The Effect of Pet Ownership on College Students' Stress Levels

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Abstract

Some environments, such as the college campus, are more conducive to stress than others. Due to the apparent, ever-growing prevalence of stress, individuals seek new means by which they can achieve stress relief. One such outlet occurs through pet ownership, but the existing research does not indicate whether the type of pet may also influence the level of stress relief the owner experiences. The relationship between pet ownership and stress relief during the academic semester was measured among participants (N = 117) through a short survey. Results indicated that those who had daily interaction with a dog did not have lower scores on the Cohen Perceived Stress Scale than those who did not have daily interaction with a dog. The implications include the burden for further research, and that college students who experience high levels of academic stress may want to consider pet outreach programs offered by on-campus counseling centers.

Previous research has established the effect that pet ownership has on individual stress levels. The research tends to indicate that the individual who acts as the primary caregiver of his or her animal will experience the greatest benefits of stress relief (Utz, 2014). However, the existing research does not indicate whether the type of pet may also influence the amount of stress relief the owner experiences; for example, will dog owners or cat owners experience more stress relief? In the same way, the existing research does not focus on a population that is often characterized as experiencing chronic stress such as college students. Thus, the purpose of the current research is to examine the possible relationship between pet ownership, specifically whether individuals own a dog or a cat, and the related stress levels through the academic semester; in addition, the research will document the differences between cat owners', dog owners', and non-pet owners' stress levels.

Stress has become the focal point in the popular media due to its apparent, ever-growing prevalence. Therefore, it is unsurprising that individuals constantly seek new outlets and means by which they can achieve stress relief. Some environments, like a college campus or a particularly demanding workplace, are more conducive to stress than others; students, especially during their first year of college, will undergo high levels of stress as they attempt to transition to college life (Dyson & Renk, 2006).

The majority of college students experience high levels of stress during their academic semester as they attempt to balance their academic pursuits, physical and mental health, family and extraneous relationships, and their personal goals or hobbies (Hurst, Baranik, & Daniel, 2013). Many individuals, particularly youth, experience more positive, emotional, and cognitive development when they interact with an animal (Mueller, 2014). In fact, there are many cases in which the object of comfort and relief comes in the form of a pet (Wright et al., 2015; Stewart &

Strickland, 2013). The presence of a pet can reduce stress levels and cardiovascular responses to stress levels in pet owners (Grossberg, Alf, & Vormbrock, 1988; Miller et al., 2009).

When college students perceive stress as severe, they tend to have worse physical health and academic achievement (Leppink, Odlaug, Lust, Christenson, & Grant, 2016). Furthermore, college students with severe stress believe that their behaviors are due to chance rather than something they can possibly change (de Carvalho, Gadzella, Henley, & Ball, 2009). Students can be affected by stress in relation to academic pursuits, employment conditions, and financial burden (Guo, Wang, Johnson, & Diaz, 2011). Likewise, students face many types of stressors in their daily academic grind, including but not limited to relationships, lack of resources, academics, their daily classroom environment, and performance expectations from professors (Hurst et al., 2013). It is clear that college students are feeling the burden of stress, notwithstanding the cause. What can be done for college students experiencing severe stress?

One factor that must be taken into consideration when discussing college student stress relief is individual personality and self-efficacy when faced with difficulties. For example, students who perceive that they are in control of their situation are better able to problem solve and consequently experience less stress (D'Zurilla & Sheedy, 1991). Similarly, students who seek out and participate in a stress management course and exercise frequently tend to experience less stress and burnout during their college semester (Baghurst & Kelley, 2014). Subsequently, it is important to consider the many means by which stress relief can be achieved. All students are different and possess diverse needs, so alternative forms of counseling or methods of assistance should be utilized when working to help students find stress relief (Olivas & Li, 2006). One unique method of stress relief that seems to comfort many students during collegiate stress comes through interaction with a support animal, sometimes in a stress

management clinic setting (Daltry & Mehr, 2015).

Many populations utilize pet ownership, particularly dog ownership, in order to relieve stress in an environment that is conducive to stress. For example, the primary caregivers of children with autism experienced lower levels of stress based on dog-ownership (Hall et al., 2015). Dog ownership has often been correlated with changed stress levels (Hall et al., 2015; Stewart & Strickland, 2013), perhaps because dogs provide more companionship as an object of attachment than do other pets (Siegel, 1990). However, there are several possible implications of a close emotional attachment to a companion animal; for example, if the animal passes away, the pet owner will experience grief and psychological stress (Brown, 2006; Peacock, Chur-Hansen, & Winefield, 2012; Rujoiu & Rujoiu, 2014). Nevertheless, a companion animal will make no difference for individuals in high-stress environments who do not enjoy the company of animals initially (Stewart & Strickland, 2013).

Consequently, after controlling for individual preference in regard to animal therapy or interaction with animals in general, the fact remains that many individuals in a high-stress work environment experience comfort in the form of a companion animal (Wright et al., 2015). The presence of a pet, particularly a dog, can reduce stress levels, and cardiovascular responses to stress levels in the individual (Beals, 2009; Grossberg et al., 1988; Miller et al., 2009). College students, a population that faces high stress levels on a daily basis, may benefit from interaction with a pet, specifically a dog. Although pet owners who act as the primary caregiver of their animal will experience the greatest benefits of stress relief, interaction with a companion animal in therapy outreach programs may also lead to lower stress levels (Daltry & Mehr, 2015; Utz, 2014). Historically, dogs in particular have been trained to care for and assist humans by herding in the pasture, hunting alongside their masters in the woods, and pulling sleds (Zentall & Engle,

2016). It is clear that dogs have cared for humans in the past and have a unique bond with their masters, so it is fitting that they are prime candidates for stress-relief programs. While an increasing number of colleges are allowing pet therapy programs onto their campuses, there is a gap in the empirical evidence (Raymond, 2016). Is there a relationship between pet ownership or contact with a pet and reduced stress?

The current study will assess college student stress levels through a brief survey that will consist of open-ended questions and the Cohen Perceived Stress scale. The stress scale will measure how much the individual has been stressed during the past month. The survey will also explore whether or not the individual owns a pet, and the extent to which the individual interacts with the pet. I predict that dog owners will experience lower levels of stress during their academic semester than those who do not own a dog.

Method

Participants

Participants (N = 117) consisted of college students who were predominantly female (65%), with an average age of 19 (SD = 3.85). The sample included college-age students from freshmen (52%), sophomores (25%), juniors (22%), seniors (14%), and graduate students (3%). Recruitment of participants began with a convenience sample of students in six psychology classes.

Materials and Procedure

The procedure consisted of a short survey. The recruitment consisted of emailing professors for permission to survey their classes. Informed consent was gained through a written slip, where those who did not sign their consent did not take the survey. Also, participants had the option to refuse to participate. After signing an informed consent indicating that they would

like to participate in the survey, participants began by answering a demographics section that included their age, sex, grade point average, ethnicity, year in school, major in school, and credit hours during their current semester.

The survey also included an open-ended response section where student respondents indicated how many hours they spend with a cat or dog during their week. Sample items included "Approximately how many hours per week do you spend with the dog?" and "Are you the primary caregiver of the dog?" The questions were similarly worded for the items pertaining to cat ownership. Next, participants completed the Cohen Perceived Stress Scale, which includes 10 self-report questions about the person's stress in the past month (Cohen, Kamarck, & Mermelstein, 1983). The Cohen Perceived Stress Scale has been proven both reliable and valid as it has been utilized in a variety of past research in relation to stress, including a study that evaluated a stress management intervention for online college students (Hintz, Frazier, & Meredith, 2015; Hyman, Paliwal, & Sinha, 2007; Pieterse & Carter, 2007). Participants rated items on the survey using a Likert-type scale from 1 (*never*) to 5 (*very often*). After participants filled out the survey they placed it in a confidential box and received a debriefing slip. All participants gave their consent to participate in the survey procedure.

Results

An independent samples *t* test examined mean differences between whether or not individuals interacted with a dog and the number of hours spent with the dog. The purpose of the test was to demonstrate that the groups differed on a meaningful variable, which doubly serves as a manipulation check. Among individuals who interacted with a dog, they did so 35 hours (SD = 9.51) a week on average. The other group's mean was, by definition, 0 hours. The independent samples *t*-test was significant, $t(114) = 3.72$, $p = .001$.

The hypothesis predicted that those who had daily interaction with a dog would have lower scores on the Cohen Perceived Stress Scale than those who did not have daily interaction with a dog. Out of the sample, 32% of people indicated that they interact with a dog, and 68% indicated that they do not interact with the dog. The mean for the total score on the Cohen Perceived Stress scale was 22.44 (*SD* = 3.99). Out of the sample, 14% of people indicated that they interact with a cat, and 86% indicated that they do not interact with the cat. Among individuals who interacted with a cat they did so 12 hours (*SD* = 11.02) a week on average. An independent samples *t*-test examined differences in stress levels between those who own a dog (*M* = 21.78, *SD* = 4.41) and those who do not own a dog (*M* = 22.77, *SD* = 3.79). The test was not significant, $t(113) = 1.24$, $p = .218$. In addition, an independent samples *t*-test examined mean differences in stress levels between those who own a dog and those who are the primary caregiver of a dog (*M* = 21.75, *SD* = 4.59) or not (*M* = 22.04, *SD* = 4.34). The independent samples *t*-test was not significant, $t(33) = 0.19$, $p = .854$. The tests results for the cat ownership condition were also nonsignificant.

A Pearson's correlation was conducted in order to establish a correlation between hours spent with a dog and the individual's' score on the Cohen Perceived Stress scale. The test revealed that there was no significant correlation between hours spent with the dog (*M* = 11.30, *SD* = 36.36) and the individual's' score on the Cohen Perceived Stress Scale, ($r = .04$, $p = .66$). Overall, the hypothesis was not supported by either the *t* tests or the correlations.

Discussion

The current research examined the potential relationship between pet ownership and overall stress during a typical college semester. One significant aspect of the research was that dog owners who were also the primary caregivers of a dog spent more hours with a dog than dog

owners who were not the primary caregiver. Although the purpose of the research was to establish some sort of relationship between pet ownership and overall stress during the college academic semester, the research did not result in any significant findings. However, there are several implications for future research.

Firstly, the research results do not tend to agree with past research findings. In the existing literature, the primary caregiver of the pet is the one who will experience the most stress relief (Daltry & Mehr, 2015; Utz, 2014). Those who take care of their pet seem to enjoy the most benefits of pet ownership. In addition, past research tends to indicate that therapy interventions and on-campus counseling centers that utilize pet therapy tend to have better results than therapy that does not utilize pets (Daltry & Mehr, 2015). However, in this particular study there was no significant relationship between interaction with either a cat or dog and stress relief during the academic semester.

The implications for the study also include the burden for further research. Although the current study did not find any significant results, it is imperative to conduct further research in different settings in order to establish the effect of pet ownership on stress levels. It is common for people to own a pet, whether it be a cat, dog, or goldfish. If there is truly a relationship between pet ownership and stress relief, it could possess great implications for pet owners globally. However, if there truly is not a significant relation between the variables, there are still implications for the individuals who find that owning a pet relieves their stress. As stated before, it is clear that college students are individual and thus do not find the same measures of stress relief to work for them in every situation (Olivas & Li, 2006). However, those who do find pet ownership to be a helpful stress relief should utilize the option. For those who are extremely stressed and do not own a pet, they may find it beneficial to look into pet ownership if a true

relationship can be established.

Furthermore, there were several limitations of the research. The first limitation occurred in the fact that some college campuses do not allow pets on campus in the dormitory buildings. In addition, the on-campus dog outreach programs are not widely known, so students may not get any interaction with a dog whatsoever. Also, the particular time in the semester that the researcher surveyed students may also be a limiting factor; for example, surveying students about their academic stress during the beginning of the semester may have different results than surveying students about their academic stress during the week before finals.

Thus, future research should be conducted at different college campuses, particularly those where pets are allowed in the dormitory buildings. In addition, there should be some sort of set time during the semester where students are surveyed. In order to see the maximum benefits of pet ownership and stress relief, future researchers may survey students towards the end of their semester close to finals where stress levels will be at their highest. The future research could have great implications for pet owners and stress relief interventions globally.

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