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The Use of Animal-Assisted Therapeutic Interventions in the Hospital Setting during the COVID-19 Pandemic

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**THE USE OF ANIMAL-ASSISTED THERAPEUTIC INTERVENTIONS IN THE
HOSPITAL SETTING DURING THE COVID-19 PANDEMIC**

A Master's Thesis

Presented to

The Graduate College of

Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Child Life Studies

By

Alicia Cesare

August 2020

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THE USE OF ANIMAL-ASSISTED THERAPEUTIC INTERVENTIONS IN THE HOSPITAL SETTING DURING THE COVID-19 PANDEMIC

Childhood Education and Family Studies

Missouri State University, August 2020

Master of Science, Child Life Studies

Alicia Cesare

ABSTRACT

Handlers of therapy and/or facility dogs working within hospital settings have experienced various barriers and challenges within their practice during the COVID-19 pandemic. Animal-assisted interventions, specifically therapeutic working dogs, are a valued source of support to individuals, communities, hospital settings, and disaster sites during times of community distress. The purpose of this study was to identify barriers and solutions to the continued use of animal-assisted therapeutic interventions in support of patients and families within the hospital setting during the COVID-19 pandemic. This researcher's position within the research is the knowledge and experience of being a facility dog handler within the hospital setting during the COVID-19 pandemic. Qualitative research was performed utilizing an investigator written questionnaire. Participants were chosen from purposeful sampling of dog handler teams to recognize the impact that this global crisis has made particularly to the practice of the dog and handler teams within health care settings. Results of the study identified barriers and solutions to continuing animal-assisted therapeutic interventions during disease outbreak. Qualitative research results also described perspectives of facility dog handlers in regard to facility dog absence and its impact on patient care interventions and decreased staff morale. The geographical response to the utilization of facility dogs during the COVID-19 pandemic was also examined and suggested more restricted responses were experienced in regions of widespread community infection of the novel virus. Suggestions for future practice in continuing animal-assisted therapeutic interventions during times of disease outbreak include a review of hygiene practices, equipment use, and future research on effectiveness of implementation.

KEYWORDS: facility dog, animal-assisted therapeutic intervention, COVID-19 pandemic, disease outbreak, community distress, therapy dog, staff morale, pediatric, patient care, Child Life Specialist

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August 2020

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In the interest of academic freedom and the principle of free speech, approval of this thesis indicates the format is acceptable and meets the academic criteria for the discipline as determined by the faculty that constitute the thesis committee. The content and views expressed in this thesis are those of the student-scholar and are not endorsed by Missouri State University, its Graduate College, or its employees.

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INTRODUCTION

Animals are used in various methods for the therapeutic value of the human-animal bond. Of these animals, most widely utilized for working purposes is man's best friend, the dog. Dogs have been specially trained to identify the need of medical assistance, emotional crisis, ambulation guides, and support for maintaining general life functions. Organizations exist with the sole purpose of providing emotional support through the utilization of working dogs for community distress situations. These organizations are those such as HOPE Animal-Assisted Crisis Response and Therapy Dogs International (TDI). Working dogs are also of great value in providing animal-assisted therapeutic interventions within hospital settings. Facility dogs, or dogs working within facilities with an intended therapeutic goal, have proved to be associated with benefit to overall reduction of stress and anxiety, reduced length of hospital stays, increased non-pharmacological pain management, and overall coping with medically induced stress, (McCullough et. al, 2016). However, during the COVID-19 pandemic, many hospitals limited their use of facility dogs or adjusted the practice between the dog and handler teams, (Facility Dog Forum, 2020). Most facility dog handlers within hospital settings in the United States are medical and/or professionals that utilize their facility dogs to meet patient care or client needs.

Rationale for the Study

The limits placed on facility dog presence within the hospital setting during the COVID-19 pandemic quite possibly negatively impacted both care of patients and emotional support of hospital staff members. However, it has been proven that dogs provide a therapeutic value to those experiencing personal trauma, community distress, or disastrous situations, as will be noted

in the review of related literature. The rationale for this study was to identify the barriers and solutions to providing animal-assisted therapeutic interventions within the hospital setting during times of global disease outbreak, such as the COVID-19 pandemic. Some hospitals have reported having altogether cancelled programing, while others have limited the use of facility or therapy dog programs. While there are many epidemiological concerns for the SARS-Cov2 virus, the Center for Disease Control (2020) reports, “We do not have evidence that companion animals, including pets, can spread the virus that causes COVID-19 to people or that they could be a source of infection in the United States” (para. 1). Thus, it remains unknown if the cancellation or limitation of these programs was necessary. This research aimed to define how programs, hospital staff, and/or patients and families were impacted by removal or limitations of facility dog services.

Pandemics are inarguably a time of global stress that all of humanity experiences, to varying degrees, on a personal level. As dogs are utilized as a resource to decrease stress and anxiety, this would seemingly be a time when their presence can be of significant benefit. However, hospital-based animal-assisted therapy programs were being met with barriers to providing presumably needed services during the COVID-19 pandemic. It was vital that these challenges were identified in order to provide solution-based responses for future implementation. It is possible that patients and families were in need of the emotional support and therapeutic interventions that hospital based facility dog teams provided during this time of global disease crisis more than ever before.

Purpose of the Study

The purpose of this study was to identify barriers and solutions for continuing the use of

animal-assisted therapeutic interventions to support patients and families within the hospital setting during the COVID-19 pandemic. This information can serve to support facility dog programming within hospital settings during future times of disease outbreak and/or infection prevention concerns.

Research Questions

For the aim of this research, the following questions were developed in conjunction with the purpose statement above.

1. What are the benefits, barriers, and solutions to the utilization of animal-assisted therapeutic interventions during times of disease outbreak?
2. What affect did facility dog absence have on therapeutic interventions, previously with facility dog presence?
3. What affect did the absence or presence of facility dogs have on hospital staff and morale during the COVID-19 pandemic?
4. Did the response to global disease outbreak in regard to facility dog programming vary geographically?

Research Design

For this qualitative research study, a questionnaire functioned as the method for data collection. Participants were recruited by means of purposeful sampling from a pre-existing virtual facility dog handler forum. Questionnaires were sent to the facility dog handlers via email. Questionnaire inventory was formatted in multiple choice with open ended answer combination, allowing for rich data collection.

Significance of the Study

The value of the proposed research was to contribute to general knowledge surrounding the barriers and benefits of animal-assisted therapeutic interventions during global disease crisis,

providing a basis for future research. The aim of this research was to identify solutions for continuing facility dog programming during a time of pandemic crisis to support patients and families within the hospital setting. Data collected during this research may aid to overcome boundaries and provide necessary support to individuals in times of future disease outbreak.

Assumptions

1. Facility dog handlers were willing to participate in this research study.
2. Some facility dog handlers were not able to reach the needs of patient populations in the same way prior to outbreak of COVID-19.
3. Animal-assisted therapy programs were temporarily removed from or limited in hospital settings.
4. The general public has experienced stress as a response to the COVID-19 pandemic to which animal-assisted therapies can be of benefit to.
5. Visiting, or being admitted to, the hospital is an added stressor during a pandemic to which animal-assisted therapies can be of benefit to.
6. Barriers identified in this study are able to be overcome to better serve patients and families using animal-assisted therapeutic interventions.
7. Participants answered questionnaire questions open and honestly as responses remained entirely anonymous.

Limitations

1. This study had a limited number of participants.
2. Selection-treatment interaction may have occurred in collecting data for this study as the participant's profession(s) may result in an influenced perspective or bias on the subject matter due to purposeful sampling.
3. Newly discovered information regarding the novel COVID-19 virus may provide further guidance at a date following this research study.

Definition of Terms

1. Facility dog: A dog specifically trained to work within a facility setting such as a school, hospital, courtroom, etc. that is utilized for the focus of providing therapeutic support for an intended goal or outcome
2. Therapy dog: A dog trained to provide social and emotional support for the intent of comfort within facilities or stressful situations
3. Service dog: A dog trained to perform tasks for an individual with disabilities as defined by Title II and III of the Americans with Disabilities Act

4. Working dog: A dog utilized to perform a certain job for humans
5. Animal-assisted therapeutic intervention: A goal-oriented task with the intentional utilization of trained animals that aims to provide benefit to the well-being of individuals or groups of people
6. Dog handler: The individual responsible for the well-being and handling of the working dog; in the case of this research study, typically also a professional individual with medical training with aim to provide care to patients
7. Dog handling team: The team created by the bond of the dog handler and dog together
8. Distress: Described as feelings of anxiety, sorrow, or pain
9. Emotional Support: Providing for the basic needs of empathy, compassion, or concern for a person

For the purpose of this research, the term Facility Dog will refer to working dogs utilized to provide animal-assisted therapeutic interventions to individuals, children, and family members experiencing distress primarily, but not limited to, within hospital and health care settings.

REVIEW OF RELATED LITERATURE

In the sections that follow, existing literature and knowledge on the topic will be discussed. To begin, it will be reviewed that dogs provide comfort and loyalty to humans as affectionate companions. Then, organizations supported by Federal Emergency Management Agency (FEMA), such as HOPE Animal-Assisted Crisis Response and Therapy Dogs International (TDI) shed light to why and how dogs are helpful in supporting those experiencing stress during disastrous situations. Next, areas of impact for dogs working within hospital settings are explored. Finally, an assumption that individuals and families visiting the hospital during a disease crisis would benefit from animal-assisted therapeutic interventions is concluded.

The Therapeutic Value of Dogs

It is known that the bond between a person and their canine companion is one of great strength. The following literature review includes studies have proven that the presence of a dog can have significant positive impact on an individual's physical health, social connection, and response to stress. According to Wells (2007), dogs can be preventers of ill-health, facilitate recovery, predict ill-health, and serve as therapists for humans. In this article, dogs were presented as reason for "significant reductions in the frequency of minor physical ailments," along with evidence for preventing cardiovascular disease (p.146). Cardiovascular health is a popular topic in studies measuring benefit from the presence of a dog as petting these companions has proven to reduce heart rate and blood pressure in support of cardiovascular health and minimizing heart disease (McCune et al., 2014; Wells, 2007). According to research reviewed by McCune et al. (2014), the presence of a dog can also enhance immune function.

Infants living in a home with a pet dog may be introduced to microbiomes that are linked to protection against allergies (McCune et al., 2014). College students were also found to produce salivary immunoglobulin, an indication of immune response, when petting dogs (McCune et al., 2014). For children, the physical benefits that dogs may be able to provide expand beyond the immune system. McCune et al. (2014), noted that the presence of a dog was able to increase the speed of motor skills without sacrificing accuracy in research performed with both typically and atypically developing preschoolers. Research reviewed in this article also reported enhanced learning, increase of focus, motivation, at attention to the teacher, directions, and tasks at hand when a dog was present (McCune et al., 2014). This could be due to the concept that dogs do not evaluate humans as other humans do (Kertes et al., 2016).

Robert Bandura once theorized that the single most effective way to create self-efficacy is through performance accomplishment (Kruger & Serpell, 2010). From a study performed by Kertes et al. (2016), it was found that dogs can serve to significantly buffer perceived stress response in children. This study measured perceived stress in children, seven to twelve years of age, before, during, and after being judged performing an activity. The children were randomized into three groups and had to complete their task either alone, with a parent or support person, or in the presence of a dog. Children significantly self-reported less perceived stress when in the presence of the dog as opposed to alone or with a parent (Kertes et al., 2016). This discovery is important as “Perceived stress during childhood has been linked with emotional and behavioral problems as well as maladaptive coping styles” (Kertes et al., 2016, p.3). Kertes et al. also states that, “Emotional and psychological responses to stress during childhood are known factors to stress-related disorders in adulthood” (2016, pp. 2-3). Self-efficacy can also be established through performance accomplishment with the aid of a dog for individuals with disabilities. Not

only can dogs serve as detectors of conditions such as cancer, diabetes, seizures, and anxiety, but they can physically assist individuals to meet physical needs of daily functioning that they would otherwise be dependent upon another person for. With the help of canine companions, it is recognized that both children and adults are able to more autonomous and establish more self-efficacy.

Kertes et al. (2016) and Kruger and Serpell (2010), both noted that the presence of a dog are able to reduce anxiety and arousal while facilitating social interactions between individuals. Social settings are generally known to generate some anxiety for most people. Dogs are able to serve as social catalysts, normalizing relationships and connecting an individual with their community for a greater sense of social capita (Kertes et al., 2016; McCune et al., 2014). According to Kertes et al. (2016), humans have an innate need to interact and dogs can provide humans with supplemental attachment and transitional support. Dogs promote many physical and socioemotional benefits to overall health such as self-efficacy, autonomy, and empathy.

Dogs in Community Distress and Disaster Relief Efforts

It comes as no surprise that when disaster hits, trauma is experienced by those living it. Trauma can be defined as ongoing feelings of distress caused by a specific event or series of events. Working dogs with training aimed to alleviate anxiety in times of distress and disaster have been providing emotional support to those experiencing disaster related trauma since the Oklahoma City bombings of 1995. Therapy Dogs International (TDI) was the first organization contacted by the Federal Emergency Management Association (FEMA) to provide emotional comfort and stress relief as a response to the crisis of the bombings (Shubert, 2012). Since this initial request, TDI has responded to crisis and disasters including the terrorist attacks on the

World Trade Center on 9-11, countless hurricanes, tornadoes, fires, shootings, explosions, floods, shelters, and even military command posts by providing animal-assisted support (Therapy Dogs International, n.d.). Another organization, HOPE Animal-Assisted Crisis Response, established in 2001, holds a mission to provide emotional comfort and support to those in need from single-person crisis to national disasters (HOPE Animal-Assisted Crisis Response, n.d.). Like TDI, HOPE has assisted with animals in response to natural and manmade disasters stretching services to crisis of death notification, student body distress, line of duty deaths, suicides, fires, multi-casualty incidents, emergency and intensive care units following major incidents, memorials, and secondary trauma support for first responders (Therapy Dogs International, n.d.). Secondary trauma is trauma felt indirectly through a victim's firsthand account or recollection of events, often leading to feelings of compassion fatigue in helping professionals (Hubbard et al., 2015). The HOPE organization has a special focus on stress management and compassion fatigue when taking care of first responders during deployments to communities experiencing disastrous situations (HOPE Animal-Assisted Crisis Response, n.d.). A caseworker working for the victims and responders of 9-11 reported feelings of helplessness and defeat to her clients prior to the arrival of TDI's Disaster Stress Relief Dogs. After interacting with the dog, the caseworker described a feeling of relief stating that she felt the dog was able to "hold pain" for her, allowing her to focus on serving her clients to her full potential (Therapy Dogs International, n.d.). The military also recognized that dogs were able to alleviate stress and help military members cope with combat trauma, and deployed dogs to Iraq as support to services members (Eaton-Stull et al., 2010).

Among the many benefits to workers on the front lines, dogs trained to work in support of people who have experienced trauma from disasters and community distress have also

functioned as a therapeutic intervention for victims. In referencing a response to a community disaster event, Shubert (2012) reflected, “[Dogs] served as a therapeutic bridge and helped to establish rapport with mental health professionals” (p. 75). A dog’s presence was able to empower victims to share feelings that they felt they had in common with the dog. For example, a victim might say, “The dog is scared because...” and thus, allowing mental health professionals to better meet the victims’ needs (Shubert, 2012). Consistent with Levar (2015), disaster relief dogs help those struggling to communicate, reducing feelings of stress and isolation. These dogs are also able to provide victims with a sense of safety, comfort, and relief from overwhelming grief. Animal-assisted crisis response dogs help victims to develop resilience, acceptance, and skills to adapt and cope with constantly changing events like those that occur in times of disaster (Eaton-Stull et al., 2010).

A systematic literature review completed by O’Haire et al. (2015), found that animal-assisted interventions had positive outcomes for those who had experienced trauma in all ten studies reviewed. A decrease in symptoms of depression, post-traumatic stress disorder, and anxiety were noted as outcomes, along with an increase in sleep quality, attachment, sense of security, and quality of life (O’Haire et al., 2015). Levar, (2015), also reports that dogs present to support victims experiencing distress help to ground those who are excessively upset and also helps to normalize the traumatic event or situation. It is clear that animal-assisted crisis response is of great value to both victims and helping professionals alike in times of community distress and disastrous circumstances.

Animal-Assisted Therapeutic Interventions in Hospitals

The breadth of animal assisted therapeutic interventions within the hospital setting was found to support motivation, bring comfort, increase recovery following procedures, alleviate pain, interact socially, improve mood, lessen fears and anxieties, increase quality of life, provide calm and relaxation, encourage physical movement, and promote normalcy, among other benefits to patients and their families (Zeblisky & Jennings, 2016; Vitztum et al., 2016; Perez et al., 2019; Jalongo et al., 2004; McCullough et al., 2016; Brodie et al., 2002). To highlight some specific programming and utilization of facility dogs, the animal-assisted therapy program at Phoenix Children's Hospital will be discussed, along with pilot studies of a hospital-based dog walking program and animal-assisted therapeutic interventions for pediatric magnetic resonance imaging. At Phoenix Children's Hospital, animal-assisted therapeutic interventions were measured for success by psychological variables and stress biomarkers in children before and after interacting with a facility dog. Data was collected over a period of nine years resulting in a 96% positive mood change following the patient's animal-assisted therapeutic intervention (Zeblisky & Jennings, 2016). A pilot study involving the participation of adolescents, whom were restricted from traditional forms of physical activity, in a facility dog walking program showed increased physical activity rates with high enthusiasm and motivation to engage in therapy regimens (Vitztum et al., 2016). Vitztum et al. (2016), reported that adolescents who are restricted from traditional forms of physical activity are of increase concern for additional health issues such as obesity, osteopenia, diabetes, and depression as adults. Since animal-assisted therapeutic interventions are able to accommodate activity modification that would otherwise differ from peers and cause feelings of inferior for adolescents with physical activity limitations, the program enhanced feelings of accomplishment and encouragement in participants (Vitztum

et al., 2016). Finally, a pilot study conducted by Perez et al. (2019), evaluating the effectiveness of animal-assisted therapeutic interventions was able to observe a reduction in anxiety and an increase in compliance in pediatric patients undergoing magnetic resonance imaging. As 90% of participants were able to complete their scan without compromising image quality or time, while the patient's anxiety was reduced, both caregivers and medical staff saw the intervention as mutually beneficial (Perez et al., 2019).

A general concern of the presence of dogs in the hospital setting is that of the risk of zoonotic disease transmission. Zoonotic disease is defined by the World Health Organization, (WHO), as “diseases and infections naturally transmitted between vertebrate animals and man” (World Health Organization, 2020, para. 1). WHO, (2020), classifies the family of coronaviruses, including the novel COVID-19 virus, as a zoonotic disease. Research performed by Brodie et al. (2002), examined zoonotic disease transmission between dogs and humans in great length. Brodie et al. (2002) described that although the transmission between dogs and humans is possible with zoonotic diseases, the route of transmission is very weak and easily broken, posing little threat to pet therapy and/or facility dog programming. According to McCullough et al. (2016), studies have concluded that people are not at any additional risk by interacting with pets than they would be by interacting with other people and their own environment. Multiple studies have found results consistent with this statement. For example, one study found no increase in hospital infection rates following the implementation of a dog therapy program, while another had no evidence of infection transmission by dog in more than 2,400 animal-assisted therapeutic interventions taking place over a five year time span, and yet another study yielded no indication of infection or adverse reactions in over six year of facility dog programming (McCullough et al., 2016).

Brodie et al. (2002, p.454) explains that keys to safety against zoonotic diseases include simple measures, such as “thorough planning, allocation of responsibility, rigorous health care of dogs, and informed practices by all involved.” As reported by McCullough et al. (2016), most animal assisted therapeutic interventions are conducted under supervision of clinicians such as a Physical Therapist, Speech Therapist, or Child Life Specialist. This way, the dog handler can be aware of “health precautions of the hospital setting to ensure the safety of the patient as well as themselves and their animal, such as avoiding entering patient rooms that have contact precautions” (McCullough et al., 2016, p.2). Since handlers are typically responsible for their facility dog’s hygiene, diet, and veterinary care, in accordance with hospital infection prevention policies and planning within a controlled environment, risks of infection are significantly minimized (Brodie et al., 2002). WHO identifies “companion animals which are properly cared for bring immense benefits to their owners and to society and are a danger to no-one” (1981, as cited in Brodie et al., 2002, p.454). To conclude, the benefits of facility dog programming with animal-assisted therapeutic intervention substantially outweigh the risks of zoonotic disease transmission.

“Therapy dogs provide a surprisingly powerful, positive force on children’s physical health, psychological well-being, social interaction, and academic achievement” (Jalongo et al., 2004, p.16). Animal-assisted therapeutic interventions have rich history in the healthcare setting. Nurses have been observing both the direct and indirect benefits that the presence of a dog has on their patients since the founding of the profession. Florence Nightingale brought her own dog into the hospital to benefit the well-being of her patients in the 1800s (Jalongo et al., 2004). Of the observations recorded by nurses, compliance to therapies, increase in attitudes, increased coping with illness, and enhanced transitions during difficult times are most noteworthy (Jalongo

et al., 2004). Jalongo et al. (2004), shared a narrative from a nurse that told of overhearing a child relinquish misconceptions and fears in communication with a dog over a medical device that the nurse was then able to clear and ease. However, without the bond that the child experienced with the dog, the nurse may never have known to address her patient's concerns. To conclude, "Animal-assisted therapy has enhanced children's ability to progress towards physical and psychological wellness" (Jalongo et al., 2004, p.12).

Summary of Literature Reviewed

The reviewed literature has highlighted the physical, social, and emotionally therapeutic values that dogs are able to provide for humans. It was learned that dogs help to heal and normalize trauma that is experienced in community distress and disastrous situations. The history of dogs that have provided stress relief as part of disaster efforts was explored. Organizations that provide disaster relief efforts through the utilization of animal-assisted therapeutic interventions were detailed. The use, risks, and benefits of animal-assisted therapeutic interventions within the hospital setting were summarized and defined. However, the limitation of the use of facility dogs during a global disease crisis remains unknown. This study served to gain further knowledge and understanding of the challenges of continuing animal-assisted therapeutic interventions in hospitals during the COVID-19 pandemic.

METHODOLOGY

Research Design

In order to gain first-hand knowledge regarding current policies and practices of facility dog handling teams in the hospital setting, a qualitative study was performed. Facility dog handlers were asked to participate in the study and complete an electronic questionnaire on the topics their current practices and perspectives of facility dog utilization during the COVID-19 pandemic. Most questionnaire inventory was formatted in multiple choice questions in order to more easily identify trends and patterns following analysis of results. However, all questions yielded the option for participants to add additional details and information as they saw applicable to the topic in question. Questionnaire inventory is listed in Appendix A. As the COVID-19 pandemic was new and novel to the time of this study, there were no questionnaires previously utilized related to this content. Thus, the inventory of this questionnaire was investigator written.

Site of the Study

Due to the global and national social distancing precautions being advised by governing bodies and observed by the public, this study took place electronically, utilizing a pre-existing email forum for facility dog handler networking. Members of this forum were dog handlers who primarily utilize their facility dogs in hospital settings throughout the United States. From a socio-cultural perspective, health care in the United States is viewed as a partnership between modern medicine and psychosocial treatment, with each individual having their own preference in the balance between. Animal-assisted therapeutic interventions can serve as a bridge between

these two variables, utilizing facility dogs to meeting the goals of both medicinal and psychosocial care.

Participants

The participants of this study were facility dog handlers that were members of an electronic networking forum. Members' professions are multidisciplinary but all within the scope of helping professions with varied forms of formal training within the health care field. This population is sampled purposefully due to the knowledge and first-hand experiences of facility dog utilization during the COVID-19 pandemic.

Ethical Considerations

All participants that have contributed to this research was done solely on voluntary basis. Research consent was obtained electronically from participants utilizing the form found in Appendix B. No identifying information was obtained for the purpose of protecting participants in this study. Participants of this research were all adults and risks of participating were low, with only the possibility of psychological disruption due to the nature of the topic researched. An Institutional Review Board application, number IRB-FY2020-657, was submitted and approved on May 7th, 2020, prior to any data collection for this study. Please see Appendix C for Institutional Review Board approval letter.

Data Collection Procedures

Electronic questionnaires were sent to participants for data collection. Questionnaires took approximately seven minutes in total to complete. Participants were able to choose if and

when they would like to participate in this study by completing the questionnaire at their own will. The research questionnaire remained open for participation for approximately one month in order to collect data as provided by willing participants. Questionnaire inventory asked facility dog handlers questions regarding the impact of COVID-19 on their practice, facility dog utilization, staff morale, and personal perspectives. Please see Appendix A for questionnaire inventory.

Instrumentation. The questionnaire used for measurement during this study was inspector written. Due to the novel nature of the COVID-19 pandemic, there were no pre-existing or proven instrumentation that could have be utilized for this study's intended purpose. Most of this study's questionnaire inventory was formatted in multiple choice questions for purposeful data analysis, but all questions permitted the addition of open-ended commentary to allow for more detail rich responses.

Role of the Researcher. The role of the researcher in this study was to create data collection measurement tools, collect, and analyze results that contributed to identifying barriers and solutions of continuing the use of animal-assisted therapeutic interventions to support patients and families within the hospital setting during an infectious disease outbreak. This researcher's investment in this study is a passion for assisting children and families to positively cope with stressors of life, including added stressors of disease outbreak. It is this researcher's belief that if one is able to learn positive coping skills as a child, they are more equipped to handle the trying times of life as an adult and have a greater motivation to contribute positively to society as a productive citizen.

Data Analysis

Based on the methods thus far detailed, this researcher expected the data to yield patterns of limitations placed on typical practices in animal-assisted therapeutic interventions amidst the COVID-19 crisis response. Data analysis was performed using services of www.SurveyMonkey.com to organize responses of participants (Survey Monkey, n.d.). Responses were then categorized and analyzed for emerging themes using inductive analysis methods. Consistent responses of significance are recorded in results.

The design of the questionnaire inventory was meant to collect the most socio-culturally rich data as possible from availability of open ended questions in first person narratives on the subject. Ethical considerations were that of voluntary participation, availability of questionnaire, cultural norms and acceptance in response to the subject matter, and the researcher's position within research. Procedures included electronic questionnaire distribution via pre-existing online networking forum for dog handlers of this capacity. Participants were purposefully chosen as knowledgeable and experienced in the subject matter. All 100% of participants identified themselves with status of professional employment and facility dog handlers, which made them eligible for participation in this research study. This researcher's position within the research is the knowledge and experience of being a facility dog handler within the hospital setting during the COVID-19 pandemic. Efficient use of time and resources while abiding by national infection prevention precautions at the current time of COVID-19 pandemic was also an ethical consideration of importance in the study.

RESULTS

Participants completed online questionnaires for this research study. The questionnaires asked questions for eligibility such as if the participant held a professional, paid position in accordance with dog handling to ensure that their dog was specially trained to perform goal-oriented work as defined as a facility dog above for the purpose of this research. Research performed for this study yielded results that aimed to answer questions of;

1. What are the barriers, and solutions to the utilization of animal-assisted therapeutic interventions during times of disease outbreak?
2. What affect did facility dog absence have on therapeutic interventions, previously with facility dog presence?
3. What affect did the absence or presence of facility dogs have on hospital staff and morale during the COVID-19 pandemic?
4. Did the response to global disease outbreak in regard to facility dog programming vary geographically?

Demographic Information of Study Participants

All 31 participants of this research study were paid employees of helping professions within the United States of America and of whom were also handlers for facility dogs in accordance to their professions. Responses were submitted by professionals of the following roles; 64.% Child Life Specialists, 6.45% Chaplains, 6.45% Patient Activity Coordinators, 6.45% Facility Dog Program Coordinators, 3.23% Child and Family Therapists, 3.23% Librarian, 3.23% Social Work, 3.23% Nursing, and 3.23% of Physician responses. 96.77% of all participants work within the hospital setting and 3.23% work as helping professionals within community settings. Please see Figure 1 for reference. Participants varied in geographic location to include representatives from all regions with the exception of New England, as seen in Figure 2. 96.27% of the responses collected for this study were submitted by participants during the

dates of May 13th, 2020 and May 17th, 2020.

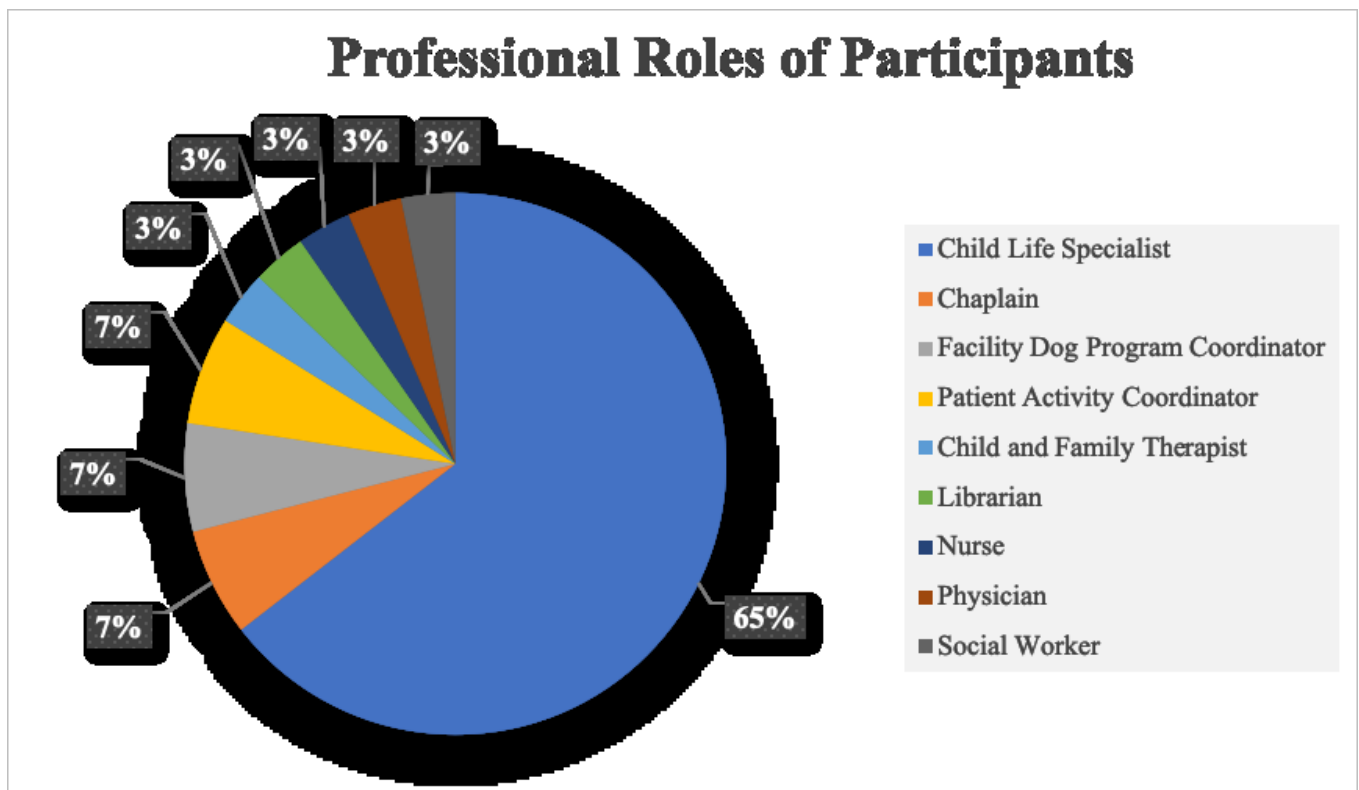


Figure 1. Professional Roles of Research Participants

Barriers of Facility Dog Utilization during Disease Outbreak

Reduced Working Hours. Barriers to providing animal-assisted therapeutic support during the COVID-19 pandemic will now be reported. A barrier of note is whether or not facility dog teams were permitted to continue working and providing animal-assisted services to the population that they typically serve. 64.52% of participants stated working hours as regularly scheduled, while 22.58% of participants described a limitation of hours placed on their usual work schedule. 19.35% of participants stated that they and their dog were working remotely. These respondents brought light to the unique perspective of remote work with a facility dog. A participant stated, “Telehealth requires some planning to set up, which makes it challenging to

meet those in the moment needs such as procedural support that we would normally provide on the unit. Phone calls and telehealth have been a great way to utilized dogs from home; however, it has definitely been a challenge to try to incorporate them in the interventions.” Another participant discussed remote work with a “challenge to engage children” since they felt “parents [were] not prioritizing telehealth sessions as they [were] overwhelmed with navigating online school and their own work from home.” While many participants were permitted to work within their place of employment, some reported operating in a role differing from the norm may have been expected. As one participant reported, “I am helping with various roles in the hospital that are not typically associated with my job.”

Other limitations of note were those of institution based restrictions of work on specific units, with certain populations, or types of interventions. For example, a participant shared, “There was a time that we could not go into droplet isolation rooms. It was challenging to not be able to provide support to those patients/families.” 16.13% of participants responded that they and their dog were not permitted to be present on certain units that they were previously permitted to work on, while 29.03% of participants reported additional limitations to utilizing their facility dogs of usual capacity. These limitations were barriers such as working remotely via electronic platform, additional patients in isolation precautions causing institutional restriction of access for services or being permitted to only perform specific job duties under extenuating circumstances, such as end-of-life care. Only 9.68% of participants claimed to have no restrictions on access to patients or difference in their patient caseloads.

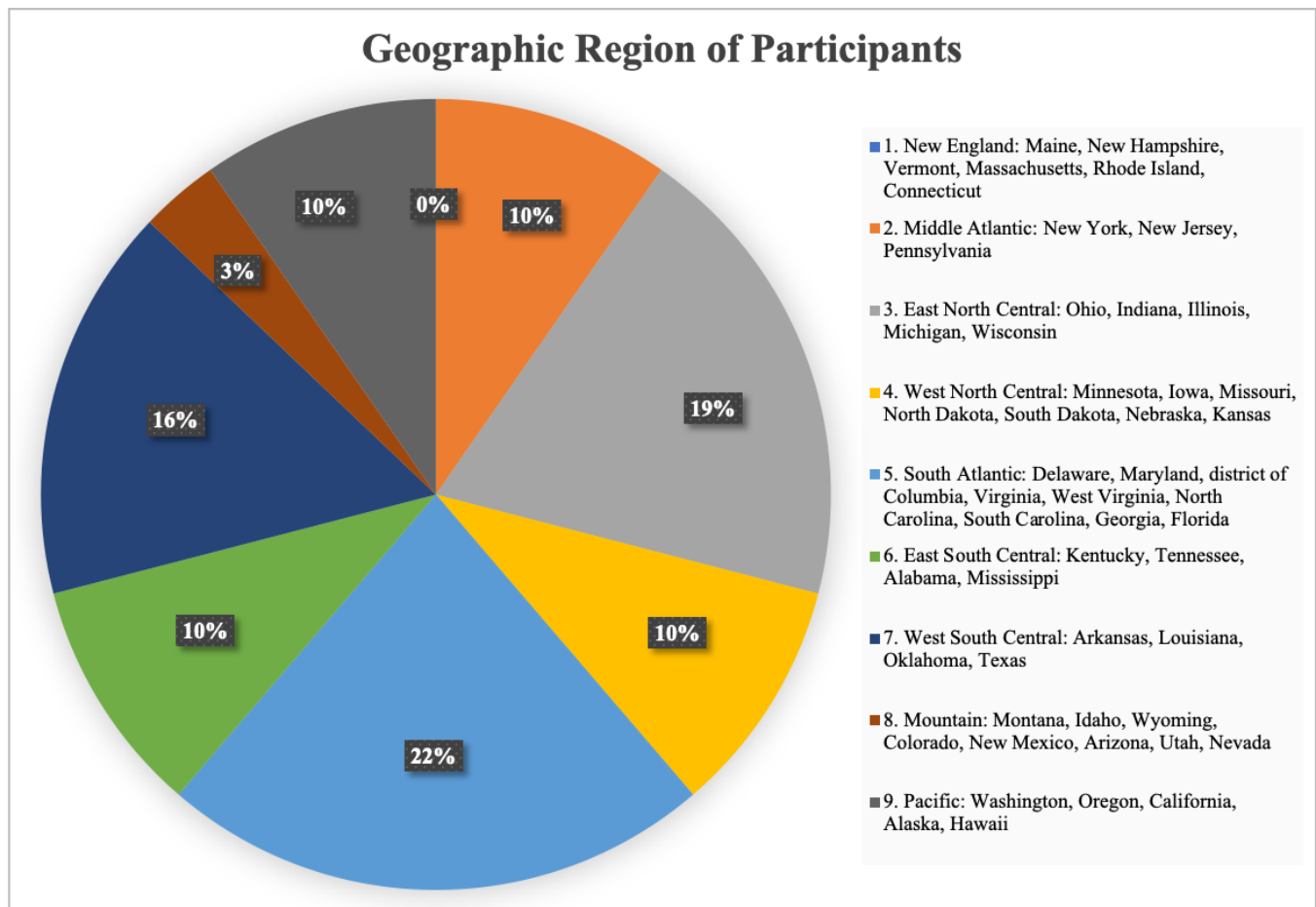


Figure 2. Geographic Regions Represented by Research Participants

Change in Routine for Facility Dogs. Several participants also reported their facility dogs to have differing schedules or limitations than normal for their work. 38.71% stated that while they were performing their job duties, their dog remained either at home or in an office instead of working alongside their handlers. One participant shared, “My biggest fear is that the dogs will forget their routines and expectations.” 16.13% of participants shared that their facility dog presence at work was limited in interactions or hours worked. 12.9% of participants reported only interacting virtually with their patients. One participant shared that they had been mandated to furlough and that neither themselves nor their dog were working at the time of this study’s data collection. This participant shared concerns following furlough stating, “re-entry may be

difficult for him and that we may need to adjust our expectations as to relearn some things that used to come very easily.” Only 29.03% of respondents reported that they currently working alongside their dog at the time of their research participation. Some dogs permitted to remain at work still experienced challenges with the change in working routine. One participant shared that since their “patient load has decreased, it has become harder to keep the dog ‘perky’ throughout the week, as the change in routine has definitely caused a change in her attitude/behaviors while at work to be more lethargic.”

Decline in Patient Caseloads. Another institutional barrier to utilization of facility dogs during the time of COVID-19 pandemic was found to be limitations in patient access and/or declines in patient caseloads due to the rescheduling of non-essential procedures as was nationally recommended by the surgeon general to prevent the spread of disease. 51.61% of participants reported experiencing decline in patient caseload due to non-essential procedure rescheduling. One participant said, “I work in a surgery center, and my patient care hours were significantly decreased with 60-70% decrease in census.”

Unknowns of Disease and Handler Perspectives. To date, the COVID-19 is novel in that much information regarding the virus is yet to be proven. This unknown is also a contributing barrier to the utilization of facility dogs. Facility Dog handlers were asked to share their own perspectives on their infection prevention policies concerning their dogs being present at work alongside them. 58.06% of respondents shared that they agreed with their infection prevention team’s precautionary measures and temporary policies and felt that they were doing everything they could to help keep their dog handling teams safe. Four participants shared that it was their personal choice to keep their facility dog at home for their protection, while one participant wished they were permitted to leave their dog at home for their protection and the

protection of their family. A single respondent stated, “I feel that it was important to have them stay at home until we understood the virus a little more. I am concerned about bringing them back and not knowing if they are able to transmit the virus on their paws or fur into my own home/family.” Another participant stated, “It would have been helpful to have more data, but as with everything with COVID-19, we just didn't know. I was very nervous at the beginning and willingly kept our dog at home until we could create a consistent, safe process.” Personal perspectives of the handler on the topics of spread of disease and governing infection prevention guidelines cannot go unnoted.

Solutions for Infection Prevention

As the spread of disease was the primary cause for concern globally, those institutions where dog handling teams were permitted to continue serving their patients, families, and staff, may have been asked to implement added infection prevention precautions. Of those participants who were permitted to work alongside the presence of their dog within the hospital setting during the COVID-19 pandemic, 76.92% were asked to take added safety measures in their daily practice. 23.08% of these participants proceeded to adhere to their traditional infection prevention guidelines. Added safety measures that were implemented to prevent the spread of COVID-19 during facility dog utilization were those of strict hand hygiene, wearing face masks or coverings, protective barriers on bedding, sanitizing equipment used for facility dogs, and increased grooming and bathing procedures. The United States national standard for everyday practices in public during the COVID-19 pandemic included increasing hand hygiene and face coverings or masks. In hospital hand hygiene with the utilization of a facility dog included before and after each interaction for any individual participating. Facial coverings and masks were

greatly required for patients, family members, and staff in healthcare settings. Some participants described protective barriers such as a clean sheet or blanket be used before the facility dog was permitted in beds of each patients and used on dog beds daily. Largely, added safety measures were implemented in the areas of bathing, grooming, and sanitizing of service vests, collars, and leashes. One participants stated that their facility dogs experienced a mandated “increase in bathing requirements to every-other-day, rather than the typical once per week, then as needed from there.” Several handlers not able to have their dog present with them at work reported that the limitation was due to state regulations and shut-down of grooming businesses. Since the handler was not able to have their facility dog groomed due to the groomer not being permitted be in operation, the facility dog team was not able to adhere to their hospital’s infection prevention policies. Thus, the facility dog was not able to be present at work to fulfil their typical job duties. Many participants also stated that they were asked to wipe their facility dog with antiseptic wipes, such as wipes typically utilized to clean and prepare skin for surgical procedures, daily and/or in between each patient interaction. Equipment, such as service vests, collars, and leashes were required to be cleaned daily by many, with some requiring entire removal of vests, as narrated by participants on the study questionnaire.

Impact of Facility Dog Absence on Therapeutic Interventions

Study participants were asked how they felt their patient interactions were impacted by their current practices regarding their facility dog during the COVID-19 pandemic, resulting in the following responses. 100% of participants who were permitted to be present in the health care setting with their facility dog and permitted to interact with patients felt that their patients were benefitting as usual from their interactions. 100% of participants who were present at work

while their facility dog remained at home felt that their patient interaction was lack-luster, sub-par, or simply not as beneficial without the presence of their facility dog. 100% of participants working with their dog utilizing electronic platforms, such as telepresence, reported feeling as though it was challenging to overall engage with patients. One study participant said, “While we have gotten creative in supporting our patients in a ‘virtual’ way, it is just not the same as seeing patients in person. Our chronic patients are missing being able to actually touch our facility dog, and our dog is missing seeing patients and doing his job” This statement, along with the aforementioned statistics, are highly suggestive that facility dog presence during disease outbreak is beneficial to patient interactions and therapeutic interventions within the hospital setting.

Participants were also asked to share some of the barriers and challenges that they had faced in responding to patient care needs during the COVID-19 crisis. An emerging theme in regard to the impact of facility dog absence on therapeutic interventions includes feelings of frustration in not being able to provide what the handler perceived as adequate support to patients and families, especially those who have previous knowledge of or experience with receiving facility dog interventions. For example, one participant shared,

Mostly, just that everyone knows I have a facility dog, so when I go to see patients and families that know us, they are sad not to see the dog with me. If it’s a family or patient that I’ve never met before then what they don’t know doesn’t affect them, but as I do my interventions with them, all I can think about is how helpful, beneficial, and important it would be if I could have my facility dog with me to engage the patient and provide these wonderful therapeutic services.

A second participant responded, “I had an end-of-life situation where a dog visit would have been very beneficial, and it was denied with everything going on. This was pretty upsetting since I feel the reward greatly outweighs the risk of bringing a dog in for one special visit.” Another respondent stated that the “inability to provide interventions in the PICU has left many chronic

patients and families upset/discouraged during their stay.” These statements suggests that both patient and family satisfaction, as well as staff morale are greatly impacted by the absence of facility dog therapeutic interventions within health care.

Impact of Facility Dog Absence on Staff Morale

When study participants were asked how they felt their current facility dog practices impacted their co-workers and hospital staff, 0% responded feeling that their dogs did not have an impact on staff morale at the time of the COVID-19 pandemic. 48.39% of responses indicated that participants felt that there was an added decrease in staff morale due to the absence of their facility dogs and that they felt that staff morale would have benefitted from having their facility dogs present if they were permitted to be present at work. 38.71% of participants stated that they felt staff benefitted from the emotional support that their dogs were able to provide while present at work. 12.9% of respondents answered ‘other’ to this question and shared that they did not feel that this question was an applicable representation to their work at the time of the data collection. These responses indicated limitations on facility dog presence and restrictions on staff interactions.

Participants whose facility dogs are permitted to work and interact with staff shared perspectives of impacts on staff morale stating, “Having our dogs in the building has helped with great staff support. Because of lower census we are using that time to see staff and it has been received so well!” One participant said, “I think at a time where morale is low and hospital staff are struggling, the dogs should be present more than ever.” Another simply stated, “They have been a huge help to our staff.” A participant who was not permitted to have their facility dog present at work with them shared thoughts of their facility dog’s impact saying, “Staff greatly

miss her. They have stated that they could benefit from her emotional support during this time. All of my patients are tested for COVID-19 before my interaction, so I feel it is appropriate for my facility [dog] to return to work now, but [I] have not received permission yet.”

Geographical Response to Facility Dog Utilization during the COVID-19 Pandemic

To determine geographic responses to facility dog utilization in the United States during the COVID-19 pandemic, participants were asked to report their region of residence and employment. Figure 2, above, displays the participation of each of the following reasons. As can be seen in Figures 3 and 4 below, the responses gathered from the Middle Atlantic and Pacific Regions most closely resemble one another. Of those participating in this study, 100% of the facility dog handlers in these regions worked in some capacity to fulfil their professional roles, while 100% of the regions’ facility dogs remained at home. These regions are home to cities such as Seattle, Washington, Los Angeles, California, Philadelphia, Pennsylvania, and New York, New York, many of which report high volumes of confirmed cases of COVID-19 in the U.S, according to John’s Hopkin’s University’s Corona Virus Resource Center, (2020). In the East North Central region of the country, most of the facility dog handlers who participated in this research worked hours as regularly scheduled, but with only 50% of them permitted to have their facility dogs working alongside of them. All participants of the East North Central region who reported their facility dogs working, also reported having limitations in working hours, units and/or populations served, and specified that additional infection prevention procedures were implemented. Study participants from the West North Central region reported 100% of handlers working their normal schedules, however, none of the handlers were permitted to have their dog present and/or working alongside of them in the hospital. Responses received from the South

Atlantic region indicated that 57% of handlers were permitted to work hours as regularly scheduled, and 100% of their facility dogs were required to work limited hours or only on specific units. 80% of respondents from the South Atlantic region also reported having additional infection prevention procedures mandated. In the East South Central region, participants reported a majority of handlers working regularly scheduled hours with their facility dog present, with the exception of one facility dog team working remotely. 50% of participants who were permitted to have their facility dog work alongside them reported additional infection prevention methods, while the other 50% of participants stated not having any mandated changes to their current routines. Those study participants employed in the West South Central region of the country reported 60% working regularly scheduled hours, while 40% of participants were required to work limited hours. Likewise, facility dog presence in the region remained 60% at home, and 40% present in the hospital with added infection prevention measures required. Lastly, there was one participant from the Mountain region who shared that they were able to work their regularly scheduled hours with their facility dog present alongside of them without any additional mandatory precautions. From this data, it can be presumed that there were slightly more regulations on the presence of both the professional and their facility dog in regions that contained areas of widespread transmission of the COVID-19 virus.

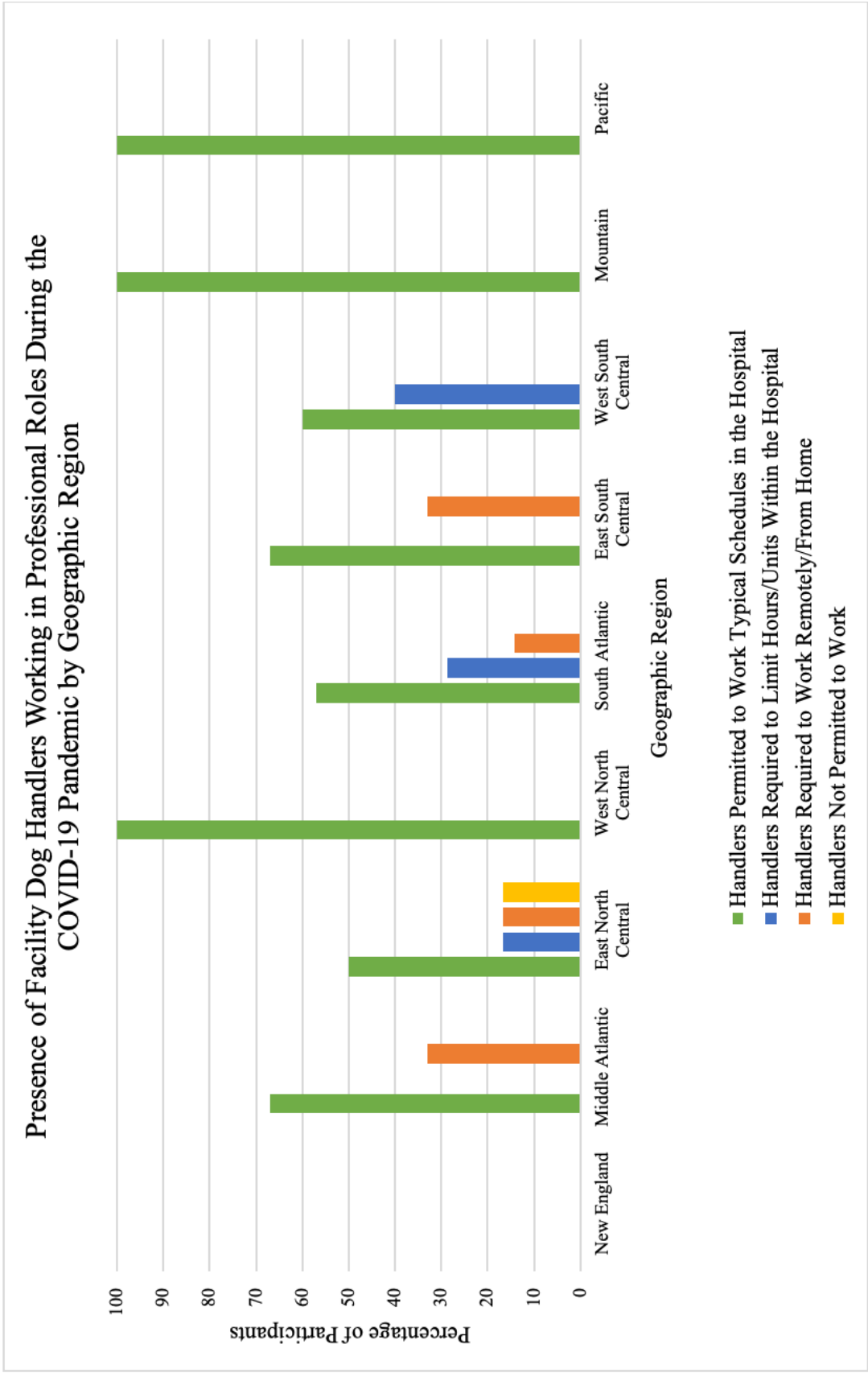


Figure 3. Presence of Facility Dog Handlers Working Professional Roles during the COVID-19 Pandemic by Geographic Region

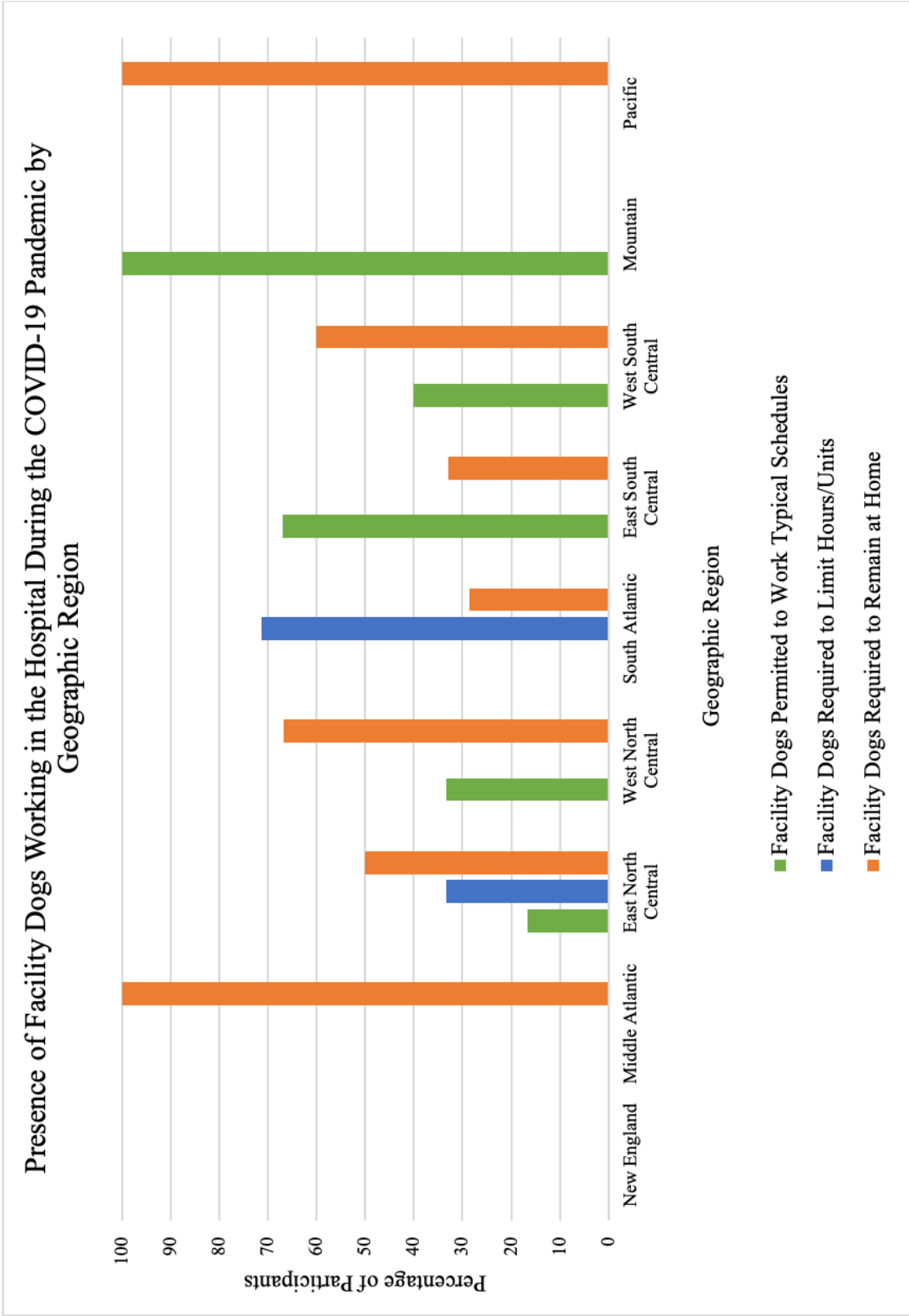


Figure 4. Presence of Facility Dogs Working in the Hospital during the COVID-19 Pandemic by Geographical Region

DISCUSSION

Countless research has shown that the presence of a dog can have significant positive impact on an individual's physical health, social connection, and response to stress (Zeblisky & Jennings, 2016; Vitztum et al., 2016; Perez et al., 2019; Jalongo et al., 2004; McCullough et al., 2016; Brodie et al., 2002 Kertes et al., 2016; McCune et al., 2014, Levar, 2015, O'Haire et al., 2015). For many children and families, a facility dog working alongside a helping professional can help to ease stress and anxiety commonly felt in health care settings. Organizations also exist to provide emotional support through animal-assisted therapeutic interventions during times of community distress. However, during the COVID-19 pandemic, many facility dog handling teams within the hospital setting experienced restrictions in meeting patient care needs, as found in this study. Living through time of a pandemic is inarguably a time of global stress. The purpose of this study was to identify barriers and solutions for continuing the use of animal-assisted therapeutic interventions to support patients and families within the hospital setting during the COVID-19 pandemic. Data instrumentation for this research study was an investigator written questionnaire distributed electronically utilizing a pre-existing email forum of facility dog handlers in the U.S. 31 participants completed the questionnaire which asked the subjects questions regarding their current practices, institutional restrictions, and personal perspectives in regard to their work with their facility dog during the COVID-19 pandemic.

Summary of Findings

Barriers. Barriers to providing animal-assisted therapeutic interventions were identified in four emerging themes; institutional barriers of reduced working hours and limitations for

handlers, change in routine for facility dogs, decline in patient caseloads, and the unknowns of disease and handler perspectives. While the COVID-19 virus remains novel at the time of this research study, there are many unknowns regarding the spread of disease. Information regarding canines as vectors for disease transmission remain unproven at this time. The Center for Disease Control remains consistent in their statement that properly cared for dogs are not a threat for carrying the COVID-19 disease (2020). However, these unknowns have influenced hospitals to err on the side of caution and implement restrictions to those entering institutions for work, including facility dog handling teams. While the majority of professionals who are facility dog handlers were permitted to continue to fulfil their professional role in some capacity, many restrictions were placed on facility dog presence within the hospital. Some regulations limited the utilization of facility dogs by working hours, specific units or populations, remote work via electronic platform, and some were not able to work at all. Some facility dog handlers chose for their facility dogs to remain at home while they proceeded to work for concerns of protection of their dog and/or transmitting disease to their home and family.

Solutions. Nearly 80% of facility dog handling teams who were permitted to remain working in the hospital setting during the COVID-19 pandemic were asked to increase infection prevention measures. Emerging themes in safety procedures included hand hygiene, sanitizing of equipment, protective barriers on bedding, and increased grooming and bathing routines. Strict washing or sanitizing of hands before and after facility dog interactions for all involved was often reported as policy on study questionnaires. Participants reported an increase in sanitizing of service vests, collars, and leashes to daily washing, or wiping with institutionally approved antiseptic wipes in between each interaction. Facility dog handler subjects also reported implementing policies of placing cleanly laundered linen as a protective barrier between the dog

and any bedding. Most commonly, increased bathing and grooming challenges were reported as professional groomers in some states were mandated to remain temporarily closed by law. Some institutional policies allowed nightly or weekly at-home bathing routines to suffice, while other policies required professional grooming routines to permit dogs within the hospital to work.

Impact of Facility Dog Absence. Facility dog handler subjects were asked to provide perspective on their feelings regarding the impact of their facility dog's absence. All participants who were permitted to be present in the health care setting with their facility dog and permitted to interact with patients felt that their patients were benefitting as usual from their interactions, while all participants who were present at work while their facility dog remained at home felt that their patient interaction was lack-luster, sub-par, or simply not as beneficial without the presence of their facility dog. Those participants working with their dog utilizing electronic platforms, such as telepresence, all reported feeling as though it was challenging to overall engage with patients. Likewise, all participants responded feeling that their dogs had an impact on staff morale at the time of the COVID-19 pandemic. Almost half of all responses indicated that participants felt that there was an added decrease in staff morale due to the absence of their facility dogs and that they felt that staff morale would have benefitted from having their facility dogs present if they were permitted to be present at work. Facility dog handler subjects permitted to have their facility dog working alongside them during this time disease outbreak responded feeling that their facility dog's presence had increased staff morale. One participant shared, "It is so great to have [our facility dog] at work. Families that are here are even more stressed than usual. We have also gotten to do way more staff support than usual, which has been so nice for staff who are extra stressed out with the pandemic. So grateful for our VP who said, 'I think during a time like this, we need [our facility dog] more than ever.'"

Geographical Response. Demographic information including geographical location of residence and employment of facility dog handler subjects were recorded in the data collection process of this research study. Data was analyzed to interpret any significant difference in response to facility dog presence by geographical region. Responses appeared to support the notion that areas of widespread community transmission of the COVID-19 disease responded with more restriction to the work of facility dog handling teams.

Data Limitations

The views of this research study are based on the responses from 31 participants and does not encompass all perspectives from all facility dog handling teams within the hospital setting. While facility dogs are capable of providing very valued support, I would like to note that facility dogs are utilized as a highly effective tool for therapeutic interventions only alongside highly skilled professionals who are trained to provide the services of their helping occupations. This study's intentions do not serve to discredit the work that these professionals do alone to support the care needs of their patients and families by any means. Safety is always of utmost concern within healthcare settings and the response of institutional restrictions during pandemic times should be viewed as such precautionary measures. Thus, many hospital infection prevention teams' response was to enforce restrictions due to unknown risks regarding the novelty of COVID-19, shaping limitations for this study's data.

Suggestions for Future Practices

As one respondent stated,

It seems that hospitals with facility dogs are all doing something different. Some have their dogs with them and have their dogs with them throughout COVID-19, while some

are not permitted to have their facility dogs at the hospital and other handlers have simply chosen to not bring their dogs to work. It seems almost as if hospitals did not know what stance to take regarding facility dogs or maybe it has to do with the regional outbreak of COVID-19 and its severity.

While this study's aim was not intended to create a standard for all hospitals to follow, it did accomplish creating suggestions for practice in continuing animal-assisted therapeutic interventions within hospital settings during times of disease outbreak. When available, widespread testing to all patients prior to any interaction will determine probability of infection for any disease. Strict hand hygiene before and after any interaction with a facility dog is recommended. Protective barriers, such as cleanly laundered linens, can serve as an added layer of protection on bedding that facility dogs come into contact with. Increasing bathing routines and utilizing safe, antiseptic wipes on facility dogs also suggest an increase in overall hygiene. This research suggests a review of material for facility dog equipment such as service vests, collars, and leashes for cleanliness. For example, using collars and leashes coated in a polyvinyl chloride coating, such as BioThane®, allow equipment to be wiped clean with antiseptic wipes or bleach solutions (BioThane Coated Webbing Corporation, 2020). Research also suggests a deeper investigation of laws limiting professional grooming operations. The World Health Organization describes properly cared for dogs as no threat to the spread of disease (WHO, 2020). Service dogs help individuals function in their daily life and are protected by the Americans with Disabilities Act. Therefore, it is important that working dogs remain in good health and hygiene, often requiring professional grooming. Creating legislature that require additional sanitization knowledge and certification for groomers working with service and facility dogs could be an option to increasing standards for infection prevention and allowing certified groomers to remain operable in times of disease crisis. This study suggests future research on the effectiveness of added infection prevention measures with facility dogs, as well

as the impact that significant change in routine has on working dogs to be performed to gain further information on this topic.

Conclusion

Working dogs serve great value to our communities, specifically during times of experienced stress. This study identified barriers and solutions to continuing animal-assisted therapeutic interventions during disease outbreak. Qualitative research also described perspectives of facility dog handlers in regard to their work's impact on patient care interventions and staff morale. The geographical response to the utilization of facility dogs during the COVID-19 pandemic was also examined. Data analysis, limitations, and suggestions for future practice and research to ensure safety were discussed. In conclusion, additional safety procedures can be implemented as precautions with intention to overcome barriers in continuing animal-assisted therapeutic interventions in the hospital setting.

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APPENDICES

Appendix A. Questionnaire Inventory

1. What type of facility do you and your dog work in?

- ☐ Community based setting(s)
- ☐ Within the hospital setting
- ☐ Other (please specify)

2. Is your position paid as an employee or on an unpaid/volunteer basis?

- ☐ Paid employee
- ☐ Unpaid volunteer
- ☐ Other (please specify)

3. What is your role or position in accordance with dog handling?

- | | |
|--|---|
| <input type="radio"/> Child Life Specialist | <input type="radio"/> Physiologist |
| <input type="radio"/> Social Worker | <input type="radio"/> PT/OT/Exercise Physiologist |
| <input type="radio"/> Physician | <input type="radio"/> Volunteer |
| <input type="radio"/> RN, LPN, or other nursing role | |
| <input type="radio"/> Other (please specify) | |

4. Since the COVID19 outbreak in the US, are you still working and/or providing services?

- ☐ I am working hours as regularly scheduled
- ☐ I am not working
- ☐ My hours have been limited
- ☐ I am working remotely/from home
- ☐ Other (please specify)

5. Is your dog currently present at work with you?

- ☐ Yes, my dog and I are both working
- ☐ No, neither my dog or I are working
- ☐ My dog and I have both limited interactions/hours
- ☐ Other (please specify)
- ☐ My dog and I are working remotely/from home via telepresence
- ☐ My dog is remaining at home while I go to work

6. What restrictions or limitations have you experienced in reaching the needs of your clients/patients during COVID19?

- ☐ We are not working
- ☐ We are not permitted to be present on certain units that we previously were permitted
- ☐ Experiencing decline in patient caseload due to non-essential procedure rescheduling
- ☐ Other (please specify)

7. Have added precautions been recommended by your infection prevention team due to COVID19?

- ☐ Yes, we are no longer present in the building
- ☐ Yes, I am working without the presence of my dog
- ☐ No, we are proceeding with adhering to our traditional infection prevention guidelines.
- ☐ We have been asked to take added safety measures in our daily practice. (Additional grooming routines, etc.) Please Specify.

8. As a handler, do you personally agree with your infection prevention's precautionary measures and temporary policies? Please select all that apply.

- | | |
|--|--|
| <input type="checkbox"/> Yes, I completely agree. They are doing everything they can to help keep my dog and I safe. | <input type="checkbox"/> It is my choice to keep my dog at home for their protection. |
| <input type="checkbox"/> I feel that I could be of great help if I were able to come to work. | <input type="checkbox"/> I wish I was able to leave my dog at home for their protection and the protection of my family. |
| <input type="checkbox"/> I feel that my dog should be able to come to work with me. | |

- ☐ Additional comments/concerns:

9. How do you feel your coworkers/staff are impacted by the current practices regarding your facility dog? Select all that may apply.

- ☐ I feel that there is an added decrease in staff morale due to the absence of our dogs/programming
- ☐ I feel that staff are benefiting from the emotional support our dogs are currently able to provide
- ☐ I feel that staff morale would benefit from having our dogs present if permitted
- ☐ I do not feel that our dogs would be able to impact staff morale at this time
- ☐ Other (please specify)

10. How do you feel that your patient/client interactions have been impacted from your current practices regarding your facility dog? Select all that may apply.

- | | |
|---|---|
| <input type="checkbox"/> I feel that patients/clients are benefiting as usual. | <input type="checkbox"/> I feel that my patients/client interaction is sub-par without the presence of my facility dog. |
| <input type="checkbox"/> I feel that our patients/clients are benefiting from the presence of a facility dog now more than prior to the COVID19 outbreak. | <input type="checkbox"/> I am not currently able to interact with patients/clients. |
| <input type="checkbox"/> I feel that patients/clients interactions are a bit lack luster. | |
| <input type="checkbox"/> Other (please specify) | |

11. Overall, what barriers and challenges have you faced in responding to your patients' and/or clients' care needs during the COVID19 crisis?



12. Please share any comments or concerns on your personal perspectives regarding the utilization of facility dogs during the COVID19 crisis.



Appendix B. Research Consent Form

Facility Dog Use during COVID-19 Pandemic Research Consent Form

You are being asked to take part in a research study aimed to describe the barriers and challenges to the utilization of facility dogs during a global pandemic. You are being asked to take part in this study because of your knowledge and experience. Please read this form carefully and ask any questions before agreeing to take part in this study.

What this study is about: The purpose of this study is to gain general knowledge of the barriers and challenges to the utilization of facility dogs during a global pandemic.

What will be asked of you: If you agree to this study, you will be asked to participate by responding to a survey and/or interview questionnaire. The content of the questions will include questions regarding the impact of COVID-19 on your practice, facility dog utilization, staff morale, and personal perspectives. The survey and/or interview will take approximately 10 minutes to complete.

Benefits and risks associated:

The benefits of this study may be that barriers and challenges to the utilization of facility dogs during a global pandemic will be identified.

The risks associated with this study is that you may find some survey and/or interview questions to be of sensitive nature.

Compensation: There is no compensation for your participation. Your participation is greatly appreciated.

Your answers will be confidential: The data collected in this study will not ask you to identify yourself, or contain any information making it possible to directly identify you.

Your participation is voluntary. Participating in this study is solely voluntary. If you decide not to participate, it will not affect any relationship you have with the researchers or affiliated organization(s). If you decide to participate, you are free to withdraw at any time.

If you have questions: Please contact **Alicia Cesare** at alicia24@live.missouristate.edu

Statement of Consent: I have read the above information, or someone has read it to me, and I have received answers to any questions I asked. If I choose to participate in this research study, my completed electronic survey submission will serve as my statement of consent to participate.

This consent statement will be kept by the researcher for at least three years beyond the end of the study.

Appendix C. Institutional Review Board Letter of Approval



To:

Lindsey Murphy
Childhood Ed & Fam Studies

Date: May 7, 2020 7:21 AM PDT

RE: Notice of IRB Exemption

Study #: IRB-FY2020-657

Study Title: THE USE OF ANIMAL-ASSISTED THERAPEUTIC INTERVENTIONS IN THE HOSPITAL SETTING DURING THE COVID-19 PANDEMIC

This submission has been reviewed by the Missouri State University Institutional Review Board (IRB) and was determined to be exempt from further review. However, any changes to any aspect of this study must be submitted, as a modification to the study, for IRB review as the changes may change this Exempt determination. Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB.

This study was reviewed in accordance with federal regulations governing human subjects research, including those found at 45 CFR 46 (Common Rule), 45 CFR 164 (HIPAA), 21 CFR 50 & 56 (FDA), and 40 CFR 26 (EPA), where applicable.

Researchers Associated with this Project:

PI: Lindsey Murphy

Co-PI:

Primary Contact: Alicia Cesare

Other Investigators: