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# The Effects of Animal Companionship on Mental Health During COVID-19

Hailey Burton  
*Gallaudet University*

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## THE HONORS PROGRAM

Title: The Effects of Animal Companionship on Mental Health During  
COVID-19

*An Honors Capstone Submitted in Partial Fulfillment of the Requirements for Graduation with  
University Honors*

By: Hailey Burton

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*Committee Chair:* Deborah McCaw, Ph.D

*Second Reader:* Kathryn Wagner, Ph.D.

*Honors Director:* Jennifer Nelson, Ph.D.

### **ABSTRACT**

The purpose of this study is to explore the impact of animal companionship on mental health during COVID-19 for Deaf and Hard of Hearing people. Through the use of qualitative methodology, specifically that of phenomenology, the lived experience of participants who adopted animals during the pandemic and the effect of this decision on their mental health and quality of life is examined to better understand the relationship between animal companionship and mental health states such as anxiety, loneliness, and depression. An autoethnographic framework is utilized wherein I reflexively analyzed my own choices for adopting an animal companion during the pandemic in order to build rapport with participants and encourage flow of conversation. In order to build rapport with participants, the researcher used an autoethnographic framework analyzing their own experiences to guide the development of the study. Six (6) deaf and hard of hearing college students were interviewed as part of this study. Results showed that the experience of COVID-19 pandemic was unique for Deaf/HH people and those who adopted pets during this time reported improved mental health. It is hoped that the results of this study will bring to light the ways in which animal companionship can support mental health and resiliency during times of hardship and difficulty.

## **INTRODUCTION**

Today, when there is a growing increase in reports of depression and anxiety due to the COVID-19 pandemic's sudden, drastic, and almost overnight restructuring of our daily lives, it is critical to understand how to cope with such changes and understand how these changes may affect one's mental health. One way that people have coped and learned to adjust to the unforeseen changes related to the pandemic, was through the use of animal companionship as a means of finding comfort. As result, animal adoptions skyrocketed during the pandemic. The aim of this study is to understand how the COVID-19 pandemic affected deaf and hard-of-hearing individuals, especially those who may have returned home to hearing environments. It also aims to examine the effects of animal companionship on mental health states that were prominent during the pandemic, such as depression, anxiety, and loneliness.

## LITERATURE REVIEW

COVID-19 has resulted in almost 1 million deaths in the United States alone. In order to control this incredible loss of lives, one of the key ways to prevent the spread of the virus has been social isolating and distancing; schools and bars, non-essential businesses and venues were closed, and gathering in groups was strictly prohibited (CDC, 2020). Perhaps the biggest impact and risk of social isolation, social distancing, and the shift to living and working virtually has been the impact on mental health.

The pandemic caused an unforeseen increase in mental health issues such as: depression, loneliness, and anxiety (Usher, et al, 2020). According to the World Health Organization (WHO), the prevalence of anxiety and depression increased by 25% worldwide during the first year of the pandemic (WHO, 2022). The circumstances surrounding the pandemic including the looming stress of COVID-related anxiety, as much of the information in regards to where the pandemic originated from and how it spread, as well as how to protect oneself, was unclear, which created a sense of uncertainty and instability (Usher, et al, 2020). In a study by Yarrington, et al (2021), data was collected users of a mental health app (Youper) which showed that anxiety was increased at the beginning of the pandemic, sadness and depression increased later on, and also showed potential resiliency throughout the pandemic (Yarrington, et al, 2021). Another study by the World Health Organization (WHO) found that, through through a review of the exisiting evidence relating to the impact of the pandemic and mental health services, young people, women, and those with pre-existing medical conditions were significantly at risk for developing pandemic-related mental health symptoms and disorders (WHO, 2022).

One area that has been understudied in the literature is the mental health of specific marginalized populations during the pandemic. Members of these populations may be more prone to distress during the pandemic, whether due to racial bias or discrimination of disability. One particular marginalized population is that of Deaf and Hard of Hearing people. For this study, only deaf and hard of hearing were able to participate, defined as profound hearing loss by the World Health Organization (WHO, 2021). Members of this community rely on facial expressions as a part of their culture in order to capture important linguistic information, and this was made difficult with the use of masks. Deaf people experience challenges and obstacles that hearing people don't face, such as audism and isolation, as well as being tasked with the responsibility of navigating a primarily hearing world (Recio-Barbero, Saenz-Herrero, & Segarra, 2020). As a result of these additional challenges hearing people do not face, Deaf people have been in a unique place throughout COVID-19, and have experienced increased stressors, including discrimination and inaccessibility.

Per the Center for Disease Control and World Health Organization regulations, the main ways to prevent COVID-19 is by wearing masks and socially distancing. Sign language uses structural components such as facial expressions and non-manual signals to effectively communicate information, in addition to others such as palm orientation, location, handshape, and movement. Because masks effectively block critical communication components such as lip-reading, semantics, and facial expressions, deaf people are not only socially distanced, but also cut off from communication from others. This leaves them more prone to stress, feelings of anxiety and isolation, and depression (Recio-Barbero, et al, 2020). One study was conducted with Ghanaian deaf families during the COVID-19 pandemic designed to explore the accessibility struggles of deaf Ghanaians related to communication and access to information

(Swanwick, et al, 2020). Results indicated difficulties with accessing health information, communicating with others, and being discriminated against as a result of masks being a communication barrier. Since approximately 90% of deaf people are born to hearing families (Schein & Delk, 1974; National Institute on Deafness, 2021), it is believed that deaf people around the world likely struggled with isolation while being tasked with the responsibility of navigating a primarily hearing world (Recio-Barbero, Saenz-Herrero, & Segarra, 2020). No doubt, this struggle for access to information and communication wasn't limited to only the Ghanaian families, but was a global struggle for deaf individuals everywhere. In fact, the ultimate concern of deaf individuals, aside from prioritizing COVID-19 preventative safety measures, has been access to vital information in the media and public (Leeson, 2020). Public safety media broadcasts often don't have qualified interpreters, deaf individuals living with hearing families may not have access to captioning, and social media, where teens and young adults turn to for information and news, often doesn't have captioning available. Even though accessibility has always been an issue, COVID-19 presented safety concerns and an urgent need for access to critical information. This inaccessibility has led to greater feelings of stress, isolation, anxiety, depression, and increased fear of the pandemic (Recio-Barbero, et al, 2020).

In the early days of the pandemic (March 2020), colleges took action to slow and contain the spread by shutting down and sending students home. Thus, unique to college students - this meant that they had to quickly move out of their living situations. Some students were forced to find their own housing and job opportunities, some went home to live with their families, and others may have bounced around and stayed where they could until finding more stable opportunities. Deaf and hard of hearing college students had an even more unique situation. A majority of deaf and hard of hearing individuals are from predominantly hearing families, and

it's recognized that some individuals may have had to return to environments in which audism and the oppression of sign language may be prominent (Schein & Delk, 1974; National Institute on Deafness, 2021). Unlike many, I was lucky to return to a bilingual deaf family once school closed down, but I watched as many of my friends struggled with language barriers at home, feeling isolated from deaf peers, and finding difficulty in making new friends in their COVID settings. Despite the fact that I returned to a deaf family, I still struggled with finding opportunities for friends my own age in a hearing-dominant environment outside of my home, since my friends were either in other states or belonged to families with immunocompromised members. No doubt, this type of narrative extended beyond the college-aged population, and was common among the deaf community during COVID-19. Deaf individuals everywhere struggled with isolation and loneliness from within hearing families and hearing communities, being far away from deaf peers, and situations such as dinner table syndrome, in which the deaf individual is excluded from conversations and activities because of the language barrier.

One of the ways in which people have been alleviating and otherwise coping with these feelings and mental states of anxiety, depression, and loneliness is through animal companionship. Prior to the pandemic, general studies on human-animal interactions found that animal companionship created a positive effect on mental health. It was found that animal companionship served as a coping mechanism that helped to reduce the symptoms and effects of depression, anxiety, stress, loneliness through the neurochemical stimulation of oxytocin in interacting with pets (Wells, 2019). Another study was conducted to examine the mental health benefits of pet ownership found an increase in overall happiness and positive mental wellbeing after adopting an animal and a decrease in negative feelings such as loneliness and depression, using a systematic review with narrative synthesis (Islam & Towell, 2013). Furthermore, since



human-animal interaction is considered a type of “social” behavior, children with autism and schizophrenic adults were shown to greatly improve in their behaviors and overall wellbeing when interacting with dogs, engaging in therapeutic horseback riding, and/or engaging in social interaction with other animals, as noted through a review of the literature surrounding the activation of oxytocin in human-animal interactions (Beetz, et al, 2012). These positive benefits to animal companionship were found with all age groups: from children and adolescents to the elderly. Both groups have experienced changes in their mental health because animals provided companionship without the demand of needed communication, as they struggle with not knowing how to express their feelings of stress and loneliness (Javed, et al, 2020).

Many of the previous findings on the benefits of human-animal interactions were found to be even more relevant during the pandemic. One study found that groups such as the elderly, those who lived alone, had pre-existing mental health or underlying illnesses, and younger people showed a higher significance of self-reported psychological distress during the pandemic, including elevated symptoms of depression and anxiety, and found comfort in interacting with pets, examined using a review of the literature (Peluso, et al, 2021). Another study by Ratschen, et al (2020) found that of all participants (n=5,323) 89.8% had at least one companion animal and most perceived their animals to have provided emotional support during the pandemic using a cross-sectional survey of UK residents (Ratschen, et al, 2020). A third study by Kogan, et al (2021) which examined the impact of companion animals on mental health during COVID, found that companion animals helped reduce depression, anxiety, isolation, and loneliness. Companion animals gave participants the ability to maintain a regular schedule, experience love and compassion, and have a sense of purpose in life. More than half of participants reported experiencing a significant decrease in these covid-related feelings such as anxiety, depression,

and loneliness (Kogan, et al, 2021). It is unclear from the literature if deaf and hard of hearing people would have a similar benefit from animal companionship during the pandemic.

### **Purpose of the Study**

Although animal companionship has been demonstrated in the research to have a positive impact on mental health and well-being as an adaptive way for people to cope with the stresses of the COVID-19 pandemic, the impact of animal companionship and/or COVID adoptions on the deaf and hard of hearing population is an area that has not yet been explored in the literature from a qualitative perspective.

Gallaudet is a home for many deaf and hard-of-hearing individuals: it is a safe place in which deaf and hard of hearing individuals are given the freedom to be themselves and have accessibility. Being forced to leave and go elsewhere not as accessible or welcoming may have been potentially damaging during the pandemic. Therefore, this study will explore the shared stories and experiences with animal companionship and mental health among deaf and hard of hearing college students. Through the use of qualitative interviews, I set out to explore the impact of animal adoption during covid on overall participant well being and mental health. I inquired about how animal adoption tapped into mental health states such as loneliness, depression/anxiety, and joy.

The target participant audience for this study were deaf and hard-of-hearing students at Gallaudet University. Deaf and hard-of-hearing students from Gallaudet University stand not only as a convenient study group, but are also representative of and have experienced the struggles and challenges faced by deaf people during COVID-19, and are likely to have found comfort in companion animals and animal interaction.

### **Methodology**

This study used qualitative methodology to explore the lived experiences of Gallaudet students with companion animals during COVID 19; specifically, how the presence of an animal companion impacted students' mental health during COVID-19. I chose a qualitative perspective for this study in order to better understand deaf students' experiences during COVID-19, the factors and experiences that may have influenced their mental health including experiences associated with being deaf, and how having a companion animal provided comfort during this time. Semi-structured interviews, interpretive phenomenological analysis, and autoethnography techniques were used to capture in-depth, first-hand accounts of the lived experiences of deaf students during the pandemic.

Qualitative research is centered on capturing the lived experience of participants or groups (e.g., non-numerical research) and is most commonly used in social sciences such as psychology and history (Sutton & Austin, 2015). Qualitative methodology is mostly used when trying to understand a unique experience or perspective that otherwise wouldn't be understood or achieved in the same quality as with quantitative research, and also allows for participants' unrestricted expression (Sutton & Austin, 2014). Using qualitative research allows for a whole understanding of the whole experience (Teherani, et al, 2015). Using semi structured interviews and phenomenological analysis encourages open-ended conversation with the goal of understanding detailed personal experiences. Interpretive phenomenological analysis is useful as it analyzes participants' whole experiences, from the participant's words and detailed descriptions, often through a series of interview questions and overview of participant responses (Smith & Osborn, 2015). Additionally, incorporating an autoethnographic analysis allows all participants to describe their experiences, while also allowing the researcher to share their

experiences. This type of methodology also allows for cultural understanding, using both the researcher and the participants' experience in a "cultural context" (Koopman, 2020).

Understanding the cultural context in participants' experiences was critically important because of unique factors such as a global pandemic and the role of participants' deaf culture (identities and experiences related to being deaf/HOH). My personal experience was shared briefly when appropriate as a way to build rapport with participants and help them feel comfortable and to validate their experiences with mental health and animal companionship.

### **Data Recruitment**

Data recruitment occurred via word-of-mouth, flyers, and emails sent to the Gallaudet student community (See appendix A and B). Interested participants were directed to contact the researcher via email.

*Screening Session.* Once initial responses were received, interested participants were emailed basic screening questions to decide whether the participants met the criteria for this study and if they felt comfortable talking about their experiences during the COVID-19 pandemic and their relationship with their animal. Basic screening questions focused on their deaf/hard-of-hearing status, their relationship with their pet (attachment, direct ownership, companionship), whether they had their pet before/during the pandemic, and their status as current Gallaudet students. Participants were reminded throughout that they can withdraw consent at any time and do not have to share more than they feel comfortable with.

Once it was determined that all inclusion criteria were met, the study consent forms, including the video release consent form for the purpose of data collection and analysis, were shared with participants via email with their signatures requested as necessary. The consent

forms (Appendix E) were shared in written English via email attachment, with ASL translations also attached and accessible.

Seven (7) participants responded to flyers posted on campus and all were interviewed for the study. However, during an interview, it became clear that one participant did not satisfy the inclusion criteria, and as result, this participant's data was removed from the study. Participants were interviewed using a list of prepared open-ended interview questions in a 1:1 interview that took place virtually, through Zoom (Appendix D). Using zoom as the interview platform ensured safety and accessibility since the pandemic is still current. With consent, the interviews were recorded over Zoom to ensure accuracy and to allow for transcription and additional review for data analysis purposes. Interview questions were intentionally open-ended to allow for natural flow of conversation, and for the participant to feel comfortable and not pressured in what they choose to share or not share. All the interviews were approximately between 15 to 30 minutes long, and participants were reimbursed for their time and participation with a \$15 digital Amazon gift card that was distributed to them via email afterward. Participants ranged in all ages, backgrounds, deaf identities, and each provided a unique perspective and insight to this study. Each participant was given pseudonyms to protect their identities meanwhile allowing for data analysis identification. Participants are briefly described with their pseudonyms below.

*Participant 1 (P1) "Alex"*: Alex adopted a cat during the pandemic for the purposes of animal companionship and emotional support. Alex comes from a deaf, fully signing family, whom they lived with during the pandemic (2020-2021). Alex identifies as hard-of-hearing.

*Participant 2 (P2) "Sam"*: Sam adopted a dog during the pandemic for the purposes of animal companionship and emotional support. Sam comes from a hearing, somewhat signing

family (home signs), whom they lived with for some time during the pandemic (2020-2021) before living with a deaf roommate. Sam identifies as deaf.

*Participant 3 (P3) “Erin”:* Erin adopted four guinea pigs during the pandemic for the purposes of animal companionship and emotional support. Erin comes from a hearing, nonsigning family, whom they lived with during the pandemic (2020-2021). Erin identifies as deaf.

*Participant 4 (P4) “Elise”:* Elise adopted a puppy during the pandemic for the purposes of animal companionship. Elise comes from a hearing, signing family, whom they lived with during the pandemic (2020-2021). Elise identifies as deaf.

*Participant 5 (P5) “Blake”:* Blake adopted three cats during the pandemic for the purposes of animal companionship. Blake comes from a deaf and hearing, fully signing family, whom they lived with during the pandemic (2020-2021). Blake identifies as deaf.

*Participant 6 (P6) “Kelly”:* Kelly adopted a dog during the pandemic for the purposes of animal companionship and emotional support. Kelly comes from a hearing, nonsigning family with one deaf sibling, but lived alone and faced living instabilities during the pandemic (2020-2021). Kelly identifies as deaf.

*Interviewer (I1):* Although I am not a participant directly, I share many of the same lived experiences as my participants; therefore, I am a participant-researcher and will be discussing my autoethnographic experiences throughout this reflection, as appropriate. For the purposes of this description, I’ve referred to myself as I1 (interviewer): The interviewer adopted a cat during the pandemic for the purposes of animal companionship and emotional support. The interviewer

comes from a deaf, signing family whom she lived with during the pandemic (2020-2021). The interviewer identifies as deaf.

The participant interviews were conducted via Zoom to ensure safety, accessibility, and convenience and ranged from 15-30 minutes in duration. A prepared list of interview questions (Appendix D) which were intentionally open-ended to allow for natural flow of conversation and participants' comfort and choice in what to share were used. Participants appeared comfortable sharing their experiences, and the interviews felt very much like an informal conversation, which was the original goal of the interviews.

*Semi-Structured Interview.* The interviews were one-on-one, and semi-structured. The interviews began with introductions, a review of consent forms, and a chance for participants to ask questions about the process. I began the interviews with brief warm-up questions that asked about the participant's pronouns, deaf and hard of hearing status, pet's name, the participant's experience transitioning to working remotely/virtually. This was so that I could gain a better understanding of the participant's background and help to warm up the participant to conversation.

The first set of interview questions, after the brief warm-up questions, sought to learn more about the impact of COVID-19, asking questions such as "Tell me how COVID-19 has affected you?" From there, I expected the conversation would unfold as I let my questions guide me throughout the interview (see Appendix A for all interview questions). The second set of questions, inquired into the participant's pet ownership during COVID-19. Questions included whether the participant had any other animals within the same household other than their companion pet, motivating reasons for adopting their pet, how their pet has affected them during the pandemic, and whether they have anything else to share regarding their relationship with

their companion animal and having a companion animal during this time. It was my intention and hope to create a safe and welcoming environment for participants to share their experiences during the pandemic, their relationship and attachment to their animal, and heartwarming stories of how their animal has supported them during this time. Participants directed the conversation, aside from my questions, which encouraged comfortable conversation. My goal here was to foster mutual dialogue and conversation. At the end of the interview, I debriefed and thanked participants for coming at the end of the interview, and reminded them that they could contact me via email if they have any questions and that they would be able to view the study as an Honors capstone.

*Self-Disclosure.* I shared limited bits of my own experiences of mental health struggles related to the effects of COVID-19, during the time of the pandemic. I hoped that this interaction with the participant would allow for deeper conversation and for them to feel comfortable sharing their experiences. As described in the autoethnography section below, sharing my own experiences allowed me to connect with my participants and establish rapport.

Overall, the questions were written with the goal of learning about the participant's whole experience during the pandemic and how their animal may have provided comfort. Some of these questions are open-ended while others are more specific, meant to encourage participants to share openly while gathering specific information.

### **Data Analysis & Coding**

An interpretive phenomenological analysis was used to analyze the stories of the participants. I also used an autoethnographic approach to critically frame my own experiences with mental health and animal companionship during COVID-19. I specifically chose this methodology to understand the participants' whole experiences without any kind of limitations



that would come with using quantitative methodology, in which participants would be expected to fit into a box or a statistic. My goal here was to create a full understanding of the participants' experiences, as open-mindedly as possible.

Additionally, an autoethnographic approach (IPA) provided the framework to use my own experiences with mental health and animal companionship during the pandemic to connect with participants and their stories. I selected IPA over other qualitative methodologies, as IPA concerns itself with an in-depth comprehensive learning of deaf students' experiences during COVID-19, their struggles with mental health, and how having an animal companion provided comfort and security. An interpretive phenomenological approach entails interpreting the common themes that appear in the participant's stories; for example, themes of their response to the pandemic, the effects and consequences of the pandemic, the way they talk about their animal or how their animal has provided support (Nixon, 2014). Highlighting and identifying these themes is part of interpreting the message that a participant is expressing (Turner, 2020). Interpreting the themes that the participant shares is critical to piecing together an understanding of their experience during the pandemic. An autoethnographic analysis differs from interpretive phenomenology as it provides the researcher's self-reflection and personal experience in addition to the participant's experience. In using qualitative methodologies such as these, it was my goal to learn about deaf students' experiences during the pandemic, their mental health, and how animal companionship can impact mental health.

Qualitative data and organized information were coded by hand through transcription of the interviews, selection of thematic codes, and creation of a master list of running thematic codes organized by key questions asked in the interviews. Out of the total interview questions and responses, five key theme questions arose, each with sub-themes derived from common

themes found across all participant responses. Below is an overview depicting the thematic codes found within participant responses organized by key interview themes.

*Key theme 1: Transitioning to remote from face-to-face/Impact of Covid in general*

<i>THEMES</i>	<i>Adjustment to “new normal”</i>	<i>Mental Health</i>	<i>Major Changes</i>	<i>Outlets</i>
<i>Alex (P1)</i>	Lifestyle changes/adjustments (P1) Acceptance of new normal (P1) Major change to college experience (P1)	Depression (P1)	n/a	Outdoor hobbies (P1)
<i>Sam (P2)</i>	Adjustment to Covid/Uncertainty/Stress (P2)	Depression (P2) Struggles (P2)	Major transitions (breakup, rapid changes) (P2) Change in living situation (P2)	n/a
<i>Erin (P3)</i>	Major abrupt changes to lifestyle (coping mechanisms, etc.) (P3) Difficulty adjusting to post-Covid (x2) (P3)	COVID anxiety (x2) (P3) Low tolerance/high anxiety (P3) Depression (P3) Anxiety (P3)	n/a	n/a
<i>Elise (P4)</i>	n/a	Depressed (P4) Struggled with mental health before Covid (P4)	Relationship issues (P4) No independence (P4) Became less social (P4)	Hobbies always included pets (P4)
<i>Blake (P5)</i>	Difficulty adjusting (P5)	Burned out (P5)	n/a	n/a

<i>Kelly (P6)</i>	n/a	Anxiety, stress (P6) Covid anxiety (P6)	No support system (P6)	Solitary hobbies (P6)
<i>Interviewer (I1)</i>	Lifestyle changes/adjustments (I1) Acceptance of new normal (I1)	Anxiety, stress (I1) Loneliness (I1)	n/a	Equestrian (I1)

*Key theme 2: Themes related to DHH+ Identity During Pandemic (Impact, Negatives, Positives, etc)*

<i>THEMES</i>	<i>Family/social factors</i>	<i>Accessibility</i>	<i>How this made participants feel</i>
<i>Alex (P1)</i>	Deaf/fully signing family (living situation) (P1)	Accessibility Accessibility issues (masks) (P1) Technological issues (P1)	n/a
<i>Sam (P2)</i>	hearing family, home signs (P2)	Disconnected (x2) (P2) Limited ASL expression (P2) Language barrier (P2)	Disconnected (x2) (P2) Isolation (P2) Depression (P2)
<i>Erin (P3)</i>	Missed social connections (P3) Hearing family, non signers (P3)	Struggle at home (P3) Dinner table syndrome (P3) Communication/access struggles (x4) (i.e., non signing environment, masks) (P3)	Lonely (P3)

<i>Elise (P4)</i>	Hearing family (P4)	Communication issues (masks) (P4) Lifestyle adjustment (in terms of accessibility) (P4)	n/a
<i>Blake (P5)</i>	Deaf/signing family (P5)	n/a	n/a
<i>Kelly (P6)</i>	Mostly hearing family (P6)	Lack of accessibility (P6)	Loneliness (P6)
<i>Interviewer (I1)</i>	Deaf family (I1)	n/a	n/a

*Key theme 3: Themes related to Pet Adoption*

<i>THEMES</i>	<i>Reasons for Adoption</i>	<i>Overall experience</i>
<i>Alex (P1)</i>	Emotional support (P1)	Happiness (P1) Entertainment (P1) Routine (P1)
<i>Sam (P2)</i>	Something to care for (P2) Deaf identity/connection (P2) Signing relationship (P2)	Happiness (P2) Time and emotional investment (P2)
<i>Erin (P3)</i>	ESA purposes (P3)	Entertainment (P3) Happiness (P3) Improved quality of life (P3)

<i>Elise (P4)</i>	n/a	Happiness (P4) Improved quality of life (P4) Active lifestyle (P4) Increased activity (P4)
<i>Blake (P5)</i>	Wanted her own pet (P5)	Entertainment (P5)
<i>Kelly (P6)</i>	Companionship (P6)	n/a
<i>Interviewer (I1)</i>	Companionship (I1) Emotional support (I1)	Happiness (I1) Improved quality of life (I1)

*Key theme 4: Themes related to positive outcomes resulting from COVID adoptions*

<i>THEMES</i>	<i>Before</i>	<i>After</i>
<i>Alex (P1)</i>	Mental health struggles (P1)	Grounded (P1) Higher quality of life (P1) Improved (P1)
<i>Sam (P2)</i>	Depression (P2) Major transitions (breakup, rapid changes) (P2)	Happiness (P2) Love/reciprocated (P2) Entertainment (P2) Routine (grounding) (P2) Higher quality of life (P2) Feel so attached (P2)
<i>Erin (P3)</i>	Lacked energy (P3) Anxiety (P3) Low self esteem/negative attitudes (P3)	Self-analyzed (P3) Feeling of responsibility (P3) Grounded (P3) Improved self esteem (P3) Happy (P3)

<i>Elise (P4)</i>	n/a	n/a
<i>Blake (P5)</i>	n/a	More social (P5)
<i>Kelly (P6)</i>	Lonely (P6) Sad (P6)	Calmer (P6) Happier (P6) Less stressed/lonely (P6)
<i>Interviewer (I1)</i>	Loneliness (I1) Depression (I1)	Happier (I1) Less lonely (I1) Improved self-esteem (I1) Higher quality of life (I1)

*Key theme 5: Emotional support provided by the pets*

<i>THEMES</i>	<i>Companionship</i>	<i>Improved quality of life</i>	<i>Grounding/coping mechanisms</i>	<i>Self care</i>
<i>Alex (P1)</i>	Companionship (x3) (companionship-helped loneliness, went with her in her hobbies/walks) (P1) Doing things together (i.e, go for walks) (P1)	Excitement (P1) Improved adjustment experience (P1) Higher quality of life (P1) Friends love the pet (P1)	Routine (x3) (P1) Responsibility (P1) Keeps busy (x4) (P1)	n/a
<i>Sam (P2)</i>	Attachment (P2) Pet routine/activities (walking, care, playing, etc.) (P2) Company during zoom (P2)	Positive experiences with pet (P2) Higher quality of life (P2) Saved life (P2) Keeps busy (P2) Friends love the pet (P2)	Distraction from depression (P2) ADHD support (P2) Keeps busy (P2)	Keep self healthy to keep pet healthy (P2)

<i>Erin (P3)</i>	Caring for them (P3)	n/a	Made life bearable (P3) Outlet/main focus (P3) Outlet/escape from negativity (P3) Caring for them (P3) Grounded (P3) Emotional support (P3) Calming behaviors (P3)	n/a
<i>Elise (P4)</i>	Hobbies always included pets (i.e., walking, hiking, biking, etc.) (P4) Companionship (x2) (P4)	Focused on pet (P4) Excited behaviors of pets (P4) Always happy (P4)	Focused on pet (P4) Routine (P4) Responsibility & care (x2) (P4) Grounded (P4)	Take care of pet = must take care of self (P4)
<i>Blake (P5)</i>	n/a	Happiness (P5)	Responsibility (P5) Routine (P5) Responsibility (P5)	n/a
<i>Kelly (P6)</i>	Best friend (P6)	Pet behaviors (P6)	Calming (P6)	n/a
<i>Interviewer (I1)</i>	Best friend (I1) Attachment (I1) Pet routine/activities/care (I1) Companionship (I1)	Happiness (I1)	Responsibility (I1) friendship with pet (I1) Focus on pet (I1) Calming (I1)	Healthier habits (I1) Better self esteem (I1)

**An autoethnographic reflection: My experience adopting Luna**

My own experience during COVID-19 illustrates the primary themes of this study. In the first year of the pandemic, I struggled with depression and loneliness, as well as struggling to adjust to working and going to school remotely from home. I knew that an animal companion would help alleviate these feelings, like how many of the participants knew that adopting an animal companion would for their experiences and feelings. During the process of developing my capstone idea, the topic of animal companionship during COVID-19 greatly appealed to me, as I encountered my own struggles with depression and loneliness while being at home and learning how to adjust to the “new normal.” I originally made the decision to adopt a cat since I struggled with loneliness and depression. I previously had a cat that I loved while growing up that was my best friend for my entire childhood. Unfortunately, she passed away two years before the pandemic. I knew it would be an immense emotional investment and responsibility to adopt a cat again, and was waiting until I felt ready. I knew I was ready around the beginning of the summer and put in many applications for cats and kittens, but didn’t have much luck.

Because of this, I began exploring other ways to cope and keep busy; gardening, exercising, and reading, to name a few. I became involved with horses, something I didn’t think I would be able to do in my life until after graduating college. Through my equestrian activities, I connected with my family and found my inner-child again as I’ve always loved horses since I was a kid. This was another form of impactful animal companionship for me, other than adopting my cat. I loved working with horses and riding; it made me happy and took up the majority of my free time outside of online school. When I wasn’t actively riding or with horses, where I felt happiest at the time, my mental health symptoms of sadness and loneliness would come back. Because of this, I knew I needed more support and another animal (cat) in my life.



In September, I decided to look at cat adoption applications online again. Luna's application was the first one. The day after applying for Luna, the owner contacted me and invited my Mom and I to visit the next day after that. I wasn't sure about Luna's adoption profile at first, but after her previous owner contacted me I began looking at her application profile with the perspective that this could be my cat. I became excited and had something to look forward to, and I liked the way the owner described her over the phone: "an independent woman." She also said Luna was "not a morning person" and "likes to eat bugs." This made me laugh and feel connected to Luna through her then-owner over the phone. This was significant because it shows the therapeutic possibility of how an animal companion can uplift and create hope and excitement, such as having that adoption as something to look forward to.

When I met Luna, I immediately fell in love with her personality and unique appearance; this scraggly, long-haired tabby cat with a small face and large green eyes. She looked prickly and intelligent. She took a few minutes to warm up to me, but after offering her treats she rolled on the floor and allowed my Mom and I to pet her. She was very friendly and curious. I watched her swat her paw at another cat that was much larger than her when he tried to take her treats, which made me laugh. I felt connected to this cat and hoped that her then-owner would approve of us. I cried when the owner said I could come back later and take Luna home that day. My Mom and I left to buy everything we needed (a carrier, supplies, a collar, etc.), had a celebratory lunch in the car parked outside of the pet supply store, and returned to pick up Luna.

Since adopting Luna, my mental health has greatly improved. It was an overnight change starting the very first night we brought Luna home. I was instantly happier. Taking care of Luna and bonding with her gave me something to look forward to each day. Everyone in my family noticed and commented on the significant difference in my daily attitude and positive mental

health since then. From the very beginning, she was always with me and my day revolved around spending time with her. Now she follows me everywhere, travels with me wherever I go, and lives a life of luxury. My family and friends love her. I wouldn't be in the same healthy and happy state of mind as I am today if I hadn't adopted Luna, and I can't imagine my life now without her. Like the participants, I experienced an improvement in my mental health after adopting an animal. All of the participants in this study also reported experiencing depression, anxiety, stress, and loneliness during the pandemic before adopting a pet. All participants then shared that after adopting their pet, they were instantly happier and felt fulfilled.

My experience with Luna influenced how I interviewed my participants in that I thought about what factors shaped or influenced my overall experience throughout the pandemic, such as general topics of my deaf identity and how I was lucky to come home to a deaf, signing family and stable home/living environment; the feelings and mindset I experienced prior to adopting Luna and how that changed afterwards; and the attachment that I had with Luna throughout the pandemic and currently. Through this, I was able to create questions that would ask about the participants' experiences, based on using my own experiences as a guide when developing the questions, while also being open-ended and simple in order to invite participants to share as much as they wanted to. In each participant's story, I saw themes (as shared in the methodology, results, and discussion) and learned about experiences that were similar to mine and also different. In creating open-ended questions in this way, I was able to create an open space for participants to share their own unique stories and learn about their experiences that were different from mine.

## **Results**

After thematically coding and analyzing the interviews, there were five key themes that became apparent. Each of these five key themes were coded with subthemes, based on codes of the participant responses and relevant similarities across all interviews. As seen in the tables above, the five key themes focused on the participant's responses and experiences relating to: transitioning to remote from face-to-face/impact of COVID in general, themes related to DHH+ identity during pandemic, themes related to pet adoption, how has the participant been changed by the adoption, and specific support from pet adoption during COVID. An interpretive commentary and analysis of these themes, including their subthemes and codes, is provided below.

***The experience of transitioning to remote from face-to-face/impact of COVID in general:***

***“Isolation & disconnection”***

When asked to talk about their experience with the impact of covid, including making the adjustment from face-to-face to being remote/virtual, participants reported struggling with the adjustment, facing uncertainty and stress caused by the circumstances of the pandemic, and going through major life changes in a short period of time. A clear pattern emerged: the participant's lives and mental health had been drastically influenced. Some of these changes for participants included: major transitions due to the university's closure, the loss of independence as many left their lives on campus and became dependent on parents and families, the loss/lack of support system and stability, and a decrease in their social tolerance and abilities.

In addition to drastic living and lifestyle changes, every participant (P1, P2, P3, P4, P5, P6) described a significant impact on their mental health. Participants reported experiencing increased depression, anxiety, stress, COVID-related pandemic anxiety, day-to-day struggles, and feeling burned out in terms of school and day-to-day activities. One participant (Sam, P2)

expressed feeling isolated and disconnected from the Gallaudet community and their friends and peers, which led to depression. Sam, P2, shared that she “did experience isolation because I couldn’t socialize with Gallaudet people, because you know, everyone was in different states. It wasn’t like everyone was in one place. Disconnection, yes. And at the same time, (she) did experience depression” (Sam, P2).

Participants also expressed feeling isolated and disconnected from their peers, whom many left behind at Gallaudet. Some participants expressed that they couldn’t socialize with their friends and peers as they normally would, and that caused them to experience isolation, feelings of disconnection, and depression. Other participants expressed missing out on opportunities for social connection, which they would have experienced if it wasn’t for the circumstances of the pandemic. One participant shared: “that whole communication access was taken from me during COVID, and I missed that with my friends. When you’re coming to Gallaudet, you have friends from all over the world and so COVID really took away that ability to develop that connection with other people in my life” (Erin, P3).

***Communication Access at home & outside of Gallaudet: “I felt very lonely and separated from my family”***

In order to understand the role of participant’s deaf and hard of hearing statuses and identities on their experience during the pandemic, participants were asked in the interview about their family’s deaf or hearing statuses, and whether whom they lived with during the pandemic was able to sign. Followup questions were asked to explore whether their environment supported them as deaf and hard of hearing individuals or if they had experienced additional challenges. About half of the participants came from either deaf or signing families with whom they lived with during the pandemic, while the other half of the participants were from hearing

and nonsigning families. Those who had deaf and signing families reported less frustrations with masks and accessibility issues. Participants from the hearing/nonsigning families reported increased stress and frustrations with accessibility to communication access both in public and at home, and having to make lifestyle changes in these areas in order to accommodate the safety guidelines of the pandemic (i.e., masks in public, access to information, etc.). Participants reported that these experiences and challenges caused them to feel isolated, disconnected, and lonely. Erin, P3, shares that in her environment at home, it was difficult because “without communication access, I felt very lonely and separated from my family like I would never understand the jokes or what’s going on. I just felt like that environment was very happy and it was fine, but I never understood what’s going on and I’m always struggling with that. But when I had my guinea pigs with me after a really long day or being frustrated with not being able to hear what’s going on, or when I became really tired of people I could just focus on my guinea pigs. Then I’d feel so much better.”

***The impact of pet adoption: it was “like warm company”***

To explore the participant’s experience with animal companionship, participants were asked about their experience of adopting their pet, what their reasons for adopting were, and what life with their pet was like. Results from this sample indicated that reasons for adopting pets centered around seeking emotional support and companionship (i.e, having something to care for and love). Participants’ experiences after adopting (their life and overall experience with their pet) were all similar, as they each reported feeling happier and a significantly improved quality of life, as well as an improved daily outlook and attitudes. Alex (P1) shared that “It really helped a lot having company and having someone- having that pet to sleep with you know? With that, I would be ok with staying at home because I’d have pets here and so with that pet, we’re

their whole world.” Alex also expressed that having her pet’s company also helped her to work remotely, stating that it felt like “warm company.” Blake (P5) shared that the impact of pet adoption on her life was that she laughs more and has “more responsibility but I don’t mind”.

Participants were asked about how their pet, and the adoption experience, impacted them and shaped their overall pandemic experience. When asked about their experience before adopting their pet, participants reported struggling with their mental health, depression, anxiety, low self-esteem and negative attitudes, and lacking in energy. Participants also reported regular feelings of loneliness and sadness. Elise (P4) described that before adopting her pet, she “became very depressed and needed help.”

When participants were asked about their experience after adopting their pet, they shared that they were happier, their lives were improved, and they became less stressed, anxious, and lonely. They also reported having a higher quality of life, feeling attachment to their pets which grounded them in their day-to-day mental health and self-esteem. They also stated feeling calmer, having higher self-esteem, and feeling loved and comforted in terms of their relationships with their pets. Sam (P2) shares about her dog that “sometimes he will make me laugh, and sometimes he will make mistakes like he’ll run and fall, or sneeze. He creates positive experiences for me, like I would prefer to be playing with him and doing a lot with him than staying in bed, or working, or staying in a classroom and zoning out because I’m bored.” In this, it’s apparent that the adoption of their pets has had a significant positive impact on participants.

### ***Emotional Support: “He saved my life”***

Throughout all interviews, participants elaborated on their relationships with their pets. Many shared ways in which their pets supported them during the pandemic. Across all interviews with each participant, there were significant themes of companionship, improved

quality of life, grounding/coping mechanisms, and self care. In terms of companionship, participants reported that their pets provided companionship which helped with mental health states such as loneliness, anxiety, and depression. Sam (P2) finds comfort with her dog when she's upset or depressed, and shared that "sometimes I'll be upset or depressed and if I sit on the floor, he will lay down with me and I will feel loved." Elise (P4) expressed feeling depressed, but finding comfort in companionship with her pets, sharing that "she never leaves me. The minute I wake up she's with me for everything." Even in participants' hobbies, outlets, and other daily activities, their pets are a constant source of comfort and happiness.

Their hobbies, outlets, and daily activities either became centered around the pet (i.e., playing with the pet), or always directly involved the pet (i.e., going for hikes together). Participants also expressed that they found comfort in caring for their pets, and that they thought of their pets as their best friend. Erin (P3) describes her guinea pigs as her lifesaver throughout the pandemic: "they were my life during the pandemic. That was my, I forgot what it was called, but that life saver ring that I floated on." Kelly (P6) describes their dog as their best friend, always there for them: "I feel more like he is there for me. Simply, yes, he's my best friend." In this unconditional support, participants have experienced emotional support and love with their pets.

Overall, the data suggests that the participants' quality of life was greatly improved in all aspects of their overall pandemic experience and life satisfaction. In this adoption endeavor, participants reported feeling excitement in spending time and interacting with their pets, observing their pets' behaviors and silly antics (i.e., zoomies, playing, etc.), becoming more social and engaging with people and friends more as social interactions often involved their pet. Some participants noted that their pets essentially saved their life, which posed a remarkably

significant impact. Sam (P2) shared that her dog “saved (her) life.” She also expressed that “he brought back my happiness and helped me to understand what love is, and how it feels to be loved. Not just to give love to someone but also to receive love in return.” Erin (P3) shared that when she felt frustrated or upset, she would find comfort in spending time with her guinea pigs and that “with them here, they make life bearable.”

One common theme that many participants noted is that the responsibility and routine of caring for their pets was significantly impactful. The responsibility, routine, and interactions with their pets grounded them, in terms of their mental health. The responsibilities, routine, and interactions with their pets also motivated them to complete their own responsibilities, such as taking care of themselves in order to take care of their pets. Participants responded that their pets kept them busy, made life bearable, provided an outlet and escape from stress and negativity, and was overall a calming presence in their lives. Elise (P4) reflected on her pets always wanting to be with her, and that they “always want attention and want to play and cuddle. And that helps (her) stay motivated instead of feeling stuck in my room all day in class and doing school work. (she) had to go out and walk the dogs and make sure they’re happy and healthy.” Elise also shared that “basically they gave me the motivation to keep going, because even if I wasn’t doing well they were still needing attention and care needs, and I had to meet those responsibilities. I would get up and do things.”

Through these sentiments, their pets provided the emotional support participants needed, grounding them and providing relief from stressors relating to their situations, environments, mental health, and the overall pandemic experience. Participants also shared personal revelations that in order to care for their pets and provide them with the best life possible, they learned they must also care for themselves. Sam (P2) shared that “It’s (her) job to keep him healthy, and in



order to do that I have to keep myself healthy. In order for me to keep him healthy, I had to learn that I needed to keep myself healthy too.” It’s a hugely significant realization because adopting their pets, taking care of their pets, and building that connection with their pets both grounded participants and gave them the motivation and tools that they needed to also take care of themselves.

When asked about what life might look like without having adopted their pets, participants shared that they wouldn’t be happy, would continue to experience depression, and otherwise “wouldn’t be in a good place.” Some even stated that prior to adopting their pets, they were experiencing severe depression and suicidal thoughts, and expressed that their pets saved their lives. Participants also shared that they didn’t want to think about life without their pet and that the thought of life without their pet was unimaginable. Alex (P1) expressed that she couldn’t imagine life without her cat and that “I don’t know what I would be like without him, but I know that I would not be this happy as I am today.” Sam (P2) shared “I can’t imagine myself having never adopted my dog. I can’t imagine it. I feel so attached to him.” Elise (P4), and other participants, shared that they didn’t want to think about life without their pets: “I don’t want to think about that.”

The responses and meaningful stories shared by participants show that adopting their pets had a significant impact on their lives and their mental health, and saw many positive outcomes. Participants have found companionship and comfort with their pets, relating that their pets have made them happier and increased their life satisfaction.

I could relate to many of the participants’ stories, especially their experiences with feeling significantly happier after adopting their pets, building their life around their pets, and experiencing a greater sense of life satisfaction. They had positive experiences and interactions

with their pets, from unique adoption stories and feeling immediately connected to their pets, to spending a lot of time with their pets and bonding with them. Many shared that spending time with their pets helped them to focus more on their own lives, keeping them feeling motivated and uplifted, alleviating their feelings of loneliness, anxiety, depression, and stress. Their stories were very similar to mine in this way. By sharing information about my own experience, I felt that I was able to foster a connection with participants and encourage them to feel comfortable to share their experiences with me.

### **Discussion**

The results of this study, after careful analysis and thematic coding, show that for this small sample of deaf and hard of hearing college students, there is a significant relationship between animal companionship and mental health. Participants' described their relationships with their pets as providing relief and alleviating symptoms and experiences of stress, anxiety, depression, and loneliness during the pandemic. As evidenced by participant responses, interviews, and participants' experiences with animal companionship and mental health during the pandemic, there were many complex factors that came into play. Unique factors such as deaf and hard of hearing statuses and identities, living situation, family and home life all shed light on the overall experiences of the participants, and opened the conversation to discussions of additional stressors (i.e, accessibility, communication access, feelings of isolation and disconnect) that may be unique to deaf and hard of hearing individuals. It also allowed for more detail and greater understanding of each participant's individual experiences, and how having an animal companion provided support and comfort, as well as emotional security and stability in routine and caring for their pets.

The participant responses in this sample of deaf and hard of hearing college students paralleled findings in other similar studies examining the relationship between mental health and animal companionship (Ratschen, et al., 2020; Islam & Towell, 2013; and Blix, et al., 2021). These studies all looked at anxiety, depression, loneliness, and how animal companionship could be used for significantly improving these mental health states. Animal companionship can be synonymous with, or parallel to, animal companionship; with pet owners finding comfort and companionship with their pets (Islam & Towell, 2013). Participants of this study reflected this as

they each expressed experiencing increased happiness and positive mental health after adopting their pet.

In conclusion, findings from this study showed that there is a significant relationship between animal companionship and mental health for deaf college students, especially in providing comfort and support during the COVID-19 pandemic. Animal companionship provided comfort and support for each of the participants, alleviating their symptoms and providing relief from stressors. Animal companionship contributed to increased happiness and improved quality of life as well as life satisfaction. Participants found immense happiness and comfort in interacting with and caring for their animal companions during the pandemic and to this current day, and can't imagine life without them.

I found that participants' experiences were similar to my own experiences. They experienced depression and loneliness related to the pandemic, which was alleviated by adopting an animal. I related to their stories of how their pet made them laugh and gave them something to look forward to each day. Participants also shared that after adopting their pet, there was a significant difference in their daily mental health, and they felt happier after adopting. There were parallels between my experiences and the participants' experiences, especially when they described their feelings before and after adopting their pet, and the impact their pet has had on their lives. I enjoyed learning about participants and their pets through these interviews, and learning about how their pets changed them.

### **Limitations to the study**

One limitation to this study was that the pandemic is still current which required that interviews be conducted virtually. Interviews might have been longer or more personable with more shared information if they were conducted in person, or face-to-face. Therefore, it's possible that participants may have felt less connected to or more distant from the interviewer through virtual interviews. Interviews were also only 15-30 minutes long. What may have contributed to a shorter length in interviews was possibly a sense of distrust since the deaf and hard of hearing community is small and close-knit, and mental health may still be considered a taboo topic. It was also up to the participant to share however much they were comfortable to, whether that was a little information or a lot of information. If the interviews were in person, participants may have felt more comfortable to share more.

Another limitation would be the small sample size. This study would have more data with a larger sample size of participants; the findings from a small college-aged sample may not reflect the overall deaf and hard of hearing population. Future studies should be conducted to explore the implications of animal companionship with other deaf and hard of hearing people.

### **Conclusion**

This study examined the relationship between mental health and animal companionship, looking closely at deaf individuals during the COVID-19 pandemic. Participants were interviewed through a 1:1 virtual interview setting following a series of open-ended semi-structured questions with the goal of obtaining a detailed understanding of their experiences during the pandemic. The questions were designed to learn more about the participants' experience of: transitioning to the pandemic's 'new normal,' their deaf and hard of hearing identities and environments during the pandemic, and their relationship with their pet.

Participants shared that their pets significantly improved their lives in every aspect, ranging from improving their mental health and daily outlook/attitudes, to their pets becoming completely invaluable and integrated into every aspect of their lives. Participants shared stories about their activities with their pets, how their pets made them feel happier and loved, and how their pets alleviated symptoms of anxiety, stress, and depression. In conclusion, these participants expressed a significant impact on their lives and that life without their pet would be unimaginable.

## References

- Al Majali, S. A., & Alghazo, E. M. (2021, August). *Mental health of individuals who are deaf during COVID-19: Depression, anxiety, aggression, and fear*. Journal of community psychology. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8013852/>.
- Analyzing Qualitative Data: Coding 101*. (2014). YouTube. <https://youtu.be/BnDUARfEu5I>.
- Beetz, A., Uvnäs-Moberg, K., Julius, H., & Kotrschal, K. (2012, July 9). *Psychosocial and psychophysiological effects of human-animal interactions: The possible role of oxytocin*. Frontiers in psychology. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3408111/>.
- Brunier, A. (2022, March 2). *Covid-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide*. World Health Organization.
- Centers for Disease Control and Prevention. (n.d.). *Prevent getting sick*. Centers for Disease Control and Prevention. Retrieved May 12, 2022.
- Correia, T. (2020, April 1). *Sars-cov-2 pandemics: The lack of critical reflection addressing short- and long-term challenges*. Wiley Online Library. <https://onlinelibrary.wiley.com/doi/full/10.1002/hpm.2977>.
- Covid-19: Deaf and hard of hearing communication access recommendations for the hospital*. National Association of the Deaf. (n.d.). <https://www.nad.org/covid19-communication-access-recs-for-hospital/>.

Griffin, J. A., Hurley, K., & McCune, S. (1AD, January 1). *Human-Animal interaction Research: Progress and possibilities*. Frontiers.

<https://www.frontiersin.org/articles/10.3389/fpsyg.2019.02803/full>.

*How to Know You Are Coding Correctly: Qualitative Research Methods*. (2016).

YouTube. <https://youtu.be/iL7Ww5kpnIM>.

Impact of the COVID-19 Pandemic on Mental Health among 157,213 Americans, Journal of Affective Disorders, Volume 286, 2021, Pages 64-70, ISSN 0165-0327, <https://doi.org/10.1016/j.jad.2021.02.056>.

Islam, Azharul & Towell, Tony. (2013). Cat and Dog Companionship and Well-being: A Systematic Review. International Journal of Applied Psychology. 2013. 149-155. [10.5923/j.ijap.20130306.01](https://doi.org/10.5923/j.ijap.20130306.01).

Javed, B., Sarwer, A., Soto, E. B., & Mashwani, Z.-U.-R. (2020, September). *The coronavirus (covid-19) pandemic's impact on mental health*. The International journal of health planning and management. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361582/>.

Julia S. Yarrington, Jana Lasser, David Garcia, Jose Hamilton Vargas, Diego Dotta Couto, Thiago Marafon, Michelle G. Craske, Andrea N. Niles.

Kogan, L. R., Currin-McCulloch, J., Bussolari, C., Packman, W., & Erdman, P. (2021). The psychosocial influence of companion animals on positive and negative affect during the COVID-19 pandemic. *Animals*, 11(7), 2084.



Koopman, W. J., Watling, C. J., & LaDonna, K. A. (2020, November 19).

*Autoethnography as a strategy for engaging in reflexivity*. Global qualitative nursing research. Retrieved April 11, 2022, from

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7683839/>

Leeson, L. (n.d.). *News*. Deaf in the time of COVID-19 - *Barriers and Opportunities* - Trinity Long Room Hub Arts & Humanities Research Institute - Trinity College Dublin.

<https://www.tcd.ie/trinitylongroomhub/media/news/articles/2020-09-23-LL-Blog.php>.

Ministers, N. C. of, & Unesda. (n.d.). *Who warning on lockdown mental health*.

EUobserver. <https://euobserver.com/coronavirus/147903>.

Morgan, L., Protopopova, A., Birkler, R., Itin-Shwartz, B., Sutton, G., Gamliel, A., . . .

Raz, T. (2020, November 24). Human–dog relationships during the Covid-19 pandemic:

BOOMING dog adoption during social isolation. Retrieved March 16, 2021, from

<https://www.nature.com/articles/s41599-020-00649-x>

Oliva, J., & Johnston, K. (2020, July 23). Puppy love in the time of CORONA: Dog

Ownership protects against loneliness for those living alone during the covid-19 lockdown.

Retrieved March 16, 2021, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7383093/>

Peluso S, De Rosa A, De Lucia N, Antenora A, Illario M, Esposito M, De Michele G.

Animal-Assisted Therapy in Elderly Patients: Evidence and Controversies in Dementia and Psychiatric Disorders and Future Perspectives in Other Neurological Diseases. J Geriatr

Psychiatry Neurol. 2018 May;31(3):149-157. doi: 10.1177/0891988718774634. Epub 2018

May 15. PMID: 29764282.

Quick Statistics About Hearing | NIDCD (nih.gov) U.S. Department of Health and Human Services. (n.d.). Quick statistics about hearing. National Institute of Deafness and Other Communication Disorders.

Ratschen, E., Shoesmith, E., Shahab, L., Silva, K., Kale, D., Toner, P., Reeve, C., & Mills, D. S. (n.d.). *Human-animal relationships and interactions during the covid-19 LOCKDOWN phase in the UK: Investigating links with mental health and loneliness*. PLOS ONE.

<https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0239397>.

Recio-Barbero, M., Sáenz-Herrero, M., & Segarra, R. (2020). Deafness and mental HEALTH: Clinical challenges during the COVID-19 pandemic. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(S1). <https://doi.org/10.1037/tra0000729>

Schein, J., & Delk, M. (1974). *Deaf population of United States*. Washington, D.C.,.

Smith, J. A., & Osborn, M. (2015, February). *Interpretative phenomenological analysis as a useful methodology for research on the lived experience of pain*. British journal of pain. Retrieved April 8, 2022, from

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4616994/#:~:text=Abstract%20Interpretative%20phenomenological%20analysis%20%28IPA%29%20is%20a%20qualitative,to%20provide%20detailed%20examinations%20of%20personal%20lived%20experience>.

Sutton, J., & Austin, Z. (2015). Qualitative research: Data collection, analysis, and Management. *The Canadian Journal of Hospital Pharmacy*, 68(3).

- Swanwick, R., Oppong, A. M., Offei, Y. N., Fobi, D., Appau, O., Fobi, J., & Mantey, F. F. (2020). The impact of the COVID-19 pandemic on Deaf adults, children and their families in Ghana. *Journal of the British Academy*, 8, 141–165. <https://doi.org/10.5871/jba/008.141>
- Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A., & Varpio, L. (2015). Choosing a qualitative research approach. *Journal of Graduate Medical Education*, 7(4), 669–670.
- Turner, D. (2020). *How to Analyze Qualitative Data*. YouTube. <https://youtu.be/peQBZNWM6w8>.
- Usher, K., Durkin, J., & Bhullar, N. (2020). The COVID-19 pandemic and mental health impacts. *International journal of mental health nursing*, 29(3), 315.
- Wells, D. L. (2019). The state of research ON Human–Animal RELATIONS: Implications for human health. *Anthrozoös*, 32(2), 169–181. <https://doi.org/10.1080/08927936.2019.1569902>
- World Health Organization. (n.d.). *Deafness and hearing loss*. World Health Organization.
- Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M. W., Gill, H., Phan, L., Chen-Li, D., Iacobucci, M., Ho, R., Majeed, A., & McIntyre, R. S. (2020, December 1). *Impact of covid-19 pandemic on mental health in the general population: A systematic review*. *Journal of affective disorders*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7413844/>.

Yao, H., Chen, J.-H., & Xu, Y.-F. (2020, April). *Patients with mental health disorders in the COVID-19 EPIDEMIC*. The lancet. Psychiatry.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7269717/>.

\*Please see attached Appendix with the following documents:

- Drafted recruitment email (Appendix A)
- Recruitment flyer (Appendix B)
- Screening questions (Appendix C)
- Interview questions (Appendix D)
- Consent forms (Appendix E)

## **Appendix A.**

### ***DRAFTED RECRUITMENT EMAIL***

Hello Gallaudet students!

We are looking for current Gallaudet students (undergraduate or graduate) to participate in an Honors Capstone study (psychology). This study seeks to understand students' experiences during COVID-19, and whether having an animal companion provided comfort and companionship during this time. A critical component of this study is understanding whether animal companionship can provide a sense of comfort and emotional support during a time of increased stress, loneliness, and isolation.

Participants in this study will be paid \$15 for their time. This is a qualitative study, focusing on one-on-one interviews that will be between 45-60 minutes long and conducted remotely.

If you adopted an animal companion between March 2020-April 2021, experienced symptoms of increased stress, anxiety, loneliness, depression between March 2020-April 2021, find comfort and companionship in interacting with and caring for that animal since adopting the animal, you have direct ownership and are the sole caretaker of the animal, and identify as deaf or hard-of-hearing, please contact [Hailey.Burton@Gallaudet.edu](mailto:Hailey.Burton@Gallaudet.edu) with your interest in participating!

The recruitment flyer is attached to this email.

Please contact me if you have any questions, concerns, or are interested in becoming a participant for this study.

Thank you,  
Hailey Burton  
[Hailey.Burton@Gallaudet.edu](mailto:Hailey.Burton@Gallaudet.edu)  
Class of 2022

***(recruitment flyer as attachment)***



**Appendix B.****RECRUITMENT FLYER****PARTICIPANTS NEEDED!**

*The Effects of Animal  
Companionship on Mental  
Health During COVID-19*

Honors Capstone study  
.....

**During COVID-19, did you:**☐

Experience symptoms associated with  
increased anxiety, stress, and  
loneliness?

☐

Adopt an animal and find comfort in  
caring for and interacting with this  
animal?

☐

Do you identify as deaf or hard-of-  
hearing? Are you a current Gallaudet  
undergraduate or graduate student?

☐

Want to share your experiences of  
animal companionship during the  
pandemic in a 1:1 online interview  
setting?

.....

If so, please contact

**HAILEY.BURTON@GALLAUDET.EDU** with  
your interest in participating & to learn more!

*\*participants will be compensated \$15 for their time\**

## **Appendix C.**

### ***Email screening questions***

1. What is your deaf/HOH/hearing status?
  1. What is your fluency in ASL?
  2. Do you need accommodations such as captioning? Please explain.
2. What is your race/ethnicity?
3. Do you have any disabilities?
4. What is your age?
5. Are you a current Gallaudet student? Please identify whether you are an undergraduate or a graduate student, what year you are in, and the year of your graduation.
6. Do you have access to Zoom features and stable wifi/internet connection?  
Interviews will be conducted over Zoom and will be 45-60 minutes long.
7. Did you have an animal before/during COVID-19, or did you adopt an animal during COVID-19? (March 2020-April 2021)



**Appendix D.****INTERVIEW QUESTIONS****Brief warmup questions/background questions**

1. What is your name? Pronouns? Anything else you would like me to know?
2. Tell me about the kind of pet you have.
3. What is the pet's name?
4. Tell me about your family's deaf/hearing status.
5. What's your age?
6. Tell me about your experience transitioning from face-to-face to being remote/virtual.
7. Can I obtain your consent to share a picture of both you and your pet, along with a brief description of your experience with your pet, on my final product (poster)?
  1. This is completely optional. You can choose to not participate, and your information will remain confidential. Your information will still remain confidential should you choose to participate. You can choose any of the following:
    1. No participation
    2. Participation, but with no picture. Only a brief anecdote of your companionship with your pet will be included. You can choose to use a fake name/alias, or include your first name only with your pronouns.
    3. Participation, with either a picture of your pet by itself or yourself with your pet, with a brief anecdote about your companionship with your pet. Your first name only will be included, with your pronouns.
    4. Participation under fake names/aliases, with a picture of your pet only or no picture of your pet, and a brief anecdote of your companionship with your pet. Your real first name will not be included, but you can choose to include pronouns. Including pronouns is optional.
  - b. What is your contact information? This will be kept confidential.

**Questions about the impact of COVID**

1. Tell me how has COVID-19 impacted you?
  1. Living situations, responsibilities, etc.
2. Tell me about your living situation during this time.
  1. Who did you share housing with during the pandemic? Family? Friends? Lived alone?
  2. Did your housemates identify as deaf, hard-of-hearing, or hearing? How did this impact you?
  3. How did your living situation affect you? If you could, what would you have changed?
2. How has being deaf during this pandemic affected you?
3. How did these experiences affect your emotional and psychological health?
4. Tell me about any hobbies, activities, or outlets that you had or have during this time.

**Questions about pet ownership during COVID**

1. Did you have any other pets present in your living situation or other forms of animal companionship before COVID? (Not referring to the COVID-specific adopted pet or animal companion. This could be a family pet, housemate's pet, or any kind of animal in which you may have interacted with regularly)
  - a. If so, what kind of animal was this? What relationship did you have with this animal?
  - b. How did this relationship affect you?
1. When did you adopt this animal?
1. What were your motivating reasons for adopting your pet? (COVID-specific)
  - a. What kind of pet did you adopt? Could the breed or type of animal be an influencing factor in your overall situation?
  - b. What was your overall experience of the process of finding, adopting, bringing your pet home?
1. What is your favorite thing about your pet?
1. How would you describe yourself (your mental health, your behaviors, thoughts and moods, etc.), before adopting your pet?
1. How would you describe yourself (mental health, behaviors, thoughts and moods, etc.) after getting your pet?
1. How has your pet supported you during COVID-19?
1. How would you describe yourself or your situation if you hadn't adopted your pet?
1. Is there anything else you would like to share?

**Appendix E.****INFORMED CONSENT FOR QUALITATIVE HONORS CAPSTONE REMOTE  
INTERVIEWS**

**Capstone title:** The Effects of Animal Companionship on Mental Health During COVID-19

**Principal Investigator:** Hailey Burton

**Honors Capstone Committee:** Dr. McCaw, Dr. Wagner

**Department:** Honors Program

**Address:** Gallaudet University, 800 Florida Ave NE Washington DC 20002

**Email:** [Hailey.Burton@Gallaudet.edu](mailto:Hailey.Burton@Gallaudet.edu) (Hailey Burton)

Thank you for your interest in participation in my Honors Capstone study!

You are invited to participate in a qualitative research study investigating the effects of animal companionship on mental health during COVID-19, focusing on deaf and hard-of-hearing students at Gallaudet. The aim of this study is to understand the collective and individual experiences of deaf and hard-of-hearing students during the COVID-19 pandemic, and how adopting an animal may have provided comfort and support.

In learning about students' mental health states during COVID-19, I hope to ascertain the role and effects of animal companionship towards symptoms of stress related to the pandemic such as increased anxiety, loneliness, and depression. Your participation in this study will allow for insight into deaf and hard-of-hearing students' collective and individual experiences during COVID-19, and the roles of their animal companions during this time.

Interviews will be conducted remotely and approximately 45-60 minutes. Interviews will be recorded for transcription and research purposes.

**Criteria:** We are interviewing current Gallaudet students (undergraduate or graduate) over the age of 18 who identify as deaf or hard-of-hearing and adopted an animal companion during the COVID-19 pandemic, approximately during the months of March 2020 - April 2021.

**Language:** Interviews will be conducted remotely via a video conferencing platform, and will feature either ASL or English, as the participant demographic will be deaf and hard-of-hearing Gallaudet students. Captioning can be provided per the participant's request; if you have other communication needs not specified, please let us know.

**Risks and Benefits:** There is minimal risk associated with this study. This study asks for retrospection in sharing your experience of COVID-19, your mental health states during the pandemic, adopting an animal companion and how this animal companion may have affected these mental health states. Answering these questions may result in some mild discomfort, but you are allowed to share only as much as you feel comfortable. You will not receive any direct benefits from this study.

**Compensation:** You will be compensated \$15 for your time and participation in this study.

**Confidentiality:** Your name will not be included on any survey or research documents. Participation in this study is entirely confidential. Participation in the capstone final presentation creative display is also optional and can be modified to fit your preferences should you wish to participate in that as well.

**Voluntary Participation:** Participation in this study is voluntary and you can withdraw participation at any time. Your withdrawal of participation will not result in any penalty or consequence.

**Results:** A summary of your participation can be shared with you upon request.

**Contacting the Researcher or the IRB:** If you have any questions or concerns, please contact Honors student Hailey Burton through the contact email provided above.

**Intent to Participate:** If you agree to participate after reading the information provided above, please read the following, then print and sign your name below, and enter today's date.

I have read the Informed Consent Form and agree to participate in this Honors capstone qualitative study conducted by Hailey Burton.

I understand that I can withdraw from this study at any time without penalty or prejudice.

Your Name:

Your Signature:

Date: