

# An Outline for Future Research of Animal-Assisted Therapy in Speech-Language Pathology

Lauren Baugh, Sara Laughton, Cassandra McKnight, Rebecca Walker  
T. Paslawski (Supervisor)

University of Alberta, Faculty of Rehabilitation Medicine, Department of Communication Sciences and Disorders

## BACKGROUND

Interactions with animals have long been shown to improve human health through improved mood, increased physical activity, and decreased anxiety and social isolation (Fine, 2015).

These effects have been harnessed in healthcare through therapeutic approaches such as animal-assisted therapy (AAT). AAT incorporates animals as a critical component in achieving therapy goals (Fine, 2015).

The therapeutic effect of AAT has been studied primarily in counselling and psychotherapy; however, the evidence of its efficacy is limited (Kazdin, 2017).



## PURPOSE & RATIONALE

There is little evidence regarding the use of AAT in the field of speech-language pathology. Existing evidence is primarily case study or anecdotal and focuses on pediatric populations. Empirical evidence regarding the application to AAT to speech-language pathology services for adults with communication disorders is needed in order to broaden our knowledge of this field and its applicability to speech-language pathology.

Speech-language pathology requires active client participation for successful therapy to occur. The use of animals in a therapy context has the potential to promote client trust in the therapist, which may improve active participation, motivation, and overall outcomes (Julius, Beetz, Kotrschal, Turner, & Uvnäs-Moberg, 2013).

This project aims to initiate the systematic exploration of the utility and impact of AAT when working with adult clients in speech-language therapy via the creation of a study design to be used in future research endeavours.

## CHOOSING CLIENT POPULATIONS

### AAT may support speech-language therapy through:

- Improvements in mental health, including decreases in depression, stress, and anxiety
- Increased trust between client and clinician
- Increased engagement in therapy interventions
- Enhanced motivation to increase loudness, clarity, and/or fluency of speech

Two client populations were identified that are hypothesized to benefit from AAT.

### Adults with Parkinson's Disease (PD):

A neurodegenerative condition, mainly affecting the motor system

What can it look like?

Muscle rigidity & decreased range of motion

Decreased facial & vocal expression

Reduced vocal loudness

Increased rate of speech

Cognitive decline

Depression & apathy

### Adults who stutter:

A developmental fluency disorder

What can it look like?

Syllable repetitions

Syllable prolongations

Silent blocks

Physical tension

Negative emotional reaction to speaking

Social anxiety & isolation

## CHOOSING TREATMENT DELIVERY

### ABAB treatment delivery provides:

- Direct comparison between traditional speech-language therapy (condition A) and AAT (condition B)
- A clear functional relationship between treatment type and speech outcome measures

### What Might an AAT Session Involve?

<b>Who:</b>	Client Speech-Language Pathologist Animal handler Trained therapy animal, meeting University of Alberta health and safety requirements
<b>Stuttering Example Activity:</b>	Bringing the therapy dog to a public place as a calming presence and a topic of conversation during a fluency skill transfer activity
<b>PD Example Activity:</b>	Speaking with loud enough vocal volume that the therapy dog can hear and respond to a command from across the room

## CHOOSING MEASURES

### Concurrent Triangulation (Mixed Methods) allows for:

- A more complete and comprehensive understanding than qualitative or quantitative methods would alone
- Clear measure of speech parameters of interest through quantitative data collection
- Collection of qualitative data from participants, communication partners, and animal handlers on the benefits and limitations of AAT in relation to traditional speech-language therapy, and participants' subjective experience of their communication disorder and relationship with animals

### Pre-Treatment Measures:

Lexington Attachment to Pets Scale (LAPS)

Overall Assessment of the Speaker's Experience of Stuttering (OASES)

Baseline Speech Measures  
e.g., % disfluency, vocal loudness

AAT Questionnaire\*  
Participant

### Measures After Each Session:

Speech Measures

Qualitative Behavioural Assessment (QBA)

Quantitative Qualitative

### Post-Treatment Measures:

Final Speech Measures

AAT Questionnaire\*  
Participant

AAT Questionnaire\*  
Communication Partner

AAT Questionnaire\*  
Animal Handler

\* AAT questionnaires were developed by the research team

## IMPLICATIONS FOR FUTURE RESEARCH

### Future research with this study design is anticipated to lay the foundation for:

- Increased awareness of the potential use of AAT as an intervention strategy in the field of speech-language pathology
- Interdisciplinary collaboration with other healthcare disciplines, including occupational therapy, physical therapy, and psychology
- Potential partnerships with local associations, such as the Institute of Stuttering Treatment and Research (ISTAR), Corbett Clinic, and the Edmonton Humane Society

## REFERENCES & ACKNOWLEDGEMENTS

Fine, A. H. (Ed.). (2015). *Handbook on animal-assisted therapy: Foundations and guidelines for animal-assisted interventions*. Academic Press.

Julius, H., Beetz, A., Kotrschal, K., Turner, D., & Uvnäs-Moberg, K. (2012). Attachment to pets. *New York: Hogrefe*.

Kazdin, A. E. (2017). Strategies to improve the evidence base of animal-assisted interventions. *Applied Developmental Science, 21*(2), 150-164.

Contact information:  
lbaugh@ualberta.ca, sara.laughton@ualberta.ca, clmcknig@ualberta.ca, rwalker2@ualberta.ca

 **UNIVERSITY OF ALBERTA**  
**FACULTY OF REHABILITATION MEDICINE**  
Department of Communication Sciences and Disorders