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The Effects of Canine-Assisted Therapy in Speech Therapy

by

Malak Dawoud

A Thesis
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in Partial Fulfillment
of Honors Requirements

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ABSTRACT

The purpose of this exploratory study was to determine how speech-language pathologists utilize canine-assisted treatment in their practices and the speech-language pathologists' perceptions of the effectiveness of using canine-assistance in speech therapy. A nine-question survey was sent via email to the licensed members of the Mississippi Speech-Language -Hearing Association (MSHA). The author used the source, SurveyMonkey, to acquire and analyze the data. The data was used to determine the prevalence of canine-assisted therapy in speech therapy and to discover if the speech-language pathologists believed this kind of therapy was effective. Additionally, when canine-assisted therapy was used, was there a particular gender, age, disorder, intervention strategy, and/or breed of canine that responded best to canine-assisted treatment?

ACKNOWLEDGMENTS

First, I would like to thank my thesis advisor, Mary Schaub, for her amazing guidance throughout this project. I am grateful to work with her these past two years. She has been an incredible advisor, especially during this difficult year. Next, I would like to thank Missy Schreader for taking time out of her busy schedule to guide me toward the current MSHA president, Amy Livingston. With that, I would like to thank the MSHA community and Amy Livingston for participating in my study and for their words of encouragement. Without them, this study would not have been possible. I would also like to thank Steve Cloud for assisting me in editing this thesis.

To my friends and family: thank you for your endless support and for pushing me to achieve my goals. Without you all, I would not be where I am today.

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LIST OF ABBREVIATIONS

AAT   Animal-Assisted Therapy

AKC   American Kennel Club

ASHA   American Speech-Language-Hearing Association

CDC   The Centers of Disease Control and Prevention

IRB   Institutional Review Board

MSHA   Mississippi Speech-Language-Hearing Association

OT   Oxytocin

SLP   Speech-Language Pathology/Speech-Language Pathologist

TBI   Traumatic Brain Injury

CHAPTER I: INTRODUCTION

The American-Speech-Hearing Association (2009) stated that "Five percent to ten percent of Americans have communication disorders." Communication disorders are defined as an impairment in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems (ASHA.org, 1993). The Diagnostic and Statistical Manual of Mental Disorders groups communication disorders into five categories that include language disorders, speech sound disorders, child-onset fluency disorders (stuttering), social communication disorders, and unspecified communication disorders. The causes of a communication disorder can vary from abnormal brain development, toxic fetus syndrome, cleft lip or palate, genetics, TBIs, strokes, injuries to the vocal cords, autism or unknown causes (American Psychiatric Association, 2013). The American-Speech-Hearing Association (2020) stated that those who suffer from communication disorders seek help from speech-language pathologists who "work to prevent, assess, diagnose, and treat speech, language, social communication, cognitive-communication, and swallowing disorders in children and adults" (p. 1). There are many methods and tools that are used to correct communication disorders in speech therapy. One of those tools is Animal-Assisted therapy (AAT) which is an "intentional and distinct healing modality involving a patient, a trained animal as therapist, and the human owner or handler with a goal of facilitating the patient success in achieving therapeutic goals" (Braun, Stangler, Narveson, & Pettingell, 2009, p. 4).

For many years, researchers have attempted to understand the relationship between animals and humans. The most notable effect animals have on humans is their

ability to reduce stress and to lower heart rate and blood pressure. Wells (2019) found that there was an increase in the neurochemical oxytocin (OT) in individuals who interacted with their pets. This increase in OT is responsible for stress release, social affiliations, and pair bonding, which are all beneficial to humans. Those suffering from a physical, mental, or health condition can benefit from the healing powers of animals (AAT), but this method should be utilized to enhance the treatment patients are receiving and not used on its own.

Different kinds of animals can be used in AAT. The most popular is the dog. Dogs are used/selected because they are "highly proficient in responding to our communicative cues as well as emitting expressive signals toward us" (Cavalli, Carballo, Dzik, & Bentosela, 2019, p. 22). This is a skill that is especially helpful with speech therapy clients who often have difficulties communicating with others.

The type of assistance a dog can provide in a speech therapy setting depends on the patient's diagnosis.The most common ways a therapy dog is used is to provide comfort and reduce pain, to improve motor skills, to improve social and behavioral skills, and to increase motivation (Healthline.org, 2017). The most important factor in providing an optimal animal therapy experience is to treat the animal as a co-therapist, and not just as a companion animal, so that a genuine human-animal bond can be formed.

According to Mayo Clinic (2020), therapy animals are trained to service the health needs of people and to improve the overall therapy experience. To become a certified animal therapist, the dog must undergo extensive training through a reputable organization, and the handler must also be certified. Typical requirements a dog must meet for certification include passing the American Kennel Club (AKC) test for

obedience and a therapy-specific test. After this, a one-year long internship must be completed (Karetnick, 2019). In addition, the dog must be up-to-date on all vaccinations and well groomed. Handlers must pass formal testing and certification through a reputable organization, and they must also live with the dog for at least 12 months before being certified.

Sometimes canine assistance is not appropriate for therapy. It all depends on the specific needs of the clients and how well they react to canine-assisted therapy. Just like other therapy methods, canine-assisted therapy has its limits. Some limitations may consist of the cost and maintenance, examples of which include training, feeding, and housing, of having a therapy dog. Another consideration is liability. Although therapy dogs are trained to be well-mannered, there is always the chance that they will respond to a trigger and become aggressive. It is important to consider all of these factors before committing to canine-assisted therapy.

This author's purpose is to determine how speech-language pathologists can use canine-assisted therapy in their practices and to determine the speech- language pathologists' perceptions regarding the effectiveness of using canine-assistance in speech therapy.

CHAPTER II: REVIEW OF LITERATURE

History of Animal Assisted Therapy

The relationship between humans and animals has been studied for many years. The first person to recognized the therapeutic potential of animals was Florence Nightingale who is considered the founder of modern nursing. Nightingale discovered that "small pets helped reduce anxiety in children and adults living in psychiatric institutions" (Ernest, 2014, p. 1). From this discovery, animals started becoming more prevalent in therapeutic settings. During the 1930s, Sigmund Freud also discovered the effects animals had on one of his patients. Freud was a respected psychotherapist who often used his dog, Jo-Fi, during his sessions. Freud observed that when Jo-Fi was present in the sessions with his patients, they seemed more open to communication. Freud continued to use Jo-Fi as a "stepping stone until they [patients] felt comfortable speaking directly to him" (Ernest, 2014, p. 2).

It was not until the early 1960s, that animal assisted therapy was seriously researched. During this time, Levinson (1969), a respected child psychologist, accidentally discovered the effect his dog Jingles had on a disturbed, non-verbal patient. While Jingles was present in the room, his patient became more open and engaging with the dog and made an effort to communicate. From this discovery, Dr. Levinson continued to use Jingles in his sessions, and he further found that many children who were withdrawn and uncommunicative interacted positively with the dog.

Over the decades, people have used dogs in therapeutic settings; however, only in the past few decades have animals been used formally in therapeutic settings including schools, hospitals, and out-patient programs and prisons (Chandler, 2001). Today, there

are many organizations in the United States that work to certify animals and humans to work safely in therapeutic settings.

Role of the Dog in Therapy

Dogs can have many different roles in a speech therapy setting. Dogs have the ability to provide motivation in therapy sessions. With increased motivation, clients are able to participate more during therapy sessions.Depending on the client's treatment needs, the dog can have a specific role in the therapy session, or the dog can be in therapy sessions for support and encouragement.

The published works related to canines and speech therapy include qualitative and quantitative studies. The studies focus on the client's communication problems and the improvements that are made after the dog is included in the therapy sessions. Some studies like the one completed by LaFrance, Garcia, and Labreche (2007), measured a participant's verbal behaviors before and after the inclusion of a therapy dog. Other studies like the one conducted by Macauley (2006) focused on determining whether the participants felt like they benefited from canine-assisted therapy. Within the past decade, the research pertaining to this topic has expanded;, however, there still are not many studies on dogs in speech therapy sessions.

In many cases, the inclusion of a dog in speech therapy sessions has improved the client's motivation, interaction, and communication skills. Macauley (2006) found that participants reported they enjoyed the AAT sessions more with the animals than the traditional sessions when the dog was not present. Many clients anticipate having a dog in their therapy session because the dog evokes a feeling of calmness in a client who is in an otherwise high stress environment.

Current Evidence

Current literature includes qualitative studies which focus on the effectiveness of the dog in treatment sessions with patients who present with a variety of disorders including aphasia, cognitive delays, developmental delays, and traumatic brain injuries. The results from previous studies suggested positive outcomes with the addition of a therapy dog. These authors showed an increase in vocalization, participation, and motivation in therapy sessions in both the adult and pediatric populations. This is very beneficial for patients who are non-vocal or who have limited speech, which is common in populations with speech and language disorders.

LaFrance (2007) conducted a small 11-week study with a client who presented with non-fluent aphasia following a stroke. In this study, the participant was accompanied by a therapy dog during his walk back to the hospital room. In the first two weeks of this study, the participant's baseline indicated that verbal and nonverbal communication was minimal. In the following seven weeks, the participant was accompanied to sessions by the dog, and his verbal and non-verbal communication skils increased drastically. The participant started to intiate conversation with strangers and he became more outgoing. The final two weeks of the study were completed without the dog's company, and the participant's verbal and nonverbal communication decreased. LaFrance concluded that the therapy dog "yielded beneficial effects for communication, increasing both social-verbal and social-nonverbal behaviors for the participant" (p. 8).

In a study conducted by Anderson, Hayes and Smith (2019) the results yielded a similar outcome to the study completed by LaFrance (2007). In this study, the participant was a three-year-old child diagnosed with developmental delays in speech, language, and

cognition who rarely vocalized. After interacting with Boomer, the therapy dog, the participant's vocalizations, attention to tasks, and participation all increased. Anderson et. al suggested that these results may not occur with every child, but AAT may be a "valuable tool for speech-language pathologists working with children who have severe delays in communication skills" (p. 2). Current literature pertaining to children and therapy dogs in speech therapy is limited; however, Anderson's (2019) findings suggested that there can be a marked increase in communication with the addition of dogs. Heimlich's (2001) study suggested that therapy dogs can have a positive effect on children with developmental delays, a disability that is often associated with a speech disorder. His study with children with developmental delays found that over the course of two separate eight-week trials with the therapy dog, the children exhibited an improvement in speech, vision, and hearing skills.

Macauley's (2006) study completed with aphasic patients had similar findings to that of LaFrance (2007), Anderson et. al (2019), and Heimlich (2001). In her empirical study with aphasic patients, Macauley focused on determining if the addition of AAT sacrificed the regular progression of the traditional therapy sessions. Her findings suggested that the dog may "facilitate progress toward selected treatment goals" (p. 363). Not only did the three participants experience improvements in speech usage with the addition of a therapy dog, but there were also some notable unexpected benefits. Macauley (2006) stated that the participants also showed more emotion during sessions and that there was an increase of spontaneous communication directed toward the dog. This is an important finding because speech therapy clients may often feel a sense of embarrassment and hesitation when communicating using their disordered speech. With

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the presence of a dog, the atmosphere becomes more accepting and the pressure to speak is eased.

The Centers for Disease Control and Prevention (CDC) (2014) reported that each year approximately 2.87 million Americans sustain a traumatic brain injury (TBI). TBIs often cause speech, language, cognitive and swallowing problems, and a speech-language pathologist is needed to treat these disorders. Hediger,Thommen,Wagner, Gaan and Hund-Georgiadis (2019) reported that AAT is suitable for patients diagnosed with a TBI. Since TBI patients have trouble communicating and connecting with others verbally, and animals communicate with humans non-verbally, TBI patients often are able to connect better with animals than humans. Because animals are non-judgmental, TBI patients feel less ashamed or embarrassed to communicate when an animal is present in the room during therapy sessions. Hediger et. al (2019) concluded that "integrating animals into therapy sessions for patients with acquired brain injury led to significantly more social behaviors during AAT, with an increase in both verbal and non-verbal communication" (p. 3). The animals used in this study were cats, chickens, guinea pigs, horses, miniature pigs, rabbits, sheep, goats, and donkeys, so the results were not from the use of a dog. However, Hediger et. al (2019) stated that animals in general can have an effect on TBI patients, and they theorized that dogs may produce similar results.

Limitations

Although most researchers investigating this topic (Anderson et. al, 2019; Garcia and Labreche 2007; Heimlich's, 2001; Hediger, et al, 2019; LaFrance, 2007; Macauley, 2006) support the conclusion that canine assisted therapy can have a positive effect on patients with speech and language disorders, there are limitations that may occur when

using them. In a clinical study completed by Costa, Ichitani, Juste, Cunha, and Furquim de Andrade (2019) on the effects of canine assisted therapy with young adults and adults with a developmental disability, it was concluded that there were no significant improvements in the group that received the canine therapy. These results may indicate that not all clients will benefit from canine-assisted therapy.

Friesen (2009) explored the common concerns and limitations regarding canine assisted therapy. She found that in the adult population, the common concern with animal-assisted therapy was the cleanliness of the dog and the possibility of having an allergic reaction. Another notable concern of Friesen (2009) regarded the safety of children using AAT. Dog bites are common among young children, and this can be a strong deterrent for clients who do not want to use AAT. Cultural differences should also be considered when using AAT. Jalongo, Astorino, and Bomboy (2004) stated, "In some cultures, notably the Middle East or South East Asian, dogs are regarded as unclean or as a general nuisance" (p. 13). Because of this, some clients may not want to interact with a dog during therapy sessions.

Additional concern with canine-assisted therapy relates to the longevity of the results. As indicated in LaFrance's (2007) research, her study outcomes were reversible, meaning they were not long-lasting. Although most researcher have not had the same results as LaFrance, it is important to be aware of this potential outcome and how it can affect the client. More research needs to be completed on a larger sample size to determine the long-term outcomes of canine-assisted therapy to better understand why this limitation occurs and how it can be avoided.

CHAPTER III: METHODOLOGY

Sample

      The sample for this study included licensed speech-language pathologists who are members of MSHA. The author received approval from the current MSHA President, Amy Livingston, to use the MSHA community as the study participants. The research survey was sent via email to all MSHA members, but only licensed speech-language pathologists participated in the survey.

Procedures

      The data for this study was collected using a survey methodology. This survey was developed by the author and her advisor, Mary Schaub. With the assistance of the President-Elect of MSHA, Missy Schrader, the author received permission to use the MSHA members in the sampling process. The author received IRB approval from the University of Southern Mississippi's Institutional Review Board to conduct her research. Amy Livingston gave the approval to reach out to MSHA members. It was sent to the participants via email and viewed electronically through "SurveyMonkey." The email attached to the survey included information about the author's research and its IRB approval along with a link to the survey. The email also contained a consent form and a recruitment statement which indicated that in order to participate in the study, the participant must be a licensed speech-language pathologist, and that participation in this survey was anonymous.

Design

This survey was designed to determine licensed speech-language pathologists' perceptions and attitudes toward the use of canine-assisted therapy in speech therapy sessions. The survey consisted of nine questions.

The Survey Questions:

1. Where do you primarily practice?

-school/educational setting

-hospital/clinic

-skilled nursing facility

-college/university

-rehabilitation center

-private practice

-public health departments

-residential health care facilities

-non-residential health care facilities

-other (please specify)

2. How many years have you been practicing?

-0-5 years

- 5-10 years

-10-15 years

-15-20 years

-20-25 years

-25-30 years

-30-35 years

-35+ years

3. Do you believe that canine-assisted therapy is beneficial in the rehabilitation of speech therapy clients?

-Yes (please specify why)

-No (please specify why)

4. Is there an age group that tends to respond better to canine-assisted therapy?

-Yes (if so, please specify)

-No

5. With what clients do you use canine assisted-therapy most often? Mark all that apply:

-Articulation disorder patients

-Fluency disorder patients

-Resonance disorder patients

-Receptive Disorder patients

-Expressive disorder patients

-Cognitive- communication disorder patients

-Aphasia patients

-Dysarthria patients

-Other (please specify)

6. Is there a specific gender that tends to respond better to canine-assisted therapy?

-Yes, Female

-Yes, Male

-No

7. Is there a particular breed of dog that you believe is best for canine-assisted therapy?

-Yes, if so, please specify

-No

8. Is there a particular disorder that responds best to canine-assisted therapy?

-Yes, Speech disorder

-Yes, Language disorder

-No, (please specify)

9. Is there a particular intervention strategy that works best with canine-assisted therapy?

-Social skills

-Behavioral skills

-Reading skills

-Motivational help

-Modeling

-Vocabulary development

-Following directions

-Articulation drills

-Other (please specify)

Variables

The independent variables were the licensed speech-language pathologists'

perceptions of canine-assisted therapy use in speech language therapy sessions. The

dependent variable was the licensed speech-language pathologist's perceptions regarding

whether canine-assisted speech therapy is effective, or not.

Analysis/Design

This was an exploratory study. The data collected from this study were used to

determine how licensed speech-language pathologists perceived canine-assisted therapy

in speech therapy and whether they believed it was an effective treatment supplement.

CHAPTER IV: RESULTS

There were a total of 19 responses to the survey. According to the results, canine-assisted therapy is perceived as being beneficial by speech-language pathologists who work in different settings and who have varying amounts of work experience. The data also suggests that the participants believe that canine-assisted therapy can be incorporated into therapy sessions to treat a variety of different disorders. Also, the majority of respondents said that there was no specific gender or age group that tends to respond more effectively to canine-assisted therapy. Below are the results for the individual survey questions that were asked:

Table 1

Where do you primarily practice?

Answered: 19   Skipped: 0
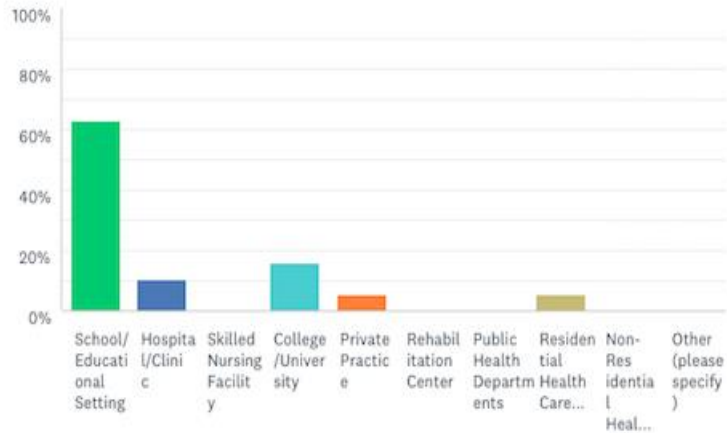
All 19 of the participants responded to this question. The data showed that 12 participants (63.16%) worked in a School/Educational setting. Two (10.53%) responded by saying they work in a Hospital/ Clinic, and three (15.79%) worked in a College/University. One respondent (5.26%) worked in a private practice and another respondent (5.26%) worked in a Residential Health care setting. Zero percent of respondents worked in a Rehabilitation Center, a Public Health Department, or a Non-Residential Health Care Center. Also, 0% of respondents answered in the "other" category.

Table 2

How many years have you been practicing?
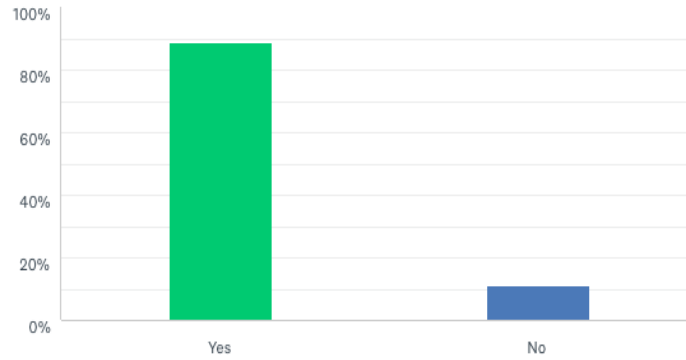
Answered: 19   Skipped: 0
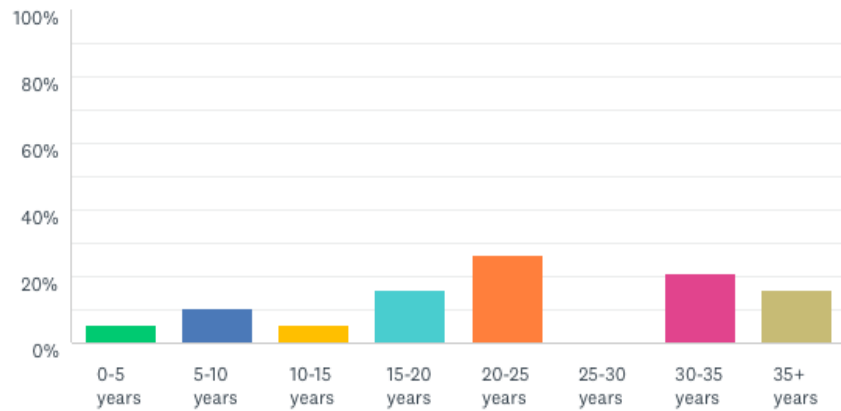
This question was answered by all 19 participants, and the categories for 0-5 years and 10-15 years both had one (5.26%) response. The category for 5-10 years had two responses (10.53%), and the category for 15-20 years had three responses (15.79%). The category for 20-25 years had five responses (26.32%), and the 25-30-year category had zero responses. The 30-35-year category had four responses (21.05%) and the 35+ category had three responses (15.79%).

Table 3

Do you believe that canine-assisted therapy is beneficial for the rehabilitation of speech therapy clients?
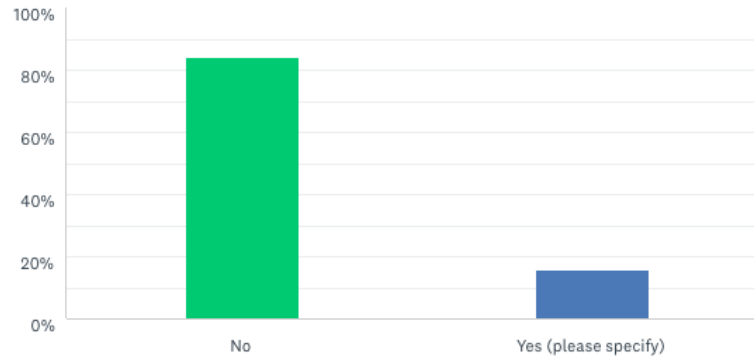
Answered: 18   Skipped: 1

There were a total of 18 responses and one skip. Sixteen (88.89%) respondents answered "Yes" and two (11.11%) respondents answered "No."

Table 4

Is there an age group that tends to respond better to canine- assisted therapy?

Answered: 19   Skipped: 0

This question was answered by 19 respondents, 16 (84.12%) answered "No" and three (15.79%) answered, "Yes." The participants who answered "Yes" were asked to specify which age group they thought would benefit the most from canine-assisted therapy. One respondent believed that the preschool and geriatric populations would benefit the most, another respondent also said preschool and young elementary, and another respondent answered with the age group of 75+ years of age.

Table 5

With what clients do you use canine-assisted therapy with most often? Mark all that apply

Answered: 10   Skipped: 9
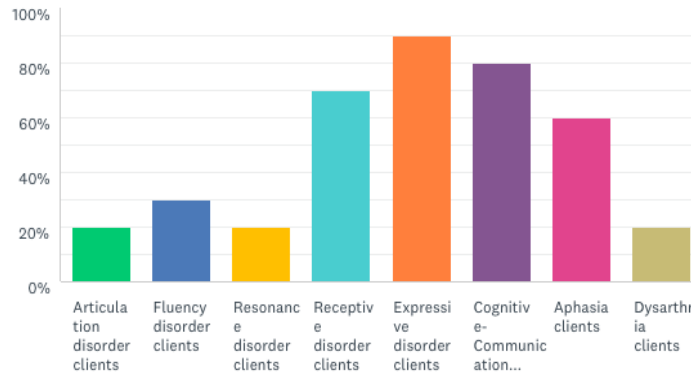
There were ten responses to this question and nine respondents who skipped it. The participants were allowed to select multiple answers. The category for expressive disorder clients had nine (90%) responses. The category for cognitive-communication disorder patients had eight (80%) responses and seven (70%) of participants chose receptive disorder clients. The category for aphasia clients had six (60%) responses. Fluency disorder clients had a total of three (30%) responses. The categories for articulation disorder clients, resonance disorder clients, and dysarthria clients each had two (20%) responses. Participants were able to make comments, and there were a total of seven comments. All the comments stated that they did not use canine-assisted therapy in their practice. One respondent stated that he/she did not use this strategy because he/she worked in a critical illness recovery hospital. Another respondent stated that he/she believed animals can be used with any person at any age, and that there are unlimited ways to use a canine in speech therapy.

Table 6

Is there a specific gender that tends to respond better to canine-assisted therapy?

Answered: 15   Skipped: 4

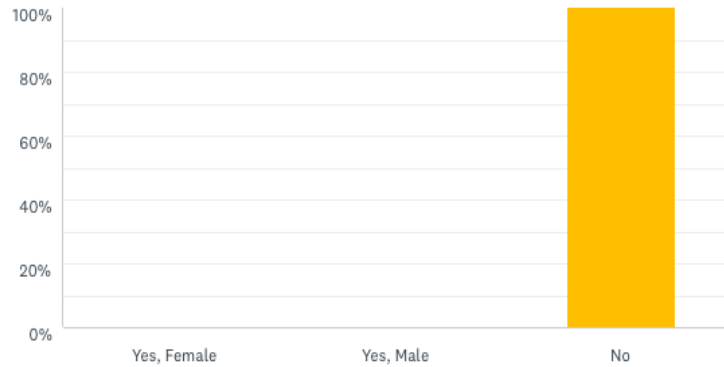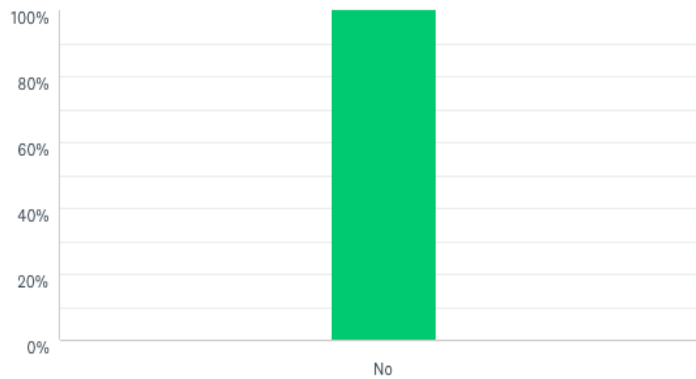There were a total of 15 responses to this question, and four participants skipped the question. All 15 (100%) of the participants who responded to this question answered "No" and zero responded "Yes." Four respondents left comments on this question, and they all stated they did not know if there was a specific gender that responded better to canine-assisted therapy.

Table 7

Is there a particular breed of dog that you believe is best for canine-assisted therapy?

Answered: 13   Skipped: 6

There were 13 responses to this question and six who skipped it. All 13 responded (100%) with the answer choice "No." Six people left comments on this question. One respondent stated that she/he did not know if there was a breed of dog that was best for therapy. Two people commented that Labrador Retrievers were best, and one believed Poodle-mixed dogs were best for therapy. Another respondent stated that he/she believed Golden Retriever dogs were best for therapy, and another said that if the dog is trained properly, any breed can be used. He/she also stated that one must look at each individual client to determine the best type of dog to use in the treatment setting. One respondent stated that calmer dogs provided the best option.

Table 8

Is there a particular disorder that responds best to canine-assisted therapy?

Answered: 11   Skipped: 8
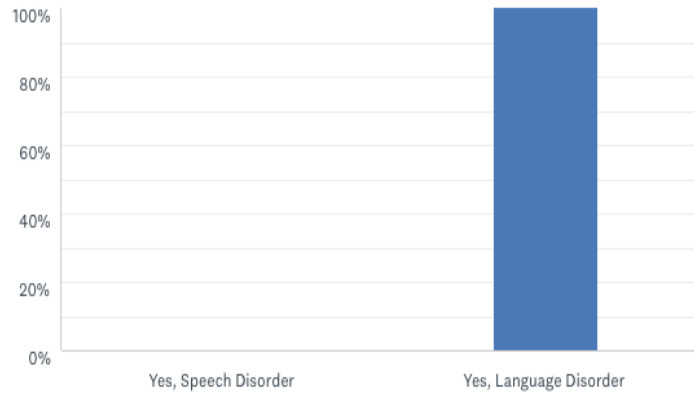
There were 11 responses to this question, and eight participants skipped it. Of the respondents, 11 (100%) selected the "Yes, language disorder" option and zero people chose the "Yes, speech disorder" option. Respondents also commented on this question and six people left comments. Two people said they did not know, one person said he/she did not believe it is specific, one person said both speech and language disorder, and one respondent said he/she believed speech, language, cognitive, and swallowing disorders can all be treated with canine-assisted therapy.

Table 9

Is there a particular intervention strategy that works best with canine-assisted therapy?

Answered: 16   Skipped: 3
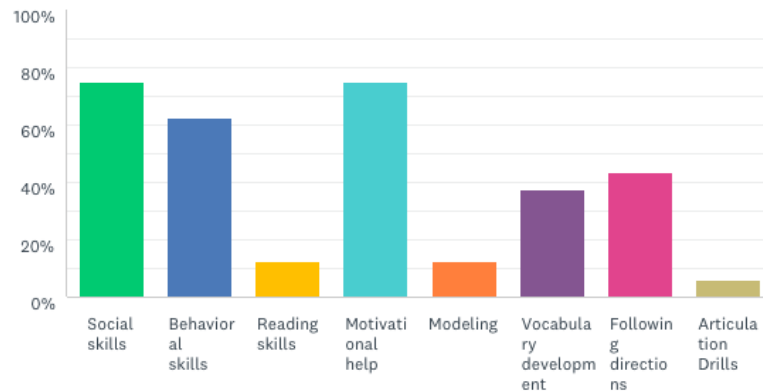
This question had a total of 16 responses, and three people skipped it. The "social skills" and "motivational help" categories each had one (6.25%) response. The "reading skills" and "modeling" categories had two (12.50%) responses. The "vocabulary development" category had six (37.50%) responses. The "following directions category" had seven (43.75%) responses, and the "behavioral skills" category had ten (62.50%) responses.

CHAPTER V: DISCUSSION AND CONCLUSION

Discussion

The data collected in this study, were used to determine if licensed speech-language pathologists believed canine-assisted therapy is effective in speech therapy. The first two questions that asked where the participants primarily practiced and how many years of experience they have were used to see if there was a correlation between work setting/ amount of experience and overall opinion on the effectiveness of canine assisted therapy. The author determined that those working in a school/education setting who had been working for 20+ years did not believe canine-assisted therapy was an effective treatment method. This was an important finding to the field of speech-language pathology because it may indicate that those who have experience working with children may think that introducing a dog into this kind of setting can cause potential issues, such as dog bites, which are common among the younger population. The results from question nine, which asked if there was an intervention stragegy that worked best with canine-assisted therapy, were consistent with current research on this topic which indicated that canine assisted therapy helps most with social skills and motivation. Oftentimes, clients with an expressive language disorder have trouble developing social skills. With the assistance of a therapy dog, the client may feel more motivated to speak and to socialize with others in public when the dog is accompanying them. Question five, which asked what clients the participants used canine-assisted therapy with the most, and question eight, which asked if there was a particular disorder that responded best to canine-assisted therapy were consistent with this finding because most of the participants who responded to this question believed a therapy dog can help with speech disorders,

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and language disorders, respectively. Most speech-language pathologists who participated in this study did not believe that there was a particular breed of dog that works best for canine-assisted therapy; however, some thought that Labradors, Poodle-Mix and Golden Retrievers are best for treatment.

This may be an area for further exploration with different breeds of dogs to determine if one is more effective in therapy.

Limitations of The Study

This study was conducted with a restricted population of speech- language pathologists; so overall, the data provided was limited in its scope. This study should be conducted on a larger population to gather more data. Another limitation relates to the way southern Mississippi culture perceives dogs, as opposed to other cultures in the world. It appears that southern Mississippi culture sees dogs in a positive light, but in other parts of the world, this may not always be true. Future studies can be conducted to include other cultures to gather the opinions of speech- language pathologists in parts of the world where dogs are perceived in a different way. In addition, the researcher should have included a question in the survey to ask if the participants used therapy dogs in their practices. This would have given the researcher an indication if the responses from the speech-language pathologists were based on experience with using a therapy dog. The researcher should have considered re-wording the survey so that it was not open-eneded with comments. If there were hundreds of responses with additional comments, it might become more difficult to read through all the results.

Conclusion

The purpose of this study was to ask speech-language pathologists about the effectiveness of canine-assisted therapy in speech therapy. It was determined that speech-language pathologists who work in different settings and for a differing number of years believed that this is an effective strategy that can be used in speech treatment sessions with clients of any age, gender, or disorder. There was an emphasis on the perception that therapy dogs were more effective when used with language disordered clients and clients who need additional assistance with social and motivational skills. This finding may lead to further discussions that focus on specific clients and the effectiveness of canine-assisted therapy. Furthermore, the majority of study participants were speech-language pathologists who worked in a school/educational setting. If this study is repeated with a specific population practicing in a hospital/clinical setting, will the findings be consistent with the outcomes of this survey?

This author determined that canine-assisted therapy can be effective with speech therapy clients, but that more research needs to be conducted as it relates to this topic. Current research is limited and often not specific to speech therapy, but perhaps this study can inspire speech-language pathologists to conduct their own research on the effectiveness of canine-assisted therapy.

APPENDIX A: IRB APPROVAL LETTER

Office of Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI.

118 COLLEGE DRIVE #5125 • HATTIESBURG, MS | 601.266.6576 | USM.EDU/ORI

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.
- Face-to-Face data collection may not commence without prior approval from the Vice President for Research's Office.

PROTOCOL NUMBER: IRB-20-469
PROJECT TITLE: The Effects of Canine- Assisted Therapy in Speech Therapy
SCHOOL/PROGRAM: Speech & Hearing Sciences
RESEARCHER(S): Malak Dawoud, Mary Schaub

IRB COMMITTEE ACTION: Approved
CATEGORY: Expedited
      7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: February 5, 2021

Donald Sacco Jr.

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

REFERENCES

Anderson, H., Hayes, S., & Smith, J. (June, 2019). Animal- assisted therapy in pediatric

    speech-language therapy with a preschool child with severe language delay: A single-

    subject design. *Internet Journal of Allied Health Sciences and Practices, 17*(3), 1-7.

    https://nsuworks.nova.edu/ijahsp/vol17/iss3/1

American Speech-Language-Hearing Association (1993). *Definitions of communication disorders*

    and variations. https://www.asha.org/policy/rp1993-00208/

American Speech-Language-Hearing Association (2009). *Quick facts about ASHA.*

    http://www.asha.org/about/press-room/quick-facts/

American Speech-Language Hearing Association (2020). *About speech language pathology.*

    https://www.asha.org/students/speech-language-pathologists/

Braun, C., Strangler, T., Narveson, J., & Pettingel, S. (May, 2009). Animal-assisted therapy as a

    pain relief intervention for children. *Complementary Therapies in Clinical Practice,*

    15(2), 105–109. ScienceDirect, doi:10.1016/j.ctcp.2009.02.008

Cavalli, C., Carballo, F., Dzik, M., & Bentosela, M. (Nov., 2019). Persistence in learned

    responses: A comparison of animal-assisted intervention and pet dogs. *Journal of*

    Veterinary Behavior, *34*, 22–29. ScienceDirect, doi:10.1016/j.jveb.2019.07.008.

Centers for Disease Control and Prevention (2014). *Traumatic brain injury and concussion.*

    https://www.cdc.gov/traumaticbraininjury/get_the_facts.html

Chandler, C. (Oct., 2001). Animal-assisted therapy in counseling and school settings. *ERIC*

    *Digest,*1-4

Costa, J., Ichitani, T., Juste, F., Cunha, M., & Furquim de Andrade, C. (Nov., 2019). Clinical

    trial for stuttering treatment: Pilot study about dog participation in the therapy

    session. *Communication Disorders, Audiology and Swallowing, 31*(5), 1-7 *SciELO,*

    doi:10.1590/2317-1782/20192018274

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorder.*

    (5th ed.). *Arlington, VA: American Psychiatric Associaiton*

    https://doi.org/10.1176/appi.books.9780890425596

Ernst, L. (Oct., 2014). Animal-assisted therapy: An exploration of its history, healing benefits,

    and how skilled nursing facilities can set up programs. *Population Health Learning*

    *Network, 22(*10), 27-32. https://www.managedhealthcareconnect.com/articles/animal-

    assisted-therapy-exploration-its-history-healing-benefits-and-how-skilled-nursing

Friesen, L. (2009). Exploring animal-assisted programs with children in school and therapeutic

    contexts. *Early Childhood Education Journal, 37*(4), 261-267. doi:10.1007/s10643-009-

    0349-5

Healthline (2017). *What is pet therapy?* https://www.healthline.com/health/pet-therapy#benefits

Hediger, K., Thommen, S., Wagner, C., Gaab, J., & Hund-Georgiadis, M. (April, 2019). Effects

    of animal-assisted therapy on social behaviour in patients with acquired brain injury: A

    randomized controlled trial. *Scientific Reports*, *9*(1), 5831. www.nature.com,

    doi:10.1038/s41598-019-42280-0

Heimlich, K. (Oct., 2001). Animal-assisted therapy and the severely disabled child: A

    quantitative study. *Journal of Rehabilitation, 67*(4), 48-54

Jalongo, M., R., Astorino, T., & Bomboy, N. (2004). Canine visitors: The influence of therapy

    dogs on young children's learning and well-being in classrooms and hospitals. E*arly*

    Childhood Education Journal, *32*(1), 9-16

LaFrance, C. (May 2007) The effect of a therapy dog on the communication skills of an adult

    with aphasia. *Journal of Communication Disorders*, *40*(3), 215–24. ScienceDirect,

    doi:10.1016/j.jcomdis.2006.06.010

Levinson, B. (1969). *Pet-oriented child psychotherapy*. Springfield Illinois: Charles C. Thomas.

Macauley, Beth L. (May, 2006). Animal-assisted therapy for persons with aphasia: A pilot study.

    Journal of Rehabilitation Research and Development, 43(2), 357-366

Mayo Clinic (Sept., 2020). *Therapy dogs bring joy and healing.* www.mayoclinic.org/healthy-

    lifestyle/consumer-health/in-depth/pet-therapy/art-20046342

Karetnick, J. (2019). How to train a therapy dog: Learning if your dog is fit for therapy work.

    American Kennel Club, https://www.akc.org/expert-advice/training/how-to-train-a-

    therapy-dog/

Wells, Deborah L., & Hepper, Peter G. (Aug., 2000). Prevalence of behaviour problems reported

    by owners of dogs purchased from an animal rescue shelter. *Applied Animal Behaviour*

    Science, *69*(1), 55–65. ScienceDirect, doi:10.1016/S0168-1591(00)00118-0