



Dog People vs. Cat People: How Does Our Perception of Our Pets Influence Mental

Health

Senior Project

In partial fulfillment of the requirements for
The Esther G. Maynor Honors College
University of North Carolina at Pembroke

By

S. Alison Bolling
Department of Psychology
May 2021

Sarah Alison Bolling
Honors College Scholar

Date

Kelly Charlton, Ph.D.
Faculty Mentor

Date

Joshua Kalin Busman, Ph.D.
Senior Project Coordinator

Date

Abstract

The purpose of this study was to examine the differences in the perception of loyalty in dogs and cats as companion animals and how those perceptions may benefit mental health. Participants were 154 adult males and females aged from 19 to 74 years old in the United States. Participants answered a survey on companion animals, animal bond, attachment, anthropomorphism, loyalty, and mental health measures if they owned a dog or cat. If participants did not own a pet then they only answered the perceived stress, depression, loneliness, and social support questionnaire. The hypothesis that dog owners who have a strong loyalty with their pet will have more health benefits than will cat owners was supported. Dog owners experienced less loneliness and stress than cat owners did. Findings in this study extended prior research by exploring the differences in cats and dogs as companion animals

Keywords: companion animal, bond, mental health, loyalty, cat, dog, anthropomorphism

Dog People vs. Cat People: How Does Our Perception of Our Pets Influence Mental Health

According to the American Pet Products Association (APPA, 2021), 67% of American households owned a pet. Out of those pets, 42.7 million of them were cats and 63.4 were dogs. Pets are a part of many peoples everyday lives so it is important to study the mental health benefits of owning a pet. Owning a pet, or companion animal, can provide benefits such as emotional support, unconditional love, and mental and physical health benefits (Meehan et al., 2017). In previous research on companion animals, dogs have been found to be the most popular choice (Peretti, 1990). People tend to gravitate more towards owning a dog because they are seen as more playful, affectionate, and active than cats are (Serpell, 1996). There is not as much research on the benefits of owning a cat as there is on owning a dog. The purpose of this study is to examine how dog owners and cat owners perceive their pets' bonds, attachment, emotions, and loyalty and how this impacts the owner's mental health.

Human-Animal Interactions

Human-Animal Bond

A human bond with an animal is defined as a beneficial relationship that increases emotional and physical well being for both the human and the animal (Hosey & Melfi, 2014). The human gains affection and emotional support while the pet also receives affection and daily care (e.g., food, grooming, walking). Being actively involved in caring for a pet can increase the human-animal bond. Caring for a pet can increase the likelihood of a consistent routine for the owner which

4 Bolling

increased support and stability during difficult times (e.g., Covid-19 pandemic; Nieforth & O'haire, 2020). The elderly indicated that they talked to their pets about their problems which helped them work through solutions. Owners felt like they were being heard but were not being judged on what they were telling their companion animal (Peretti, 1990). Many owners also grieved the death of a pet similarly to the death of a human which indicated that pets have a meaningful human-animal bond with their owner (Meehan et al., 2017). Owners have held birthdays and funerals for their pets which indicated the significance a pet has in the owner's life. Having a dog gave the elderly something to do such as playing, walking, feeding and petting. This seemed to fulfill the elderly person's need to nurture and thus increased quality of life (Peretti, 1990).

There are some differences with dog owners and cat owners. Dog owners that believed themselves to have a stronger bond with their dog perceived they had a stronger social support overall than dog owners who were not overly attached to their pet (Antonacopoulos & Pychyl, 2008). Cat owners indicated that they were not as close to their pet as dog owners scored. Dogs have also been described as being able to pick up on their owners' signals. The differences in the perception of the bond between cats and dogs may be because dogs are known to come from a long history of working for humans (e.g., cattle dogs, hunting dogs; Arahori et al., 2017). This might also be the reason why dogs have the ability to understand their owners' signals. Cats do not have the pressures of being in a working relationship with their owner which might be a reason they do not have stronger bonds with their owners like dogs do. (Arahori et al., 2017).

Human- Animal Attachment

Pet attachment, specifically, can be beneficial in increasing good mental health. The more emotionally attached an owner was to their pet, the more their psychological health increased. Depression decreased the more attached the owner was to their pet. Owners were more likely to be more attached to their pet if they lived alone (Antonacopoulos & Pychyl, 2010).

Attachment levels with a pet differs across dog and cat owners. Dog owners benefit from being highly attached to their pet more so than cat owners (Antonacopoulos & Pychyl, 2008, Zasloff, 1996). Dog owners have been found to be more affectionate with their dog than with other pets which may be the reason why attachment levels with dogs and their owners are high (Albert & Bulcroft, 2001). Dogs tend to require more attention than cats because they have to be walked and groomed; all time consuming behaviors that may influence attachment. Attachment levels also increased when people perceived their dog as being more intelligent and if their cats were more playful (Serpell, 1996). Owners were also more attached to their dog if they lived alone (Antonacopoulos & Pychyl, 2010). Cat owners also reported that if they have more human social support then their attachment to their cat is lower. Cats might be used as a replacement for a loss in human-human interactions. The less time a person spends with their cat, the less the owner feels they are attached to their pet. Cat owners also receive less emotional support from their cat if they spend less time with their pet (Stammbach & Turner, 1999).

Companion Animals

Research has shown that one of the reasons pets become a companion to humans is because they do not offer judgement or disappointment (Antonacopoulos & Pychyl, 2008; Meehan et al., 2017; Paul et al., 2014). People feel more comfortable talking or being affectionate with a pet than with another human because of the unconditional love pets show. People may get the interactions they need through their pets. Research has shown that when there may be a lack of human support due (perhaps due to owners being single, recently divorced, or childless) the emotional support and unconditional love companion animals provide their owners provide a replacement for human-human interactions (Stammbach & Turner, 1999). Indeed, owners believed that the most important benefit of owning a pet was having companionship and 82.5% of participants believed their pet had a strong impact on their lives (Antonacopoulos & Pychyl, 2010). Pet owners felt that their companion animal was always there for them in times of need (Meehan et al., 2017).

Anthropomorphism

Anthropomorphism occurs when humans perceive animals as having human-like qualities (e.g., emotions, values) and mental capacities (e.g., thoughts; Antonacopoulos & Pychyl, 2008; Paul et al., 2014). It may be the case that when pet owners lack human support, they engage in more anthropomorphism. Indeed, the more dependent an owner is on their pet, the more likely they are to attribute human-like qualities to them (Antonacopoulos & Pychyl, 2008). People who have never been married, do not have children, or are divorced tend to assign more anthropomorphic qualities to their pet than others (Albert & Bulcroft, 1988). Living

alone increases the attachment and emotional dependence on non-human animals. The elderly also experience higher levels of anthropomorphism with their pet due to losing a partner. The elderly has been seen to be more emotionally involved with their pets than with other humans (Peretti, 1990).

In addition to assigning anthropomorphic characteristics, pets have become an important part of the household because many owners consider them as family (Albert & Bulcroft, 1988). Peretti (1990) found that in the elderly, 75% of males and 67% of females believed that their dog was their only friend. They believed they knew what their pet was thinking and feeling and felt a deeper connection with their pet because of it. In past studies, owners believed their pets were capable of showing emotions like sadness, joy, and shame but their pets were not able to show disgust (Arahoori et al., 2017).

Dog owners have been found to attribute human-like qualities, such as emotion, to their pets more so than cat owners. Dog owners also saw their pet as a part of the family more so than cat owners. The cat owners that did consider their cats as part of the family, scored higher on emotional intelligence but only with viewing their cat as being compassionate. Dogs owners also rated their pets as being more emotionally intelligent and expressive than cat owners. Attributing higher anthropomorphic qualities to a dog may be due to a stronger attachment bond within the human-animal relationship than cat owners have (Arahoori et al., 2017).

Loyalty in the Human-Animal Relationship

Dog are considered to be trustworthy, loyal, and a source of satisfaction for the elderly. The elderly felt more physically and emotionally secure when they

owned a dog. In describing what made their dog loyal, owners indicated their pets would beg for attention or growl at others if they were too close to their owner. Dogs also exhibited more loyalty to their owners when their perceived attachment to the owner was high. Women, more so than men, believed that loyalty was an important quality in a pet (Peretti, 1990). In previous research, loyalty is considered a part of the animal companion bond with the owner but differences in the perception of loyalty in cats and dogs has not been addressed.

Mental Health Benefits

Loneliness

Loneliness is common for people who live alone, are divorced, widowed, or going through major life changes like transitioning to college (Antonacopoulos & Pychyl, 2008; 2010). Many people approach loneliness in various ways. Some people who are experiencing loneliness may then become more socially active if they are physically and mentally capable. Most lonely people feel that they need social interaction but instead remain in solitude to cope with loneliness (Rokack et al., 2000). Lonely people may use other forms of support instead of human-human interaction, such as human-animal interaction.

Pets have been known to decrease loneliness in their owners. Owners who live alone and feel lonely, reported that owning pets have helped them through hard times (Antonacopoulos & Pychyl, 2008; 2010). The elderly, after experiencing losing a partner, benefited from having a pet because it increased social interactions (Peretti, 1990). More people tend to become socially interactive or engaged in the environment due to caring for their pet. Younger adults, such as college students,

that are lonely believed their pets were more emotionally supportive than students who were not lonely. This can be inferred as loneliness causing people to attribute anthropomorphic qualities onto their pets. People that work from home also experience more cases of loneliness and reported being more dependent on their pet than those that worked outside the home (Paul et al., 2014).

There has been more research on the benefits of owning a dog with regards to loneliness than with cats. People perceive their dogs as being more supportive for people who do not have a strong social support system and owners tend to have decreased loneliness once they own a pet (Antonacopoulos & Pychyl, 2008). Loneliness may decrease in dog owners who do not have a strong social support system because they are able to rely on their pets more than non-pet owners. Dog owners also tend to experience less loneliness because they need more exercise which benefits overall mental health. Exercise has been beneficial to improving one's overall mood (Antonacopoulos & Pychyl, 2010). Dog owners have to be more hands-on with their pets because they require more demands, such as exercise, than cats. In Switzerland, people that lived with cats reported being in a better mood than people who did not own a cat (Antonacopoulos & Pychyl, 2010). Cats have the potential to make their owners feel better but there is not a lot of evidence that cats improve their owners feeling of loneliness.

Depression

Depression has been reported to affect more than one to fifteen adults in a year (American Psychiatric Association, n.d.). People who are depressed have symptoms such as, a lack in interest, weight gain or loss, decreased energy, feeling

worthless, and more (American Psychological Association, n.d.). Elderly pet owners who did not have many companions other than their pet were less depressed than the elderly that did not own a pet (Antonacopoulos & Pychyl, 2010). Attachment to the pet plays a role in perceived depression levels. Female pet owners that did not see themselves as strongly attached to their pets scored themselves lower in happiness than owners who were more attached to their pets (Antonacopoulos & Pychyl, 2008). The stronger the attachment, the stronger the bond, with a companion animal indicates there is more emotional support which may decrease depression symptoms.

Perceived Stress

Stress can be defined as the reaction to demands in the environment that are perceived to be greater than what the person believes they can handle. People who are stressed can use various coping methods. One of the methods used is support coping or emotional support (Schafer et al., 2020). Owning a pet might be a way people increase their emotional support system.

Companion animals can reduce anxiety in people of all ages (Meehan et al., 2017). People who have a companion animal have been found to have lower heart rates and blood pressure, better physical health, less fear and anxiety, and reported feeling more relaxed in their environment (Hoesy & Melfi, 2014). These factors can lead pet owners to feeling less stressed. Pets can be used as a coping mechanism for those that are going through major life changes because of the affection pets can provide (Albert & Bulcroft, 1988). Pets can be comforting in difficult times because of the unconditional love they provide. Past research has also found that reactions to

highly stressful situations are reduced when people own a pet, specifically a dog. Stress may be reduced when owning a dog because owners tend to be more physically active than non-dog owners and they feel like they have a stronger support system than non-dog owners (Antonacopoulos & Pychyl, 2008).

Stress also has the potential to increase levels of anthropomorphism in pet owners. Owners might use anthropomorphism as a coping mechanism in dealing with stress. This may be because owners are relying more on their pet to comfort them in times of need (Antonacopoulos & Pychyl, 2008). Owners might talk and receive affection from their pet as they would have from other human-human interactions. The current study examines the role of pet companionship, anthropomorphism, and loyalty with regards to depression, stress, and loneliness.

Hypotheses

The present study further examines the differences in the perception of loyalty in cats and dogs and how they benefit mental health. We hypothesize that dog owners who perceive their pet as more loyal, will have more health benefits (i.e., decreased depression, stress, and loneliness) than will cat owners.

Method

Participants

Participants (154, male = 37.7%, female = 62.3%) were recruited through Mechanical Turk. The criteria for participation was a 95% approval rating, 100 Hiits completed and from the United States. Participants were compensated \$1 for completing the survey. Participants age ranged from 19-74 years old ($M = 40.79$, $SD = 12.65$). The ethnicity of the participants is shown in Table 1. Out of 154

participants, 16.2% were cat owners only, 40.9% were dog owners only, 40.3% were dog and cat owners, and 2.6% did not own a cat or dog.

Table 1. Ethnicity of participants

Ethnicity	N
African American/Black	28
European American/White	100
Native American/American Indian	2
Hispanic/Latino	8
Asian/Pacific Islander	13
Biracial	3

Measures

Participants completed the following measures on an online survey format. Some participants who indicated they only owned cats answered questions about cats while the participants who indicated they owned dogs only answered questions about dogs. Participants who indicated they owned both cats and dogs answered questions about both pets while participants who owned neither pet only answered the Perceived Stress, Depression, Loneliness, and Demographics measures.

Capacity for Love. This measure derived from Peterson & Seligman's Values in Action scales (2003), consists of 8 statements modified for cats and dogs. Each statement is replicated twice, one specifically for dogs and the other specifically for cats. The statements were answered using a Likert scale of (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4=neither agree or disagree, 5= somewhat agree, 6= agree, 7= strongly agree). Examples of the statements are "my dog could never stop loving me no matter what I did" and "my cat loves to show affection towards me."

Animal Emotion. This measure consists of 17 statements modified for both cats and dogs. Each statement is replicated twice, one specifically pertaining dogs and one for cats. The statements were answered using a Likert scale of (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4=neither agree or disagree, 5= somewhat agree, 6= agree, 7= strongly agree). Examples of the statements are “sometimes my dog expresses anger” and “sometimes my cat is sad” (Morris et al., 2007).

Anthropomorphism. This measure consists of 14 questions modified from Albert and Bulcroft’s (1988) measure. The measure was duplicated for both cats and dogs. We also added the questions, “Do you have pictures of your dog/cat on your phone,” “Do you post pictures of your dog/cat on social media,” “Does your dog/cat own its own social media account, please specify if yes.”

Comfort from Companion Animals. This measure consists of 9 statements modified and duplicated for dogs versus cats. The statements were answered using a Likert scale of (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4=neither agree or disagree, 5= somewhat agree, 6= agree, 7= strongly agree). Examples of the statements are “my dog is a source of constancy in my life” and “I get comfort from touching my cat” (Luh et al., 2014).

Companionship. This measure was derived from Luh’s (2014) Companionship Scale for Artificial Pets and consists of 12 statements about an owner’s companionship with their pet. The scale was modified and duplicated for dogs versus cats. The statements were using a Likert scale of (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4=neither agree or disagree, 5= somewhat

agree, 6= agree, 7= strongly agree). Examples of the statements are “my dog is like a friend that can keep me from being lonely” and “I cannot imagine the loss of my cat in my life.”

Companion Animal Bond. This measure consists of 5 questions that was duplicated for both dogs and cats. The statements were answered using a Likert scale of 1 (never) to 5 (always). Examples of the statements are “How often do you clean up after your dog?” and “How often is your cat responsive to you?” (Porskey et. al, 1987).

Pet Commitment. This measure consists of 5 statements modified and duplicated to fit the dogs versus cats’ format. The statements were answered using a Likert scale of (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4=neither agree or disagree, 5= somewhat agree, 6= agree, 7= strongly agree). Examples of the statements are “If a six-month-old puppy was having problems with housebreaking, I would get rid of the puppy” and “If a cat destroyed a \$50 piece of furniture or personal item, I would get rid of the dog” (Staats et al., 1996).

Individual and Group Loyalty. This measure is derived from Beer and Watson’s (2009) scale which was modified and duplicated to fit the dog versus cats’ format. The statements were answered using a Likert scale of (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4=neither agree or disagree, 5= somewhat agree, 6= agree, 7= strongly agree). Examples of the statements are “my dog would not betray my trust” and “my cat stands by me.”

Perceived Pet Loyalty. This measure consists of 22 questions duplicated for both cats and dogs. The statements were answered using a Likert scale of (1=

strongly disagree, 2= disagree, 3= somewhat disagree, 4=neither agree or disagree, 5= somewhat agree, 6= agree, 7= strongly agree). Examples of the statements are “my dog would never run away from me” and “my cat and I will always have a connection/bond.”

Perceived Social Support. This measure consists of 5 statements asking the participants on the amount of social support they have. The statements were answered using a Likert scale of (1= never, 2= almost never, 3= sometimes, 4= fairly often, 5=very often). Examples of the statements are “there is a special person with whom I can share my joys and sorrows” and “I can count on my friends when things go wrong” (Dahlem et al., 1991).

Perceived Stress. This measure consists of 14 statements about how stressed the participants have been in the past month. The statements were answered using a Likert scale of (1= never, 2= almost never, 3= sometimes, 4= fairly often, 5=very often). Examples of the statements are “how often have you felt that you were unable to control the important things in your life” and “In the last month, how often have you been able to control the way you spend your time” (Cohen et al, 1983).

CES-D (Depression). This measure consists of 18 statements about the perception of depression in the past week. The statements were answered using a Likert scale of (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4=neither agree or disagree, 5= somewhat agree, 6= agree, 7= strongly agree). Examples of the statements are “I did not feel like eating; my appetite was poor” and “my sleep was restless” (Carleton et al., 2018).

UCLA Loneliness. This measure consists of 20 statements from Russell's (1996) study about the perception of loneliness in the participants. The statements were answered using a Likert scale of (1= never, 2= almost never, 3= sometimes, 4= fairly often, 5=very often). Examples of the statements are "how often do you feel alone" and "how often do you feel left out."

Demographics. The demographics consisted of 21 questions that included questions on ethnicity, age, gender, and area lived in. We also asked questions on animal consumption, diet style, types of animal species owned, owning a service animal or companion animal, and animal loyalty and friendliness.

Procedure

Participants answered the survey on Qualtrics which was link through Mechanical Turk for Mturk workers to complete. Mechanical Turk was chosen to utilize the benefits of gaining a wide diversity in the participant pool. There was no direct contact with the participants. Participants chose to participate in the survey when they read a brief description of the study and were able to opt out of the survey at any time. At the beginning of the survey the participants gave their informed consent and were debriefed after completing the survey.

Results

Loneliness

As shown in Table 2, there were significant correlations that supported the hypotheses about dog owners. Owners who perceived their dog as being more loyal, had lower levels of loneliness. Dog owners also experienced less loneliness when they believe their dog loves them. Owners who believe their dog is in tune with their

emotions, experiences less loneliness. When people believe they have a strong friendship with their dog, they have lower loneliness. However, dog owners who are more committed to tolerating bad behavior from their pet tend to experience higher levels of loneliness.

Cat owners tend to experience higher levels of loneliness than dog owners which is shown in Table 3. Owners who perceive their cat as being more loyal, had increased feelings of loneliness. Surprisingly, cat owners also experienced higher feelings of loneliness when they perceived their cat as being more reliable. The more cat owners attributed anthropomorphic qualities to cats, the more they felt lonely. Cat owners also had higher levels of loneliness when they believed their pet was more emotionally expressive. When people care about playing and taking care of their cat, they have increased feelings of loneliness.

Depression

Table 2 shows the correlations of dog owners in relation to mental health. Dog owners who perceive their dog as being more loyal, have decreased feelings of depression. Dog owners also experienced less depression when they believed their dog was more reliable. The more dog owners believe their dog loves them, the less they experience depression. Owners who believe their dog is in tune with their emotions, also experience less depression. When people experience comfort and reassurance from their dog, they tend to have lower feelings of depression. Dog owners have lower depression when they have a strong friendship with their pet. When dog owners care about playing and taking care of their dog, they have

decreased levels of depression. However, owners who are more committed to tolerating bad behavior from their dog, experience higher levels of depression.

Table 3 shows the correlations of cat owners in relation to mental health. Dog and cat owners have relatively similar results with regards to depression benefits in comparing with other results. The more cat owners believe their cat loves them, the less they experience depression. Cat owners also tend to have decreased feelings of depression when they believe their cat is in tune with their emotions. Owners who perceive their cat as being more emotionally expressive, have higher depression levels. When people believe they have a strong friendship with their cat, have tend to have lower depression. However, like dog owners, cat owners who are more committed to tolerating bad behavior from their cat, experience higher levels of depression.

Stress

As shown in Table 2, there were significant results regarding dog owners and stress. The more dog owners believe their dog loves them, the less they experience stress. Owners also experience less perceived stress when they believe their dog is in tune with their emotions. When people believe they have a strong friendship with their dog, they have lower stress.

Cat owners experienced higher levels of stress than dog owners which is shown in Table 3. People who perceive their cat as being more loyal, have increased feelings of stress. Cat owners also have more stress when they believe their cat as being more reliable. Owners who perceive their pet as being more emotionally expressive, have higher perceived stress. When people care about playing and

19 Bolling

taking care of their cat, levels of stress is increased. Owners who are more committed to tolerating bad behavior from their cat, experience higher levels of stress.

Table 2*Primary Descriptive Statistics and Correlations for Dog Owners (n = 125)*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Loneliness	3.24	0.56	—											
2. Depression	3.10	1.45	.59**	—										
3. Perceived Stress	3.11	0.51	.73**	.34**	—									
4. Loyalty	5.63	0.91	-.32**	-.50**	-.14	—								
5. Group Loyalty	5.94	0.94	-.15	-.36**	-.01	.85**	—							
6. Capacity for Love	5.69	1.09	-.42**	-.57**	-.21*	.86**	.74**	—						
7. Attending to Emotion	5.32	1.29	-.35**	-.47**	-.21*	.66**	.51**	.36**	—					
8. Comfort from Dog	6.14	0.87	-.18*	-.41**	-.05	.87**	.80**	.79**	.57**	—				
9. Companion Animal	5.59	0.79	-.37**	-.42**	-.19*	.88**	.82**	.80**	.63**	.89**	—			
10. Animal Bond	4.07	0.74	-.08	-.36**	.08	.69**	.68**	.62**	.49**	.70**	.67**	—		
11. Commitment to Dog	2.30	1.58	.48**	.46**	.32**	-.62**	-.43**	-.72**	-.55**	.56**	-.61*	-.46**	—	
12. Animal Support	3.87	0.86	-.02	-.23*	0.15	.66**	.64**	.54**	.43**	.64**	.64**	.65**	-.31**	—

* $p < .05$.** $p < .01$.

Table 3*Descriptive Statistics and Correlations for Cat Owners (n = 25)*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Loneliness	3.24	0.56	—												
2. Depression	3.10	1.45	.59**	—											
3. Perceived Stress	3.11	0.51	.73**	.34**	—										
4. Loyalty	4.79	1.13	.25*	-.08	.29**	—									
5. Group Loyalty	5.08	1.43	.31**	-.06	.35**	.91**	—								
6. Anthro-morphism	2.55	0.63	.33**	.12	.35**	.68**	.67**	—							
7. Capacity for Love	4.96	1.26	-.17	-.39**	-.06	.79**	.72**	.43**	—						
8. Attending to Emotion	4.48	1.38	-.06	-.32**	.04	.57**	.57**	.45**	.60**	—					
9. Animal Emotion	4.99	0.94	.47**	.23*	.48**	.57**	.57**	.52**	.35**	.29**	—				
10. Companion Animal	5.29	0.94	.06	-.24*	.12	.74**	.70**	.65**	.73**	.47**	.62*	—			
11. Animal Bond	3.62	0.93	.33**	-.01	.34**	.77**	.71**	.58**	.65**	.51**	.46*	.63**	—		
12. Commitment to Cat	2.75	1.79	.52**	.45**	.43**	-.30**	-.22*	-.14	-.64**	-.31**	.00	-.51**	-.22*	—	
13. Animal Support	3.14	1.12	.45**	.08	.56**	.66**	.72**	.66**	.38*	.46**	.47*	.48**	.59**	.03	—

* $p < .05$.** $p < .01$

Discussion

The hypothesis that dog owners who have a strong loyalty with their pet will have more health benefits than will cat owners was supported. Dog owners experienced less loneliness and stress than cat owners did. Dog and cat owners both experienced less depression when they were attached to their companion animal. Dog owners also benefitted in mental health with decreased stress when owning a dog. However, cat owners had increased stress despite feeling their pet loved them.

Dog owners, who viewed their dog as being more loyal and dependable reported lower feelings of loneliness than did cats. Though this finding should be explored further, it may occur because cat owners might be predisposed to loneliness before owning a pet. Many people may get a companion animal to form friendships to decrease loneliness. Dog owners experienced less loneliness when they viewed their dog as their friends. This finding did not occur for cat owners. This may be because the nature of having a dog as a pet is fundamentally different than having a cat as a pet; dogs require more active involvement outside (e.g. walking, playing) than cats in which the dog owners can meet other people (Antonacopoulos & Pychyl, 2010). Cat owners also indicated that the more they attributed anthropomorphic characteristics to their pets, the more lonely they felt. This may be because cat owners who are lonely, may be spending more time relying on their cat than with other people. Also, as cats don't provide the same kind of interaction that dogs do, perceiving the human like qualities in a cat may be a disadvantage as the owner may feel a human like rejection.

Dog owners also experienced less depression when they viewed their dog as being more loyal while cat owners had no correlation with depression and loyalty. Although,

cat owners did experience decreased depression when they believed their cat loved them, were in tune with their owners emotions, and when owners believed their cat was their friend. Dog owners also had similar results with decreased depression when they believed their dog loved them, in tune with emotions, and perceived friendship. People use their pets as a means to cope with their depression (Antonacopoulos & Pychyl, 2008).

Dog owners experienced less stress than did cat owners. People who own dogs experience less stress when they believe their dog loves them and is in tune with their emotions. Interestingly, cat owners experienced more stress when they viewed their cats as being loyal. Cat owners also have increased stress when they care about playing with their pet and when they tolerate bad behavior from their pet. These results may be because dog owners might be more physical active than cat owners which helps increase the owner's endorphins (Hosey & Melfi, 2014). Cat owners may not experience as much physical activity due to cats primarily being solitary indoor animals. More research needs to be done on why cat owners experience more stress than dog owners when their pet behaves badly.

Implications

This study contributes to the literature by delving more into the differences in the companion animal bond and pet loyalty with how owners perceive their cats and dogs. The study provides insight on the mental health benefits of owning a cat or dog. Indicating that cat owners may be more lonely and stressed, helps them become more socially aware of who they are interacting with. Owners who view themselves as lonely may feel more inclined to seek out more human-human interaction. Lonely people who do not own pets may feel more inclined to own a dog to decrease their loneliness. This

goes for depression and stress as well. Depressed people may be more inclined to own a pet so that they can alleviate their symptoms while people who are stressed may realize that owning a cat does not benefit their overall mental health.

Limitation and Future Research

An issue with this study is that there was a low sample of pet owners who owned cats compared to dogs. Future research may want to have a larger sample of cat owners. That said, having only a few cat owners in our sample may be an indication of the popularity of cats as companion animals (Peretti, 1990). Another limitation is that the results do not indicate why cat owners may be lonelier and more stressed than dog owners overall. We can only infer that cat owners are more likely to stay home than dog owners and cats may be more destructive with furniture than dogs which could increase stress. More research needs to explore this finding. Also, the questions in the survey may have been more directed towards dogs than cats. For instance, the questions that were related to walking the pet and obeying commands can be seen as more dog centered questions than cat centered. Cats are not typically taken on walks or asked to do various tricks that dogs do. Future research could explore more behaviors that cat owners engage in with their pets.

Conclusion

The current study researched the differences in perceived mental health with regards to owning a dog or cat. The hypothesis that dog owners, who perceive their pets as loyal, will have greater health benefits than cat owners is supported. Dog owners with loyal pets have decreased loneliness, depression, and stress. This finding is consistent with previous research (Antonacopoulos & Pychyl, 2008; 2010). But the finding of

26 Bolling

owning a cat increasing stress has not been found in previous research. Cats have actually been known to increase the owner's overall mood (Antonacopoulos & Pychyl, 2010).

There has not been many indications of how cats affect depression and stress in their owners. More research on why cat owners tend to be more lonely than dog owners is needed.

References

- American Pet Products Association (2021). *Pet Industry Market Size, Trends & Ownership Statistics*. (2021, April).
https://www.americanpetproducts.org/press_industrytrends.asp.
- American Psychiatric Association. (n.d.). What Is Depression?
<https://www.psychiatry.org/patients-families/depression/what-is-depression#:~:text=Depression%20affects%20an%20estimated%20one,than%20men%20to%20experience%20depression>.
- American Psychological Association. (n.d.). *Depression*. American Psychological Association. <https://www.apa.org/topics/depression>.
- Albert, A., & Bulcroft, K. (1988). Pets, Families, and the Life Course. *Journal of Marriage and the Family*, 50(2), 543. doi:10.2307/352019
- Beer and Watson's (2009)
- Antonacopoulos, N. M., & Pychyl, T. A. (2008). An examination of the relations between social Support, anthropomorphism and stress Among dog owners. *Anthrozoös*, 21(2), 139-152. doi:10.2752/175303708x305783
- Antonacopoulos, N. M., & Pychyl, T. A. (2010). An examination of the potential role of pet ownership, human social support and pet attachment in the psychological health of individuals living alone. *Anthrozoös*, 23(1), 37-54. doi:10.2752/175303710x12627079939143
- Arahoru, M., Kuroshima, H., Hori, Y., Takagi, S., Chijiwa, H., & Fujita, K. (2017). Owners' view of their pets' emotions, intellect, and mutual relationship: Cats

and dogs compared. *Behavioural Processes*, 141, 316-321.

doi:10.1016/j.beproc.2017.02.007

Carleton, R. N., Thibodeau, M. A., Teale, M. J., Welch, P. G., Abrams, M. P., Robinson, T., & Asmundson, G. J. (2013). The Center for Epidemiologic Studies Depression Scale: A Review with a Theoretical and Empirical Examination of Item Content and Factor Structure. *PLOS ONE*, 8(3).

doi:0.1371/journal.pone.0058067

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A Global Measure of Perceived Stress. *American Sociological Association*, 24(4), 385-396.

doi:<https://www.jstor.org/stable/2136404>

Dahlem, N. W., Zimet, G. D., & Walker, R. R. (1991). The Multidimensional Scale of Perceived Social Support: A Confirmation Study. *Journal of Clinical Psychology*.

doi:10.1002/1097-4679(199111)47:63.0.CO;2-L

Hosey, G., & Melfi, V. (2014). Human-animal interactions, relationships and bonds: A review and analysis of the literature. *International Journal of Comparative Psychology*, 27(1).

Luh, D., Li, E. C., & Kao, Y. (2014). The Development of a Companionship Scale for Artificial Pets. *Interacting with Computers*, 27(2), 189-201.

doi:10.1093/iwc/iwt055

Meehan, M., Massavelli, B., & Pachana, N. (2017). Using Attachment Theory and Social Support Theory to Examine and Measure Pets as Sources of Social Support and Attachment Figures. *Anthrozoös*, 30(2), 273-289.

<https://doi.org/10.1080/08927936.2017.1311050>

- Morris, P. H., Doe, C., & Godsell, E. (2007). Secondary emotions in non-primate species? Behavioural reports and subjective claims by animal owners. *Cognition and Emotion*, 22(1), 3-20. doi:10.1080/02699930701273716
- Nieforth, L. O., & O'Haire, M. E. (2020). The role of pets in managing uncertainty from COVID-19. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(S1). <https://doi.org/10.1037/tra0000678>
- Peterson, C., & Seligman, M. E. (2003). Character strengths before and after September 11. *Psychological Science*, 14, 381-384.
- Poresky, R. H., Hendrix, C., Mosier, J. E., & Samuelson, M. L. (1987). The Companion Animal Bonding Scale: Internal Reliability and Construct Validity. *Psychological Reports*, 60(3), 743-746. doi:10.2466/pr0.1987.60.3.743
- Russell, D. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment*, 66, 20-40.
- Rokach, A., Bacanli, H., & Ramberan, G. (2000). Coping with Loneliness. *European Psychologist*, 5(4), 302-311. <https://doi.org/10.1027//1016-9040.5.4.302>
- Schäfer, A., Pels, F., & Kleinert, J. (2020). Effects of Different Coping Strategies on the Psychological and Physiological Stress Reaction. *European Journal of Health Psychology*, 27(3), 109-123. <https://doi.org/10.1027/2512-8442/a000056>
- Serpell, J. A. (1996). Evidence for an association between pet behavior and owner attachment levels. *Applied Animal Behaviour Science*, 47(1-2), 49-60. doi:10.1016/0168-1591(95)01010-6

- Staats, S., Miller, D., Carnot, M. J., Rada, K., & Turnes, J. (1996). The Miller-Rada Commitment to Pets Scale. *Anthrozoös*, *9*(2-3), 88-94.
doi:10.2752/089279396787001509
- Stammbach, K. B., & Turner, D. C. (1999). Understanding the Human—Cat Relationship: Human Social Support or Attachment. *Anthrozoös*, *12*(3), 162–168. <https://doi.org/10.2752/089279399787000237>
- Paul, E. S., Moore, A., McAinsh, P., Symonds, E., McCune, S., & Bradshaw, J. W. (2014). Sociality Motivation and Anthropomorphic Thinking about Pets. *Anthrozoös*, *27*(4), 499–512. <https://doi.org/10.2752/175303714x14023922798192>
- Perrine, R. M., & Osbourne, H. L. (1998). Personality characteristics of dog and cat persons. *Anthrozoös*, *11*(1), 33-40. doi:10.1080/08927936.1998.11425085
- Peretti, P. O. (1990). ELDERLY-ANIMAL FRIENDSHIP BONDS. *Social Behavior and Personality: an International Journal*, *18*(1), 151–156.
<https://doi.org/10.2224/sbp.1990.18.1.151>
- Zasloff, R. (1996). Measuring attachment to companion animals: A dog is not a cat is not a bird. *Applied Animal Behaviour Science*, *47*(1-2), 43-48.
doi:10.1016/0168-1591(95)01009-2