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HOW DOES HAVING A PET DURING THE CORONAVIRUS-19 PANDEMIC AMONG UNIVERSITY STUDENTS AFFECT ANXIETY AND DEPRESSION

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Jessica Morales Sanchez

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AMONG UNIVERSITY STUDENTS AFFECT ANXIETY AND DEPRESSION

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A Project

Presented to the

Faculty of

California State University,

San Bernardino

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In Partial Fulfillment

of the Requirements for the Degree

Master of Social Work

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by

Jessica Morales Sanchez

Sugey Gonzalez-Escobedo

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Approved by:

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ABSTRACT

This study examined whether having a pet among university and college students is associated with anxiety and depression during the Coronavirus-19 pandemic. A modified survey of a non-probability sample was conducted during a 5-month period during the Coronavirus-19 pandemic. A total of 115 students voluntarily participated and completed the survey. In the midst of the pandemic, students were forced to isolate themselves in their homes. This isolation may have caused anxiety and depression in students. However, a furry companion could have alleviated any anxiety/depression symptoms they may have endured during this time. This research contributes to the literature in regard to how pets contribute to humans' mental health. The research additionally contributes to social work literature on pets as interventions and coping skills for anxiety and depression.

ACKNOWLEDGEMENTS

DEDICATION

Jessica Morales Sanchez

I would like to dedicate this to my family, Mi Mama, Mi Papa, Vickey, Sammy, Mina, Victor, Diana, Daniela, Victor Jr., and my grandmother Victoria who is looking over all of us from Heaven. I would also like to dedicate this to furry members of this family Roscoe, Auggie, and my Lady girl who saved my life. Love you all to the Moon and to Saturn.

Sugey Gonzalez-Escobedo

I dedicate this to all my loved ones that have been there for me during this journey; Dad, Mom, Zocire, Carlos, and my partner Arturo. This could not be possible without the support of each and every one of you. I love you all from the bottom of my heart. We did it!

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CHAPTER ONE

INTRODUCTION

Problem Formulation

The Coronavirus-19 pandemic is a worldwide problem that has significantly affected many lives, creating long-lasting health and societal effects (Brüssow & Timmis, 2021). The Coronavirus-19 disease is properly defined as a highly contagious respiratory infection that stems from the original SARS-CoV-2 (Centers for Disease Control and Prevention [CDC], 2020). The first documented Coronavirus-19 case in the United States was reported on January 21, 2020 (CDC, 2020). As of April 2023, the number of contracted cases has drastically increased to 104,242,889 cases in the United States (CDC, 2022). In addition to contraction cases, the Coronavirus-19 disease pandemic has resulted in 1,127,104 deaths in the United States (CDC, 2022). Consequently, these numbers will continue to increase until the Coronavirus-19 pandemic ceases to exist.

The emergence of Covid-19 restricted human contact, and people began to view pets as mechanisms for social companionship (Applebaum et al., 2020). As a result, the pandemic has seen a surge in pet adoptions (Ho and Sparagano, 2021). For instance, the United Kingdom experienced an empty shelter due to the volume of adoptions (Ho and Sparagano, 2021). In the United States, various shelters were empty for the first time (Hollow, 2020). The pandemic brought a 9%

increase in the adoption of cats and dogs (Mirk, 2021). Along with adoptions, there was also

a rise in pet fostering in the country (Hollow, 2020). Following the outbreak, in New York and Los Angeles, there was a 70% increase in fostering (Hollow, 2020). People have expressed that pets have been a source of support and comfort during the unforeseen changes of the Coronavirus-19 pandemic (Mirk, 2021).

Purpose of the Study

College students are more susceptible to experiencing depression than any other mental disorder (Aldiabat et al., 2014). Depression among college students is correlated with poor academic success and often leads to anxiety (Aldiabat et al., 2014). Various factors, such as adapting to adulthood, adjusting to self-independence, forming new relationships, and experiencing the pressures of making difficult decisions that will impact careers and lives, create stress among university students (Kang et al., 2021). More recently, research has revealed that the Coronavirus-19 global pandemic has been responsible for raising university students' stress and anxiety (Ayran et al., 2022). To decrease the spread of the infection, universities worldwide have been forced to transition from in-person learning to virtual learning (Fawaz & Samaha, 2021). The transition to online learning can understandably lead to social isolation, loss of interest in participating in activities, and procrastination, ultimately resulting in anxiety and depression (Fawaz & Samaha, 2021).

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On Friday, March 13, 2020, the President of the United States declared a National Emergency (Thebault et al., 2021). To decrease the rapid spread of Coronavirus-19 infection, safety precautions were implemented in various states and counties in the United States (Javed et al., 2020). Due to the lockdown of institutions and businesses, millions of Americans were forced to isolate themselves in their homes (Javed et al., 2020). The Coronavirus-19 lockdown restrictions have negatively impacted individuals' mental health (Javed et al., 2020). The pandemic has created individual stressors such as feelings of isolation, worthlessness, and hopelessness, leaving these individuals as vulnerable targets for depression and anxiety during the Coronavirus-19 pandemic (Shaikh et al., 2021). The increase in mental health disorders among the population has created a macro social issue. The number of mental health disorders has significantly increased during the pandemic. In August 2020, 36.4% of individuals reported anxiety and depressive disorders; this number increased to 41.5% in February 2021 (Vahratian et al., 2021).

As a result of the pandemic's stay-at-home orders, many individuals have been bonding with their pet(s) or bringing new pet(s) into their lives (Phillipou et al., 2021). Studies show that having a pet brings many positive benefits to a person (Bao & Schreer, 2016). For example, having a pet has been associated with lower levels of depression and loneliness (Phillipou et al., 2021). In addition, it increases life satisfaction among individuals (Phillipou et al., 2021). Pet

ownership during the Coronavirus-19 pandemic may have positively impacted a person who acquired a pet during or already owned one before the pandemic.

Significance of the Project for Social Work Practice

This study contributes to social work practice by encouraging mental health social workers to implement pet therapeutic interventions within their practice. Much research contributes to the evidence that animal-human relationships help with chronic and Mental Health illnesses (Arkow, 2020). Pets have been known to be social lubricants, as they can make difficult conversations easier to initiate (Arkow, 2020). In Social Work, specifically in the Mental Health field, animals from shelters can be utilized in therapy when discussing trauma, depression, and anxiety. Animals can facilitate those hard conversations in therapy. Social workers can collaborate with pet shelters to create interventions that will benefit patients and sheltered animals. Along with creating therapeutic interventions, there could also be an increase in animals finding their forever homes, decreasing the number of cute, furry residents at animal shelters.

There is a new developing intervention involving animals; Animal-assisted Therapy. Animal-assisted therapy can be used within Social Work practice. This therapy involves forms of interventions with animals that aim to work on the patient's physical and mental well-being (Cirulli et al., 2011). Incorporating pets into therapy can be used as a coping skill to help decrease levels of anxiety and depression. Their presence brings human enjoyment and emotional security, a source of constancy, helps against loneliness, and a fulfillment of our needs to be

needed (Dunn et al., 2005). This project aims to use the results to further contribute to the discussion of the Human-Animal connection in social work practices and other areas of research. This study could help facilitate conversations on more Animal-Assisted Therapies used in Social Work practice. The research question that will be answered in the present study: How does having a pet during the Coronavirus-19 pandemic among university students affect their anxiety and depression?

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter examines research relevant to the topic of university students who have/had a pet during the Coronavirus-19 pandemic and their levels of depression and anxiety compared to those with pets. The subsections will include anxiety, depression, and mental health benefits of having a pet before and during the Coronavirus-19 pandemic. The final subsection will examine the Attachment theory and Social Support theory used to support the ideas presented in this research.

Anxiety

Statistical research reports that approximately 31.1% of adults experience an anxiety disorder in the United States (National Institute of Mental Health [NIMH], n.d.). Anxiety is not limited to one diagnosis; there are various types of anxiety disorders (NIMH, n.d.). Generalized anxiety disorder is identified as one of the most common anxiety disorders (Hoge et al., 2012). It is defined as anxiousness and worry that is present for about or more than six months (Stein & Sarren, 2015). Common symptoms of this form of anxiety are headaches, muscle tension, gastrointestinal symptoms, back pain, and insomnia (Stein & Sarren, 2015). In general, anxiety is an involuntary emotion of fear and usually is triggered by a real fear or a created fear that leads to panic (Asif et al., 2020).

The sudden arrival of Coronavirus-19 led many to feel intense pressures of stress (Cao et al., 2020). Consequently, the pandemic has significantly negatively impacted individuals' mental health (Jiloha, 2020). Since university students are susceptible to mental health issues, anxiety levels have heightened among this population during the Coronavirus-19 pandemic (Hamaideh et al., 2021). The latest report from Collegiate Mental Health in 2019 showed that, out of 82,685 respondents, 62.7% struggled with anxiety (Wang et al., 2020). Anxiety results in poor concentration and interferes with students' learning (Asif et al., 2020).

To avoid continuing the Coronavirus-19 spread, various school institutions halted in-person learning and turned over to distance learning (Lee et al., 2021). This precaution forced many students to quarantine and isolate at home (Lee et al., 2021). These unexpected changes caused many to develop intense emotions such as anxiety (Zhai and Du, 2020). As a result of the pandemic, a national survey disclosed that during the months of May 2021 - June 2021, 85% of university students had higher anxiety and stress levels (Lee et al., 2021). Another study in China revealed that out of 7,143 students, 0.9% had severe anxiety, 2.7% had moderate anxiety, and 21.3% had mild anxiety under similar quarantine situations (Cao et al., 2020). In addition, the study discovered that during the pandemic, approximately 24.9% of respondents had anxiety (Cao et al., 2020). Furthermore, a study in Texas with 2,031 students found that anxiety

had increased by 71.26% among these students (Wang et al., 2020). All this evidence indicates students' mental health has worsened during Covid-19.

<u>Depression</u>

Of various depressive disorders, the most common one is Major Depressive Disorder (National Institute of Mental Health, 2008). Which is defined as having feelings of sadness that do not go away within a couple of days (National Institute of Mental Health, 2008). The feeling of sadness is constant in your daily emotions. Major depressive disorder results in a loss of interest in daily activities, appetite, sleep pattern, and normal ability to function every day (National Institute of Mental Health, 2008). During the pandemic lockdown, many individuals had to restructure how they lived their lives. The lockdown caused major stressors for individuals, including potentially losing their jobs or working from home. At the same time, their kids were virtually learning; social lives became non-existence, fear of being infected with Coronavirus-19 and social isolation from friends and family (Hamaideh et al., 2021). The College student population had additional stressors, such as adapting to online learning due to the quarantine, and feelings of worry due to uncertainty, leaving them vulnerable to mental health disorders (Hamaideh et al.,2021). A United States study found that 80% of college students found that the Coronavirus-19 pandemic had a negative impact on their mental health and reported 36% of 2,691 undergraduate students reported having moderate to severe depression (Lee et al., 2021).

Before the pandemic, university students were vulnerable to anxiety and depression due to academic and social pressures (Hamaideh et al., 2021). The Coronavirus-19 pandemic has only increased their vulnerability to depression, anxiety, and other mental health disorders (Hamaideh et al., 2021). A recent study revealed that the depression levels of college students in Jordan were higher during home quarantine (Hamaideh et al., 2021). Another study found that depression levels in 2,031 Texas college participants were alarming during the Coronavirus-19 pandemic (Wang et al., 2020). One in five student participants reported experiencing suicidal ideation (Wang et al., 2020). The results of increased depression levels were due to fear and worry about academic performance, loved one's health, and their health as well (Wang et al., 2020).

Mental Health Benefits of Having a Pet

Studies have shown a connection between higher levels of well-being with those individuals who own a pet. Interestingly, a study where participants felt that their pets gave their life meaning found that a pet is a good mechanism for risk behavior reduction (Hawkins et al., 2021). The concept that pet(s) have a positive health effect on their owner is known as the pet effect (Herzog, 2011). Research has found a positive relationship between people's pets and their own mental health and an association with lower depression levels (Hawkins et al., 2021). Pet owners are associated with increased self-esteem and higher life satisfaction (Herzog, 2011). Studies have supported the statement that pets can reduce

feelings of isolation and loneliness in individuals who live on their own (Hawkins et al., 2021).

Few studies focus on university students with pets and their mental health. However, Barker's et al. (2020) study with 1,331 university student participants found that female students who did not live with their pets missed their pets greatly. Further studies support that female pet owners, particularly dog owners, have lower levels of depression than men (Clark and Marie, 2010). Studies have shown that a positive relationship with a pet is associated with greater well-being and decreases stress (Kılıç-Memur and Yaman, 2021). So much so that students who have been forced to leave their pets at home when transitioning to college have been shown to experience separation anxiety (Carr and Pendry, 2022).

Mental Health Benefits of Having a Pet During Covid-19

The Coronavirus-19 pandemic resulted in the restriction of human contact (Young et al., 2020). Therefore, people had to social distance themselves to avoid spreading the virus (Tull et al., 2020). Consequently, isolating at home took a mental and emotional toll on individuals and affected their well-being (Morgan et al., 2020). The isolation brought intensified feelings of loneliness (Bussolari et al., 2021). It also increased anxiety and depression since the support of loved ones was limited, and many could not lean on each other during this stressful time (Tull et al., 2020). As a result, human interactions lessened, and individuals began to spend more time with pets (Young et al., 2020).

During this time, many people turned to animal shelters to adopt (Young et al., 2020). As a result, the pandemic has seen a rise in adoption rates across various shelters (Morgan et al., 2020). Many shelters have been emptied, and numerous pets have been homed (Young et al., 2020). The National Database, Shelter Animals Count, reported that during the pandemic 26,000 pet adoptions occurred in the country in 2020 among 500 organizations they tracked (Hedgpeth, 2021). A 15 percent increase in pet adoptions compared to 2019 (Hedgepeth, 2021). Since physical distance had been imposed and people were away from loved ones, many turned to pets to find comfort. (Young et al., 2020).

This time of social isolation caused many to seek a companion, a partner that would accompany them during the lockdowns and help reduce the stressors of the Coronavirus-19 pandemic (Young et al., 2020). A study on quarantine pet partners found that dogs helped individuals feel less lonely and contributed to improving mental and physical health (Bussolari et al., 2021). Out of 4,105 respondents, 76.8% felt that their dogs diminished their stress and were beneficial for their mental health (Bussolari et al., 2021). Unexpectedly, 6.4% of respondents said that having a dog during the pandemic brought more stress (Bussolari et al., 2021). Another study examined pet ownership's impact during Covid-19 (Kogan et al., 2021). The study examined the feelings of 5,061 respondents, 57.6% expressed that having a pet companion decreased their anxiety, 56.7% expressed that having a pet companion decreased their depression, 64% expressed that having a pet companion decreased their

isolation, 47.4% expressed that having a pet companion decreased feeling

overwhelmed, and 66.2% expressed that having a pet companion decreased

their sense of loneliness (Kogan et al., 2021). Both studies found benefits to

having a pet during the pandemic. To many, pets became a source of support

and contributed to reducing stressful feelings. However, as found in Bussolari et

al., 2021 study, there are individuals who experience added stress because of

pets.

 Although there is supportive evidence that pets contributed to helping their

owners' mental health in a positive way, there are also well-researched studies

that contradict this. Literature has found that during the pandemic, a pet

contributed to their owner's stress regarding caring for their pets resulting in

lower life satisfaction (Phillipou et al., 2021). As the pandemic brought sudden

and unexpected changes, it also brought hardships that made it difficult to care

for pets (Applebaum et al., 2020). In a study of 2,254 respondents, 56% reported

one or more challenges of having a pet at this time, and 25% of respondents felt

that they could not meet their pets' needs due to the pandemic's implementations

(Applebaum et al., 2020). The study found that 17% of respondents were worried

about how they would obtain resources for their pets since pet stores shut down

(Applebaum et al., 2020). Besides the fear of pet stores closing, 13% of

respondents also expressed concern about where they would take their pets for

immediate care since vets closed their doors (Applebaum et al., 2020). Pets not

only made positive benefits but also brought stress to several people during the pandemic.

There are very few studies that explore the benefits of having a pet during the pandemic among University students. Although a study done in Japan among university students found that students who had a high level of attachment to their pets during the Covornavirus-19 pandemic were associated with a happier mood (Namekata & Yamamoto, 2021). In fact, 82.2% of participants reported playing with their pets during the pandemic to alleviate stress (Namekata & Yamamoto, 2021). Teenagers with pets reported spending more time with their pets as a coping skill during the pandemic (Mueller et al., 2021). Interestingly studies found that pets did not determine if their owner felt lonely before the pandemic or during the pandemic (Mueller et al., 2021). It was found that pets helped their guardians alleviate worries, anxiety, and depression, and be kinder to themselves during the pandemic when times are uncertain (Kogan et al., 2021).

Overall, the unexpected arrival of the Coronavirus-19 pandemic forced the world to shut down and implement changes that impacted various individuals. It brought numerous closures that led the population to quarantine in their homes. The human contact limitation created isolation which caused mental health deterioration—leading to a rise in anxiety and depression disorders across the globe. Many turned to their pets' companionship during this stressful time to cope with what was happening outside their doors, due to the limited research on

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University students' mental health and their pet's association with this during the Coronavirus-19 pandemic. This study's main focus will be university students and pets' effects on their mental health during the Coronavirus-19 pandemic. It will determine whether pet ownership has significantly impacted anxiety and depression levels in students.

Theories Guiding Conceptualization

Two theories used to conceptualize the ideas in this study are the Attachment theory and Social Support theory.

The Attachment theory was theorized by John Bowlby later; his work was continued by Mary Ainsworth (Bretherton, 1992). Both Bowlby and Ainsworth look at the effect of the relationship between the primary caregiver and child (Bretherton, 1992). Bowlby looked at how any interference between caregiver and child could affect the child's development (Bretherton, 1992). John Bowlby theorized that an infant, when born, originates a strong emotional bond with their mother (Meehan et al., 2017). A caregiver's behavior toward their child is a determining factor of the child's level of Attachment to the caregiver (Meehan et al., 2017). The Attachment levels a child develops as an infant predicts their future relationships and personality traits (Meehan et al., 2017).

The Attachment theory conceptualizes the idea of the attachment of a pet and its owner. If looked at the relationship between a pet and its owner through the lens of the Attachment theory, there is a great reason to believe why highly attached pet owners would have decreased feelings of isolation in the presence

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of their pet. A pet could be viewed as an anxiety blanket. During the Coronavirus-19 pandemic, students all over the United States were forced to obey stay-at-home orders depending on each State's regulations. Many students were now receiving lectures from their homes alongside their pets. Researchers have found human-pet attachment to be as strong or stronger than human relationship attachment (Bussolari et al., 2021). Studies have shown pet grief exists among pet owners when their pet has died (Meehan et al., 2017). The grief of a pet demonstrates high levels of attachment. Pet attachment bonds have been shown to decrease isolation levels among their owners (Bussolari et al., 2021). The Attachment theory can also be looked at from a pet's perspective and its owner. From the moment you first see or hold your pet, there could be a development of attachment. A secure attachment to a pet could possibly decrease levels of depression and anxiety, leading to better social skills and feelings of contentment with life.

The Social Support theory does not have a concrete definition; different theorists have concluded their own research on the social support theory (Hupcey, 1998). However, different definitions of the social support theory have similar key factors (Hupcey, 1998). Social Support theory can be defined as an individual with the necessary resources to feel safe and secure (Hupcey, 1998). Resources that contribute to social support are family, friends, community groups, and social networks (Hupcey, 1998). This theory can be applied to our research study because pets can be considered social support. Pets can provide

a safe space for their humans. Pets provide unconditional love to their owners (Meehan et al., 2017). A pet's unconditional love for its owner leaves no space for judgment, therefore, offering its owners a safe space and social support (Meehan et al., 2017). Owners can lean on their pet's companionship to express their feelings and emotions without fearing their rejection (Meehan et al., 2017). Studies have demonstrated concluding evidence that individuals with a high attachment to their pets are more likely to have lower feelings of isolation and depression (Meehan et al., 2017). This study will test whether or not students who are highly attached to their pets rely on them during the pandemic as a source of social support.

Summary

This study will explore whether students who had a pet during the Coronavirus-19 pandemic had lower levels of anxiety or depression. During the Coronavirus-19 pandemic, many individuals felt isolated and depressed. Universities all over the country have transitioned to virtual learning, leaving students to hold off on their social lives. Feelings of isolation could have highly affected University students' mental health. Studies have shown pets can decrease levels of stress, isolation, and depression. Pets could have been essential to students' healthy mental health during the Coronavirus-19 pandemic. This study will help explore the benefits of having a pet during a global pandemic. Social workers could reflect on this study to implement pet therapy into their sessions. Social workers, in addition, may encourage their clients to bring their

pets into sessions to help reduce stress and feel supported. Our study differs from others because it focuses on university students and their level of attachment to their pets. Research has been limited to identifying whether there is a difference in decreased depression and anxiety between those with a higher attachment to their pets and those with a lower attachment. In addition, minimal literature focuses on university students and their pets. These researchers' goal is to expand on the results of the benefits of pets to their student caregivers in social work. This study expands the possibilities of social workers working with the animal-human connection and further research on mental health.

CHAPTER THREE

METHODS

This study will aim to measure the anxiety and depression of university students who have pets during the Coronavirus-19 pandemic compared to those who did not. The purpose of this study is to test whether having a pet(s) can be used as a coping mechanism for students struggling with depression or anxiety. This chapter will explain how this study will be conducted. Throughout the chapter, the following sections will be discussed: the research's study design, sampling, data collection, instruments, procedure, protection of human subjects, and data analysis.

Study Design

This study compares the anxiety and depression levels of University and college students with or without pets during the Coronavirus-19 pandemic. The study's results will demonstrate if pet ownership could be a positive coping mechanism for those struggling with depression and anxiety. This is a descriptive study because of the lack of research studies surrounding this topic in which university students are used as research subjects. Social Work research has overlooked how pets can be beneficial to their owners during a time of crisis. This study gives a unique Social Worker perspective on pet benefits to Mental Health care

An anonymous cross-sectional survey will be used to collect data. This quantitative study will use a survey 32 item questionnaire to collect data on student participants in terms of their levels of depression, anxiety, attachment to pets, and pet ownership. This gives students the opportunity to answer in the comfort of their own environment. Gathering information anonymously refrains from creating pressure and allows respondents to give honest responses. It also allows the researchers to recruit a larger sample size and collect data efficiently. A limitation presented when using surveys in a study is a low response rate in online data collection. Since our study primarily consisted of online surveys, this decreased the number of responses we received. Another limitation of an online survey is that participants cannot ask researchers clarification questions about the survey questions they are responding to. A third limitation, the use of a survey may give some inaccurate results if participants are not truthful or do not understand a question the survey is asking. However, surveys are versatile, efficient, and affordable.

This study seeks to answer the following question: How does having a pet during the Coronavirus-19 pandemic among university students affect anxiety and depression? Along with answering this question, researchers will explore the associative relationship between pet ownership and mental health.

Sampling

This study will utilize non-probability sampling to collect our data. The population researchers will target university and college students throughout the United States. Requirements to participate include being a university or community college student that is 18 years or older. In total, 115 participants were recruited for this study. Many participants were recruited from a public Southern California University. Researchers will use social media sites such as Instagram and GroupMe. Data will also be collected through the use of email to contact colleagues and ask for their voluntary participation in sharing our survey. The 32-item survey was created through the Qualtrics system.

Data Collection and Instruments

Quantitative data will be collected through the use of the Qualtrics system to send out the survey. Data collection was collected once our Institutional review board application was approved. The survey collected data on participants' demographics, assessing participants' depression or anxiety, questions regarding pet(s) ownership, social support provided by pets to students, and a participant's attachment to their pets. The study's survey has five demographic questions. These are questions 1-5 in the survey. Demographic questions will include gender, age, race/ethnicity, economic status, attending a 4-year university, and pet ownership. Five questions created by the researchers will measure the level of social support from a pet during the Coronavirus-19 pandemic. These questions are numbers 29,30, 34, 35, and 36.

Depression and anxiety will be measured using the K-6 Distress scale (Kessler et al., 2003). The K-6 scale is a 6-question questionnaire with a Cronbach's alpha score of .89 (Kessler et al., 2003). This scale has gained significant credibility, and it has been known to produce higher validity results than the 12-question general health questionnaire (Kessler et al., 2003). Multiple studies have used the K-6 Distress scale to measure serious mental illness among participants (Kessler et al., 2003). The K-6 Distress scale has been proven to more accurately measure mood and anxiety disorders than other well-known scales (Furukawa et al., 2003). The 6-item Likert scale ranges from all of the time (1) to none of the time (5) (Kessler et al., 2003). The higher the score, the lower the level of depression and anxiety. (Kessler et al., 2003).

To measure pet attachment and social support, we will be using the Owner-Pet Relationship scale. This survey contains 15 items with a Cronbach's alpha score of 0.85 (Smolkovic et al., 2012). The Owner-Pet Relationship scale's aim is to measure emotional support and pet attachment (Owner-Pet Relationship scale). This scale was created to study the health benefits pet(s) bring to their elderly owners (Winefield et al., 2008). Although this scale is not widely used, the Owner-Pet Relationship scale is composed of two sub-scales (Winefield et al., 2008). Five questions in the Owner-pet Relationship scale were derived from Stallones et al. (1990) with a Cronbach's alpha score of 0.75. Six items from the Owner-Pet Relationship scale will measure attachment to pets in our study's survey. In addition, nine items from this scale will measure pet social

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support for our study. A few of these questions are originally from Staats et al. (1996) Pet attachment Scale with a Cronbach's alpha score of .89.

On this scale, 7 questions, will be scored on a Likert scale from, Never (1) to Always (4). In addition, 6 questions will be measured on a Likert scale from Strongly disagree (1) to Strongly agree (4). One question will be scored (True = 2, Not True = 1), and another question will range from Never (1) to Frequently (5). The higher the score of participants, the greater their attachment to their pet and the greater the social/emotional support they receive from the pet.

Procedures

A flier will be created with the goal of recruiting participants. It will inform participants about our research and our need for their participation. A link to our survey will be placed on the research's flier. The flier will be distributed on social media platforms such as GroupMe, and Instagram. It will also be distributed through email, and physical copies will be posted on public bulletin boards on campus. Before taking the survey, participants will read our confidentiality and consent forms. If they decide to participate voluntarily, they will sign and proceed with the survey.

Participants, when voluntarily participating in the survey, first read a consent form; if yes, they will move on to answer 18 or 33 questions. Participants answered 18 questions if they did not have a pet and 33 if they do have a pet. These questions will address demographics, anxiety, Depression, pet social support, attachment to pets, anxiety during covid, and pet social support during

covid. The survey ends with a debriefing statement and our contact information. Researchers have also added mental health resources at the end of the survey.

Protection of Human Subjects

Survey data will not be seen or collected other than by the two main researchers in this study. The survey is anonymous and does not require participants to provide identity information. This is for the purpose of protecting the participant's confidentiality. Participation in this study is completely voluntary. Before participating in the survey, participants will need to agree to an informed consent form. The informed consent form will address the following: purpose, description, participation, confidentiality, duration, risk, benefits, researcher contact information, and where they may find the study results. If the participant agrees with the informed consent statement form, they will then only be given access to the survey. Data will be kept safe with the password-protected program Qualtrics. The data that is collected by this software will be exported to the SPSS Statistical program, used with a password-secured computer. Only the researchers and the principal investigator of this study will have access to the information provided by participants. After three years of the study, data will be destroyed and deleted from all platforms.

Data Analysis

Analysis of this study will include correlation analysis and a multiple regression test. The data collected from this paper will be analyzed and exported

into the SPSS statistics software. To properly explain the findings of this study two statistical tests will be conducted through SPSS statistics software. First, a descriptive statistical analysis will be done to analyze the different characteristics of our participants. A correlation analysis will be used to analyze demographic variables. For example, how many are female, how many are male, how many have pets, and how many do not. Second, there will be a couple of multiple regression analysis tests run. A multiple regression test allowed researchers to determine the findings on how beneficial pets were during the pandemic for students. The psychological well-being of students with and without pets will be compared using a multiple regression test.

The Survey will measure the following variables: Psychological well-being (anxiety and depression), pet social support (attachment), and pet social support during the pandemic. Ownership will be examined in relation to the owner's mental health symptoms during the coronavirus-19 pandemic. Our primary goal of this study is to identify whether pets help owners reduce depression and or anxiety symptoms during the Coronavirus-19 pandemic. The researchers of this study originally hypothesized that students who demonstrate higher levels of attachment to their pet(s) would display lower levels of depression and anxiety. The second hypothesis of this study was that students that have pets are associated with lower levels of depression and anxiety.

Summary

This quantitative study will examine the general benefits of pet ownership to a population's mental health during the coronavirus-19 pandemic. These results will help contribute to the views of pets as a coping mechanism during a time of panic or crisis. In addition, the results will help social workers involve the client's pet more in discussion or include them in their sessions with their owners. Quantitative methods will be used in this study to administer this process best.

CHAPTER FOUR

RESULTS

Study Design

<u>Demographics</u>

A total of one hundred and fifteen participants were recruited during a five-month period (September 2022 - January 2023). Ninety-three of these participants were female and twenty-two were male. The participants completed the demographic portion of the survey. Participants were between the ages of 18-56. Fourteen participants identified as Caucasian, four as Black/African American, eighty-one as Latino/Hispanic, thirteen as Asian, one as American Indian/Alaskan Native, and two as other. The majority of participants were university/college students. Out of the total number of participants, eighty-one were students and thirty-four were not. Only those that were students counted towards the data collection. More than half of the participants reported owning a pet. The types of pets reported were a dog (53.3%), a cat (10%), and both a dog and a cat (10.8%). Quantitative data was analyzed using SPSS. Survey responses were inserted into SPSS version 28 for analysis. Table 1, displayed below, includes demographic information of study participants.

Table 1

Demographic Information

		%	M	SD
Age (18-56)			26.35	6.24
Gender				
	Female	80.9		
	Male	19.1		
Race/Ethnicity				
	Caucasian	12.2		
	Black/African American	3.5		
	Latino/Hispanic	70.4		
	Asian	11.3		
	American Indian/Alaskan Native	0.9		
	Other	1.7		
Salary				
	$0-$15,000	50		
	$16,000-$30,000	17.5		
	$31,000-$50,000	15.8		
	$51,000-$100,000	12.3		
	$101,000-or Higher	4.4		
University/College Student				
	Yes	70.4		
	No	29.6		
Pet Ownership				
	Yes	80.2		
	No	19.2		
Type of Pet				
	Dog	53.3		
	Cat	10		
	Dog&Cat	10.8		

Psychological Well-being	20.64	5.42
Pet Social Support	44.34	6.26
Pet Pandemic Social Support	11.87	2.87
Pet Attachment	20.77	2.74
Emotional Social Support	12.27	2.83
Relationship	7.42	0.93
Network	27.92	6.35
N	120	

Correlation Analysis

A correlation test was conducted to examine the relationship between Psychological well-being and Pet Pandemic social support. The Pearson/Spearman correlation coefficient was -0.151 (p = p<0.12). This indicates a negative weak correlation between the two variables. Therefore, the higher the psychological well-being, the less a person has pet pandemic social support. A correlation test was conducted to examine the relationship between Psychological well-being and Pet social support. The Pearson/Spearman correlation coefficient was -0.11 (p = p<2.97). This indicates a negative weak correlation between the two variables. Therefore, the higher the psychological well-being, the less a person has pet social support. A correlation test was

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conducted to examine the relationship between Psychological well-being and attachment. The Pearson/Spearman correlation coefficient was -0.09 (p = p<.36). This indicates a negative weak correlation between the two variables. Therefore, there is no relationship between psychological well-being and attachment to pets.

A correlation test was conducted to examine the relationship between Psychological well-being and emotional and social support. The Pearson/Spearman correlation coefficient was -0.13 (p = p<.22). This indicates a negative weak correlation between the two variables. Therefore, the higher the psychological well-being, the lower emotional support a pet has for a person. A correlation test was conducted to examine the relationship between psychological well-being and relationship. The Pearson/Spearman correlation coefficient was 0.03 (p = p<.77). This indicates a positive weak correlation between the two variables. Therefore, there is little to no relationship between psychological well-being and a person's relationship with their pet. A correlation test was conducted to examine the relationship between psychological well-being and network. The Pearson/Spearman correlation coefficient was .242 (p = p<.01). This indicates a positive weak correlation between the two variables. Therefore, the higher the psychological well-being, the more likely a person has benefited from new relationships due to their pet.

<u>Factor Analysis</u>

Principal component analysis was used to examine the factor structure of the 15-item The Owner-Pet Relationship scale completed by 81 participants. four factors were extracted and accounted for 39.23% of the variance. The rotated factor matrix revealed a clear and interpretable factor structure, with factor loadings ranging from .107 to .977. Factor 1, labeled "Attachment," included seven items related to a pet owner's attachment to their pet. Factor 2, labeled "Emotional Social Support," included four items related to pet's social support for a student. Factor 3, labeled "Relationship," included two items related to a positive or negative relationship between a pet and its owner. Finally, factor 4, labeled "Network," included two items related to pet ownership and social network for the student due to their pet. Cronbach's alpha coefficients for each factor ranged from .818 to .826, indicating good internal consistency. These findings suggest that the Owner-Pet Relationship scale has strong construct validity and can be used to assess different aspects of pet ownership.

Table 2.

Correlation Table

Variable	1	2	3	4	5	6
1. Psychological Well-being	1					
2. Pet Pandemic Social Support	-0.151					
3. Pet Social Support	-0.114	.669**				
4. Attachment	-0.099	.529**	.865**			

5. Emotional Social Support	0.132	-.666**	.887**	.648**		
6. Relationship	0.032	.323**	.491**	.362**	.309**	
7. Network	.242*	0.066	-0.099	-0.123	-0.186	0.031
N	106	105	88	88	88	88

** p <0.01 (2-tailed); *p <0.05

Reliability

The Psychological Well-being 6-item scale (K-6) was found to have a high internal consistency (Cronbach's alpha= .889), which is similar to Kessler et al. (2003) reported internal consistency (Cronbach's alpha=.89). The pet social support scale (Owner-Pet relationship scale) was found to have a high internal consistency (Cronbach's alpha= .826), which is a close score to Smolkovic et al. (2012) reported internal consistency (Cronbach's alpha= .85).

Multivariate Linear Regression Analysis

A multivariate linear regression analysis was conducted to examine the relationship between Psychological well-being and Pet pandemic social support and Pet social support. The model was found to be not significant $F_{(11,73)}$ =1.315, p=<. 05.. The independent variables accounted for 4.0% of the variance in the dependent variable. Pet pandemic social support was found to have a significant negative effect on Psychological well-being (β = -0.01, p = [0.93]). Similarly, pet social support was found to have a significant negative effect on [Psychological well-being] (β = -0.06, p = 0.65). This multivariate linear

regression analysis results show that pet pandemic social support and pet social

support do not impact the psychological well-being of college students while

controlling for age, gender, annual salary, college status, pet type, race.

Table 3.

Multivariate Analysis

		K6		
Variable	B	SE	t	Sig.
Age	0.184	0.103	1.777	0.08
Gender (Female)	1.731	1.677	1.032	0.305
Yearly Salary	0.416	0.582	0.714	0.477
College Student	2.786	1.6	1.742	0.086
Pet Type				
Cat	-1.519	2.346	-0.647	0.519
Dog&Cat	1.227	1.771	0.693	0.49
Race				
Caucasian	-3.965	4.253	-0.932	0.354
Hispanic	-4.855	4.062	-1.195	0.236
Asian	-2.38	4.528	-0.526	0.601
Independent Variables Pet Pandemic Social Support	-0.019	0.398	-0.047	0.963
Pet Social Support	-0.064	0.141	-0.454	0.651

*p<.05. **p<.01. ***p<.001. Beta(B)coefficients were standardized, while standard error (SE) coefficients were unstandardized

CHAPTER FIVE

DISCUSSION

The study demonstrates that having a pet(s) does not impact university/college students' psychological well-being during the Covid-19 Pandemic. The sample size analyzed in this study was 81 university/college students. In this study, 80.2% had pets, 19.2% did not, and 0.6% did not disclose pet ownership. The hypothesis that pets would have a positive effect on students' psychological well-being was not supported by the results. Pets as a support system to alleviate college students' depression and anxiety are not supported by the results of this study.

Our study presented three key findings. One, pet ownership during the Covid-19 infection did not demonstrate a relationship between the psychological well-being of university students and pet ownership. Thus, a decrease in anxiety and depression was not evident among participants with pets. Two, an owner's attachment to their pet has no relation to psychological well-being. Finally, the third key finding demonstrated that pet social support during the covid-19 pandemic had no significant relationship with their owner's psychological well-being. Our results were consistent with findings from previous.

During the Covid-19 pandemic, the psychological well-being of non-pet owners has been found to be better than those who have pets (Amiot et al.,2022). Pet ownership during a difficult time can bring more stress to owners (Amiot et al.,2022). These results can be due to the several responsibilities that come with owning a pet. Pet ownership is costly and leads to annual expenses. Past literature found that older adults with pets have found it stressful to care for a pet due to potential veterinary costs and expenses (Obradović et al., 2021).

In truth, pets are expensive, require attention, and dedication. Thus, they are in need of regular vet visits, food, toys, and other high-priced services/necessities. Consequently, with the emergence of the Covid-19 pandemic, employment was affected, and many owners struggled with covering their pet expenses. At this time, many individuals could not work and lacked the finances to take care of their pets. As a result, pet owners had an added layer of stress, contributing to the lower psychological well-being in pet owners.

Furthermore, another piece of literature explored the relationships between loneliness, pet attachment support, human social support and depression in older women that owned pets. The results indicated that those women that are more attached to their pets are linked to higher levels of depression (Krause-Parello, 2012). These results can be explained for the same reasons as the previous study. Many pet owners, especially those in older age have a hard time providing for their pets due to lack of employment, mobility, and

other severe factors that come with aging. Thus, pet owners cannot fulfill their pet's needs which can be detrimental to an individual's psychological well-being.

University/college students have many responsibilities. Students are responsible for caring for themselves and are busy venturing off to become independent from their families. Having a pet can add stress. Students have busy schedules and sometimes barely have time to practice self-care. Pets, just like humans, require hygienic care, nutrition, and a social bond, among other needs. Students with pets may struggle with time and guilt of being unable to care for their pets. As a result, increasing their negative psychological well-being on top of the global pandemic.

Pet attachment is a critical component of the relationship between a person and their pet. Increasingly, pets have become a member of the family (Carr and Pendry, 2022). They are no longer seen as "just an animal" in some households. There has been a mix of results regarding attachment to pets and psychological-well-being. In this study, it was found that there is no significant relationship between these two variables. Insignificant results of pet attachment may be due to the diverse independent variables examined (Duvall Antonacopoulos and Pychyl, 2010). For example, age may play a key part in attachment to pets; in this study, age ranges from 18-56 years.

An attachment to our pets worries us about their well-being when we cannot care for them. Pet bonds are similar to human bonds; a pet can create a sense of security and belonging for someone, just like a human (Field et al.,

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2009). Attachment to a pet may cause normal stress and worry, just like our human relationships; however, it does not have a relationship with our psychological well-being. In other words, our pet attachment does not impact our depression and anxiety. An example of this is a person with a great support system but suffers from depression and anxiety. Attachment and social support from our families can alleviate depression and anxiety, but it is not the root of the person's psychological well-being.

In addition, our study's findings demonstrate a negatively correlated relationship between psychological well-being and pet pandemic social support. In other words, there is no indication that pet social support during the Covid-19 pandemic helped a student's psychological well-being. These results may be due to the stressful environment surrounding the pet owner. A pet cannot control its owner's worry during the Covid-19 pandemic (Nieforth and O'Haire, 2020). A pet can be viewed as a source of social support and comfort during times of uncertainty and concern for one's future, but it cannot control a student's anxiety or depression. These results from our study are similar to those in relation to psychological well-being and pet emotional support, which showed a negative correlation. It has been suggested that pets help their owners release oxytocin and decrease cortisol to help alleviate stress (Denis-Robichaud et al., 2022).

Though not statistically significant, pet pandemic social support is positively associated with pet attachment. When pandemic pet social support increases, students will be more attached to their pets. A strong bond and

attachment between a human and their pet create a proactive social factor that

can alleviate symptoms of a human's deteriorating psychological well-being

during a time similar to the Covid-19 pandemic (Nieforth and O'Haire, 2020).

Pets are more like a sanctuary for their owners during uncertain times; they

provide the love and comfort that a human needs, especially for those that live

alone (Nieforth and O'Haire, 2020). During the Covid-19 pandemic, many

developed stronger bonds with their pets due to quarantine (Lee et al., 2022).

Pets help soothe the worry about the future of the Covid-19 pandemic, which

results in greater animal attachment and social support for people (Lee et al.,

2022).

<center>Recommendations for Social Work Practice, Policy, and Research</center>

<u>Social Work Practice</u>

This research shows that pet social support and attachment do not

positively affect students' psychological well-being. However, there is a

correlation between pet attachment and social support which other past research

has shown to relieve some stressors. In Social Work, much client population

work requires many resources and support. Therefore, many clients have

stressors and worry regarding a presenting problem. A form of pet therapy or

interaction can help relieve a client's stress. Introducing pet interaction when

working with clients would be only used to help ground the client and have a

place where they relieve some stress. In the United States having a pet

<center>37</center>

companion is not anything out of the ordinary, and most likely, if you ask a random person on the street if they have a pet, there is a good chance their answer will be "yes." Social Work has worked alongside humans for the most part; however, with the growth of pet companions and their effects positively viewed, it would not be such a bad idea to allow animals to be a part of the social work realm (Arkow, 2020).

Recommendations for Social Work Policy

Particularly for college students with high levels of stress, an animal companion could be beneficial when seeing a university therapist. A therapy dog in session can be helpful for the student to be open and honest with their therapist. Implementing policies in which students with high levels of stress or in need of social support can apply to have small pets in their dorms would be a way to help students feel they have someone there for them. Animals are a great source of comfort, and social work can help implement new policies that will address students and animals. A new emerging form of social work is coming to help pet owners and animals receive resources and support, Veterinary Social Work. Veterinary Social Work is a newly developed concept set in veterinary clinics and hospitals to help address the needs of animals and animal owners (Arkow, 2020). Veterinary Social Workers can create programs that allow university students to obtain a pet and address the needs of both of them. For example, a Veterinary Social Worker's role in this setting would be to make sure

the student can care for the pet and ensure the animal and the human benefit emotionally from their relationship.

Social Work Research

This study's research contributes to the social work literature on clinical Social Work and Mental Health. The results found in this study present more evidence of animal contribution to human psychological well-being. There is a mixture of findings regarding the psychological well-being benefits and having an animal companion during the Covid-19 pandemic. The Covid-19 pandemic increased feelings of uncertainty, fear, and worry for most, and many of us had animal companions to cuddle for comfort. However, these findings demonstrate that pets do not control the pandemic's future, leaving their owners still feeling the effects of the pandemic's uncertainty. Social Work research can expand animal companionship benefits during the Covid-19 pandemic research through the lens of Veterinary Social Work.

Limitations

A couple of limitations were presented in this study. A major limitation that was encountered in this research was the insufficient sample size. This study had difficulty gathering a large group of university/college students that owned pets during the Covid-19 pandemic. Researchers were only able to collect data from 66 participants with pets. Thus, the study's sample size played a major role in the study's results and could have led to an insignificant outcome. Another

limitation in this study involves the usage of the K-6 scale. Since this measuring scale only has six questions, assessing an individual's mental health is difficult based on only this small number of questions. The sample size and K-6 scale were the main limitations that the researchers identified within this study.

Conclusion

This quantitative descriptive study found no significant positive findings between students' psychological well-being benefits and pet companionship during the Coronavirus-19 pandemic. This could be due to multiple factors, such as participant number limitation or the uncertainty of the pandemic. Results found here contribute to the mixed literature findings regarding the psychological well-being benefits of animals. However, there is still room for more animal and human relationship studies. The United States population has become more open to the idea of animals as family members rather than just pets; this could drive future literature research to learn more about the effects of animal companionship.

APPENDIX A

SURVEY QUESTIONNAIRE

Q1 What is your gender?

- Female (1)

- Male (2)

- C. Other (3)

_____

Q2 What is your age?

_____

Q31 What is your ethnicity?

- Caucasian (1)

- Black/African American (2)

- Latino/Hispanic (3)

- Asian (4)

- American Indian/Alaskan Native (5)

- Other (6) _____

Q3 What is your yearly salary?

- $0 - $15,000 (1)

- $16,000 - $30,000 (2)

- $31,000 - $50,000 (3)

- $51,000-100,000 (4)

- $101,000- or Higher (5)

Q4 Are you currently attending a 4-year university or a community college?

- Yes (1)
- No (2)

Q5 I have a pet?

- Yes, if so what kind of pet (1)

  _____

- No (2)

Q32 The following questions will ask you about your well-being in the last 30 days.

Q21 About how often during the past 30 days did you feel nervous.

- All of the time (1)

- Most of the time (2)

- Some of the time (3)

- A little of the time (4)

- None of the time (5)

Q22 During the past 30 days, about how often did you feel hopeless?

- All of the time (1)

- Most of the time (2)

- Some of the time (3)

- A little of the time (4)

- None of the time (5)

Q23 During the past 30 days, about how often did you feel restless or fidgety?

- All of the time (1)

- Most of the time (2)

- Some of the time (3)

- A little of the time (4)

- None of the time (5)

Q24 During the past 30 days, how often did you feel so depressed that nothing could cheer you up?

- All of the time (1)

- Most of the time (2)

- Some of the time (3)

- A little of the time (4)

- None of the time (5)

Q25 During the past 30 days, about how often did you feel that everything was an effort?

- All of the time (1)

- Most of the time (2)

- Some of the time (3)

- A little of the time (4)

- None of the time (5)

Q26 During the past 30 days, about how often did you feel worthless?

- All of the time (1)

- Most of the time (2)

- Some of the time (3)

- A little of the time (4)

- None of the time (5)

End of Block: Mental Health

Start of Block: COVID

Q29 During the Covid-19 pandemic lockdown, how often did you fear for the future?

- All of the time (1)
- Most of the time (2)
- Some of the time (3)
- A little of the time (4)
- None of the time (5)

Q30 How much do you agree with the following statement, "During the Covid-19 pandemic, my pet was a source of comfort."

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree or Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q35 How much do you agree with the following statement, "During the pandemic, cuddling with my pet made me feel less anxious."

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree or Disagree (3)
- Agree (4)
- Strongly Agree 5)

Q36 How much do you agree with the following statement, "When I felt alone during the lockdown of the Covid-19 pandemic, my pet made me feel accompanied."

- Strongly Disagree (1)

- Disagree (2)

- Neither Agree or Disagree (3)

- Agree (4)

- Strongly Agree (5)

Q34 During the Covid-19 pandemic, when feeling distressed, what was your favorite activity to do with your pet?

- My favorite activity to do with my pet to relieve stress was... (2)

  _____

- I do not have a pet. (3)

- No activity with my pet would help relieve my stress. (4)

Q33 The following questions will ask about your relationship with your pet.

Q6 I want to take my pet along when I go visit friends or relatives.

- Never (1)

- Sometimes (2)

- Usually (3)

- Always (4)

Q7 Pets should have the same rights and privileges as family members.

- Strongly Disagree (1)

- Disagree (2)

- Agree (3)

- Strongly Agree (4)

Q8 I have a photo of my pet in my purse or wallet, or on display in my office or home.

- True (1)

- Not True (2)

Q9 My pet is more loyal to me than the other people in my life.

- Strongly Disagree (1)

- Disagree (2)

- Agree (3)

- Strongly agree (4)

Q10 My pet helps me get through tough times.

- Never (1)

- Sometimes (2)

- Usually (3)

- Always (4)

Q11 My pet gives me a reason for getting up in the morning.

- Strongly Disagree (1)

- Disagree (2)

- Agree (3)

- Strongly Agree (4)

Q12 My pet is like a member of the family.

- Strongly Disagree (1)

- Disagree (2)

- Agree (3)

- Strongly Agree (4)

Q13 My feelings toward other people are affected by how they react to my pet.

- Never (1)

- Sometimes (2)

- Usually (3)

- Always (4)

Q14 My pet knows when I'm upset and tries to comfort me.

- Never (1)

- Sometimes (2)

- Usually (3)

- Always (4)

Q15 My pet enjoys my company.

- Never (1)

- Sometimes (2)

- Usually (3)

- Always (4)

Q16 My pet relies on me for love and care.

- Never (1)

- Sometimes (2)

- Usually (3)

- Always (4)

Q17 I love my pet.

- Strongly Disagree (1)

- Disagree (2)

- Agree (3)

- Strongly Agree (4)

Q18 I think about my pet when it is not with me.

- Never (1)

- Sometimes (2)

- Usually (3)

- Always (4)

Q19 I do not like leaving my pet in someone else's care if I go interstate or overseas.

- Strongly Disagree (1)

- Disagree (2)

- Agree (3)

- Strongly Agree (4)

Q20 I have gotten to know other people through having this pet.

- Never (1)

- Occasionally (2)

- Quite Often (3)

- Frequently (4)

End of Block: Pets

Question 29, 30, 34, 35, 36 developed by Jessica Morales Sanchez & Sugey Gonzalez-Escobedo.

15 item Ownership-pet Relationship Scale was used, which was developed by Smolkovic et al. (2012).

K-6 Distress Scale was used, which was developed by Kessler et al. (2003).

APPENDIX B

INFORMED CONSENT

INFORMED CONSENT

The study in which you are asked to participate is designed to examine and compare anxiety and depression levels of California university students with or without pets during the Coronavirus-19 pandemic. The study is being conducted by Sugey Gonzalez-Escobedo and Jessica Morales Sanchez, two graduate students, under the supervision of Dr. Yawen Li, Professor in the School of Social Work at California State University, San Bernardino (CSUSB). The study has been approved by the Institutional Review Board at CSUSB.

PURPOSE: The purpose of this study is to explore the relationship between students who had or did not have a pet during the Coronavirus-19 pandemic and their association with anxiety or depression.

DESCRIPTION: Participants will be asked a few questions about depression and anxiety symptoms, pets as social support, demographics, and the coronavirus-19 pandemic.

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: Your responses will remain confidential, and data will only be reported in group statistical form only.

DURATION: It will take 10 to 15 minutes to complete the survey.

RISKS: This survey does not foresee any major risk for participants, however, there can be questions in this survey that may be uncomfortable to answer. You are not required to answer a question if it brings discomfort. You may skip the question or end your participation.

BENEFITS: Participation in this study does not have direct benefits for participants. However, findings from the study will contribute to our knowledge in this area of research.

CONTACT: If you have any questions about this study, please feel free to conduct Dr. Yawen Li at (909)-537-5584.

RESULTS: Results of the study can be obtained from the Pfau Library ScholarWorks database (http://scholarworks.lib.csusb.edu/) at California State University, San Bernardino after July 2023
****

I understand that I must be 18 years of age or older to participate in your study, have read and understand the consent document and agree to participate in your study.

Place an X mark here   Date

APPENDIX C

DEBRIEFING STATEMENT

Debriefing Statement

The study you have just completed was designed to examine whether having a pet(s) has an impact on anxiety and depression levels in university students during the Coronavirus-19 pandemic. Researchers will compare anxiety and depression levels in students that have and did not have a pet during the pandemic.

Thank you for your participation in this study. If you have any questions about the study, please feel free to contact Jessica Morales Sanchez, Sugey Gonzalez-Escobedo, or Dr. Yawen Li at (909) 537-5584. If you would like to obtain a copy of the group results of this study, please contact Professor Yawen Li at (909) 537-5584 at the end of Spring 2023.

If you experienced any distress by the questions in this study, additional information for emergency hotline number and counseling are provided below.

National Suicide Prevention Lifeline

(800)273-8255

The Trevor Project

1(866)488-7386

APPENDIX D

IRB APPROVAL

IRB #: IRB-FY2022-234
Title: DEPRESSION AND ANXIETY OF UNIVERSITY STUDENTS WHO HAVE PET(S) DURING THE CORONAVIRUS-19 PANDEMIC
Creation Date: 2-10-2022
End Date:
Status: Approved
Principal Investigator: Yawen Li
Review Board: Main IRB Designated Reviewers for School of Social Work
Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt
Submission Type	Modification	Review Type	Exempt	Decision	Approved

Key Study Contacts

Member	Role	Contact
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ASSIGNED RESPONSIBILITIES

The two researchers agreed to collaborate on this research project. Researchers met at least twice a month to work on each chapter together. Data collection was a joint effort from both researchers. Researchers maintained good communication throughout the process of this research. Both researchers equally contributed to this project.