# EXPLORATION OF PET OWNERSHIP RELATED TO STRESS IN SOCIAL WORK STUDENTS 

Aly Vancil

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## EXPLORATION OF PET OWNERSHIP RELATED TO STRESS IN SOCIAL WORK STUDENTS

## A Project

Presented to the
Faculty of California State University, San Bernardino

In Partial Fulfillment of the Requirements for the Degree

Master of Social Work
by

Aly Sue Vancil
June 2020 WORK STUDENTS

## A Project

Presented to the
Faculty of
California State University,
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Aly Sue Vancil
June 2020
Approved by:

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#### Abstract

The problem statement is: Does pet ownership contribute to social work student's mental health as indicated by stress levels? The significance of this study is that further studies must be conducted in order to determine if there are long term benefits between human and animal interactions. In the research, there are many limitations that we explore because each study was done on a specific campus, or on a selective study body, or on an animal owner or non-animal owner. The research design used for the study was a quantitative survey design on Qualtrics that was sent to all the students in the social work programs at a university in southern California via email by the Administrative Support Coordinator. Permission to conduct this study was obtained on November 22, 2019 from the director of the school of social work. The findings of the study showed that 43 participants had moderate stress, and 16 participants had low stress. Of these 59 participants only 12 of them did not have a pet in their home. This indicated that most students have a moderate to low stress level. Future research that can be conducted would be to look more into the stress levels of a social work student before and after they interact with a pet for an extended period.


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## CHAPTER ONE

## INTRODUCTION

## Problem Statement

Animals have been an integral part of our lives. We have interacted with them since the beginning of time. They have served as pets or even companions; some go as far as warning their caregiver against possible dangers, such as a stroke or low/high blood sugar levels for a Diabetic. Dogs are sometimes trained in rescuing efforts, where they can detect medical issues, or they are the support animal for their caregivers. While a majority of them simply live a lavish lifestyle, meaning they are not meant to be working dogs, but that they are just there in the homes of their caregivers as normal pets. Whatever their functions may be, animals certainly have lessons to teach us, and they can play a fundamental part in the human healing process.

Animal-assisted therapy is part of a treatment plan that uses animals such as dogs, cats, horses, birds, fish, rabbits, etc. as a healing intervention. The close interaction of these animals with human beings can have soothing effects on that person's physical, mental, cognitive, emotional, as well as social functioning. Grajfoner, Harte, Potter, and Mcguigan (2011) suggests that " $A$ variety of evidence, both anecdotal and empirical, has demonstrated that these human-animal interactions can have a positive impact on human health and wellbeing, through animal-assisted interventions (AAIs), animal-assisted coaching
(AAC), animal-assisted activities (AAA), and more recently animal visitation programs (AVPs)" (p. 1).

Animal interventions have been studied to determine their effects on mental health disorders and issues such as stress, anxiety, loneliness, etc. Of interest is the contribution of pet ownership to the reduction of stress among students. Stress is the body's natural response to a stimulus. The stimulus can be positive or negative. We all need a certain level of stress in our daily functioning.

Every student, whether they are in high school, an undergraduate program, or a graduate program, experience stress in the process of their educational goals. This stress can be attributed not only to course work but to financial worries, home and family dynamics, jobs, and other adult related responsibilities. Students often find it difficult to find the right balance between these stress related factors. A recent study showed that three of four college students reported being stressed (ABC news, September 2018). There is ample research on stress among students, but very little documentation on the benefits of owning a pet as a form of stress therapy. Substantial data supports the inclusion of pet therapy for autistic children, people diagnosed with cancer, dementia, depression, and schizophrenia, and for hospitalized patients with heart failure.

As graduate social work students, we experience the pressures associated with the program. The pressures that students might face could be ranging from having to meet all of their internship hours, not having the ability to
have a job due to the time constraints of the program, having a job that works around the school schedule their obligation to pay bills, or having to take care of children or other persons as a primary caretaker. By understanding the importance of pet therapy in reducing stress, this will allow us to make recommendations to other students to assist and enhance their learning. This study would also be helpful in reducing mental health disorders, substance abuse problems, eating disorders, and self-injury (Pedrelli et al., 2015) among students.

Being accepted into one's dream college is initially a bliss. However, this joy can soon convert into a major stressor. The "honeymoon" period ends and is replaced by never-ending schoolwork demands, and deadlines. In addition, there may be financial difficulties, relationship struggles within the home and school, family responsibilities, loneliness, frustration, illnesses, time management, and job responsibilities, to name a few. Delgado and Toukonen (2018) stated that a major growing concern experienced by college students is the increase of stress and emotional distress.

The findings of this research may have serious implications for mental health counselors in college and university settings as there is an increasing demand for counselors and specialized services to meet the growing needs of their student body. Rather than using the traditional method of psychotherapy and/or psychotropic medications to reduce stress, this study will focus on a nontraditional and cost-effective method of therapy. The studies found were conducted generally on college students, and not specifically on social work
students. Therefore, to explore how pet ownership affects only social work students, it is important to present more evidence for the field of research.

Purpose of the Study
The purpose of the study is to examine if having a pet helps reduce stress for students in the Social Work program at a university in southern California. Students who are in college, experience a lot of stress that are environmental stressors, as well as personal stressors. Environmental stressors are things that we cannot control such as the weather, traffic, or even unsafe housing. If the weather is particularly bad such as high winds which result in closing the school, this can cause stress for a student as they are missing an opportunity to participate in a class, or they could have a fear of falling behind in their classes due to the closure. The students could get stuck in traffic and become late for school, or internship which could also result in them missing out on something or falling behind. An example of a housing stressor is a student losing their home due to a fire, or closure of a housing complex due to health concerns. These students are then displaced and might not know where they will be sleeping that night, which can be very stressful.

In regard to personal stressors, students usually have a little more control over them, but it can still be very overwhelming. Some personal stressors that students might face are academic stressors, financial stressors, family stressors, or even future stressors. Academic stressors that students have control over are to make sure all of their assignments are completed and turned in on time, complete all of the readings before the class, attend all of the classes in order to
not fall behind, as well as making sure to be prepared to participate in the classes that require it. Even though students have control of their academic stressors some students will procrastinate and fall behind. With the financial stressor's students can be aware of them, but they do not always have control of them. Financial stressors can range from paying for their classes or paying their normal financial responsibilities. There are usually extra fees that go towards academic finances that students are not always prepared to pay on top of paying for classes, such as parking permits, extra school supplies, and books for classes. Other financial responsibilities that students might have are paying their rent, utilities, car payment, car insurance, and their phone bill. Some family stressors that might arise for students is having to care for another person in their family. Some students are not able to spend time with their family, due to the constraints of school. This can cause tension in some families because they do not understand an academic commitment. Some students move away from their family to go to college, which can also cause tension between the student and their family because they are not home as much. In regard to future stressors that students have is mainly when students are closer to graduation, because they are starting to have to apply to jobs on top of doing all of their academic requirements. Some students also stress about the waiting process for their applications to graduate programs, or doctoral programs, after or before they graduation.

The research method that I used was a survey design. I used a type of self-administered questionnaire that shows a person's level of stress, and then a
section on demographics, and the last part of the questionnaire had questions about if they have a pet, if so what type of pet, and then how much time they spend with their pet in a week. I am addressing this issue through this research method because I believe that it will have the best results, and it can be measured.

## Significance of the Project for Social Work

The significance of this project for Social Work is that it will give us knowledge on whether students pet ownership can help students reduce their stress. If the findings of the study show that pets do in fact reduce the stress that we have while going to school, then students will know this before they decide to get a pet. For the students who do have pets, they will be able to know that their pets help with reducing stress, which can result in them spending more time with their pets. Some pets need more attention than others, an example would be that cats are usually self-maintained they use the litter box when it is needed, and they also usually entertain themselves. Dogs need more attention because they usually have to be walked and depending on the dog some need longer walks in order to exert their energy. Most dogs like to play fetch or will want love by means of petting. There is also research that shows how the social work professionals can use the information about how pets reduce stress with or for their clients, e.g., for those who are depressed, anxious, lonely, or who have a history of trauma.

There is so much research relating to college kids on campuses, but there is nothing related to a specific program such as social work. The studies do not
break it down by department, but I am hoping to find data that is connected to a specific career path of social workers. The proposed study is needed because as a graduate student there have been times in the program that has been very stressful, and when doing activities with my pets it has reduced my feelings of stress. The data that we collect will help students in the future, as there will be a study directly relating to whether pets help reduce stress in social work students. So, when a student is thinking about getting a new pet, they will data that they can review to determine if it is a good idea to get a pet. The research question that I plan to explore is, Does pet ownership contributes to social work student's mental health as indicated by stress levels?

# CHAPTER TWO <br> LITERATURE REVIEW 

Introduction

The research from the literature review shows that the use of animal therapy has risen to a new level. The interaction that we have with animals can be very soothing to an individual's whole well-being. Multiple studies show that pet owners, as well as non-pet owners benefit from being exposed to animals during the different studies. It also shows that further studies must be conducted in order to determine if there are long term benefits between human and animal interactions.

## Pets and Stress Reduction

I will start this section by discussing the literature on the therapeutic effects of pet therapy on human beings. Stress is the body's natural response to a stimulus. The stimulus can be positive or negative. Everyone needs a certain level of stress to function daily. However, of interest is the contribution of pet ownership to the reduction of stress among students. Binfet (2017) says students at university experience high levels of stress that threaten their mental health, their academic performance and achievement. This study was conducted by having the participants of the study randomly assigned to a treatment condition, or they were assigned to a business-as-usual control condition. This study found out that there is a significant decrease in perceived stress and homesickness and significant improvements in sense of belonging when students were exposed to
an unstructured animal-assisted therapy versus those students who were not. However, animal-assisted therapy is described as a complementary therapeutic approach supporting other therapy programs like cognitive-behavioral stress management and meditation.

Barker, Barker, McCain, and Schubert (2016) evaluated interventions in several clinics of students who had experienced stress during an exam. This study used dog therapy before exams. They had the students spent 15 minutes with the dogs one week prior to the exams. The students were to complete a pre and post survey to participate in the study. The outcome of this study was that they did not have enough evidence that the time spent with the dogs made them less stressed during the exams. Some limitations of this study are that the study eligibility criteria prevented many interested students from participating. The nature of the intervention was also open to bias. This study adds to prior research on the benefits of visiting therapy dogs on campus to reduce stress before final exams. The study did not address the issue of pet ownership among students in social work. The strengths of this article were that it relates to students in college, and that students were willing to participate in the study.

In a study conducted by Wood, Ohlsen, Thompson, Hulin, and Knowles (2017) the Pet Assisted Therapy with Students (PAwS) was conducted selectively with a group of 131 students from the University of Sheffield to be a part of voluntary research study for PAwS. The experiment was conducted with the 131 students and blood pressure and stress levels were monitored before and after a 15 minutes time span with the dogs in a group setting. The study
showed that pet therapy was beneficial to both the human and the animal, and in this case, the animal was a dog. Even with a brief interaction between the two, there was both a positive emotional and physical response that benefited the human and the dog. This was defined as a dynamic human-animal relationship that was completed with minimal contact. Because of the positive outcome of the study, the pet therapy was then introduced to the universities to help reduce stress that comes from transitioning into a four-year university system. The study found that among students, animal assisted therapy has helped reduce homesickness, anxiety, loneliness, and increased satisfaction. The limitation to this study is that it is not directly related to students in a school setting, but it does show the positive impact of pet therapy. Also, they used trained blind guide dogs in this study, meaning that they were calm in the situation, and they probably did not respond like a dog that was untrained. Another limitation that was presented in the PAwS program is that research has not been done on specific fields of study, such as social work. This is a broader research article that shows that animals can benefit college student's mental health and help reduce stress while in school. Secondly, the research was not conducted at one university which changes the outcome of the research because it is biased, and only based on one student body population. Lastly, "little evidence currently exists to support the effectiveness of reducing measurable stress levels after a standalone drop-in unstructured session" (p. 263). Therefore, this study was again only tested with students that were allowed to stay for the whole 15
minutes. The strength of this study is that participants in the study showed to be less stressed after interacting with the dogs.

Research also shows that even students who do not own pets can benefit from animal visitation programs. Crossman et al. (2013) affirmed that the high rise in psychological distress among students had led to universities and colleges partnering with pet therapy groups as a means of alleviating students' distress because the vast majority of students do not receive any form of treatment. In their randomized trial, student's negative mood and anxiety was reduced by them simply viewing, but not interacting with the dogs. Therefore, their trial provided support that animal visitation programs were valuable in colleges and universities as a means of diminishing levels of students' stress.

Green, Adams, Clark, Crowell, and Duffy (2017) studied the benefits a dog could have for students on a college campus. Many college students endure some stress while going to college, whether it might be stress from time management to stress from studying for examinations. The researchers found that there is, "a recent trend on college campuses that offer opportunities to interact with dogs and other animals as a way to relieve stress and help individuals deal with other psychological issues" (p.50). They found that having a dog or other animals on campus may be beneficial to students who endure stress because some students who are enduring stress do not always use the counseling services.

Beetz, Uvnäs-Moberg, Julius, and Kotrschal, (2012) studied interactions between animals and humans during therapy. Their research came from 69
previous studies. Overall, the researchers seemed to have found some evidence of human-animal interactions. They found, "reduction of stress-related parameters such as epinephrine and norepinephrine; improvement of immune system functioning and pain management; increased trustworthiness of and trust toward other persons; reduced aggression; enhanced empathy and improved learning". The main reason they had these findings was due to the levels of oxytocin found in both humans and animals. Human-animal interaction therapy is getting to be a popular way to help many people who need help ranging from mental health challenges to Someone who might have stress related challenges.

It is not only pet therapy that can provide therapeutic benefits to human beings, but also pet ownership. Somervill, Kruglikova, Robertson, Hanson, and MacLin (2008) conducted a study with both male and female college students to observe the physiological effects that occurs between dog owners and cat owners. The objective of this study was to identify the effects of "limited exposure to an unfamiliar dog versus an unfamiliar cat on blood pressure and pulse rate on male and female college students, and to increase physical interaction with the animals by having participants hold each animal in their lap for a five minute period" (p. 521). The study showed that there was no significant difference in blood pressure and pulse rate in both the dog and cat owners when they were exposed to both an unfamiliar cat and unfamiliar dog at different times. One thing that was discovered in the study was that the pet owners for either a cat or a dog had a lower resting pulse rate and lower pressure compared to non-pet owners
that were also part of the experiment. The limitations of this research are that the races of the participants were not diverse. Also, because people can react differently to their own animals this could also be a limitation to the study since they used cats and dogs that the participants have never met. The strength of this research is that it showed that participants who pet their own dogs had a lower heart rate than when they were petting a dog that they have never met before. The initial excitement of meeting the new dog causes the participants blood pressure to rise in the beginning. It also showed that women would have a higher heart rate after the animals left.

Allen, Blascovich, Tomaka, and Kelsey (1991) focused on the presence of others as a potential moderating variable in stressful situations" (Pp. 582).The participants in the study performed a standard experimental stress task with the experimenter in the room, they were asked to repeat the test two weeks later with the presents of either their dog or with a friend. The study found that having a pet provides support when stressed. It seems that when pet owners experienced high levels of stress, they would be able to buffer their stress when they were in the presence of their pets and interacting with them. Having a pet can reduce stress as well as illnesses, such as cardiovascular disease as well as lowering blood pressure. The limitations of this research are that it has nothing to do social work students, but it does confirm that pets can lower cardiovascular activity which can be triggered by stress. Another limitation for this article is that it's mainly focuses on the stress of women, and it only consists of individuals who responded to an advertisement. The strengths of this article is that it shows that
being around a pet can be beneficial to reducing stress, which can then be linked to students, even though it is not directly saying that. This study connects to our problem formulation as it shows support for reducing stress when animals are present while completing a stressful task.

In the research, there are many limitations that we explore because each study was done on a specific campus, or on a selective study body, or on an animal owner or non-animal owner. We found that some studies used dogs and cats to compare the outcome between the two species, but the results showed that both relieved stresses, but dogs were more comforting and had more usefulness. Some negative aspects of having pets while in college is that at times, they can become expensive. If something happens to your pet and they most likely go to the veterinarian which can become quite costly. Also having a pet can limit where you can live, as some apartments or event rental properties do not always allow for animals to be in the home. Pets can also be very time consuming depending on what type of pet you have. An example of this is that dogs usually need to be walked each day, which can be an inconvenience to students, especially during finals or midterm weeks. Dalton (2018) studied the effects of stress and depressive symptoms have on health-related behaviors. The studied 127 student's journal entries about daily stress and depressive symptom. They found that stress and depressive symptoms are related to daily maladaptive health behavior engagement (p. 869). Based on looking at the findings of this study stress and depressive can have an impact on health-related behaviors. Although they were able to have significant findings based on their
hypothesis, they did find that a major limitation may apply because they studied college students. The findings may not apply to adults (p. 870).

## Theories Guiding Conceptualization

The theory guiding conceptualization for this research project is Bowlby's theory of attachment and the interpersonal theory. Zilcha-Mano, Mikulincer, and Shaver (2011) indicated that "John Bowlby’s (1973, 1980, 1982) attachment theory is one of the most influential theories in personality and developmental psychology and provides insights into adjustment and psychopathology across the lifespan" (p.541). People can attach to an animal just as they do with a human being. The connection is different as people are usually aware of the lifespan of their pet, so they are a little more prepared when they leave this world. We can have an attachment to pets because they can present a sense of security, as well as help with emotional regulation. Zilcha-Mano, Mikulincer, and Shaver (2011) also indicated that "Positive experiences with a pet could pave the way, with the empathetic mediation and guidance of a therapist, to creating more secure interpersonal attachments and re-evaluating and modifying maladaptive working models and attachment orientations" (p.545). When a person is rejected by a pet their sense of security can be challenged, and so can their mental state.

Lucinda Woodward, and Amy Bauer (2007) studied the, "theoretical model of companion animal personality and companion animal attachment" (p.169). They looked at two hundred and sixty-six participants by measuring them using the Impact Message Inventory-Generalized Others scale. By using this scale, they were able to review the responses of the participants about their pets.

Lucinda Woodward, and Amy Bauer (2007) indicated that the "results suggested that of the eight interpersonal octants associated with the interpersonal circumplex there were significant differences between dogs and cats" (p.182). They found that cats were more hostel than dogs, and dogs were more friendlysubmissive than cat. It was found that dogs were perceived more loving than cats.

## Summary

Abundant studies have shown a higher function of dogs. Although not officially recognized as a form of therapy, animal assisted intervention has gained significant attention over the last few years. The ability to reduce or eliminate its owners' stress is unexplainable and immeasurable. The fact is that stress management can be managed using an unconventional method and with low costs. This researcher could not find any articles that directly related to our question to the field of social work, which is why this topic would be good to explore. This way we will have some data on if pets reduce stress among social work students. More studies must be done to narrow the research to include social work student.

## CHAPTER THREE

METHODS

Introduction
This chapter presents an overview of the methods used for my research study more specifically the study design, sampling, data collection, procedures, the protection of human subjects, and the data analysis will be discussed in further detail.

## Study Design

The purpose of the study is to explore if pet ownership contributes to social work student's mental health as indicated by stress levels. The design used for the study will be a quantitative survey design. It will be completed by sending a survey questionnaire through email to the students currently enrolled in the social work department. Sending the survey questionnaire through email will be the most ideal for administering, because it allows the utmost confidentiality of my participants information.

A limitation of the study is that there will be a decrease of participants. Having the survey questionnaire sent through email might not be completed, as students have very busy schedules. The advantage to sending the survey questionnaire by email would allow for me to keep all the participant's information private. This one-time study could limit the number of participants who participated in the study. An advantage of sending the survey questionnaire
through email is that I can send a follow-up email to all the students if I have not yet reached the total number of participants that are needed.

Another limitation would be that the major characteristics of the participants are not large enough. Meaning that the sample size that I end up with will not have enough information to determine if students who have a pet are less stressed, because of they have a pet. What could happen is that a majority of the students in the social work program do not have a pet, which would not allow for me to answer the research question.

Sampling
The procedure for how this researcher obtained permission to conduct this study was by sending an email to the school of social work program director to get written consent to survey the students during the winter and spring quarters. After this researcher received approval from the department director, then this researcher sent an email to the secretary of the Masters of social work program who then forwarded the email all the students currently enrolled in the Masters and Bachelors programs. Approximately 100 MSW students, and 100 BASW student participants will be needed for my research project. If I am not able to get the total number of students from the BASW program, then I can use more MSW students or vice versa. The participants were students who are currently enrolled in a university in southern California School of social work program. Convenience sampling was used for this research project as it is easier to survey the students in the current school this researcher is enrolled in.

Permission was obtained on November 22, 2019 from the director of the School of social work at a university in southern California.

Data Collection and Instrument
For the data collection I recruited participants for the study by sending an email with the link to my CSUSB Qualtrics survey questionnaire to the school of social work. They then emailed all the students who are currently enrolled in a university in southern California, School of Social Work program. I also spoke with individual professors asking them to send out a reminder to students to complete the survey. I also went to a few classes to talk to the students about my research project and ask for the students to complete my survey.

A pre-existing instrument to measure the stress was used, this instrument is called the "Perceived Stress Scale", (Cohen, Kamarck, \& Mermelstein, 1983). They reported that "the Perceived Stress Scale (PSS) is the most widely used psychological instrument for measuring the perception of stress" (p.4). This instrument is a 10 -item survey. A five-point Likert scale will be used for the answers to be consistent with possible responses of "0-never", "1-almost never", "2-sometimes", "3-fairly often", and "4-very often". The scoring for questions 4, 5, 7 , and 8 will be revered as the questions are positively stated. Other questions that were included in the questionnaire was demographic information such as age, gender, race, or ethnicity. Some of the questions related to whether the participants are working, if they have any children or other person in the home that they help take care of, if they have pets in their home, and if they do have pets how many, and what types of pets are in their home.

The independent variables of this research are pet ownership. The dependent variable for our question will be the stress that the students have. If they have any other stressors that might be affecting them such as student loans, a job outside of their school or internship, if they are financially stable, if they have children, or they are a caregiver for someone in their family.

## Procedures

The procedure for obtaining permission to conduct this study from a specific university in southern California, School of Social Work. I emailed the director of the program and asked if this researcher could email a survey questionnaire to the students enrolled in the Masters and Bachelors programs in the School of Social Work. Permission was obtained on November 22, 2019 from the director of the School of social work.

The survey questionnaire was then be emailed to the students who are currently enrolled in the school of social work at a university in southern California, after permission was obtained. The survey was self-administered to the students via email. The Qualtrics's survey questionnaire can be view in Appendix A.

Participants were provided with an informed consent form (Appendix B), as well as a confidentiality statement before they started their self-administered survey. The consent form consisted of the purpose of the study, the description of the study, the participants of the study, confidentiality or anonymity of the study, duration of the study, risks of the study, benefits of the study, who to contact if participants have questions, and where to find the results of the study.

If the participants consented to participating in the survey, they signed the consent form by placing an " X " on the first question of the survey, with the date of when they completed the survey. This consent form was collected via the Qualtrics survey questionnaire with the completed survey. Then the participants were provided with a debriefing statement (Appendix C), with information on the study that they completed. Information on the student health clinic on campus will also be provided to the participants. Such as, if students are distressed from this survey and wish they can contact the Student Health Center, the main phone number is 909.537 .5241 . Students can also contact the help line for suicide at 951.686.4357 or the Crisis Hotline at 800.784.2433.

## Protection of Human Subjects

This researcher will take all precautions to protect the confidentiality of the participants in the study. The amount of identifying information and personal information will be limited by only asking basic demographic information. In other words, there will be no questions regarding any names or addresses. Also, the informed consent form will be used to protect the participant's identity. Since this form is only being signed with an " $x$ " and the date of the completion. It provides more confidentiality and identity protection. Completion of the survey should take no longer than 20 to 30 minutes. No identifying information will be collected by the researcher. The research will be conducted during the month of January 2020 to June 2020 and will be collected by this researcher. A reminder email will also be sent to students if the number of participants has not been reached.

Participants who wish to stop at any time during the survey can stop the survey without completing the survey with no consequences. This information will be provided on the consent form at the beginning of the survey, participants will also be informed of the confidentiality of the information that they give us. The following will be included in the informed consent form; the purpose of the study, the description of the study, participation, confidentiality or anonymity, the duration of the survey questionnaire, the risks, the benefits, and the contact information of who to contact if they have any questions. The debriefing statement that will be given to the participants at the end of the survey will include the information to the student health center on campus as they provide counseling services to students. This information is being provided to the students so if they become aware of the stress, they are undergoing then they can seek out help through the school.

In order to protect the human subjects of the research participants researcher will have all information stored on a password protected computer or document. The data will stay confidential by limiting the number of people who will review the data that has been collected. The data will only be shared with the research professor as well as the academic research supervisor.

## Data Analysis

The data analysis for my research project is to use quantitative data analysis techniques, as well as the use of a Qualtrics survey questionnaire. By conducting the survey questionnaire through the CSUSB Qualtrics account this researcher had complete confidentiality, as there is no identifying information that
connects the survey to the students who complete them. The data from this study was automatically stored in the CSUSB Qualtrics system. The data analysis will have descriptive statistics to describe and summarize the characteristics of the sample. All the data collected will be transferred to the SPSS system to analyze all the data. The various statistical test that could be used for my study are frequencies (total, mean, median, mode), crosstabs, t-test, qui square, simple linear and regression, 1-way ANOVA, and Pearson r correlation coefficients. These tests will be used to assess the relationships between the independent variables and the dependent variables

## Summary

This study explores if there is an interrelatedness between stress and animals, dogs in particular. Dogs are no longer just domesticated animals or a form of entertainment. Dogs have been used to identify the illicit transportation of drugs, to display their high levels of intellectual capacity in dog shows, and to search for and rescue victims of earthquakes, homicides, and kidnapping. This study will show students that regardless of age, race, ethnicity, or cultural background, students will always be faced with the issue of stress. There will always be internal and external factors that contribute to excess stress. The importance of addressing the stress is of concern. Some students internalize it and others manifest it in inappropriate ways.

## CHAPTER FOUR

## FINDINGS AND RESULTS

Introduction

This chapter provides the results of the study regarding if pet ownership contributes to social work students' mental health as indicated by stress levels. The results were collected by sending my Qualtrics survey link to the Administrative Support Coordinator in the school of social work, who then sent an email to all the students in the school of social work. The questionnaire contained the Perceived Stress Scale to measure the participants' level of stress, with additional questions assessing possible stressors in the participants life, demographic questions to determine that participants' age, gender, academic status, employment status, internship status, and marital status. There were also questions about the type of pet they have, and how much time a week they spend with their pet.

## Demographics

The study consisted of 83 current social work students in the Bachelors, and Master's program at a university in southern California. Although there was a total sample of 83, because not all respondents answered every question, the following results may reflect and be based on a smaller sample total. Table 1 presents the gender of the participants. There were 61 females (88.4\%) and 8 males (11.6\%) that participated in the study. The mean of the age was 28.66, the minimum was 20 years old, and the maximum was 56 years old, as shown in
table 2. Table 3 presents the data on Ethnicity, for the ethnicity of the participants' 36 (52.2\%) ( $\mathrm{n}=\mathrm{x}$ ) identified as other, 16 (23.2\%) $(\mathrm{n}=\mathrm{x})$ identified as White, 10 (14.5\%) ( $\mathrm{n}=\mathrm{x}$ ) identified as mixed, 4 (5.8\%) $(\mathrm{n}=\mathrm{x})$ identified as Asian, and $3(4.3 \%)(\mathrm{n}=\mathrm{x})$ identified as African American. The highest number of participants' reported others, but this researcher accidently left out the ethnicity of Latino. So, the ethnicity is only being reported as a frequency and will not correlate with any of the data. Table 4 present the data on Marital Status of the participants. The marital statuses of the participants were collapsed into 3 categories: 25 (37.9\%) ( $\mathrm{n}=\mathrm{x}$ ) indicating a long-term relationship, 22 (33.3\%) ( $\mathrm{n}=$ $x)$ indicating never married/single, and 19 (22.8\%) $(\mathrm{n}=\mathrm{x})$ indicating married. Table 5 presents on the data of the social work student cohorts. From the different social work programs at a university in southern California, which was collapsed into three categories, there was 23 (37.7\%) ( $\mathrm{n}=\mathrm{x}$ ), MSW $1^{\text {st }}$ year fulltime, 22 (36.1\%) ( $n=x$ ) MSW $2^{\text {nd }}$ year full-time, and 16 (26.2\%) $(n=x)$ BSW fulltime students. There was a higher number of participants' who were in the master's program, but there were more participants' who were in the full-time $2^{\text {nd }}$ year program.

Table 1
Sociodemographic Characteristics of the Sample: Gender

|  | n | $\%$ |
| :--- | :---: | :---: |
| Gender $(\mathrm{n}=69)$ |  |  |
| Male | 8 | 11.6 |
| Female | 61 | 88.4 |

Table 2
Sociodemographic Characteristics of the Sample: Age

| Age |  |
| :--- | :---: |
| Mean | 28.66 |
| Median | 25 |
| Minimum | 20 |
| Maximum | 56 |

Table 3
Sociodemographic Characteristics of the Sample: Ethnicity

|  | n | $\%$ |
| :--- | :---: | :---: |
| Ethnicity $(\mathrm{n}=69)$ |  |  |
| White | 16 | 23.2 |
| African American | 3 | 4.3 |
| Asian | 4 | 5.8 |
| Mixed | 10 | 14.5 |
| Other | 36 | 52.2 |

Table 4
Sociodemographic Characteristics of the Sample: Marital Status

|  | n | $\%$ |
| :--- | :---: | :---: |
| Marital Status $(\mathrm{n}=66)$ |  |  |
| Never Married/Single | 22 | 33.3 |
| In long-term relationship | 25 |  |
| Married | 19 | 36.1 |

Table 5
Sociodemographic Characteristics of the Sample: SW Student Cohort

|  | n | $\%$ |
| :--- | :---: | :---: |
| SW Student Cohort $(\mathrm{n}=61)$ |  |  |
| BASW full-time | 16 | 26.2 |
| MSW 1st-year full-time | 23 | 37.7 |
| MSW 2nd-year full-time | 22 | 36.1 |

Participants' were also asked if they have any pets in their home, shown in Table 6. Of the 83 participants', $62(77.5 \%)(n=x)$ said yes, and $18(22.5 \%)(n=$ $x$ ) said no. When asked how many cats they have in their household, $79.5 \%$ ( $\mathrm{n}=$ $x$ ) answered $0,13.3 \%(n=x)$ answered $1,6 \%(n=x)$ left the answer blank, and $1.2 \%(n=x)$ answered. When participants' were asked how many dogs they have in their household, 37.3\% responded 1, 25.3\% $(\mathrm{n}=\mathrm{x})$ responded 0, 22.9\% ( $\mathrm{n}=\mathrm{x}$ ) responded 2, $7.2 \%(\mathrm{n}=\mathrm{x})$ left the answer blank, $4.8 \%(\mathrm{n}=\mathrm{x})$ responded $3,1.2 \%(n=x)$ responded 5 , and $1.5 \%(n=x)$ responded I. When asked do they have any other pets in their household, $79.5 \%(n=x)$ reported 0 indicating that the question did not apply to them, $3.6 \%(n=x)$ and $1.2 \%(n=x)$ listed 1 Turtle, 1.2\% ( $n=x$ ) listed bird, $1.2 \%(n=x)$ listed rat, $1.2 \%(n=x)$ listed either 2 fish, 5 fish, 9 fish, and fish, $1.2 \%(n=x)$ just listed 1 but did not indicate what type of pet they had.

Table 6
Pet Ownership

|  | n | $\%$ |
| :--- | :--- | :---: |
| Pet Owner $(\mathrm{n}=80)$ |  |  |
| Yes | 62 | 77.5 |
| No | 18 | 22.5 |

Table 7 shows the data of hours interacting with pets daily in the last week. When asked how many hours a day you interact with a pet in the last week
the minimum was .00 and the max was 50.00 , and the mean was 7.02 . The frequencies for the number of hours participants' interacted with a pet are 23.7\% $(\mathrm{n}=\mathrm{x})$ reported $.00,1.3 \%(\mathrm{n}=\mathrm{x})$ reported $.25,7.9 \%(\mathrm{n}=\mathrm{x})$ reported $1.00,10.5 \%$ $(\mathrm{n}=\mathrm{x})$ reported 2.00, 6.6\% $(\mathrm{n}=\mathrm{x})$ reported 3.00, $7.9 \%(\mathrm{n}=\mathrm{x})$ reported 4.00, 1.3\% $(\mathrm{n}=\mathrm{x})$ reported $4.50,7.9 \%(\mathrm{n}=\mathrm{x})$ reported 5.00,3.9\% $(\mathrm{n}=\mathrm{x})$ reported $6.00,1.3 \%(\mathrm{n}=\mathrm{x})$ reported $7.00,2.6 \%(\mathrm{n}=\mathrm{x})$ reported $8.00,1.3 \%(\mathrm{n}=\mathrm{x})$ reported 9.00, 1.3\% $(\mathrm{n}=\mathrm{x})$ reported 10.00, 2.6\% $(\mathrm{n}=\mathrm{x})$ reported 12.00, 1.3\% ( n $=x)$ reported 14.00, $3.9 \%(n=x)$ reported 15.00, 1.3\% $(n=x)$ reported 18.00, $1.3 \%(n=x)$ reported 20.00, 2.6\% $(n=x)$ reported 21.00, 3.9\% $(n=x)$ reported 25.00, $3.9 \%(n=x)$ reported 30.00 , and $1.3 \%(n=x)$ reported 50.00. The mean was 7.02 , the range was 50.00 , the minimum was .00 and the maximum was 50.00.

Table 7
Hours Interacting with Pets Daily in the Last Week

| Hours Interacting Daily |  |
| :--- | :---: |
| Mean | 7.02 |
| Median | 3.5 |
| Minimum | .00 |
| Maximum | 50.00 |

The frequencies for the Perceived Stress Scale labeled, shown in table 8 indicated that $1.4 \%(n=x)$ scored $5.00,2.9 \%(n=x)$ scored $6.00,4.3 \%(n=x)$
scored 8.00, 2.9\% $(n=x)$ scored 9.00, $5.8 \%(n=x)$ scored 10.00, $1.4 \%(n=x)$ scored 11.00, 1.4\% $(n=x)$ scored 12.00, $2.9 \%(n=x)$ scored 13.00, $2.9 \%(n=x)$ scored 14.00, 10.1\% $(n=x)$ scored 15.00, $4.3 \%(n=x)$ scored 16.00, 1.4\% scored $(n=x)$ 17.00, $4.3 \%$ scored 18.00, $8.7 \%(n=x)$ scored 19.00, $5.8 \%(n=x)$ scored 20.00, $5.8 \%(n=x)$ scored 21.00, $5.8 \%(n=x)$ scored 22.00, $5.8 \%(n=x)$ scored 23.00, 4.3\% $(\mathrm{n}=\mathrm{x})$ scored 24.00, 1.4\% $(\mathrm{n}=\mathrm{x})$ scored 25.00, $1.4 \%(\mathrm{n}=\mathrm{x})$ scored 26.00, $5.8 \%(n=x)$ scored 27.00, $5.8 \%(n=x)$ scored 28.00, $1.4 \%(n=x)$ scored 29.00, and 1.4\% $(\mathrm{n}=\mathrm{x})$ scored 31.00. Regarding the PSS, "individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress. Scores ranging from 0-13 would be considered low stress. Scores ranging from 14-26 would be considered moderate stress. Scores ranging from 27-40 would be considered high perceived stress" (Cohen, Kamarck, \& Mermelstein, 1983). The mean of this frequency is 18.2754 , meaning that the average of the data shows that participants' have moderate stress.

Table 8
Perceived Stress Scale

|  | n | $\%$ |
| :--- | :--- | :--- |
| PSS $(\mathrm{n}=69)$ |  |  |
| $0-13$ | 16 | 26.1 |
| $14-26$ | 43 | 59.4 |
| $27+$ | 10 | 14.5 |

Table 9 shows the dependent variable was collapsed into 3 levels of the Perceived Stress Scale scores ranging from 0-13; 14-26; and 27+, and a Chisquare statistic was performed to assess for a relationship between the categorical variables of PSS and pet ownership. In the PSS scores of 0-13, 14 (20.3\%) participants said that they had pets in their households, and 2 (2.8\%) did not. In the PSS scores 14-26 participants, 33 (47.8\%) participants said that they had pets in their home, and 10 (14.5\%) did not. In the PSS scores 27+, 6 (8.7\%) participants said that they had pets in their household, and 4 (5.8\%) did not.

Table 9
New Scale in Low Medium and High Groups * Do you Have any Pets in your House, or on your Property? Cross Tabulation

Do you have any Pets in your House, or on your Property?
Yes No

| Do you have any Pets in your House, or on your Property? |  |  |
| :--- | :---: | :---: |
| Yes |  |  |
| New scale in low medium |  |  |
| and high groups |  |  |
| $0-13$ |  |  |
| $14-26$ | 14 | 2 |
| $27+$ | 33 | 10 |

Table 10 shows the data for the Environmental stressors on the participants. When asked in the last month, how often environmental factors cause stress in your life, 9 (13.0\%) $(\mathrm{n}=\mathrm{x})$ reported never, 23 (33.3\%) ( $\mathrm{n}=\mathrm{x}$ ) reported almost never, $26(37.7 \%)(n=x)$ reported sometimes, 8 (11.6\%) ( $n=x$ ) reported fairly often, and $3(4.3 \%)(n=x)$ reported very often.

Table 10
In the Last Month, how did Environmental Factors (Weather, Traffic, Unsafe Housing, ext.) Cause Stress in your Life?

|  | n | $\%$ |
| :--- | :---: | :---: |
| Environmental Factors ( $\mathrm{n}=69$ ) |  |  |
| $\quad$ Never | 9 | 13.0 |
| Almost Never | 23 | 33.3 |
| Sometimes | 26 | 37.3 |
| Fairly Often | 8 | 11.6 |
| Very Often | 3 | 4.3 |

Table 11 shows the data for the family stressors on the participants. When asked in the last month, how often did family factors cause stress in your life, 2 (2.9\%) ( $\mathrm{n}=\mathrm{x}$ ) reported never, $12(17.4 \%)(\mathrm{n}=\mathrm{x})$ reported almost never, 28 (40.6\%) ( $\mathrm{n}=\mathrm{x}$ ) reported sometimes, 20 (29.0\%) ( $\mathrm{n}=\mathrm{x}$ ) reported fairly often, and 7 (10.1\%) ( $\mathrm{n}=\mathrm{x}$ ) reported very often.

Table 11
In the last month, how often did Family Factors Cause Stress in your Life?

|  | n | $\%$ |
| :--- | :---: | :---: |
| Family Factors ( $\mathrm{n}=69$ ) |  |  |
| Never | 2 | 2.9 |
| Almost Never | 12 | 17.4 |
| Sometimes | 28 | 40.6 |
| Fairly Often | 20 | 29.0 |
| Very Often | 7 | 10.1 |

Table 12 shows the data for the financial stressors on the participants. When asked in the last month, how often did financial factors cause stress in
your life, 1 (1.4\%) ( $n=x$ ) reported never, 11 (15.9\%) ( $n=x$ ) reported almost never, 22 (31.9\%) ( $n=x$ ) reported sometimes, 21 (30.4\%) ( $n=x$ ) reported fairly often, and $14(20.3 \%)(n=x)$ reported very often.

Table 12
In the Last Month, how Often did Financial Factors Cause Stress in your Life?

|  | n | $\%$ |
| :--- | :---: | :---: |
| Financial Factors $(\mathrm{n}=69)$ |  |  |
| Never | 1 | 1.4 |
| Almost Never | 11 | 15.9 |
| Sometimes | 22 | 31.9 |
| Fairly Often | 21 | 30.4 |
| Very Often | 14 | 20.3 |

Table 13 shows the data for the academic stressors on the participants. When asked in the last month, how often academic factors cause stress in your life, 8 (11.6\%) ( $\mathrm{n}=\mathrm{x}$ ) reported almost never, 27 (39.1\%) ( $\mathrm{n}=\mathrm{x}$ ) reported sometimes, 20 (29.0\%) ( $n=x$ ) reported fairly often, and 14 (20.3\%) ( $n=x$ ) reported very often.

Table 13
In the Last Month, how Often did Academic Factors Cause Stress in your Life?

|  | n | $\%$ |
| :--- | :---: | :---: |
| Academic Factors $(\mathrm{n}=69)$ |  |  |
| Almost Never | 8 | 11.6 |
| Sometimes | 27 | 39.1 |
| Fairly Often | 20 | 39.0 |
| Very Often | 14 | 20.3 |

## Findings

When doing the independent t-test we tested the PSS variable, and gender of the participants. The PSS is based on adding the values together for 10 questions to generate a total scale score. The output of the independent t-test is comparing the PSS variable to gender variable. There were 8 (11.6\%) males, and 61 ( $88.4 \%$ ) females. The mean for male participants was 14.5 , and the mean for female participants was 18.77 , the male participants' mean was close to 4 less than the female participants' mean. The standard deviation for male participants was 7.46 , and the female participants were 6.26 which is about a difference of less than 1 . For the t-test results the significance value is .46 , which is higher than .05 so we will assume that the variance is equal. The mean difference between male and female is -1.78 .

With the independent samples t-test we tested the PSS variable by pet ownership to assess for statistically significant differences in mean scores. There were 53 participants who had a pet, and 16 participants who did not have a pet in their household. The mean for pet owner participants was 17.72, and the mean for the non-pet owner participants was 20.13, the non-pet owner participants mean was close to 3 more than the pet owner participants mean. The standard deviation for the pet owner participants was 6.31, and the non-pet owner participants was 6.97 which is about a difference of less than 1 . For the $t$-test results the significance value is .93 , which is higher than .05 so we will assume that the variance is equal. The mean difference between pet owners and non-pet owners is -1.31 .

With the independent t-test we tested the Perceived Stress Scale variable, and if the participants work outside of school. The output of the independent ttest is comparing the Perceived Stress Scale variable to working status. There were 40 participants who work outside of school, and 29 participants who did not work outside of school. The mean for working participants was 18.9, and the mean for the non-working participants was 17.41 , the working participants mean was close to less than 1 more than the non-working participants mean. The standard deviation for the working participants was 5.63 , and the non-working participants was 7.55 which is about a difference of about 2 . For the t -test results the significance value is .034 , which is lower than .05 so we will assume that the variance is not equal. The mean difference between pet owners and non-pet owners is .895 .

With the independent t-test we tested the Perceived Stress Scale variable, and if the participants take care of a child or other person in their home. The output of the independent $t$-test is comparing the Perceived Stress Scale variable caring for someone. There were 26 (38.2\%) participants who cared for another person, and 42 (61.8\%) participants who did not care for another person. The mean for participants caring for someone was 19.62, and the mean for participants not caring for someone was 17.64 , the participants caring for someone mean was close to about 2 more than the participants not caring for someone mean. The standard deviation for the participants caring for someone was 5.66 , and the participants not caring for someone was 6.87 which is about a difference of less than 1 . For the $t$-test results the significance value is .224 ,
which is higher than .05 so we will assume that the variance is equal. The mean difference between participants caring for someone and not caring for someone is 1.227 .

A one-way between-groups ANOVA was conducted to assess differences in mean PSS scores by the different marital statuses. Participants were broken into three groups: never married/single, in long-term relationships, and married. There was no significance in the Perceived Stress Scale and the participants marital status: $F(2,63)=.644, p=.529$. A one-way between-groups ANOVA was conducted to explore three different student groups' means on the PSS. Participants were broken into three groups: BASW full-time, MSW 1st year fulltime, and MSW 2nd year full-time. There was no statistically significance results from this test: $F(2,58)=1.89, p=.161$. A one-way between-groups ANOVA was conducted to explore the impacts of the stress scales in the PSS, if they have pets in their home. The PSS scores were broken into three groups: 0-13, 14-26, and 27+. There was no significance in the PSS scoring and if participants had pets in their home: $F(1,67)=2.56, p=.115$.

A Pearson product-moment correlation coefficient was computed to assess for a linear relationship between the PSS $(M=18.28, S D=6.49)$ and the number of hours participants interact with a pet daily ( $M=7.02, S D=9.59$ ). There was a negative linear correlation between the two variables, $r=-0.15, n=$ 69, $p=.234$. Overall, there was a strong negative correlation between the PSS and the number of hours participants interact with a pet daily. Decreases in the
stress scale from the PSS was correlated with increases in the number of hours participants interact with a pet daily.

A Pearson product-moment correlation coefficient was computed to assess for a linear relationship between the PSS $(M=18.28, S D=6.49)$ and the participants' age ( $M=28.66, S D=8.67$ ). There was a negative correlation between the two variables, $r=-0.575^{* *}, n=68, p=.000$. Overall, there was a moderate negative linear correlation between PSS and the participants' age. Decreases in the stress scale from the PSS was correlated with increases in the participants' age.

A Pearson product-moment correlation coefficient was computed to assess the relationship between the PSS $(M=18.28, S D=6.49)$ and the number of hours participants work outside of school $(M=13.10, S D=13.84)$. There was a positive linear correlation between the two variables, $r=0.13, n=68, p=.288$. Overall, there was a weak positive linear correlation between PSS and the number of hours participants work outside of school. Increases in the stress scale from the PSS as correlated with increases in the number of hours participants work outside of school.

A Pearson product-moment correlation coefficient was computed to assess the relationship between the Perceived Stress Scale ( $M=18.28$, $S D=$ 6.49) and if the participant took care of a child or another person and the stress from taking care of them $(M=4.19, S D=1.93)$. There was a positive correlation between the two variables, $r=0.008, n=68, p=.947$. Overall, there was a weak positive linear correlation between the Perceived Stress Scale and the participant
took care of a child or another person and the stress from taking care of them. Increases in the stress scale from the Perceived Stress Scale was correlated with increases in the participant taking care of a child or another person and the stress from taking care of them.

A Pearson product-moment correlation coefficient was computed to assess the relationship between the Perceived Stress Scale ( $\mathrm{M}=18.28$, $\mathrm{SD}=$ 6.49) and the number of hours participants worked at internship ( $M=14.64, S D=$ 8.15). There was a negative correlation between the two variables, $r=-0.123, n$ $=68, p=.316$. Overall, there was a weak negative correlation between the Perceived Stress Scale and the number of hours participants worked at internship. Decreases in the stress scale from the Perceived Stress Scale was correlated with increases in the number of hours participants worked at internship.

## CHAPTER FIVE:

## CONCLUSION AND RECOMMENDATION

Introduction

The following chapter focuses on the results that came from the 83 participants from my study and looks at the Perceived Stress Scale and if participants have an animal in their household. This chapter will cover the results, limitations, and recommendations for social work practice.

## Discussion

The data from the research that was collected showed that all the participants in the study experienced some type of stress. Most of the participants were considered to have moderate stress. From the participants' sample size, a small number were considered to have high stress. When the stress levels were compared to if the participants had an animal in their household, most of the participants who indicated that they had an animal in their household still had stress. This shows that most of the participants were moderately stressed, and only a handful had high stress. With that information 16 participants had scores ranging from 0 to 13 and would be considered low stress, and of the 16 participants 14 participants have a pet in their household, and 2 did not. 43 participants had scores ranging from 14 to 26 and would be considered moderate stress, and of the 43 participants 33 participants have a pet in their household, and 10 did not. 10 participants had scores ranging from 27 to 40 and would be considered high perceived stress, and of those 10 participants 6
participants have a pet in their household, and 4 did not. When the Perceived Stress Scale was compared to the demographic factors such as if the participants had a pet in their home, the mean of pet owners and stress was on the lower side of the moderate stress scale, and the participants who did not have a pet in their household where on the high side of the moderate stress scale. Even though the data shows that both pet owners, and non-pet owners ranged higher within the moderate stress scale, non-pet owners had higher stress overall. The research from the literature review, in a study conducted by Wood, Ohlsen, Thompson, Hulin, and Knowles (2017) the Pet Assisted Therapy with Students (PAwS) indicated that, "Preliminary feedback from these sessions has shown subjective levels of stress significantly decreased immediately following interaction with a therapy dog" (p. 264).

The data from the Pearson test showed that there was a decrease in stress, when there was an increase in time when interacting with a pet, which the research from Chapter two supports the data from the data collected. According to Green, Adams, Clark, Crowell, and Duffy (2017) their study found that there is, "a recent trend on college campuses that offer opportunities to interact with dogs and other animals as a way to relieve stress and help individuals deal with other psychological issues" (p.50).

The research that was presented in the Chapter two literature report supports the hypothesis of the research project indicating that students who have a pet or interact with a pet have lower stress levels. Limited data was collected to determine the stress levels between each program of the social work program,
as well as the environmental factors. Even though 37.7 percent of the participants reported that sometimes when asked how often environmental factors caused stress in their life. $40.6 \%$ reported sometimes when asked how often family factors cause stress in their life. 31/9\% reported sometimes when asked how often financial factors cause stress in their life. Finally, 39.1\% reported sometimes when asked how often academic factors cause stress in their life. With this data it shows that the highest number of participants choose sometimes as their answer to the environmental, family, financial and academic stressors.

## Limitations

A limitation of the study is that there were less participants than anticipated. Having the survey questionnaire sent through email was not as effective as I thought. I got more participants to participate when I went to the individual classes and asked the class to complete my survey. I wrote the link to my survey onto the board and explained my survey to the class. The other limitation to this method was that due to my schedule I was unable to go to more classes, especially on the days that I was not already at school. Another limitation to having the survey sent out through email I found out that none of the title IV-E programs were receiving the surveys sent from the social work group email. I connected with the liaison with this department to have them send out an email to all the students enrolled in the Title IV-E program. Another limitation of the study was that the data from Qualtrics was incorrectly transferred to SPSS, so I had to manually input a portion of the data for the 83 participants of the
study. This caused loss in time, and the possibility that if it was not caught that the data in this research project would have been incorrect. The study also used the "Perceived Stress Scale", (Cohen, Kamarck, \& Mermelstein, 1983), which does not determine the participants' stress in the moment, but just what they believe their stress was over a period of a month.

## Conclusion

The research question that was asked in this research project was "Does pet ownership contribute to social work student's mental health as indicated by stress levels?" The study hypothesizes that students who own a pet have lower stress levels than students who do not have pets. After conducting the research project it was found that most of the participants from the study had moderate stress, when they completed the Perceived Stress Scale. All students have some type of stress within their life, so it is not possible for students to not have any stress. Since a majority of the students who had an animal were lower on the stress scale within the moderate stress scale, I believe that students who do own a pet, or have some type of interaction with a pet were less stressed, then if they had no interaction with a pet.

## APPENDIX A

QUALTRICS SURVEY QUESTIONNAIRE

This survey was created by the researcher, apart from using a pre-existing instrument for questions 7 to 16, was developed by Cohen, Kamarck, and Mermelstein.

1. Do you have any pets in your house, or on your property?

- Yes
- No

2. How many Cats do you have in your household? If this question does not apply to you, please write 0. (Space to answer)
3. How many Dogs do you have in your household? If this question does not apply to you, please write 0. (Space to answer)
4. Do you have in other pets in your household? (If yes please specify, ex: 1 snake, 2 rats, 1 horse, 3 birds ext.) If this question does not apply to you, please write 0. (Space to answer)
5. How many hours a day did you interact with a pet in the last week? (Space to answer)
6. The following 10 questions are from the Perceived Stress Scale, which is a pre-existing instrument to measure stress.
7. In the last month, how often have you been upset because of something that happened unexpectedly?

- 0-Never
- 1-Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4- Very Often

8. In the last month, how often have you felt that you were unable to control the important things in your life?

- 0-Never
- 1-Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4-Very Often

9. In the last month, how often have you felt nervous and stressed?

- 0-Never
- 1- Almost Never
- 2-Sometimes
- 3- Fairly Often
- 4-Very Often

10. In the last month, how often have you felt confident about your ability to handle your personal problems?

- 0-Never
- 1- Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4-Very Often

11. In the last month, how often have you felt that things were going your way?

- 0-Never
- 1- Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4-Very Often

12. In the last month, how often have you found that you could not cope with all the things that you had to do?

- 0-Never
- 1- Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4-Very Often

13. In the last month, how often have you been able to control irritations in your life?

- 0-Never
- 1- Almost Never
- 2-Sometimes
- 3- Fairly Often
- 4-Very Often

14. In the last month, how often have you felt that you were on top of things?

- O-Never
- 1- Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4- Very Often

15. In the last month, how often have you been angered because of things that happened that were outside of your control?

- 0-Never
- 1-Almost Never
- 2-Sometimes
- 3- Fairly Often
- 4-Very Often

16. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

- 0-Never
- 1-Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4-Very Often

17. In the last month, how often did environmental factors (weather, traffic, unsafe housing, ext.) cause stress in your life?

- 0-Never
- 1-Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4- Very Often

18. In the last month, how often did family factors cause stress in your life?

- 0-Never
- 1-Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4-Very Often

19. In the last month, how often did financial factors cause stress in your life?

- 0-Never
- 1-Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4-Very Often

20. In the last month, how often did academic factors cause stress in your life?

- 0-Never
- 1-Almost Never
- 2-Sometimes
- 3- Fairly Often
- 4-Very Often

21. What is your age? (Space to answer)
22. What is your Gender?

- Male
- Female
- Other

23. What is your ethnicity?

- White
- African American
- American Indian
- Asian
- Native Hawaiian or Pacific Islander
- Mixed
- Other

24. What is your present marital status?

- Never married/single
- In a long-term relationship
- Married
- Divorced
- Widowed

25. Do you work outside of school?

- Yes

26. How many hours do you work outside of school each week? (Space to answer)
27. Do you have any children or other person in the home that you help take care of?

- Yes
- No

28. If you do take care of any children or other person in the household, In the last month, how often has taking care of another person been stressful?

- 0-Never
- 1- Almost Never
- 2-Sometimes
- 3-Fairly Often
- 4- Very Often
- This question does not apply to me

29. Which social work program are you in?

- BSW 1st year Full-Time
- BSW 2nd year Full-Time
- BSW 1st year Part-Time
- BSW 2nd year Part-Time
- BSW 3rd year Part-Time
- MSW 1st year Full-Time
- MSW 2nd year Full-Time
- MSW 1st year Part-Time
- MSW 2nd year Part-Time
- MSW 3rd year Part-Time
- Pathways 1st year
- Pathways 2nd year
- Pathways 3rd year

30. How many hours a week do you typically work at your internship? If you do not currently have an internship placement, please put 0. (Space to answer)

## APPENDIX B INFORMED CONSENT

## INFORMED CONSENT

The study in which you are asked to participate is designed to examine if having a pet helps reduce stress for students in the Social Work program at a university in southern California School. The study is being conducted by Aly Vancil, a MSW student under the supervision of Dr. Herbert Shon, Assistant Professor in the School of Social Work, California State University, San Bernardino. The study has been approved by the Institutional Review Board Social Work SubCommittee, California State University, San Bernardino.

PURPOSE: The purpose of the study is to examine if having a pet helps reduce stress for students in the Social Work program at a university in southern California.

DESCRIPTION: Participants will be asked of a few questions on the Perceived Stress Scale, the current status in a university in southern California social work program, frequency of interaction with pets, reasons for not using the Internet, and some demographics.

PARTICIPATION: Your participation in the study is totally voluntary. You can refuse to participate in the study or discontinue your participation at any time without any consequences.

CONFIDENTIALITY OR ANONYMITY: Your responses will remain anonymous and data will be reported directly to the CSUSB Qualtrics system.

DURATION: It will take 10 to 20 minutes to complete the survey.
RISKS: There are no foreseeable risks to the participants.
BENEFITS: There will not be any direct benefits to the participants.
CONTACT: If you have any questions about this study, please feel free to contact Dr. Herbert Shon (909) 537-5532 (email: herb.shon@csusb.edu).

RESULTS: Results of the study can be obtained from the Pfau Library ScholarWorks (http://scholarworks.lib.csusb.edu) at California State University, San Bernardino after September 2020.

This is to certify that I read the above and I am 18 years or older, and I am currently enrolled in one of the school of social work programs at a university in southern California.

## APPENDIX C

DEBRIEFING STATEMENT

## DEBRIEFING STATEMENT

This study you have just completed was designed to investigate if there are long term benefits between human and animal interactions within students in social work programs at a university in southern California. I am interested in assessing the stress levels of students related to the frequency of interaction they have with pets. This is to inform you that no deception is involved in this study. If students are distressed from this survey and wish they can contact the Student Health Center, the main phone number is 909.537.5241. Students can also contact the help line for suicide at 951.686 .4357 or the Crisis Hotline at 800.784.2433.

Thank you for your participation. If you have any questions about the study, please feel free to contact Dr. Herbert Shon (909) 537-5532. If you would like to obtain a copy of the group results of this study, please contact the ScholarWorks database (http://scholarworks.lib.csusb.edu/) after September 2020.

## APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

IRB \#: IRB-FY2020-133
Title: Does pet ownership contributes to social work student's mental health as indicated by stress levels?
Creation Date: 11-19-2019
End Date:
Status: Approved
Principal Investigator: Aly Vancil
Review Board: Main IRB Designated Reviewers for School of Social Work Sponsor:

## Study History

| Submission Type Initial | Review Type Expedited | Decision Exempt |
| :--- | :--- | :--- |
| Submission Type Modification | Review Type Exempt | Decision Exempt |

## Key Study Contacts

| Member Herbert Shon | Role Co-Principal Investigator | Contact herb.shon@csusb.edu |
| :--- | :--- | :--- |
| Member Aly Vancil | Role Principal Investigator | Contact <br> 004628051@coyote.csusb.edu |
| Member Herbert Shon | Role Primary Contact | Contact herb.shon@csusb.edu |

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