachment levels between traditional and nontraditional pet owners, as with research question one, traditional pet owners reported significantly higher levels of attachment than nontraditional pet owners. There was no main effect found for gender and a
significant main effect for the pet type on attachment levels; however, there was no interaction found between the two variables.

The fifth research question examined whether there would be gender differences in grief severity between traditional and nontraditional pet owners. When determining if gender would be related to grief severity, this study found no significant differences among male and female participants. Previous studies have found mixed results when looking at gender and grief severity levels (Eckerd et al., 2016). A study conducted by Wrobel and Dye (2003) suggested that female participants experience higher levels of grief severity after the loss of a pet than male participants (Eckerd et al., 2016; Wrobel & Dye, 2003). However, a study conducted by Gosse & Barnes (1994) suggested that there was no significant difference in grief severity after the loss of a pet between male and female participants, which further supports the results of the current study (Eckerd et al., 2016; Gosse & Barnes, 1994). The lack of consistency in the literature could be due to the fact that male participants are commonly underrepresented or due to differences in the way both genders express grief. Similar to the results of research questions two and three, there was no significant main effect found for grief severity among traditional and nontraditional pet owners. Also, there was no interaction found between gender and pet type in this study.

**Limitations and Future Research**

There are several limitations in the current study that must be considered. First, data collection only lasted about one month and was done completely online. Had data collection lasted longer or used a combination of recruitment strategies, it may have been possible to recruit more male participants, a more ethnically diverse population, and even
more nontraditional pet owners. This study consisted of only 49 male participants and 123 female participants. Future studies should recruit more male participants to see if the results presented on lack of gender differences can be replicated. Also, the overall population that participated in this study was nearly 90% white/Caucasian. Future studies should recruit a more diverse population in order to determine whether race and ethnicity would be related to attachment levels and grief severity among pet owners.

There was a total of 68 participants who indicated that they had lost a nontraditional pet compared to 104 who lost a traditional pet. In all, there was a total of 16 different types of nontraditional pets listed by participants. Future studies should try and recruit more nontraditional pet owners to see if these results could be replicated.

Second, several participants left feedback indicating that they had lost more than one pet within the last year. However, the current study did not take the possibility of an individual losing multiple pets into consideration. In most cases, these participants completed the surveys answering the questions in reference to the most recent loss experienced. However, future studies should take into account the possibility of participants losing multiple pets to determine if this would have significant results. It is possible that an individual may experience a higher level of grief severity if they have lost more than one pet in a short amount of time, especially if they report being highly attached to each pet.

Finally, there was no clear definition given for expected and unexpected deaths in this study. For example, some participants indicated that their pet was diagnosed with a terminal illness while also indicating that the death of their pet was unexpected. Also, of the participants who indicated that they had their pet euthanized, there was a mixture of
participants who viewed this as an expected event and an unexpected event. Future studies should better define the meanings of expected and unexpected in order to receive more accurate responses from participants.

**Conclusion**

The purpose of this study was to investigate attachment levels and grief severity among traditional and nontraditional pet owners who have recently experienced the death of a pet. This study used gender, pet type, and the manner in which the pet died to determine the relationship between individual’s attachment levels and the grief severity experienced. Research on this topic is important due to the large number of pet owners today and the significant attachments owners form with their pets. It is estimated that there are approximately 390 million traditional and nontraditional animals kept as pets today (APPA National Pet Owners Survey, 2018). Also, this research can be useful to mental health professionals who help pet owners cope after experiencing the death of a pet. Although individuals form such strong attachments to their pets and losing a pet is such a common occurrence, the grief that follows is often overlooked. By understanding the attachments that are formed between individuals and their pets as well as the grief reactions that follow a pet’s death, mental health professionals can help grieving individuals resolve their grief in a healthy way (Cordaro, 2012).
REFERENCES

APPA National Pet Owners Survey (2018, June) Retrieved from


