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Perceived Student Stress in Relation to Attachment Theory with Pets

An Honors College Project Thesis

Presented to

The Department of Psychology

Abilene Christian University

In Partial Fulfillment

of the Requirements for

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by

Baylee Ray Blanton

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This Project Thesis, directed and approved by the candidate's committee,
has been accepted by the Honors College of Abilene Christian University
in partial fulfillment of the requirements for the distinction

HONORS SCHOLAR

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Abstract

Studies about pet ownership have found higher psychological health in those who own pets (Straede & Gates, 1993), as well as a relationship between attachment to a pet and feelings of support (Stammbach & Turner, 1999). The present study was designed to expand on previous research and to specifically examine the relationship between pet ownership and stress in college students. Two hypotheses were tested. Hypothesis 1 was that college students who own pets will perceive less stress. Hypothesis 2 was that the perceived level of stress would correlate negatively with the level of attachment to a pet. Participants were 135 students who completed the Perceived Stress Scale (Cohen, Karmack, & Mermelstein, 1983). Sixty-three students qualified via pet ownership and completed the Companion Animal Bonding Scale (Poresky, Hendrix, Mosier & Samuelson, 1987). The majority of participants were female, Caucasian, and 18-19 years of age. Statistical analyses did not provide significant support for either hypothesis 1 or 2. Based on these results, it appears that additional research is needed to further explore the potential impact of pet ownership on the perception and response to stress.

Perceived Student Stress in Relation to Attachment Theory with Pets

Attending college comes with a variety of stressors (Roberti, Harrington, & Storch, 2006). In fact, stress among college students has increased in severity in recent years (Benton, Robertson, Tseng, Newton, & Benton, 2003). Stress is also associated with a number of health risks including a higher risk for cardiac events (Rosengren et al., 2004) and metabolic issues (Anderson, et al., 2002). In 2010, a 35-year longitudinal study indicated that psychological stress can increase the risk of dementia in older populations (Johansson, et al. 2010). Other issues surrounding long-term stress according to The American Institute of Stress, a non-profit organization, include an increase in the risk of asthma, weight gain, diabetes, headaches, depression, gastrointestinal problems, sexual dysfunction, and even a weakened immune system. All of these symptoms are debilitating to individuals, and when it comes to college student in particular, stress can also lead a student to doing poorly on academics or dropping out of school (Resko, 2017).

Studies surrounding pet ownership have found higher psychological health in those who own cats (Straede & Gates, 1993), and that the more attached one feels to a pet the more support they feel as well (Stammach & Turner, 1999). Physically, pet ownership is also associated with lower drug use and a decrease in illness related symptoms (Akiyama, Holtzman, & Britz, 1987). Furthermore, pets have been shown to improve mood (Becker, 1999), and owning a pet may “moderate the anxious/avoidant attachment style” (Quinn, 2005, p.1). Recent research has also documented that people are just as likely to experience the same kind of stress relief from owning an animal as they are to listen to music or participate in a pleasant activity (Kleiber & Adamek, 2012). With the numerous psychological and health benefits relating to pet ownership,

it is important for mental health professionals working with college students to explore how pet ownership may impact their client's stress levels.

The goal of the current study is to explore the relationship between the level of attachment to a pet and student stress. Hypothesis 1 is that students who own pets will perceive less stress than their peers who do not own pets. Additionally, hypothesis 2 is that the level of stress will correlate negatively with the level of attachment to a pet.

Attachment Theory and Animals

Attachment Theory

Attachment Theory is human development based upon the principle that early childhood experiences with their caregiver influence the way that people seek connection with one another (Bowlby, 1982). Attachment theory suggests that different styles of attachment develop based upon how much the need for security was fulfilled from the caregiver. As humans develop, positive and negative reactions begin to orient attachment styles in interpersonal relationships. Bowlby's research was expanded upon to theorize that there are three primary attachment styles that are determined by interactions with the caregiver, secure, anxious/resistant, and avoidant (Ainsworth, 1964).

Secure Attachment style. Secure attachment style is characterized by infants responding as if their caregiver will meet their needs. The caregiver is aware of the child's signals and responds appropriately to them. With the caregiver nearby, infants are able to explore the world around them. When faced with unknown or fear provoking situations the securely attached infant will seek the caregiver, knowing that their needs will be met (Main & Solomon, 1990). Securely attached individuals are known to have a more optimistic and positive outlook on life. They tend

to be generally more trusting of others and approach relationships with others expecting that they will get the support they seek (Brennan & Shaver, 1995).

Avoidant Attachment style. Avoidant attachment style is characterized by an infant not needing their caregiver to be present while they orient themselves to the world. Children that are of the avoidant attachment style also operate very independently of their caregiver. They are detached from the caregiver both physically and emotionally, relying on themselves to meet their needs (Main & Solomon, 1990). Individuals with an avoidant attachment style have a tendency to not rely on others, and therefore may have low-expectations of their peers and reject them (Macbeth, Shwannauer, & Gumley, 2008). Being detached from a caregiver both physically and emotionally leads to personal signals of distress and vulnerability being minimized (Mikulincer & Shaver, 2003)

Anxious/Resistant Attachment style. Anxious/resistant attachment style is characterized by an infant being clingy to the caregiver but resistant when the caregiver responds to their needs. They can be aggressive and rejecting of the caregiver's actions. This attachment style adopts an insecure orientation to the world and has difficulty venturing out from the caregiver (Main & Solomon, 1990). Children with this attachment style explore little, and are often described as being highly distressed when their caregiver leaves them, but ambivalent once their caregiver returns (Ainsworth, Bleharm & Waters, 1979).

Attachment and Animals. Attachment theory is also based on the idea that humans, like many animals, are biologically driven to seek out social connection with other beings. Humans do this to fulfill needs such as safety and security. In relating this to animals, a pet's presence may provide their owners with a sense of constancy, which can also be thought of as an avenue for fulfilling these needs as well as an attachment related function (Sable, 2013). In 1997,

Levinson argued that a pet can be an object of attachment due to pets being readily available, affectionate, and mobile. Literature also suggests that human-pet bonds meet the four criteria for an attachment relationship, which are proximity seeking, safe haven, secure base and separation distress. These particular characteristics may cause an owner to use a pet as a source of comfort and reassurance in times of stress, which would lead to the formation of an attachment to one's pet (Zilcha-Mano, Mikulincer, & Shaver, 2011).

College Students and Stress

According to the National Institute of Mental Health (n.d.), stress is defined as “the brain’s response to any demand.” In particular, stress is becoming more of an issue with college students (Mackenzie, et al., 2011). One survey conducted in 2013 stated that 28% of college students at a large university felt they were unable to manage their stress (Lust & Golden, 2013). According to a report by the Association for University and College Counseling Center Directors (2017), during the 2016-2017 school year, 34.1% of colleges had to put students on a waitlist. The transition from childhood into adulthood during college years is often a time of stress for young people. Not only is stress common among young adults (Mahmoud, Staten, Hall & Lennie, 2012), the academic stressors of college life can elevate stress further (MacNeil, Esposito-Smythers, Mehlenbeck, & Weismoore, 2012). Unfortunately, stress impacts individuals on a physical level. The American Psychological Association (n.d.) observes that chronic stress can lead to shortness of breath, heart problems, sexual dysfunction, and many more debilitating symptoms.

The Present Study

Overall, then, attachment theory explains how people connect with one another and the different types of relationships that can form. These attachment styles also relate to how an

individual copes with interpersonal relationships and seeks comfort. Furthermore, humans also become attached and seek comfort through their relationships with their pets. Relationships with pets can be a source of stress relief, possibly because pets fulfill the criteria to be categorized as an attachment relationship. Based upon these relationships, two hypotheses were tested. It was postulated that college students who own pets will perceive less stress. Additionally, hypothesis 2 was that the level of stress would correlate negatively with the level of attachment to a pet.

Methods

Participants

The sample consisted of 135 participants. All participants at the time of the survey were students of Abilene Christian University, a private, religiously-affiliated university. More females (69.6%) participated in the study than males (30.4%). A large percentage (71.2%) were between the ages of 18-19, 20-21 (22.7%), 22-25 (5.3%), and 36-55 (0.8%). The majority of the studied population was White (65.2%), followed by Black or African American (14.1%), Asian (3.7%), multiple races (6.7%), some other race not listed (9.6%), and preferred not to say (.7%). Other demographics included GPA and school classification. 47.4% of the sample had a GPA over 3.5, 31.9% had a GPA of 3.0-3.49, 18.5% had a GPA of 2.00-2.99, and 2.2% had a GPA of 0-1.99. Most of the participants were Freshman in college (60.6%), 27.3% were Sophomores, 6.1% were Juniors, and another 6.1% were Seniors.

Table 1

Participant Demographics

Variable	Percent
Sex	
Female	69.6
Male	30.4
Age	
18-19	71.2
20-21	22.7
22-25	5.3
36-55	.8
Race	
White	65.2
Black	14.1
Asian	3.7
Multiple races	6.7
Race not listed	9.6
Prefer not to say	.7
GPA	
Over 3.5	47.4
3.00-3.49	31.9
2.00-2.99	18.5
0-1.99	2.2
Classification	
Freshman	60.6
Sophomore	27.3
Junior	6.1
Senior	6.1
Note: N=135	

Assessment Instruments

Perceived Stress Scale

The Perceived Stress Scale (PSS) was developed by Cohen, Karmack, and Mermelstein (1983) to measure perceptions of stress and is the most widely used psychological instrument for doing so. The PSS measures the degree to which situations in one's life are appraised as stressful. In other words, the PSS does not measure stressful events, but rather the perceptions of levels of stress. The PSS is a self-report questionnaire consisting of 14 items on a Likert scale ranging from never to very often. An example of a question from the PSS is "in the last month, how often have you been able to control irritations in your life?" Internal consistency for the PSS in the present study was strong, with an alpha of .86.

Companion Animal Bonding Scale

The Companion Animal Bonding Scale (CABS) was developed by Poresky, Hendrix, Mosier and Samuelson (1987) to measure the quality of bond between humans and animals. Originally, the CABS was normed on a child population, but has since been used with adult samples. The CABS is a self-report questionnaire consisting of 8 items, with a Likert scale ranging from "always" to "never." There are two different forms of the CABS, one being the contemporary form and one being the past form. These forms refer to the use of either present or past tense. The current study used the contemporary form. An example of a question from the CABS is "How often are you responsible for your companion animal's care?" Internal consistency for in the CABS in the present study was strong, with an alpha of .863.

Procedure

The survey was sent to two professors with large undergraduate classes. Responses were recorded during their class time. No extra-credit or incentives were provided. The students filled

out the Perceived Stress Scale, and 63 participants that qualified via pet ownership proceeded to complete the Companion Animal Bonding Scale. Results were analyzed by using a correlation and an independent-samples t-test.

Results

The goal of this analysis was to compare the relationship with pet ownership and stress. It was predicted that those who own pets will perceive less stress. To test this prediction a t-test was conducted comparing stress levels between pet owners (Mean = 40.67 , SD = 7.77) and those who do not own pets (Mean = 41.52 , SD = 8.10). Overall, as can be seen in Table 2, no differences between those groups was observed for perceived stress ($t(62) = .397, p = .530$). In other words, college students who own pets did not experience less stress than those who do not own pets.

Table 2

Independent Samples Test of perceived stress and pet ownership

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
SUM of PSS	Equal variances assumed	.397	.530	-.626	130	.533	-.86728	1.38638	-3.61007	1.87551
	Equal variances not assumed			-.627	129.164	.532	-.86728	1.38284	-3.60323	1.86867

The second prediction of the study was that the level of stress will correlate negatively with the level of attachment to a pet. The correlation between stress and attachment to pet can be found in Table 3. As can be seen in Table 3, the correlation between stress and attachment was non-significant.

Table 3

Correlation between perceived stress and level of attachment to pet(s)

		SUM of PSS	SUM of CABS
SUM of PSS	Pearson Correlation	1	-.075
	Sig. (1-tailed)		.281
	N	132	62
SUM of CABS	Pearson Correlation	-.075	1
	Sig. (1-tailed)	.281	
	N	62	62

Discussion

Based on the analyses, there was not a significant difference between pet ownership and stress level. Additionally, there was no relationship found between level of stress and level of attachment to a pet. Interestingly, these findings are not consistent with the findings of previous studies. For example, Straeda and Gates (1993) found that pet owners have a higher psychological well-being. However, lack of correlation does not imply that there is no relationship. As this study was a replication of similar research (i.e., Straede & Gates, 1993; Stambach & Turner, 1999), the results were unexpected. Nonetheless, college students who had higher levels of attachment to their pet reported slightly less perceived stress than those without pets. This could be due to the strong relationship with one's pet mitigating stressful symptoms. Additionally, the higher the level of the attachment could also indicate a more healthy, secure attachment which could also help stress levels. Owning a pet also comes with

responsibility due to an owner being the primary caretaker of the animal, and this responsibility could potentially give owners a sense of purpose that could act as buffer or distraction in relation to life stress. Higher quality relationships with pets could lead to higher feelings of support, which can also contribute to lowering stress levels. Proximity to a pet should also be taken under consideration, it would make sense that a person who sees their pet more regularly would have a stronger bond with them. Perhaps if a wider sample of individuals was used, not just college students, results might be supportive of the previous hypotheses.

Conclusion

Although significant results were not found in the study, there are still a number of limitations that could contribute to this outcome. First of all, the demographics were not very diverse, which can affect the generalizability of the results. In addition, the sample was largely female, and between the ages of 18-19. Additionally, a large percentage of participants may not have currently lived with their pet due to Abilene Christian University's policy barring pets from dorms. With most of the sample being freshman, it is likely that a majority of them lived in dormitories on campus, which would cause them to fill the survey out retrospectively because of these policies. Overall, this study would improve if a more diverse sample was available.

In future studies, it would be important to collect a more diverse sample. Additionally, taking into account living conditions due to classification. Evaluating whether an individual has more than one pet and how long they have owned their pet are directions that could be taken as well. Studies could implement measures that would provide longitudinal data, such as a daily log tracking how often someone spends time with their pet and a rating of their stress level that day. A study could also be conducted that assesses how quickly a person becomes attached to their

pet, and if there is a relationship between that amount of time and whether stress is lowered or heightened.

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