

COMPANION ANIMALS: IN RELATION TO WELL-BEING AND SOCIAL  
SUPPORT IN COLLEGE STUDENTS

A Thesis

by

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## **Abstract**

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This study investigated the relationship between college students owning companion animals, wellbeing, and social support. This investigation asked two main questions and one central hypothesis. First, are there differences in well-being between pet-owners, and non-pet owners attending college? Second, the literature suggests social support predicts well-being, therefore are there differences in perceived social support between pet owners and non-pet owners attending college? This study hypothesized that college students who owned pets experience increased psychological well-being and social support compared to those who don't own pets. A sample of 80 students from Tarleton State University completed a series of web-based questionnaires, that include demographic, well-being and perceived social support scales. The investigation utilized the Satisfaction with Life Questionnaire (SWLS), Balanced Measure of Psychological Need Scale (BMPN), and the Multidimensional Scale of Perceived Social Support (MSPSS) to evaluate participants. Results indicated no significant differences between pet owners and non-pet owners attending college in the measure of well-being and social support. Additional analysis revealed a significant correlation between wellbeing measures and social support measures. The data revealed a significant effect in terms of psychological needs for those that owned dogs compared to cats.

Keywords: companion animals, social capital, well-being, health, college students

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# CHAPTER I

## INTRODUCTION

Companion animals are domesticated animals that share our human environment and are considered to be family. Pets have intertwined in humankind from prehistoric periods to the present in virtually every society; seemingly having a pet placates an in-depth, worldwide human need. Having a pet can be labeled as a symbiotic connection, one that helps both humans and animals. Many lonely individuals were advised to get a pet to ease societal isolation; it was the United States President Harry Truman that once said, “If you want a friend in Washington, get a dog.” (McConnell et al., 2011, p. 1239). Society has a romanticized interpretation of the history of animals that conveys to us pets do not have a function, save for breeding for agriculture and sustenance. Through the interaction with humans, companion animals provide a variety of supportive roles including companionship. Bao and Scheer (2016) discovered while investigating pets and happiness, that participants who own pets exhibited increased satisfaction in life compared to participants that did not own a pet.

In the natural order of human beings, the inevitability of growing older greets the possibility of untreated mental health requirements and long periods of social isolation (While, 2017). Living with a pet in the latter portion of life affords a range of benefits specifically, a sense of purpose, companionship, social interaction, comfort as well as support and a catalyst for physical activity (Sollami et al., 2017). The presences of animals are beneficial in nursing home facilities, resulting in more requests for time with the



animals, exhibiting more happiness after time spent with the animals, and increased calming effect on agitated residents (Stull et al., 2018). It is unmistakable that humanity needs an increased understanding of how pet ownership impacts social interactions and the psychological and physiological facets of humanity.

What roles do companion animals play in the lives of college students? There is a variety of challenges that individuals face when transitioning from home life to attending college, (e. g., anxiety, loneliness, and depression). Eisenberg et al. (2007) found among 485 participants attending college, 22.4% screened positive for mental health conditions, and amid that group, 50.1% screened positive for generalized anxiety disorder and major depression with 42.8% exhibiting suicidal thoughts. Pets encompass a ubiquitous role on campuses indicating increases in requests from students to include their companion animals to their dorm and to help alleviate the adverse mental difficulties (Adams et al., 2017). Research shows that depression and stress are an indication of anxiety shaped by student's performances in college and universities (Anson et al., 1984; Dusselier, et al., 2005; Stark & Brookman, 1994). College life tends to produce an abundance of stressful situations, and research has provided evidence to the validity of the alleviation of that stress with animal interactions. In an evaluation of undergraduate students that had an increased anxiety trait, Wheeler and Faulkner (2015) discovered that those students scored lower on anxiety scales after petting a canine during a stressful situation compared to the other participants. Even with the abundance of research that animals may aid individuals in confronting the stresses

of life, very little is known about the positive benefits of companion animals for individuals in college.

The critical component of the theories regionalizing the human-animal bond focuses on the dilution of the family unit and civic fellowships that results in a breakdown of conventional sources of social assistance (Beck, 1992; Charles, 2014). In the attempt to counteract the lack of support humans focus on animals for the company that provides a surety that is no longer there in interactions with other humans (Charles, 2014; Franklin, 1999). While most of the current research on pet ownership does acknowledge that companion animals contribute positively to human well-being individually, there is an absence of studies isolating well-being and the influence that residential living pets have on college students. Owning a pet creates opportunities that lead to more social interaction, creates a feeling of support, encourages healthy life changes, and reduces risk-taking behavior (Hodgson et al., 2015). Walking a pet promotes a more active lifestyle by facilitating daily exercise and consuming healthy foods (Vesnaver & Keller, 2011). Research has shown that human associations with animals are beneficial to one's health since they can decrease stress and medical grievances all the while growing self-confidence (Herzog, 2011). Mauger et al., (2019) found that of the participants that owned an animal, specifically a dog, reported physical activity, glucose range and diet at ideal levels compared to non-pet owners. Animal-assisted activities can also act as a modifier for mental health difficulties by lowering the effects of stress, anxiety, and depression (Adams

et al., 2017). Consistent with Allen et al. (2002) that pet owners had a significantly reduced systolic and diastolic blood pressure compared to those with no pet.

The current study asks two main questions and one central hypothesis. First, were there differences in well-being between pet-owners and non-pet owners attending college? This study specifically focused on pet-owners of dogs and cats, whereas these types of animals tend to have more physical interaction with humans. Substantial research shows to support a more significant quality of social support that foretells better well-being (Uchino, 2009; Whitney, 2010). Second, since social support can predict well-being, were there differences in perceived social support between pet owners and non-pet owners attending college? This study hypothesized that college students experience increased well-being and social supports compared to non-pet owners attending college.

## CHAPTER II

### BACKGROUND AND SIGNIFICANCE

#### **Well-being**

A valuable question exists as to the legitimacy of pets aiding in the well-being of humans. Many researchers have discovered the answer to that question. Kanat-Maymon et al. (2015) reported that among 206 participants that interactions with their pets considerably predicted an increase in well-being and supported apparent needs. Research has also shown that viewing one's pet as a member of the family encourages the role of social support and increases well-being (McConnell et al., 2019). Public engagements frequently provide people with a substantial amount of societal support, but can companion animals be able to satisfy human social requirements? Pets have shown to be a facilitator for numerous facts of human societal relationships in community settings, incidental interactions, forming new friendships, and physical and emotional support (Wood et al., 2005).

The presence of animals as a pet was not purely an outcome of subjugation for practical purposes, (e. g., sustenance and defense) but it gives the impression that it results from human being's aspiration for companionship with additional species (Hirschman, 1994; Messent & Serpell, 1981). Zilch-Mano et al. (2011) suggested that the bond between animals and humans relates to attachment theory in which there is a lifelong mental connection among humans. Zilcha-Mano et al. (2011) described that many pet owners believe pets to aid in a similar function to a close human attachment. Through this research,

the knowledge proves that animals provide companionship, aid in emotional support in tough times, and provide help for the disabled. This idea poses a second question; does it go beyond that?

In order to achieve the relationship between pets and college students, there was a demanding need to magnify the current study models of pet owners and non-pet owners to include an emphasis on human well-being. Pets remain a substantial dynamic for creating social exchanges for pet owners; this interprets into innovative sources of social assistance (Wood et al., 2005). Companion animals denote an under-applied prospect, for they are frequently a lengthy, and cohesive part of human lives. Pets, different from humans, are recognized as non-condemnatory entities and have proven the capacity to aid social engagements, and lowering tension (Wells, 2009). The potential aim of this research was to determine if pet owners that attend college have higher social support than non-pet owners. Substantial research shows to support a more significant quality of social support that foretells better well-being (Uchino, 2009; Woodward & Bauer, 2007). The current research is focused on the degree of well-being relating to pet-owning college students compared to non-pet owning college students.

Enormous amounts of money have been invested in preventative treatments and healing therapies for persons with a vast assortment of psychological problems, occasionally to no benefit. Companionship with animals can facilitate a decrease in stress via neurochemical route; simple gestures, for example, stroking a canine increased dopamine, oxytocin, and endorphins in humans (Amiot et al., 2016). Social connections,

societal assistance, and impressions of the community play a key role in acknowledgment as defending features for psychological well-being (Almedom, 2005). There is evidence that animals can improve the impacts of traumatic life occurrences, decreasing degrees of anxiety, dampen the effects of seclusion, and soothe melancholy (Folse et al., 1994; Garrity et al., 1989; Wells, 2009). In some groups, McConnell et al. (2011) suggested that pet owners have significantly higher levels of self-esteem and were less likely to indicate feelings of loneliness. The benefits of pet ownership span a human lifetime and previous researchers have proven that in older adults having a pet notably decreases the adverse effects of lonesomeness than older adults without pets (Stanley et al., 2014). Several researchers have found that pets can be useful in shielding the mental well-being of the pet owners by supplying emotional sustenance (Albert & Bulcroft, 1988; Antonacopoulos & Pychyl, 2008).

### **Social Support and Pets**

Many individuals believe pets can be a continuous source of support, comfort, and love as well as help through rough times. Depending on the types of pets, specific animals can aid in different experiences. For example, dogs give affection and companionship but also encourage individuals to be physically active. Owning a dog also promotes increased emotional and psychological health, aids in decreasing depression, anxiety, social seclusion and escalates physical motion (Beck & Meyers, 1996). Bennett et al. (2015) discovered amid participants that owned a pet, the more present the animal was in daily interactions, particularly dogs, the greater well-being and mood compared to non-pet

owning individuals. Canines contribute a broader variation of connections with humans by participating in walks and outdoor activities, alternatively, cats tend to be a similarly vital source of absolute love, warmth, and friendship (Zasloff & Kidd, 1994).

Dall et al. (2017) reported dog owners spent on average over 20 more minutes a week participating in physical activity due to regular dog walks compared to non-pet owning participants. Allen et al. (2002) found that when participating in a stressful action, individuals underwent decreased stress when their pets were present compared to when a friend or loved one was nearby. Hall et al. (2016) conducted a study on the long-term benefits of owning a dog, researchers discovered that in families affected by autism, having a dog significantly increased positive family function and reduced stress levels compared to the non-pet owning families. Putney (2014) reported that among the adult older lesbian participants pets (especially cats) increased well-being among pet owners.

### **College Stress**

For some individuals, college poses a problematic experience that creates a significant number of stressors. Adams et al. (2017) suggested that college students experience homesickness, difficulties separating from family members and friends, complications adjusting to new surroundings, and regulating new responsibilities. In the Pennsylvania State University Center for Collegiate Mental Health 2012 Annual Report, over 100,000 college and university students indicated seeking out campus counseling during the academic year for school-related difficulties including, anxiety, depression, and stress (Pennsylvania State University, 2015). Various research has shown that interacting

with animals; specifically, dogs demonstrate a positive effect on human well-being; and many universities have utilized animal-assisted intervention program that resulted in the reduction of adverse moods and anxiety in students (Crossman et al., 2015). Many universities have utilized programs involving therapy dogs on campus to alleviate stress students experience before exams; finding that after the sessions with the dogs, students had decreased stress and increased happiness (Ward-Griffon et al., 2018). Having animals during the stressful time of college has shown to increase student productivity (Gerace, 2017). Owning a pet dog while attending college generated a connection to improve academic performance, professed stress, and increase participation in extracurricular interests compared to non-dog owners (Gerace, 2017).



## **CHAPTER III**

### **RESEARCH AND METHODS**

#### **Participants**

A sample of 80 undergraduate students ranging in age from 18 to 25 and older that owned and do not own pets participated in the study. The student population was notified of the opportunity to participate in several ways by email recruitment, recruitment flyers (located in APPENDIX E), and a recruitment social media post utilizing Facebook. Participants randomly participated in this study in response to e-mail announcements, flyers on campus and social media posts sent by the researcher and completed the survey questionnaires utilizing Qualtrics. The participants were given an informed consent form to read and sign. Survey questions were set up to exclude pet owners that do not currently live with their pet. These participants were excluded because for the pet to help with everyday well-being the participant would have to spend a large quantity of time with the pet.

#### **Measures**

##### **Instrumentation**

Life satisfaction of the participants was measured using The Satisfaction in Life Scale (SWLS). The SWLS consisted of five statements about fulfillment in life (Diener et al., 1985)(see APPENDIX A). The participants summarized their feelings on a 5-point scale (e.g., 1-being "I am not accurately at all [ I am satisfied with my life] to 5 very accurately [The conditions of my life are excellent]") (Diener et al., 1985). The average of

their responses was calculated, with more significant scores of designing participants with more personal satisfaction. Participants that scored within the range of 30 – 35 (very high score); indicate highly satisfied. Participants who scored in this range love their daily lives. Participants that scored in the range of 25- 29 (high score), like their daily lives. Participants scored within 20 – 24 (average score). Individuals scored in this range because they are mostly satisfied with most areas of their lives but feel there is a need for improvement. Participants that scored within 15 – 19, slightly below average in life satisfaction. Participants that scored in this range have small but significant problems in components of their lives or have many areas that are going fine but a single area that signifies a considerable problem for them. Participants will score within 10 – 14, dissatisfied. Participants that scored in this range are greatly dissatisfied with their lives. Participants in this range may have several domains that are not going well or one or two domains that are going very badly. Participants that scored within 5 – 9, extremely dissatisfied. Participants who scored in this range are usually extremely disappointed with their current life. Participants that scored in between the 30 -35 and 25-29 range were considered satisfied with life (Diener et al., 1985). Blazquez et al. (2015) found the scale to have high internal consistency, high test-retest reliability ( 0.80). The Cronbach's alpha measuring internal consistency for this scale is 0.89.

Need satisfaction of participants was measured using The Balanced Measure of Psychological Needs Scale (BMPN) (Sheldon & Hilpert, 2012)( APPENDIX B) was utilized for the individuals to respond to 18 statements. The participants' responses ranged

on a Likert scale from 1 (not likely at all) to 7 (very much likely) on six questions about autonomy (I had many pressures I could do without.), competence (I took on and mastered hard challenges.), and relatedness (I felt close and connected with other people who are important to me.) (Sheldon & Hilpert, 2012). The scale included negatively worded items, and there was a need for a reversal for the codes of negatively worded questions. The participants that scored in the higher range would indicate a higher measured balance of needs. Cordeiro et al. (2016), found the BMPN to be valid and reliable to examine basic need satisfaction and need frustration while investigating Portuguese high school students. The Cronbach's alpha measuring internal consistency of this scale is  $\alpha = .69$  for positively worded items and  $\alpha = .72$  for negatively worded items.

The Multidimensional Scale of Perceived Social Support (MSPSS) was used to measure the participant's perceived social support (Zimet et al., 1988)( APPENDIX D). was utilized. The participants' responses on the 12-item measure ranged from 1 (strongly disagree) to 7 (strongly disagree) with six questions about autonomy. The MSPSS scale was intended to measure a participants' awareness of the amount he or she obtains external social support and has been verified on individuals from various age groupings and cultural backgrounds and discovered to be a reliable and valid device. The Cronbach's alpha measuring internal consistency for this scale is  $\alpha = 0.77$  (Clara et al., 2003; Ramaswamy et al., 2009).

## **Procedure**

The participants first received a consent form to read and sign. Then they completed a series of questions that were included in the survey to support the investigation of correlations between pet owners, non-pet owners, and well-being.

Life satisfaction of participants was measured using The Satisfaction with Life Scale (SLS) (Diener et al., 1985)(see APPENDIX A), The Balanced Measure of Psychological Need Scale (BMPN) (Sheldon & Hilpert, 2012), The Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988) demographics, and informed consent.

## **Data Analysis**

All participant's data was obtained through Qualtrics, organized into data files employing Excel, and analyzed utilizing JASP software. Before the data analysis, data were downloaded from Qualtrics using an excel .csv format onto a flash drive. The downloaded data was cleaned, and unanalyzable components discarded. The variables measured in this study were life satisfaction score, perceived support score and need satisfaction score. The researcher first cleaned and coded the data and then looked at descriptive statistics were produced to examine the ranges of demographics and the mean score for each variable. The scores for pet owners and non-pet owners were separated, averaged into a grand mean for all three surveys. The grand means were employed to normalize the scores to be on the same scale. Subsequent to the normalization, to answer our primary hypothesis, an independent t-test was performed comparing participants that owned pets and non-pet

owning participants using the measures of life satisfaction, psychological needs, and perceived social support. During the analysis, some consistencies became apparent to warrant further investigation employing a correlation matrix between the well-being and the social support scale scores as well as Bayesian paired samples t-test. The supplementary analysis was done employing an independent t-test investigating the distribution of pet owners' type of pet either cat or dog. Lastly, to determine the relationship between pet owners that live with their pets and non-residential pets, an independent sample t-test was utilized.

## CHAPTER IV

### Results

#### *Descriptive Statistics*

The data sample was made up of 71 females and 9 males, of that 63 owned pets ( $M = 1.079$ ,  $SD = 0.2725$ ) and 17 did not own pets ( $M = 1.176$ ,  $SD = 0.3930$ ) with no significant gender difference. The participants consisted of 71, 18 to 24 year of age and nine, 25 or older years of age; of the two age groups 63 owned pets ( $M = 1.206$ ,  $SD = 0.4079$ ) and 17 did not own pets ( $M = 1.235$ ,  $SD = 0.4372$ ). Among the 63 pet owners, 48 owned dogs ( $M = 1.021$ ), 16 own cats ( $M = 1.000$ ), 43 lived with their pets, 20 did not live their pet ( $M = 1.231$ ) (Table 1).

**Table 1.**

*Descriptive statistics for the residence of pets, pet type, gender, age and pet ownership.*

|                       | Pet Residence |    | Pet type |     | Gender |       | Age   |           | Pet Ownership |       |
|-----------------------|---------------|----|----------|-----|--------|-------|-------|-----------|---------------|-------|
|                       | Yes           | No | Dog      | Cat | Female | Male  | 18-24 | 25 and up | Yes           | No    |
| <b>Valid</b>          | 43            | 20 | 48       | 16  | 63     | 17    | 63    | 17        | 63            | 17    |
| <b>Missing</b>        | 0             | 11 | 0        | 16  | 0      | 0     | 0     | 0         | 0             | 0     |
| <b>Mean</b>           | 1.317         | 2  | 1.254    | 1   | 1.079  | 1.176 | 1.206 | 1.235     | 1.000         | 2.000 |
| <b>Std. Deviation</b> | 0.469         | 0  | 0.439    | NaN | 0.2725 | 0.393 | 0.408 | 0.4372    | 0.000         | 0.000 |
| <b>Minimum</b>        | 1             | 2  | 1        | 1   | 1      | 1     | 1     | 1         | 1             | 2     |
| <b>Maximum</b>        | 2             | 2  | 2        | 1   | 2      | 2     | 2     | 2         | 1             | 2     |

The participants ( $n = 80$ ) ( $M = 1.212$ ,  $SD = 0.4117$ ) completed three scales: satisfaction with life grand mean for pet owners was ( $M = 2.984$ ,  $SD = 0.566$ ); psychological needs grand mean for pet owners was ( $M = 4.87$ ,  $SD = 0.682$ ); perceived social support grand mean for pet owners was ( $M = 6.048$ ,  $SD = 0.816$ ). The non-pet owners

grand mean for satisfaction with life was ( $M = 3.00$ ,  $SD = 0.534$ ); psychological needs grand mean was ( $M = 4.81$ ,  $SD = 0.633$ ); grand mean for perceived social support was ( $M = 6.074$ ,  $SD = 0.787$ ) (Table 2).

**Table 2.**

*Group Descriptive of grand means of pet owners and non-pet owners for satisfaction with life, psychological needs, and perceived social support.*

|                          | Group | Grand Means | N  | Mean  | SD    | SE    |
|--------------------------|-------|-------------|----|-------|-------|-------|
| Satisfaction with Life   | dog   | 3.013       | 48 | 3.013 | 0.584 | 0.084 |
|                          | cat   | 2.862       | 16 | 2.862 | 0.51  | 0.127 |
| Psychological Needs      | dog   | 4.966       | 48 | 4.966 | 0.629 | 0.091 |
|                          | cat   | 4.545       | 16 | 4.545 | 0.751 | 0.188 |
| Perceived Social Support | dog   | 6.058       | 48 | 6.036 | 0.843 | 0.122 |
|                          | cat   | 6.036       | 16 | 6.058 | 0.731 | 0.183 |

### ***Independent Samples T-Tests***

To test the hypothesis that pet owners received significantly higher mean score in in terms of life satisfaction score, perceived support score and need satisfaction score compared to non-pet owners, an independent samples t-test was conducted separately for each of the three variables. There was no significant difference between pet owners and non-pet owners in terms of satisfaction with life,  $t(78) = 0.104$   $p > 0.05$ ,  $d = -0.028$ , 95% CI [-0.564, 0.507], balanced measures of psychological needs scale  $t(78) = 0.326$ ,  $p > 0.05$ ,  $d = 0.089$ , 95% CI [ 0.447, 0.625], and perceived social support  $t(78) = -0.120$ ,  $p > 0.05$ ,  $d = -0.033$ , 95% CI [-0.568, 0.503] (Table 3). The data for the differences in types of pets

that were owned was analyzed utilizing an independent sample t-test, which indicated a small effect for Satisfaction With Life, ( $t(62) = 0.916$ ,  $p = 0.363$ ,  $d = 0.265$ , 95% CI [ -0.304, 0.831]), and a moderate effect for Balanced Measure Psychological Needs, ( $t(62) = 2.206$ ,  $p = 0.031$ ,  $d = 0.637$ , 95% CI [ 0.584, 1.211]). The participants who owned dogs reported higher rate of psychological need satisfaction than those who owned cats indicated by the p value. The data revealed for dog owners that the grand mean of scores for the satisfaction with life ( $M = 3.013$ ,  $SD = 0.584$ ), was higher compared to cat owners ( $M = 2.862$ ,  $SD = 0.510$ ), and the psychological needs for dogs, ( $M = 4.966$ ,  $SD = 0.629$ ) was higher, compared to cat owners ( $M = 4.545$ ,  $SD = 0.751$ ). Perceived social support, indicated that cat owners had a higher grand mean score, ( $M = 6.058$ ,  $SD = 0.843$ ), compared to dog owners, ( $M = 6.036$ ,  $SD = 0.731$ ). Perceived social support for the types of pets that were own indicated no significant effect, ( $t(62) = -0.089$ ,  $p = 0.929$ ,  $d = -0.026$ , 95% CI [ -0.591, 0.540]) (Table 5). The data revealed for dog owners that the grand mean of scores for the satisfaction with life, ( $M = 3.013$ ) and the psychological needs, ( $M = 4.966$ ) were higher for dog owners, compared to cat owners ( $M = 2.862$ ), ( $M = 4.545$ ). In the measure of perceived social support, the data indicated that cat owners had a higher grand mean score, ( $M = 6.058$ ), compared to dog owners, ( $M = 6.036$ ). The data for living with your pet versus not living with your pet indicated that there was a no significance between living and not living with pets of the measures of satisfaction with life ( $t(67) = 0.614$ ,  $p = 0.541$ ,  $d = 0.152$ , 95% CI [ -0.336, 0.640]) and perceived social support, ( $t(67) = 0.497$ ,  $p = 0.621$ ,  $d = 0.123$ , 95% CI [ -0.364, 0.610]). In the measure of balance measures of



psychological needs, the data revealed a moderate effect size, ( $t(67) = 2.381$ ,  $p = 0.020$ ,  $d = 0.592$ , 95% CI [ 0.092, 1.086]) The participants who live with their pets reported higher rate of psychological need satisfaction than those who did not live with their pets indicated by the  $p$  value. Grand mean scores for pets that live with owners in the measure of the satisfaction with life, ( $M = 2.986$ ,  $SD = 0.570$ ), psychological needs, ( $M = 4.988$ ,  $SD = 0.695$ ), and perceived social support, ( $M = 6.049$ ,  $SD = 4.608$ ) compared to pet owners not living with pets, ( $M = 2.900$ ,  $SD = 0.555$ ), ( $M = 4.608$ ,  $SD = 0.547$ ), ( $M = 5.945$ ,  $SD = 0.808$ ) (Table 6)

**Table 3.**

*Independent Samples T-Test of pet owners versus non-pet owners in measures of satisfaction with life, balanced measures of psychological needs, and perceived social support.*

|        | t      | df | p     | Cohen's d | 95% CI for Cohen's d |       |
|--------|--------|----|-------|-----------|----------------------|-------|
|        |        |    |       |           | Lower                | Upper |
| SWL    | -0.104 | 78 | 0.918 | -0.028    | -0.564               | 0.507 |
| BMPN   | 0.326  | 78 | 0.746 | 0.089     | -0.447               | 0.625 |
| MPSPSS | -0.12  | 78 | 0.905 | -0.033    | -0.568               | 0.503 |

*Note.* Student's t-test.

**Table 5**

*The association between the types of pet and satisfaction with life, balanced measures of psychological needs, and perceived social support.*

**Independent Samples T-Test For Dogs  
vs. Cats**

|                          | t      | df | p     | Cohen's<br>d | 95% CI for Cohen's d |       |
|--------------------------|--------|----|-------|--------------|----------------------|-------|
|                          |        |    |       |              | Lower                | Upper |
| Satisfaction with Life   | 0.916  | 62 | 0.363 | 0.265        | -0.304               | 0.831 |
| Psychological Needs      | 2.206  | 62 | 0.031 | 0.637        | 0.058                | 1.211 |
| Perceived Social Support | -0.089 | 62 | 0.929 | -0.026       | -0.591               | 0.54  |

**Table 6**

*Results for pets living with owners and pets not living with owners through the measure of satisfaction with life, balanced measures psychological needs and perceived social support.*

|                          | t     | df | p     | Cohen's<br>d | 95% CI for Cohen's d |       |
|--------------------------|-------|----|-------|--------------|----------------------|-------|
|                          |       |    |       |              | Lower                | Upper |
| Satisfaction with Life   | 0.614 | 67 | 0.541 | 0.152        | -0.336               | 0.64  |
| Psychological Needs      | 2.381 | 67 | 0.02  | 0.592        | 0.092                | 1.086 |
| Perceived Social Support | 0.497 | 67 | 0.621 | 0.123        | -0.364               | 0.61  |

| Satisfaction with Life   | Group         | N  | Mean  | SD    | SE    |
|--------------------------|---------------|----|-------|-------|-------|
|                          | live with     | 43 | 2.986 | 0.57  | 0.087 |
| Psychological Needs      | not live with | 26 | 2.9   | 0.555 | 0.109 |
|                          | live with     | 43 | 4.988 | 0.695 | 0.106 |
| Perceived Social Support | not live with | 26 | 4.608 | 0.547 | 0.107 |
|                          | live with     | 43 | 6.049 | 0.854 | 0.13  |
|                          | not live with | 26 | 5.945 | 0.808 | 0.158 |

### ***Correlation Matrix***

The scales were utilized to determine the differences of pet owners and non-pet owners in the measures of satisfaction with life, psychological needs, and social support, alternatively in the data an apparent correlation was discovered. A correlation analysis for all three variables satisfaction with life ( $r(78) = 0.559$ ,  $p < 0.05$ ), psychological needs ( $r(78) = 0.510$ ,  $p < 0.05$ ), and perceived social support indicated ( $r(78) = 0.328$ ,  $p < 0.05$ ) (Table 1). To further validate the relationship between the scales a Bayesian paired samples t-test was utilized and indicated a significant with a Bayes Factor of ( $B_{01} = 3.517e +23$ ).

**Table 4.**

*Correlation Matrix between the well-being scale: The Satisfaction With Life Scale and The Balanced Measures of Psychological Needs, and The Multidimensional Scale of Perceived Social Support.*

|                        |   |                          | Pearson's r |     | p      |
|------------------------|---|--------------------------|-------------|-----|--------|
| Satisfaction with Life | - | Psychological Needs      | 0.559       | *** | < .001 |
| Satisfaction with Life | - | Perceived Social Support | 0.51        | *** | < .001 |
| Psychological Needs    | - | Perceived Social Support | 0.328       | **  | 0.003  |

\* p < .05, \*\* p < .01, \*\*\* p < .001

## **CHAPTER V**

### **DISCUSSION**

This study investigated the relationship between undergraduate pet owners and non-pet owners attending college in the measure of well-being and perceived social support. There were no statistically significant group differences observed when comparing pet owners to non-pet owners in the measures of satisfaction with life, psychological needs, and perceived social support. Alternatively, the grand mean score was higher for satisfaction with life for pet owners. This could imply that pet ownership and attending college alone possibly may not be correlated with significant variations of well-being, psychological needs, and perceived social support., but pet ownership is partially fulfilling an aspect of well-being. The results could also be due to the small amount of participant data that was gathered. In the event of a larger data set would be gathered, the assumption would be that the results would be vastly different. The participants who owned dogs reported a higher rate of psychological need satisfaction than those who owned cats. The finding for dog owners aligns with the study conducted by Zasloff and Kidd (1994) indicating that canines contribute a broader variation of connections with humans by participating in walks and outdoor activities, alternatively, cats tend to be a similarly vital source of absolute love, warmth, and friendship. The participants who live with their pets reported a higher rate of psychological need satisfaction than those who did not live with their pets. This finding aligns with Kanat-Maymon et al. (2015) indicating that among 206

participants that interactions with their pets considerably predicted an increase in well-being and supported apparent needs.

The findings of the correlation between the well-being scale and social support scale, extend the literature by revealing the association between satisfaction with life and balanced measures of psychological need among college students. Although this study is small and isolated to a single University, the significant results of this study about pet owners and dog owners attending college could aid in interventions in the college setting. Specifically, the strong correlation would suggest that if an individual's psychological needs were being met by having a pet, then they would also be satisfied with their life (i.e. well-being). This would align with the findings of Bao and Sheer (2006) and Kanat-Maymon et al. (2015), indicating that positive satisfaction with life and well-being was correlated to owning and spending time with a pet.

This study revealed that having a dog can have a small for the participant's satisfaction with life and moderate effect for their psychological needs indicating that owning a dog while attending college had a positive effect on the participant's well-being, but no significant effect for social support. Perhaps, this could suggest that dogs individually help with their owner's well-being, but cat owners seek out more social interactions. This finding aligns with Crossman et al. (2015) indicating that dogs demonstrate a positive effect on human well-being; and many universities have utilized animal-assisted intervention programs that resulted in the reduction of adverse moods and anxiety in students (Crossman et al., 2015). Although there are studies specifically focused

on social support of pet owners, this study results of dog owners align with the findings of Bennette et al. (2015) indicating, the more present the animal was in daily interactions, particularly dogs, the greater well-being and mood compared to non-pet owning individuals.

In addition to types of pets, this study discovered that living with a pet did not affect an individual's life satisfaction and perceived social support, alternately, the results revealed that living with a pet did positively affect psychological needs. This would suggest that having a dog in an individual's daily present contributed positively to autonomy, competence, and relatedness. A variety of research suggests that the bond between animals and humans relates to attachment theory in which there is a lifelong mental connection among humans, and many pet owners believe pets to aid in that similar function to a close human attachment (Zilcha-Mano et al. 2011). The findings in this study indicating that owning a dog while attending college illustrates this theory, specifically the participants that own dogs felt more life satisfaction because of the attachment.

## **CHAPTER VI**

### **LIMITATIONS**

The study had some important limitations. First, the study needed more statistical power and not demonstrative of the vast population of pet owners, as well as college students. A higher statistical power indicates whether the test results are probably valid. In a future study, recruiting a larger sample of participants and extending the length of time for participants to complete the surveys would possibly increase the power of a similar study. Secondly, although the participants administered the surveys themselves, there is a possibility of the responses not being truthful. Many investigators are apprehensive with response bias and consider response bias variables to represent a method of methodical bias which substantially alters the connection seen among an independent and dependent variable (Gove & Geerken, 1977). Third, the distribution of pet owners, age, type of pet and residence of pets was vastly different, so the results may not have been generalized to the whole population. Finally, future work in this area of study must generate bigger sample sizes to get an accurate illustration of college students that own pets in the areas of well-being and perceived social support.



## **CHAPTER VII**

### **CONCLUSION**

Although this study did not reveal a significant effect of owning pets among college students in terms of well-being and social support, there is much that was achieved from the findings. For example, satisfaction in life in pet owners is significantly correlated to psychological needs. Future studies should include a measure to investigate what aspects of pet ownership generate a positive effect on satisfaction in life and psychological needs. Knowledge of these aspects could advise individuals seeking information for pets, in addition to emotional support, and therapy animals. Finally, future studies should investigate pet owners of other animal types.

The findings of the current research have implications in a real-world setting. The findings suggest that therapeutic interventions that use pets may be effective when designed to support the psychological needs of college students. While past studies reveal the importance of the relationship between pet-based interventions and stress (Fine, 2010), the results in the current study suggest that a pet can also be a useful source of psychological needs among college students.

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## APPENDIX A

### Satisfaction With Life Questionnaire

#### Sample Questions

| Satisfaction with Life Scale<br>(Diener, 1985)                  | Mostly<br>True (4) | Somewhat<br>True (3) | A Little<br>True (2) | Not<br>True (1) |
|---|--------------------|----------------------|----------------------|-----------------|
| 1. In most ways, my life is my ideal.                           |                    |                      |                      |                 |
| 2. Conditions of my life are excellent.                         |                    |                      |                      |                 |
| 3. I am satisfied with my life.                                 |                    |                      |                      |                 |
| 4. So far, I have gotten the important things in life.          |                    |                      |                      |                 |
| 5. If I could live my life over, I would change almost nothing. |                    |                      |                      |                 |

## APPENDIX B

### The BMPN

1(not at all likely)    2(unlikely)    3(more or less likely)    4(neutral)    5(more or less likely)    6(likely)    7(very much likely)

#### Autonomy

1. I was free to do things my own way.
2. I had a lot of pressures I could do without.
3. My choices expressed my “true self.”
4. There were people telling me what I had to do.
5. I was really doing what interests me.
6. I had to do things against my will.

#### Competence

7. I was successfully completing difficult tasks and projects.
8. I experienced some kind of failure or was unable to do well at something.
9. I took on and mastered hard challenges.
10. I did something stupid, that made me feel incompetent.
11. I did well even at the hard things.
12. I struggled doing something I should be good at.

#### Relatedness

13. I felt a sense of contact with people who care for me, and whom I care for.

- 14. I was lonely.
- 15. I felt close and connected with other people who are important to me.
- 16. I felt unappreciated by one or more important people.
- 17. I felt a strong sense of intimacy with the people I spent time with.
- 18. I had disagreements or conflicts with people I usually get along with.

## APPENDIX C

### DEMOGRAPHICS

#### Sample Questionnaire

1. What is your age?

- ☐ 18-24 years old
- ☐ 25

2. Ethnic origin: Please specify your ethnicity.

- ☐ White
- ☐ Hispanic or Latino
- ☐ Black or African American
- ☐ Native American or American Indian
- ☐ Asian / Pacific Islander
- ☐

3. Gender

- ☐ Female
- ☐ Male
- ☐

4. Do you own a pet?

Yes/ No

5. What type of pet do you have?

- ☐ Dog
- ☐ Cat

6. Does your pet live with you at your residence? Yes/No

## APPENDIX D

Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Indicate “1” if you Extremely unlikely

Indicate “2” if you Moderately unlikely

Indicate “3” if you Slightly unlikely

Indicate “4” if you are Neither likely nor unlikely

Indicate “5” if you Slightly unlikely

Indicate “6” if you Moderately unlikely

Indicate “7” if you Extremely unlikely

SO

- |   |     |
|---|-----|
| 1. There is a special person who is around when I am in need.           | SO  |
| 2. There is a special person with whom I can share my joys and sorrows. | SO  |
| 3. My family really tries to help me.                                   | Fam |
| 4. I get the emotional help and support I need from my family.          | Fam |
| 5. I have a special person who is a real source of comfort to me.       | SO  |
| 6. My friends really try to help me.                                    | Fri |
| 7. I can count on my friends when things go wrong.                      | Fri |
| 8. I can talk about my problems with my family.                         | Fam |

Fri

9. I have friends with whom I can share my joys and sorrows. Fri

10. There is a special person in my life who cares about my feelings. SO

11. My family is willing to help me make decisions. Fam

12. I can talk about my problems with my friends. Fri

The items tended to divide into factor groups relating to the source of the social support, namely family (Fam), friends (Fri) or significant other (SO).



## APPENDIX E

### Recruitment E-mail message and Flier

#### Participants Wanted!

My name is Carolyn Pingleton and I am a Graduate student in the Applied Psychology Program at Tarleton State University. I am fascinated by discovering if those of you that own pets differ from those that do not own a pet. You are invited to contribute to a research study about pets and students that attend college. Students that own a pet and those who do not own a pet are invited to contribute. The survey will contain questions about demographics, your well-being, and your pets.

The data collection is from students with or without pets on February 16, 2020 and continue through to March 07, 2020. The questionnaire will take within around 20 mins to complete.

I hope to hear from you soon!

Tarleton Graduate Student

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