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SOCIAL SUPPORT AND AFFECTIONATE COMMUNICATION IN ANIMAL-
ASSISTED INTERVENTIONS: TOWARD A TYPOLOGY AND RATING SCHEME
OF HANDLER/DOG MESSAGES

A Dissertation

Presented to

the Faculty of Social Sciences

University of Denver

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

Amy McCullough

November 2014

Advisor: Erin Willer

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ABSTRACT

Animal-assisted interventions (AAIs) are a treatment modality that incorporates a trained animal into a person's healing and learning process in order to benefit the person physically, emotionally and/or socially (Delta Society, 1996). From an interactional perspective, two mechanisms that may contribute to these health benefits are social support and affection exchange. Although there is growing evidence of the health and well-being benefits of AAIs, there remains a need for scientific research to understand more precisely the communicative and behavioral components that constitute a therapeutic intervention involving an animal (Kazdin, 2010). Additionally, there is a need to develop a means of systematic evaluation of the interaction in order to determine the extent of support that various messages from the handler and therapy dog can offer.

As such, the present study explored the interactions that occurred during AAIs by applying the theoretical frameworks of social support and affectionate communication. Two methods of data collection – interviews and observations – were employed to uncover the supportive and affectionate behaviors that occur in AAIs from a handler's perspective. Participants were primarily female, middle-aged, Caucasian therapy dog handlers who visit in a variety of facility types (e.g., hospitals, schools, nursing homes), representing a diverse range of clients and settings.

Results include a typology of supportive messages. The findings of the present study indicate that handlers and therapy dogs enact six categories of supportive behaviors during AAIs - Responsiveness, Attention, Encouragement, Facilitation, Dog Interest, and Dog Affection. In addition, a rating scale based on this typology was developed. Analyses indicated that the measurement tool can be used to reliably assess the level or degree of supportive communication that a handler/dog provides during an AAI.

The present study extends social support and affectionate communication theoretical frameworks to a unique interpersonal context by examining interactive supportive processes during AAIs. Although the observations in this study were conducted in only three local facilities, when combined with nationwide interview findings, this study provides scaffolding for future research to determine how particular supportive behaviors may correlate to human health and well-being outcomes. This study takes the first step in this direction by identifying and assessing supportive and affectionate behaviors that occur during AAIs so that they can next be examined and improved in order to making human-animal interventions even more effective.

Keywords: animal assisted intervention, therapy dog, social support, affection exchange

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CHAPTER ONE: INTRODUCTION

Over 50,000 handlers and their therapy animals are registered to provide animal-assisted interventions in hospitals, nursing homes, schools, mental health facilities and other settings across the U.S. (Pet Partners, n.d., Therapy Dogs International, n.d., Therapy Dogs Incorporated, n.d.). Animal-assisted interventions (AAIs) are a treatment modality that incorporates a trained animal into a person's healing and learning process in order to benefit them physically, emotionally and/or socially (Delta Society, 1996). For example, a handler and therapy dog may visit patients in a hospital to distract them from their pain or a handler and therapy dog may listen to a child read aloud in a library with the goal of improving the child's literacy skills.

AAIs are reported to improve human health and well-being in myriad ways. Physical benefits include decreased heart rate, lowered blood pressure, and increased exercise. Examples of psychological benefits include enhanced self-esteem, decreased depression, and lowered stress and anxiety (Fine, 2010). From an interactional perspective, two concepts of interest are social support and affection exchange as they apply to AAIs. According to McNicholas and Collis (2006) animals may be capable of providing both direct social support through companionship and indirect social support by acting as "catalysts for human-human interaction" and socialization (p. 54). In terms of affection exchange, people in therapeutic sessions may greatly benefit from the physical contact an animal can offer (Chandler, 2005).

Although there is growing evidence of the health and well-being benefits of AAI, there remains a need for scientific research to understand more precisely the communicative and behavioral components that constitute a therapeutic intervention involving an animal (Kazdin, 2010) and a need to systematically develop protocols for these therapeutic interactions (Jenkins, Ruehrdanz, McCullough, Casillas, & Fluke, 2012). Additionally, there is a need to develop a means of systematic evaluation of the interaction in order to determine the extent of support that various messages from the handler and therapy dog can offer. As such, there were two goals in the present study. The first goal was to identify the messages from a handler and observer's perspective that dogs and handlers enact to support clients during AAI, and thus develop a typology of these socially supportive and affectionate messages. The second goal was to use this typology to create a valid, reliable rating scale to measure the extent of the supportive messages that the handler/dog team delivers in order to work toward improving future interactions. In sum, these two study goals allow for a systematic investigation of *what* occurs during AAI, as well as a means for researchers to reliably assess the *degree* to which they are enacted.

Following, this dissertation first describes the field of AAI, including its supportive aspects, as well as the state of AAI research. Second, the concepts of affectionate communication and social support are outlined in regard to their application to AAI. Finally, the methods, results and discussion of the study are presented that culminate in the development of a typology and corresponding rating scale of supportive messages in AAI.

ANIMAL-ASSISTED INTERVENTIONS

The basis of AAIs rests on the assumption that something about animals attracts humans (Melson & Fine, 2010). According to biologist E.O. Wilson (1984), humans have an innate need to interact with animals and nature (Fine et al., 2010). There are accounts of animals benefiting human health as far back as 1860 when Florence Nightingale noted that pets were excellent companions for the sick (Nightingale, 1860). More recently, the birth of official AAIs is commonly attributed to child psychologist Boris Levinson who used his pets as co-therapists in his counseling practice with children (Levinson, 1972). AAIs are becoming more and more recognized as a viable treatment modality across various disciplines including psychotherapy, speech and language therapy, occupational therapy, physical therapy, nursing, education, mental health and others (Fine et al., 2010). As a result of these applications, human-animal interactions have become a topic of scientific interest and led to the development of the new field of Anthrozoology, the study of interaction between humans and other animals. Scholarly journals, organizations and university research centers, such as the Institute for Human-Animal Connection at the University of Denver, have been formed to advance scientific knowledge and further evidence-based practices in this arena (Knight & Herzog, 2009). In order to ensure a thorough understanding of AAIs, following I provide comprehensive definitions, a description of participants' roles, and an overview of the risks and benefits involving this practice.

DEFINITIONS AND TERMINOLOGY

AAIs are typically conducted by a volunteer, referred to as a ‘handler,’ and his/her personal pet, referred to as a ‘therapy animal,’ who have been certified or registered to provide visitations to people in need, such as patients in hospitals, children in schools, or residents in long term care facilities (Friedmann & Son, 2009). The most common type of therapy animal is a dog, although other domesticated species such as cats, bird, rabbits, rats, goats, llamas and horses can also be certified as therapy animals (Chandler, 2005). These animals and their handlers become certified based on their responses to temperament tests (Serpell, Coppinger, Fine & Peralta, 2010) which are generally conducted through three main national therapy animal registries – Pet Partners, Therapy Dogs International, and Therapy Dogs Inc. (Marcus, 2012). The present study focuses on AAIs with dogs since this is the most prevalent type of species utilized.

Although terminology is not used in a standardized fashion across the field of human-animal interaction, generally the term ‘AAIs’ is an umbrella term that encompasses both animal-assisted activities (AAA) and animal-assisted therapy (AAT) (Borrego et al., 2014; Kruger & Serpell, 2010). Alternative terms to AAA and AAT such as pet therapy, pet-facilitated therapy, dog-assisted therapy, dog visitation therapy, and pet-assisted therapy, to name a few, can also be found in literature. However, ‘animal-assisted activities’ and ‘animal-assisted therapy’ are the preferred terms to describe purposeful interactions involving animals (Friedmann & Son, 2009). AAT involves integrating an animal into a therapeutic treatment process and can be applied in a variety of settings (Delta Society, 1996). Typically overseen by a clinician, AAT revolves around

specific treatment goals for a client. For example, in a physical therapy setting, a client may walk or brush the therapy dog in order to improve balance or fine motor skills (Chandler, 2005). In a counseling setting, a child may learn appropriate touch and empathy or develop coping and social skills via the therapy animal (Endenburg & van Lith, 2010). Conversely, AAA is a less formal, unstructured interaction between a client and a therapy animal (Delta Society, 1996). As opposed to taking place under the direction of a clinician in order to accomplish specific treatment goals, AAAs have more general purposes such as providing companionship, distraction, or comfort. Sometimes referred to as ‘meeting and greeting,’ examples of AAA are a therapy dog and handler going from room to room in a hospital to visit patients or visiting elderly persons in a common room of a long term care facility. Although there is great variety in the implementation of AAA, most applications are designed to encourage clients to interact with an animal in a safe environment in order to improve their overall well-being (Arluke, 2010). For the purpose of my study, I use the umbrella term ‘AAIs’ to refer to human-animal interactions that encompass both AAA and AAT. Furthermore, I define AAIs as “modalities that use animals as tools for improving physical, mental and social functions, and educational and welfare aspects of humans” (Kamioka et al., 2014, p. 372).

ROLES OF AAI PARTICIPANTS

The participants involved in AAIs, in addition to the client who is the target of the intervention, are the handler, therapy animal and potentially facility staff. Healthcare and educational professionals may play different roles depending on the model of AAI being

applied (Fredrickson-MacNamara & Butler, 2010). The professional staff person(s) may facilitate the interaction to work toward specific treatment goals such as in AAT. In AAA, the staff person(s) may simply observe the interaction, or may not be present at all during the interaction. Another model of AAI is for the professional to utilize his/her own certified therapy dog in the goal-directed intervention with the client, acting as both clinician and handler simultaneously (Fredrickson-MacNamara & Butler, 2010). The present study focuses on the volunteer model of service delivery for AAIs, which is the most common model, as opposed to handlers who also act as a professional clinician during service delivery. Professional clinicians who incorporate a therapy dog into their practice are trained mental health workers and their role is to diagnose and treat the client, as opposed to volunteer handlers whose role is to act more as a supportive friend.

According to Beck (2000), as AAIs have proliferated and their impact on human health and well-being has become more recognized, it has become imperative for participating handlers and therapy dogs to demonstrate a high level of skill and aptitude in their roles. Although variable by the therapy dog certifying agency, some training is available for therapy dog handlers. For example, Pet Partners requires handlers to complete a preparatory course based on their Pet Partners Team Training Course Student Manual (Delta Society, 2007) which is designed to inform potential handlers of the skills that are necessary to become a registered therapy team and well as provide advice for how to interact with various populations in AAI settings.

The handler's role in the interaction is to prepare and present the therapy dog. Prior to the scheduled intervention, the handler must ensure the dog's overall veterinary

health as well as be alert for any new signs of illness (Fredrickson-MacNamara & Butler, 2010). They must bathe and groom the dog, and prepare the equipment needed for the AAI. For safety purposes, some therapy animal registries stipulate that the therapy dogs must wear a flat or buckle collar (no choke or prong collars are allowed) and be on a leash no more than 6 feet long (no retractable leashes are allowed). Handlers must carry water for the dog as well as waste bags. Many handlers carry a bag containing other equipment that may be utilized during AAIs such as toys, treats, lint brush, hand sanitizer, and more (Chandler, 2005). To present the therapy dog, the handler must actively serve as the animal's advocate to ensure the animal is comfortable and enjoying the interaction. This involves constant vigilance, a thorough understanding of the dog's typical behavior and signs of stress, and the responsibility to intervene if the dog shows any signs of discomfort or disinterest in continuing the intervention (Fredrickson-MacNamara & Butler, 2010).

The animal's role during an AAI is to interact with the client/target of the intervention. To become a registered therapy dog, the animal and its handler must successfully complete a therapy team evaluation. This assessment ensures that the dog and its owner have the appropriate skills and aptitude to perform therapy work. Certification generally requires an annual veterinary examination and insurance is typically provided by the certifying organization (Marcus, 2012). Some organizations require a re-evaluation every two years and others only require a one-time behavioral test which is valid for the lifetime of the dog.

There are several qualities that are necessary for a dog to possess in order to become a registered therapy dog. In terms of temperament and behavior, a therapy dog must be calm, obedient and friendly. The dog must be well socialized to interact with all types of people and be comfortable entering new environments which may be noisy and chaotic (Chandler, 2005). When participating in AAIs, therapy dogs are exposed to different types of floor surfaces, unusual smells, medical equipment and other stimuli not typically found in a home environment. They must be able to travel in a car and ride in an elevator without issue. Therapy dogs must not be aggressive toward people or other dogs, and are not allowed to jump, bark excessively or growl (Chandler, 2005). They must not startle easy and must be tolerant of clumsy petting and unexpected behavior from people (Marcus, 2012). Animals participating in AAIs may be exposed to children grabbing, pulling and poking them. Medical equipment such as wheelchairs and walkers can also pose a risk to therapy dogs if the interactions are not monitored appropriately (Chur-Hansen et al., 2014). Again, it is the handler's responsibility to desensitize their therapy dog to these stressors and/or ensure their therapy dog's comfort and safety is not put at risk during the AAIs. In general, the dog must have fairly high tolerance to stress. It is critical that the therapy dog handler be aware of their dog's signs of stress (e.g. yawning, lip-licking, looking toward the door) and alleviate the dog's stress even if it means stopping the AAI (Chandler, 2005). Although most dogs can be taught commands and basic obedience, the most important behavior in a therapy dog is his/her propensity to seek interaction with any individual who approaches. Therapy dogs should welcome physical contact, maintain eye contact and remain interested and engaged with a client so

that the client can experience a connection with the animal (Butler, 2004). Even with stringent requirements and assessments for therapy dogs in place, there remain risks in incorporating live animals into human health and educational settings.

RISKS OF AAIS

Incorporating therapy dogs into therapeutic interventions is a complex undertaking and requires consideration of myriad topics in order to ensure safe interactions (Jenkins et al., 2012). The risks and benefits of AAIs must be clearly understood - including optimal intervention protocols - in order for the field to advance (Chur-Hansen et al., 2014). Indeed, the fact that AAIs are conducted daily in healthcare and educational settings across the country with little evidence-based research, underscores the importance of the need for safety during the practice of these interventions to ensure the field has the opportunity to conduct the research needed. Guidelines and standards regarding the practice of animal-assisted therapy (AAT) and human-animal interaction (HAI) have been published by several agencies, including Delta Society (1996), the International Association of Human- Animal Interaction Organizations (1998), Centers for Disease Control and Prevention (Sehulster & Chinn, 2003), American Journal of Infection Control (Lefebvre et al., 2008), and the American Veterinary Medical Association (2011).

One of the risks of AAIs is the possibility of transmission of zoonotic (animal to human) disease, especially for those people who are immunocompromised. However, precautionary measures such as veterinary screening of therapy dogs as well as human hand-washing after contact with a therapy dog will prevent transmission of most

zoonoses (Friedmann & Son, 2009). Although other risks are plausible in AAIs such as animal bites and falls caused by the dog, there is little evidence that AAIs are dangerous or have adverse effects (Walter-Toews, 1993). It is important to note that not all people like dogs. Some people may be allergic to dogs, have a phobia of dogs or simply not want to interact with a dog (Mallon, Ross, Klee, & Ross, 2010) and therefore would not be an appropriate participant for AAIs. Cultural considerations must also be taken into account regarding AAIs. People may have religious or other cultural reasons for not wanting to interact with animals and it is important to bear in mind that the concept of animals as a therapeutic intervention is not universally accepted (Chur-Hansen et al., 2014). In general, very little is known about how cultural backgrounds impact therapeutic outcomes in AAIs and research is needed in order to ensure that AAIs are culturally relevant and beneficial (Melson & Fine, 2010). In practice, handlers are trained to mitigate this risk by asking for permission or an invitation for the therapy dog to approach before interacting with any potential clients.

BENEFITS OF AAIS

Research studies have demonstrated promising evidence of numerous benefits of incorporating animals into therapeutic interventions. A meta-analysis conducted by Nimer and Lundahl (2007) found AAIs were associated with improved outcomes in four areas: autism-spectrum symptoms, medical difficulties, behavioral problems and emotional well-being. Similarly, Kamioka et al. (2014), concluded that diseases or disorders that AAIs have been shown to be effective in treating include quality of life for

cancer patients, impaired circulatory function, communicative skills for autism spectrum disorder and self-reports of hospital patients.

One of the primary impacts that AAIs can provide is a calming effect to clients. In stressful settings such as hospitals and other healthcare facilities, the mere presence of a friendly animal can have a calming effect (Walsh, 2009b). Studies have shown that animals can calm and relieve anxiety in populations from dental patients to children with attention deficit disorder (Katcher, Segal, & Beck, 1984; Katcher & Wilkins, 1997). In elderly patients with dementia, AAIs have been shown to be effective in reducing agitation and improving social interactions (Bernabei et al., 2013). Walsh (2009b) posits that holding or stroking a therapy animal can be soothing to clients during counseling sessions when stressful feelings arise. Stress caused by life events such as bereavement and divorce has been shown to be ameliorated by interacting with animals (Wells, 2009) and pets can even be more effective at relieving stress than a friend or spouse (Allen, Blascovich, & Mendes, 2002). In addition to providing benefits to patients, therapy dogs can reduce stress and anxiety for friends and family who accompany patients to the healthcare facility (Marcus et al., 2012).

In terms of physical pain relief, a study by Braun, Stangler, Narveson, and Pettingell (2009) found that pain reduction was four times greater in children who received AAIs when compared to those who relaxed quietly for 15 minutes. A study by Urbanski and Lazenby (2012) regarding pediatric oncology patients found that interacting with therapy dogs helped to decrease fear, provide distraction, increase pleasure, and improve quality of life. From a biological standpoint, AAIs have been found to decrease

blood pressure and heart rate (Shiloh, Sorek, & Terkel, 2003) and on a long term basis, pets can slow the development or progression of chronic diseases (Friedmann & Son, 2009).

In terms of psychological benefits, the alleviation of loneliness and depression as well as improved mood, self-esteem and confidence through AAI's has been widely reported (Hart, 2010). A study by Coakley and Mahoney (2009) found patients who participated in AAI's had a significant decrease in negative mood state and a significant increase in energy level. Another study reported that after interacting with a therapy dog, patients felt relaxed, cheered up, and valued the experience with the dog (Coakley & Mahoney, 2009). AAI's may help troubled youth form secure attachments as evidenced by a study by Balluerka, Muela, Amiano, and Caldentey (2014) which showed that teenagers impacted by childhood trauma and mental health issues who received AAI's displayed a more secure attachment than those in the control group. Finally, AAI's have been shown to be an acceptable treatment modality, as evidenced by a study surveying parental attitudes toward mental health treatment options which found that AAI's were a highly acceptable form of mental health treatment for children when compared to medication as treatment (Rabbitt, Kazdin, & Hong, 2014).

Even children's academic performance has been enhanced by the presence of a calm, supportive therapy animal in a classroom setting (Fine et al., 2010). A study by O'Haire, McKenzie, McCune, and Slaughter (2013), found that children with autism who received eight weeks of AAI's in the classroom demonstrated increased social skills and decreased social withdrawal behaviors. In addition, parents of the autistic children

receiving the intervention reported their children's increased interest in attending school during the course of the study.

Additional benefits of AAI's range from feelings of comfort to unconditional acceptance to entertainment, to name a few (Chandler, 2005). Animals can improve people's perceptions of situations and the people in them (Friedmann & Son, 2009). For example from a clinical perspective, Carminati, Lehotkay, Martin, and Carminati (2013) expound that a therapy dog requires a patient with a psychiatric disorder to be fully present and engaged in order to attend to the animal, thereby interrupting repetitive thought. When the patient is in a public setting, a therapy dog attracts attention from other people, thereby necessitating him/her to be conscious of others and presenting an opportunity to engage interpersonally. Interpersonal communication is an important vehicle for deriving the benefits of AAI's.

THERAPY DOGS AND COMMUNICATION

A vital part of AAI's is communication with and via the therapy dog. Canines, in particular, excel as a species in AAI's since they are generally friendly and their emotions are demonstrated externally (Chandler, 2005). Therapy dogs make eye contact and enjoy engaging in interactions with people. Their behavior regarding being approached or interacted with is easy to read, which helps people feel comfortable around them (Chandler, 2005). The communicative interaction during AAI's entails the human's reading of the dog's body language and likewise, the dog's interpretation of the human's vocality and body language. Through domestication over time, dogs have become skilled in reading human communication cues such as understanding human nonverbal gestures.

For example, if a human points at an object, a dog will direct his/her attention toward the object (Kirchhofer, Zimmermann, Kaminski, & Tomasello, 2012). This ability to interpret human communication makes dogs desirable as social companions.

In general, social signals from dogs are less complex than those of humans, which enhances our understanding of their behaviors (McNicholas & Collis, 2006). Correspondingly, dogs are predisposed to attend and respond to human action (Udell, 2008). They inspect our faces and watch our body language to look for cues that will reassure or guide their behavior (Horowitz, 2009). It has been shown that dogs understand the relationship between the direction a person is facing and their attentional state, i.e. if you turn your back after throwing a ball, the dog will walk around your body and bring the ball back to the front of you (Hare, Call, & Tomasello, 1998). Other studies have demonstrated that dogs look at pictures of human strangers' faces longer than familiar humans' faces, indicating the recognition of a social relationship (Nagasawa, Murai, Mogi, & Kikusui, 2011). Lastly, studies show that dogs are able to discern a human smiling face from a blank expression (Nagasawa, Murai, Mogi, & Kikusui, 2011).

However, it is important to note that human behaviors do not necessarily translate to natural dog behaviors. For example, dogs typically avoid eye contact with other dogs. Hugging is another example of a common human behavior that does not occur in the dog world and can signal a threat or at a minimum, make a dog feel uncomfortable. Successful therapy dogs interpret and adapt to these types of human behavior (McConnell & Fine, 2010). Dogs are extremely adaptable in that they have the ability to adapt to not only the different needs of different individuals, but the different needs of the same

individual (Mills & Hall, 2014). By reading our body language, therapy dogs respond to our mood and activity level. For example, if a person is active and jumping, the dog will likely get excited and be active as well. If a person is being still and looking down, the therapy dog will likely approach calmly and slowly. Handlers report that their therapy dogs have a tendency to approach those individuals who are in need or distress. One biological explanation for this phenomenon is that the dogs' scenting ability allows them to identify the chemical changes occurring in the human stress response (Marcus, 2013). A proposed biological explanation for improved mood in humans who participate in AAI is that when humans witness a therapy dog's cheerful demeanor, the mirror neurons in their brain are activated, resulting in the imitation of cheerful behavior (Marcus, 2013). Regardless of any neurochemical mechanisms behind AAI which are not yet completely understood, the result is that dogs and humans are able to have a successful social relationship through communication.

In terms of language, people often speak to dogs as they would speak to another person, albeit at times, more as a child than an adult (Mitchell, 2001). Sanders (2003) found that dog owners create an identity for their pet and incorporate the pet into their own identity as well. Many dog owners believe their dog understand their moods, especially when they are feeling sad (McNicholas & Collis, 2006). Tannen (2004) determined that dogs can be interpersonal communication resources for family members by resolving conflicts through conveying an apology, buffering criticism, delivering humor and praise, and teaching values to a child. She found that dogs can reinforce

familial relationships by referring to a spouse as the dog's parent and positioning the dog as a family member.

Dogs stimulate conversation not just to the dog, but they also create conversation between humans interacting with or in the presence of the dog. Watching a dog's behavior may provoke comments, laughter, and storytelling among people (Fine, 2000; Kruger & Serpell, 2010). Studies have found that topics of conversation that occur during AAIs may consist of talk about the client's previously or currently owned pets and questions and compliments about the therapy dog (Marx et al., 2010). A study by Le Roux and Kemp (2009) found that clients who participated in AAIs talked to each other about the dog, were reminded of their own dogs, and smiled as a result of watching the dog. Despite these findings, more rigorous research is needed to fully demonstrate the communicative means leading to the benefits to human health and well-being in AAIs.

NEED FOR AAI RESEARCH

Studies regarding human-animal interactions date back to the late 1970's, yet the results of AAI studies have been primarily anecdotal and lacked the scientific rigor necessary to conclusively validate the effectiveness of this treatment modality (Kazdin, 2010). A recent systematic review of AAIs by Borrego et al. (2014) found that progress in developing an empirical base for AAIs has remained slow over the past two decades. The most prolific authors in the field tend to discuss issues related to AAIs as opposed to conducting investigations regarding the development and improvement of AAIs (Borrego et al., 2014). This lack of investigation is likely due to the challenges of designing a clinical trial since many healthcare and educational institutions limit, if not completely

prohibit, the presence of animals (O’Haire, 2010). For those institutions that allow animals, there is great variety in the types of populations served by AAI, the settings in which they take place, and the methods of service that are delivered. Some of the methodological issues identified in existing AAI clinical trials include a small sample size, lack of a control group, lack of random sampling, and lack of a standardized protocol (Wilson & Barker, 2003).

According to Borrego et al. (2014), the increased media attention on AAI has not translated to increased research efforts and there continues to be a lack of attention to providing AAI with a solid empirical base. There is strong potential for AAI to significantly contribute to human health and well-being, but more studies are necessary to confirm their merit and understand the behaviors that contribute to their effectiveness. This lack of systematic study has prevented AAI from being accepted as a serious treatment modality (Palley, O’Rourke, & Niemi, 2010) and the practice of AAI has received limited recognition by medical professionals and support from government funding agencies (Serpell, 2010). Thus, a cycle has been created that hinders the field from advancement in that the lack of empirical evidence leads to limited funding and acceptance of AAI as viable treatment options in healthcare and educational settings, which then creates challenges in conducting empirical studies (O’Haire, 2010).

In order to fully integrate AAI into medical and mental health treatment, greater attention must be paid to research, theory, and practice of this intervention (Walsh, 2009a). Preliminary evidence suggests that animals can help reduce negative emotions and increase positive emotions; however, we do not have an understanding of the

processes underlying these effects (Mills & Hall, 2014) and the mechanisms of AAI remain poorly understood (Chur-Hansen et al., 2014). Both quantitative and qualitative research methods are needed to identify the specific mechanisms of AAI that create therapeutic benefits, i.e. what processes occur during AAI that make them effective (Kazdin, 2011; Kruger & Serpell, 2010; Walsh, 2009a). In particular, qualitative methods, with the in-depth evaluation and richly detailed information they yield, can provide a useful, rigorous way to examine the AAI experience. The information garnered by qualitative methods may aid in the understanding of how AAI work and what results they produce (Kazdin, 2011). According to Fine (2010), “unfortunately, many outsiders have a limited awareness of how AAI is applied and there is a need to demystify the process” (p. 170). Clearly, there is a need for details regarding the exact nature of what occurs during an intervention (Chur-Hansen et al., 2014) and this knowledge would help explain how AAI work so that best practices can be implemented.

Although traditionally the evaluation of health treatments starts with a theoretical context, then methodology and a determination of which variables will be measured, the field of AAI finds itself starting with the practice of AAI and the results then being explained in a theoretical context (Carminati et al. 2013). Unfortunately, most research studies in AAI have failed to specify a theoretical framework to help identify and explain the mechanisms responsible for the benefits of AAI (Garrity & Stallones, 1989). Although many theories have been proposed, there is no one widely accepted, empirically supported theory that explains the benefits of AAI (Kruger & Serpell, 2006). Some of the theoretical frameworks that have been purported to explain the positive effects of

interacting with animals include the biophilia hypothesis, which proposes that humans have an innate attraction to animals and nature (Wilson, 1984). More recently, Carminati et al. (2013) applied Jung's Collective Unconscious to theorize that interacting with an animal relinks a patient back to his/her animal ancestors through a component of his/her unconscious. However, one of the most common theoretical frameworks to explain the benefits of AAI is social support. Some scholars have posited that theoretically, the social support that we gain from our relationship with animals is what explains the power of the human-animal bond and in the end, buffers stress and produces positive health outcomes (McNicholas & Collis, 2006).

As research regarding AAI continues to be refined in terms of scientific rigor and application of theory, there also remains a need to apply the knowledge that is gained and translate it into defined therapeutic protocols that can be replicated to serve people in need (Hart, 2010; Fine, 2010). There continues to be no consistent approach or best practices in applying AAI. For example, the incorporation of AAI into mental health counseling practice varies widely and there is a lack of training resources in the field of animal-assisted counseling (Stewart, Chang, & Rice, 2013). Not only does this lack of consistency limit the testing of approaches, but it also limits the development of best practices to maximize the effectiveness of AAI (Jenkins et al., 2012; Fine et al., 2010). The development of testable protocols would help identify which and how clients are most likely to benefit from AAI and thus aid in the integration to medical practice (Palley, O'Rourke, & Niemi, 2010). Likewise, a more precise definition of the content of interactions and the role of the therapy dog would help the medical acceptance of AAI

as a viable treatment modality (Fredrickson-MacNamara & Butler, 2010). According to Mallon et al. (2010), standardized treatment manuals that go deeper than just listing the type of animal and its age and gender, must be developed in order to replicate successful interventions. An optimal treatment manual of AAIs would define key procedures such as what activities with the animal should be performed and what topics of conversation should be discussed (Kazdin, 2011). The present study takes a step forward in addressing the research gap in AAIs by taking a communicative standpoint and applying the theoretical concepts of affectionate communication (Floyd & Morman, 1998) and social support (Cassel, 1976; Cobb, 1976) in order to better illuminate and measure the interactive processes involved in these interventions.

AFFECTION EXCHANGE THEORY AND AFFECTIONATE COMMUNICATION

Floyd and Morman (1998) define affection as “an internal psychological state of positive, often intimate regard for another” (p. 145). Affection has been conceptualized as consisting of three communicative forms: verbal (saying I love you), direct nonverbal (giving someone a hug), and indirect nonverbal (helping someone with a task). A large body of research exists regarding why, how, and to whom people convey affection to each other and what effects it has. Although directed primarily toward other humans, people also feel affection toward animals, especially pets (Floyd, 2006).

In 2006, Floyd developed a theory entitled Affection Exchange Theory (AET) in an attempt to explain and predict why humans communicate affection to one another. Consisting of five postulates, the theory is based on natural selection and evolution and posits that affectionate communication contributes directly to procreation. The primary

assumption underlying AET is that affectionate communication is key to human survival. This assumption encompasses not only sexual selection, but the sustainment of life through pair-bonds (coupling) due to the increased access of both material resources and emotional resources. Extending this theory to the present study involving AAI, these pair-bonds could be represented by a human and a dog in regard to emotional resources. Particularly, affection is an emotional resource that has been found to be a benefit of human-animal interaction and is expressed through affectionate communication.

AFFECTIONATE COMMUNICATION AS A THEORETICAL FRAMEWORK FOR AAIS

Affectionate communication, defined as “an individual’s intentional and overt enactment or expression of feelings of closeness, care, and fondness for another,” is a fundamental element of human relationships (Floyd & Morman, 1998, p. 145).

Commonly expressed in meaningful interpersonal relationships, affectionate communication and behavior has been shown to benefit physical and mental health for both those who deliver affectionate communication as well as for those who receive it (Floyd, 2006). This is a particularly applicable concept in the case of AAI where people may both give affection to and receive affection from therapy dogs. Thus, the exchange of affectionate communication may be a mechanism which helps explain the enhanced physical and mental well-being experienced by AAI participants.

AAIs have also been found to provide support in the form of affection.

Particularly with school-aged boys who tend to withdraw from parental affection, Bryant and Donnallan (2007) found that play and affection with pets may play an especially

important role in their emotional development. Bryant (1990) found benefits of children's involvement with pets to include "providing nurturance to the animal, receiving dependable and self-enhancing affection, and experiencing singularly intimate support in emotionally distressing situations" (p. 259). Expressing affectionate communication to a therapy dog may have unique advantages.

Not all affectionate communication is perceived as a positive action. Expressing affection does not necessarily mean the recipient will welcome the affection or reciprocate it. Affectionate communication between humans can be misconstrued as a romantic overture or a way to manipulate a person or situation. Given these risks of expressing affectionate communication, few if any, apply in the context of AAI. Therapy dogs are screened to be predisposed to seek affection and respond to humans in outwardly loving and affectionate ways, so there is minimal risk of a lack of reciprocation. Expressing affection to a therapy dog is always appropriate; in fact, that is one of the primary purposes of the dog's presence. Finally, animals are not capable of manipulation so humans can trust that the sentiment behind affectionate communication from a therapy dog is genuine.

In terms of affectionate communication, therapy dogs provide an opportunity for physical touch, tactile comfort, and sensory stimulation (Wilson & Barker, 2003; McCardle, McCune, Griffin, Esposito & Freund, 2011). Stroking a dog's fur can help decrease tension and make a client feel safe in a therapeutic environment (Walsh, 2009b). Clients can touch, hug and express affection to a therapy dog and the dog will likely respond in kind with affectionate behavior (Chandler, 2005). Given the benefits of

affectionate communication and the limited risks of affectionate communication between humans and dogs, I posit that it is a rich conceptual lens for examining the mechanisms of AAI. In addition to affectionate communication, another applicable communicative framework in which to view AAI is social support.

SOCIAL SUPPORT

The study of social support originated in the mid-1970's to examine the impact of social relationships on health and well-being (Cassel, 1976; Cobb, 1976). Scholars have conceptualized social support in many different ways since then, resulting in a variety of definitions and measures (Vangelisti, 2009). According to Goldsmith (2004), most researchers conceive of social support as an umbrella concept that encompasses several related aspects of social phenomena. Historically, social support has been studied from three general perspectives (Burleson, Albrecht, Goldsmith, & Sarason, 1994; Vangelisti, 2009). The first, a sociological perspective, examines social support in terms of the structure of one's social network as well as the quantity of social relationships. The second perspective is a psychological perspective which examines social support in terms of an individual's perception of the type and availability of social support from their network. Lastly, social support has been examined from a communication perspective. This perspective focuses on the interactions between a provider and a recipient of support and is typically evaluated by the verbal and nonverbal behaviors that are exchanged (Vangelisti, 2009). Examples of social support studies from a communication perspective include research on psychotherapy, coping, altruism, and interpersonal competence (Burleson & MacGeorge, 2002).

A COMMUNICATION PERSPECTIVE OF SOCIAL SUPPORT

It is appropriate to study social support from a communication perspective since social support is fundamentally communicative in character. That is, communication is the central mechanism through which social support is conveyed via messages between interactants (Burlison & MacGeorge, 2002; Burlison et al., 1994). According to Steinberg and Gottlieb (1994), social support is a complex, dynamic process that is “most fruitfully examined from an interactional perspective that takes into account what the recipient and provider bring to and make of their commerce” (p. 153). Supporting others is a ubiquitous human experience that is a part of everyday life, so by studying this phenomenon, we can better understand human behavior and the development of personal relationships (Burlison & MacGeorge, 2002). MacGeorge, Feng, and Burlison (2011) define social support as behaviors from one’s social network intended to provide general assistance or assistance with a particular stressor. This supportive communication, geared toward reducing problems or soothing an emotional upset, consists of a provider’s intentional effort toward a target recipient’s need. Research in this vein typically involves studying how and why a provider offers support and the perceived impact by the recipient (Burlison & MacGeorge, 2002). The communication perspective matches well with the purpose of AAI, in which the handler acts as the support provider and offers support to the recipient via interaction with the therapy dog.

SUPPORTIVE COMMUNICATION

Supportive communication, defined as the verbal and nonverbal messages and behaviors that are exchanged between a provider and recipient to provide aid, typically

follows a sequential pattern of actions (Burlison & MacGeorge, 2002). First, a person experiences distress and exhibits a need for support; second, a helper provides supportive messages; third, the recipient responds to the supportive messages and fourth; the helper reacts to the recipient's responses (Barbee & Cunningham, 1995; Burlison & MacGeorge, 2002). In other words, supportive communication is an interactive process which consists of seeking, providing, responding and reacting to supportive messages (Burlison & MacGeorge, 2002). Nonverbal communication is an essential aspect of creating meaning during interpersonal interaction and is particularly present during AAI. Defined as the "transmission of information via physical and behavioral cues," nonverbal communication includes gestures, body movements and positions, facial expressions, gaze, distancing, and touch (Burgoon & Hoobler, 2002, p. 243). Interactive participants use nonverbal behavior to make judgments of other participants and gauge their own responses and conversation patterns accordingly on these behaviors (Burgoon & Hoobler, 2002). In the case of AAI, nonverbal communication is an integral part of these interactions since while animals can be vocal, they are not verbal. Specific to my study, nonverbal dog behavior that may represent social support and affection, along with verbal content and features of the therapy dog handlers, has been examined during these interventions.

SOCIAL SUPPORT AS A THEORETICAL FRAMEWORK FOR AAIS

Despite limited empirical studies, research indicates that AAI have been found to be socially supportive in a variety of ways such as increasing feelings of self-worth, reducing stress, and providing a sense of calm. For example, Beck and Katcher (2003)

found “there is solid evidence that animal contact has significant health benefits and that it positively influences transient physiological states, morale and feelings of self-worth” (p. 87). Animals can have a de-arousing effect on humans and provide “stress-reducing or stress-buffering social support” (Serpell, 2006, p. 15). Furthermore, therapy animals demonstrate acceptance by seeking interaction and serving as a calming presence (Barker, 1999). Wu, Niedra, Pendergast, and McCrindle (2002), found that the presence of a visiting animal provided support to patients by helping to make the healthcare setting more homelike, friendly and safe. In addition, Bryant and Donnellan (2007) describe the support that children receive from pets as “multiple kinds of support, including companionship, intimacy, and provision of good feelings of importance and pride” (p. 215).

Many of the benefits of social support coincide with the benefits of AAIs. Conversely, many of the risks of providing social support to humans do not apply in an AAI context. As Burlison and Goldsmith (1998) state, overtly trying to “fix” a person’s problem may actually interfere with effective social support. Seekers of social support undertake risks when asking others for support such as seeming helpless or dependent, disrupting existing relationships by disclosing negative information (Perrine, 1993), and feeling pressure to accept another’s advice (Miczo & Burgoon, 2008). However, none of these risks apply when interacting with a therapy dog. Bolger, Zuckerman, and Kessler (2000) suggest that invisible support may be the most effective type of support since individuals do not realize they are receiving support and therefore their self-esteem is not

negatively affected. Covert support that is outside a person's awareness, such as support delivered via AAI, may be effective because it is not perceived as direct support.

Social support is essential for humans since it plays an important role in our health and well-being. Given that animals have been found to help with isolation, Mills and Hall (2014) posit that animals may be a vehicle to provide social support. Likewise, according to Hart (2010), animals can offer health-sustaining social support to humans. Through the provision of comfort and a social outlet, the benefits of social support from dogs are consistent with the benefits of human social support (Garrity & Stallones, 1998). Studies that have examined the socially supportive benefits of animals have found positive results across many different populations such as children with physical disabilities, the elderly, and adults with psychiatric disorders (Kruger & Serpell, 2010). Social support provided by animals has also been found to improve the health of people who have received a bone marrow transplant (Hochhausen et al., 2007), people recovering from coronary heart disease (Anderson, Deshaies, & Jobin, 1996), and has been found to reduce the chance of myocardial infarctions and strokes in women (Andre-Petersson, Engstrom, Hedblad, Janzon, & Rosvall, 2007). Every individual will experience vulnerability at some point in his/her life due to the illness, suffering, or death of a loved one and social support – from humans as well as animals – makes coping with these experiences easier (Hart, 2010).

Individuals who are socially isolated can particularly benefit from the support of a therapy dog (Friedmann & Son, 2009). For example, elderly persons at long-term care facilities are commonly vulnerable to loneliness and isolation. Interaction with a therapy

dog allows isolated individuals to connect with another living being and potentially improve their quality of life (Skeath, Fine, & Berger, 2010). A study by Le Roux and Kemp (2009) found that residents who participated in AAIs had significantly lower depression and anxiety levels after the session with the dog than measured in the pre-test. The researchers noted that many of the residents had previously owned a dog and interacting with the therapy dog brought back fond memories (Le Roux & Kemp, 2009). Wells (2009) concurs that the presence of a friendly dog can help counteract the cycles of loneliness that many residents feel in an institutional setting. Individuals who suffer from dementia are well-suited for AAIs since interacting with a therapy dog does not require a high level of cognitive functioning (Marx et al., 2010). In other words, a dog will provide companionship regardless of a client's mental state and will not react negatively to hearing stories or sentences repeated as a human might (Marx et al., 2010).

Wells (2009) posits that therapy dogs meet many components of the definition of social support since they are nonjudgmental, noncritical, and can be present in times of need. Their behaviors, such as the excitement they exhibit when greeting a human, convey a feeling of unconditional love and acceptance. Therapy dogs can provide relaxation, affection, loyalty and security in people's otherwise stressful lives. As fundamentally relational beings, humans' lives can be enriched through their relationships with animals (Walsh, 2009a). Social support from a therapy dog can buffer and normalize a stressful situation by offering engagement and acceptance without comment or judgment. As Hart (2010) states, a friendly dog communicates a message such as "It's not as bad as it seems; everything is fine" (p. 76).

Therapy dogs can lighten the mood of an institutional setting by providing laughs and entertainment. For example, a dog fetching a ball or performing its tricks can brighten a person's day and encourage interaction by talking to and through the dog (Walsh, 2009b). People receive comfort from a social dog seeking interaction and displaying pleasure with contact such as wagging or rolling onto his/her back for belly rubs. According to Chandler (2005), "the presence of an animal adds significant kinesthetic, tactile, auditory, visual, and olfactory stimulation to an environment" (p. 8). In other words, the client pets and touches the dog, hears the sounds the dog makes, sees and smells the dog, and experiences a decrease in cortisol level, which leads to physical health benefits including a decrease in blood pressure, heart rate, and respiratory rate (Johnson, 2011).

Not only have therapy dogs been found to provide direct social support to individuals, but they have also been found to provide a means of facilitating interactions with other people (McNicholas & Collis, 2006). Studies show that animals can encourage and ease social interactions by serving as catalysts for discussion (Nimer & Lundahl, 2007). They make humans appear more approachable and provide a topic of enjoyable conversation (Fine, 2006). For example, several studies have found that walking with a dog significantly increases the chance of human interaction when compared with walking alone (McNicholas & Collis, 2000; Wells, 2004). As a result, these increased human-to-human interactions work to alleviate loneliness and isolation (Fine et al., 2010) and the dog indirectly provides social support.

According to Serpell (2011), the research findings regarding the positive health benefits of therapy dogs seem to fit a social support or social buffering paradigm. The number of people who own pets has risen dramatically since the 1970s which corresponds with the increase of Americans living alone, getting divorced and having fewer children. As such, it is plausible that the increase in pet ownership is an attempt for people to augment or replace a more traditional system of social support (Serpell, 2011). For those people who lack human social support, animals can be an important source to provide this innate human need. A study of men living with HIV/AIDS who were socially stigmatized and isolated found that those who did not have a pet were more likely to be clinically depressed than pet-owners (Siegel, Angulo, Detels, Wesch, & Mullen, 1999). In another study, breast cancer survivors rated their pets as providing tactile comfort, care, and trust. Participants also reported that they disclosed feelings and emotions to their pets that they were not ready or able to express to other humans (McNicholas & Collis, 2006).

These studies are examples of how although human social support may be available, social support from therapy dogs may be preferred due to the risks of seeking social support from humans. Many of the reported benefits of affectionate communication and social support parallel the benefits of AAIs such as lowered anxiety, decreased depression, and increased self-esteem, contributing to the viability of social support and affection exchange as theoretical frameworks to understanding the underlying mechanisms of AAIs.

RESEARCH QUESTION AND STUDY RATIONALE FOR DEVELOPMENT OF AN AAI TYPOLOGY AND RATING SCHEME

Many benefits of AAIs overlap with the theoretical concepts of affectionate communication and social support, which result in improved human health and well-being. In addition, there is a need for research in the area of AAI mechanisms, as well as a need for research regarding the enactment of social support (Gardner & Cutrona, 2004). Next, I will elaborate on the research gap in social support and the need for a measure specifically for AAIs. This rationale leads to the research question that guided this study, as well as the goal of creating a reliable measurement or rating tool.

From a communicative approach, more studies are needed that examine social support by studying the inputs, occurrences and outcomes of supportive exchanges that occur in relationships (Burlinson, Albrecht, Goldsmith & Sarason, 1994) and AAIs present a rich context for such study. Although existing social support typologies are useful, less attention has been focused on interactional processes of supportive communication (Reis & Collins, 2000). Cutrona, Suhr, and MacFarlane (1990) elaborate that a complete understanding of social support is not possible until the interactive processes or the ways support is offered, discussed, and delivered are examined, yet these interactions are the least studied component of social support (Goldsmith, 2004). Of particular need is the study of the interaction as a whole, as opposed to isolated supportive acts since few scholars have examined the communication that precedes and follows supportive messages (Goldsmith, 2004). Because supportive acts are interdependent, it is necessary to study them within the context and sequence of the

actual interaction (Sillars & Vangelisti, 2006). Socially supportive interactions are optimally studied in natural settings in order to identify what people actually do and say when offering social support (Wortman & Conway, 1985). This requires further development of social support typologies that identify interactive processes in order to ultimately design an effective intervention such as AAI. Successful interventions require an understanding of the interpersonal exchanges that occur and to date, the field has neglected examining this area, and “interventions have suffered as a result” (Lahey & Cohen, 2000, p. 46).

In addition, there are many important theoretical questions regarding the measurement of support and the identification of the most useful typology for specific conditions (Cohen, Gottlieb, & Underwood, 2000). As one-on-one support interventions such as AAI become more and more prevalent, it is incumbent upon researchers to apply theoretical and empirical literature on social support in order to ground interventions in scientific findings and for government and funding agencies to require more rigorous evaluations of such interventions (Reis & Collins, 2000). By measuring social support within the intervention process, we can begin to better understand the format, duration, and content of supportive interventions to improve their effectiveness (Reis & Collins, 2000). To accomplish this, more attention must be given to the specific messages and behaviors that generate supportive outcomes (Reis & Collins, 2000; Burleson, 2009). Researchers call for the need of detailed descriptions regarding the form and content of verbal and nonverbal behaviors in supportive interventions (Burleson, Albrecht, Goldsmith, & Sarason, 1994), as well as contextual factors that impact supportive

settings (Miller & Ray, 1994). Not only will examining the enactment of social support help enhance theories of social support, but in turn, this theoretical application has implications for making sense of and improving interventions to assist individuals experiencing distress (Goldsmith, 2004; Burleson, 1994).

To date, there has been no typology or corresponding rating scheme of supportive behavior that is specific to the context of AAIs. Furthermore, the social support typologies and affectionate communication index that have been developed to date have several limitations when applying them to AAIs. First, current social support typologies focus on verbal behavior as opposed to nonverbal behavior. Second, although the concept of social support has been widely studied in a variety of disciplines, many of the studies have examined social support in close relationships, not in interactions with strangers, as is typically the case in AAIs (Gardner & Cutrona, 2004). Third, the existing coding schemes are developed for human-to-human interaction, as opposed to human-animal interaction and lastly, most coding systems focus on scoring the *frequency* of occurrence of supportive messages, as opposed to *what* the seekers and providers of support actually do and say (Burleson & MacGeorge, 2002). Therefore, researchers call for a view of social support that is situated in a particular context and is focused on observable features (both verbal and nonverbal) of communication (Goldsmith, 2004). In addition to self-reports and coding schemes that focus on more general categories, details of messages and behaviors enacted during AAIs must be attended to in order to further understanding of these supportive interactions (Goldsmith, 2004). By documenting what is said and done and how it is said and done, a typology can be developed based on the concepts of

social support and affectionate communication in order to make sense of and thus measure the specific supportive behaviors and messages which occur in AAI. This leads to the following research question:

RQ: What types of supportive and affectionate messages do handlers and therapy dogs communicate during AAI?

Many of the reported benefits of affectionate communication and social support parallel the benefits of AAI such as lowered anxiety, decreased depression, and increased self-esteem, contributing to the viability of social support and affection exchange as theoretical frameworks in understanding the underlying mechanisms of AAI. Clearly AAI have been found to be supportive to people in need, but to date, the enactment of these messages has been obfuscated. Therefore, more precise examination of socially supportive and affectionate communication in this context is needed in order to illuminate the interactive processes of support. Based on these implications, the present study explores the interactions that occur during AAI from a handler's perspective by applying the theoretical frameworks of social support and affectionate communication. Using these frameworks, as described above the first purpose of this study is to develop a typology of supportive messages in AAI by conducting handler interviews and observations of AAI. This typology will address the lack of empirical research regarding the communicative and behavioral components that comprise AAI.

In addition to exploring the aforementioned research question, the second purpose of this study is to create and test the reliability of a rating scale based on this typology that can be used as a measurement tool to assess the level or degree of supportive

communication that a handler/dog provides during an AAI. This type of rating scale is a tool that observational researchers can use not only to identify *what* supportive and affectionate messages are occurring during AAIs, but also the *degree* to which handlers and dogs enact them. Being able to measure the extent to which these messages are performed is essential for future studies that will test relationships between such message enactment and other variables, such as client well-being. In order to ensure that the rating scale is adequate for future studies such as these, an additional step in the present study includes ensuring that the scale proves reliable or consistent when researchers implement it in an observation of AAIs. Thus, along with developing the rating scheme itself, the present study also tests its measurement reliability.

In sum, the goals of the present study are important because not only is there a need for rigorous research regarding AAIs, there also remains a need to apply the knowledge that is gained and to translate it into defined protocols that can be measured and replicated to serve people in need (Hart, 2010; Fine, 2010). There continues to be no consistent approach or best practices in delivering AAIs. Although training guidelines for handler/dog behavior exist, there is no formal measure that has been tested for validity and reliability that is designed to identify these behaviors nor assess the extent to which these behaviors are enacted. Without a valid, reliable instrument such as this, the field lacks the information necessary to determine whether the handler/dog behaviors exhibited during AAIs are supportive and if so, what best practices should be established to ensure and potentially increase the supportive benefits of interacting with a therapy dog. In order to address these gaps, in the present student an AAI typology has been developed to define

what supportive processes occur during an AAI and a corresponding rating scale has been developed to validly and reliably measure the degree to which these supportive processes occur during an AAI.

CHAPTER TWO: METHOD I — METHOD FOR DEVELOPING AN AAI TYPOLOGY

The purpose of this dissertation study was twofold: 1) to identify the messages from a handler's perspective that dogs and handlers enact to support clients during AAIs in order to develop a typology of these socially supportive and affectionate messages; and 2) to use the resulting typology to create a rating scale for an observational researcher to apply in order to validly and reliably assess the level of supportiveness of the handler/dog messages enacted during an AAI. The data for this study was collected via handler interviews as well as AAI observations. The present chapter addresses the first purpose of the study, describing the methods used to collect the data including recruitment strategies, participant demographics and data collection procedures. In addition, the process used to develop and refine the AAI Typology is presented.

RECRUITMENT

INTERVIEW PARTICIPANT RECRUITMENT

Through my employment as National Director of Animal-Assisted Therapy for American Humane Association, I have developed a relationship with and am a member of a national organization that registers animal-assisted therapy teams called Pet Partners. I am a licensed therapy animal instructor and evaluator through this organization and have personally provided AAIs as a volunteer handler for approximately 12 years in a

variety of settings with three therapy dogs. I also managed one of Pet Partners' largest AAI affiliate groups in the country, overseeing nearly 200 handler/animal teams that served 50 facilities. Over the past few years, I have asked Pet Partners to send emails to their members to solicit therapy dog volunteers for visitation opportunities and research participation opportunities related to American Humane Association. For my dissertation purpose, Pet Partners agreed to send an email to their members nationwide on my behalf to invite interested handlers to participate in a telephone interview regarding their animal-assisted therapy sessions. In order to select participants with somewhat similar AAI experiences, my recruitment email specifically requested that interested handlers should respond if they had a canine as their therapy animal as opposed to other species and if they provided one-on-one AAIs as opposed to group interactions. I also requested that they provide their city and state, their therapy dog's name, age and breed, and the type of facility(s) they served. See Appendix A for the handler interview recruitment email.

After the recruitment message was sent, responses were received from 452 therapy dog handlers who were interested in participating in an interview. Of those 452 handler respondents, 121 were eliminated due to providing incomplete information, responding past the deadline or not meeting the specified criteria, leaving 331 deemed eligible to participate. I responded to each respondent's email to inform them that due to overwhelming response, I would be randomly selecting participants to interview and would contact them if they were selected. In order to secure a broad range of experiences, there were a number of steps I took to organize the respondent information. I first entered the respondent information into an Excel spreadsheet, sorted them into geographic

regions of northeast, southeast, central, northwest and southwest based on their resident state, and selected ten respondents in each group using a random number generator. Next, I ranked the ten entries in each group, prioritizing male handlers since the majority of therapy dog handlers tend to be female. I also prioritized the entries based on dog breed and facility type. For example, if I ranked a respondent as #1 in the northeast category who had a Golden Retriever and visited a children's hospital, I strove to rank a respondent as #1 in the southeast category who had an English Bulldog and visited a nursing home. Subsequently, I emailed the top six names in each region and invited them to take the next step in participation, which consisted of clicking on the Qualtrics link I provided and completing an informed consent form and demographic questionnaire. I asked them to email me when they completed the forms in order to coordinate a date and time for a telephone interview. For those respondents who were not randomly selected for an interview, I responded to their email and let them know I planned to contact the university's IRB and file a modification for permission to collect data electronically from them at a future date.

OBSERVATION PARTICIPANT RECRUITMENT

In order to recruit participants for my observations, I utilized my network of AAI contacts developed through my employment at American Humane Association. From 2007-2011, I managed an animal-assisted therapy program comprised of volunteer animal-handlers who served a variety of healthcare and educational facilities in the Denver metro area. I have maintained a relationship with handlers at a number of Denver-area facilities whom I contacted and invited to participate in my research study.

In an effort to study AAIs in a variety of facility types, the list I developed included hospitals, long-term care facilities, hospices, counseling centers, a homeless shelter, a school, and a library. See Appendix B for this list of 18 facilities. I sent an email to the handlers who visit the facilities on this list and invited them to participate in my study. See Appendix C for the handler observation recruitment email. In my email, I asked the handler if they would like to contact the facility in order to secure permission for me to conduct research at their facility or if they would like me to contact the facility directly. See Appendix D for the staff observation recruitment email. I was able to secure permission to observe AAIs in three facilities, including a hospital, an elementary school and a library, with nine handlers.

PARTICIPANTS

INTERVIEW PARTICIPANTS

Interview participants were therapy dog handlers aged 18 years and older, a majority of whom are Caucasian, middle-aged females since these are the predominant demographics of AAI handlers based on my experience in the AAI field. As mentioned previously, I recruited handlers who visit in a variety of facility types (e.g., hospitals, schools, nursing homes) in order to gain information over a diverse range of clients and settings. Handlers completed a demographic questionnaire (See Appendix I) that captured information about the frequency of their AAI sessions, their years of experience, the types of facilities they visit and information regarding their therapy dog such as age, sex and breed. I interviewed 22 handlers until theoretical saturation was reached. See Table 1 for an overview of interview participant demographics.

Table 1

*Interview Participant
Demographics*

Demographic Question	Response Totals
Number of Interview Participants	22
Average Handler Age	55 years (age range: 21-76 years)
Handler Sex	91% female ($n = 20$); 9% male ($n = 2$)
Geographic Location	16 states 22.7% ($n = 5$) = Northeast U.S. 22.7% ($n = 5$) = Central U.S. 22.7% ($n = 5$) = Northwest U.S. 18.2% ($n = 4$) = Southeast U.S. 13.6% ($n = 3$) = Southwest U.S.
Average Years of Handler Experience	4.5 years (range: <1-16 years)
Frequency of AAI Delivery	59% ($n = 13$) = more than 4 times per month 23% ($n = 5$) = 3-4 times per month 18% ($n = 4$) = 1-2 times per month
Types of AAI Settings Served	59% ($n = 13$) = hospital 50% ($n = 11$) = school 45% ($n = 10$) = nursing home 41% ($n = 9$) = library 14% ($n = 3$) = crisis response 14% ($n = 3$) = adult day care 9% ($n = 2$) = camps 9% ($n = 2$) = hospice 9% ($n = 2$) = child welfare facility 5% ($n = 1$) = mental health center 27% ($n = 6$) = other (shelter, Gilda's Club, clinic)
Populations Served (check all that apply)	82% ($n = 18$) = children (age 0-12) 73% ($n = 16$) = seniors 68% ($n = 15$) = adults 64% ($n = 14$) = adolescents (age 13-

18)

Number of Active Therapy Dogs Currently Owned	73% ($n = 16$) = 1 18% ($n = 4$) = 2 9% ($n = 2$) = 3
Average Age of Therapy Dog	6.18 years (age range: 2-11 years)
Sex of Therapy Dog	59% ($n = 13$) female; 41% ($n = 9$) male
Breed	21 different breeds from miniature breeds to giant breeds
Therapy Dog Source	59% ($n = 13$) = breeder 14% ($n = 3$) = shelter/rescue 9% ($n = 2$) = friend/family 18% ($n = 4$) = other
Average Length of Therapy Dog Experience	3.41 years (range: 1-9 years)

OBSERVATION PARTICIPANTS

Observation participants were also therapy dog handlers aged 18 years and older. After consenting to participate, handlers were asked to complete a demographic form (Appendix D). The observation participant demographics are quite similar to the interview participant demographics, suggesting there is a typical profile of an AAI handler in the United States. I observed 30 interventions until theoretical saturation was reached. See Table 2 for an overview of observation participant demographics.

Table 2

Observation Participant Demographics

Demographic Question	Response Totals
Number of Observation Participants	9

Average Handler Age	58 years (age range: 47-66 years)
Average Years of Handler Experience	5.3 years (range: <1-8 years)
Frequency of AAI Delivery	44% (<i>n</i> = 4) = 3-4 times per month 33% (<i>n</i> = 3) = more than 4 times per month 22% (<i>n</i> = 2) = 1-2 times per month
Types of AAI Settings Served	67% (<i>n</i> = 6) = hospital 67% (<i>n</i> = 6) = school 56% (<i>n</i> = 5) = library 11% (<i>n</i> = 1) = other (juv probation)
Populations Served (check all that apply)	89% (<i>n</i> = 8) = children (age 0-12) 78% (<i>n</i> = 7) = adults 78% (<i>n</i> = 7) = seniors 56% (<i>n</i> = 5) = adolescents (age 13-18) 11% (<i>n</i> = 1) = other (staff)
Average Age of Therapy Dog	6.44 years (age range: 2-13+ years)
Sex of Therapy Dog	67% (<i>n</i> = 6) male; 33% (<i>n</i> = 3) female
Breed	Golden Retriever, Golden Retriever/Lab Mix, Belgian Malinois, English Springer Spaniel, Bichon Mix, Labrador Retriever, Bernese Mountain Dog, Sheltie, Aussiedoodle
Therapy Dog Source	44% (<i>n</i> = 4) breeder 33% (<i>n</i> = 3) shelter/rescue 2% (<i>n</i> = 2) other
Average Length of Therapy Dog Experience	3.67 years (range: <1-6 years)

PROCEDURES – INTERVIEWS

I employed two methods – interviews and observations – to address the research question. The protocols regarding these methods were approved by the University of Denver’s Institutional Review Board. I conducted interviews of handlers who participate in AAIs since interviews of key participants in a setting are beneficial for verifying information that is gathered through other methods such as literature reviews, experience, and observations (Lindlof & Taylor, 2002). Informant interviews help the researcher understand the participant’s experience since they can describe the features and interactions of a scene including what they did and why they did it (Lindlof & Taylor, 2002). The participants are chosen because of their experience and unique knowledge of a scene or multiple scenes of interest (Lindlof & Taylor, 2002). For my study, I recruited handlers experienced in providing AAIs in settings such as hospitals, schools or mental health centers to gain insight to how AAIs are enacted in a variety of facility types. Due to a wide geographic distribution of participants, interviews were conducted via telephone. Interviews lasted for approximately 30-60 minutes. Audio recordings were made of each interview and the recordings subsequently transcribed by a paid transcriptionist.

Due to the special considerations involved in conducting telephone interviews versus face-to-face interviews, I employed several strategies during recruitment to mitigate risks to the quality of the interviews (King & Horrocks, 2010). To ensure I obtained a rich account from each telephone interview participant, I clearly set expectations for the nature of the interaction and the time frame. I explained how long the

interview would last and provided the interview questions to the handler ahead of time so s/he would have time to think about the questions and choose a special visit or visits that they would like to share. I was prepared to ask more overt probes than a typical face-to-face interview in order to help the handler open up about their experience. I pilot-tested the interview protocol by interviewing a handler and made subsequent adjustments to the protocol language based on her responses. During this testing, I realized that I was less interested in the length of the AAI and the number of times the handler had visited the client and more interested in the interaction itself. I also realized that a handler does not consider their interaction with the client as a ‘supportive’ role, but more of a ‘helping’ role to benefit the client so I modified the interview protocol to use helping terminology that seemed to resonate better with the test handler.

Before formal interview questions are asked, it is beneficial for the researcher to establish a rapport with the participant by sharing who s/he is and why s/he is conducting the study in order for the participant to feel more comfortable and to ensure an understanding of their participation (Lindlof & Taylor, 2002). For my study, I began the interview by sharing information about my own therapy dog and asking the participant about his/her dog(s). I designed open-ended interview questions for therapy dog handlers in order to gather information regarding the supportive nature of their interaction with clients. Participants were asked the open-ended questions and probes and were encouraged to elaborate on their answers when necessary. I found all participants to be open and eager to talk about their AAI experiences. Primarily, handlers were asked to *“paint me a detailed picture of a particular therapy dog visit in which you feel you and*

your therapy dog had a positive impact on an individual patient/client.” I asked them to specifically describe what s/he did and said as the handler, what her/his therapy dog did, and also what s/he and the dog did together. A copy of the interview procedure script and interview protocol can be found in Appendix E-F.

PROCEDURES – OBSERVATION

The majority of studies regarding social support have utilized self-report measures such as interviews due to the extensive amount of time and resources involved in obtaining observational data. However, observed measures of the provision of social support are beneficial in that they allow interactions to occur naturally (Doherty & MacGeorge, 2012). Though asking subjects to reflect on their behavior via self-reports and interviews can yield helpful information, observations of human behavior allow researchers to witness actual behavior in interactions and explore how meanings and feelings are manifested (White & Sargeant, 2005). Therefore, in addition to conducting handler interviews, I conducted observations of individuals participating in AAIs in an effort to observe the supportive messages as they were occurring.

According to Corbin and Strauss (2008), it makes sense for researchers to draw upon experiences that they share with their research participants and use those experiences to obtain insight to enhance the analytic process while simultaneously being conscious of potential biases. In my observational study of AAIs, my stance was participant-as-observer. Due to my experience as a handler conducting AAIs, I am a member of the group being studied, but in this circumstance I was more interested in

observing the interaction between the client and the therapy dog/handler than participating directly (Kawulich, 2005).

AAI observations were conducted in a variety of settings including a hospital, school, and library in order to witness a diverse range of settings in which supportive communication is enacted. My observations focused on AAIs which are conducted one-on-one with individuals as opposed to group interventions. Once handlers emailed me in response to my recruitment email and indicated their interest in participating in the study, I emailed the handler a link to Qualtrics to review and agree to an informed consent form and complete a demographics questionnaire (see Appendix I-J). Once they completed this step, I communicated with them via email and/or phone to schedule a date to accompany them during their typical facility visit in order to observe their interactions with individual clients. At this point, I asked the handlers for direction in regard to obtaining permission from the facility for me to observe their visit. For facilities with minors, this entailed not only receiving permission from the facility, but also providing the facility with an informed consent form for the parent to sign as well as an assent form for the child to agree to participate (see Appendix J). In each setting, permission from the facility for me to observe the AAIs was secured by the handler. In the hospital observations, I asked the patient being observed to sign my informed consent form once the handler, dog and I entered his/her room. In the library observations, the librarian had the parents sign an informed consent form immediately before their child read to the dog. Finally in the school setting, the lead handler at the school identified the children who regularly

received AAIs and had each parent sign an informed consent form and each child sign an assent form a few weeks prior to my observations.

When observing AAIs, I was introduced to the client but I did not actively participate in the human-animal interaction that occurred. Per Anderson (1987), I used my past experience in this context to take an analytic perspective and reflect critically on the structure of my existing knowledge. I took field notes regarding handler behavior, dog behavior and joint behavior that demonstrate socially supportive and/or affectionate communication. See Appendix G for a complete observation protocol and Appendix H for a sample note-taking sheet.

ANALYSIS PLAN

The current section outlines the process used to analyze the interview and observational data in order to develop a typology of supportive messages and behaviors exhibited in AAIs. In order to answer the research question, which focused on identifying the supportive and affectionate messages in AAIs, I examined the types of supportive messages that were described in interviews and exhibited during observations. My first step in the data analysis process was to have the interviews transcribed by a paid transcriptionist. Once I received the transcriptions, I listened to the audio files and read the transcripts simultaneously in order to conduct an audibility analyses (Lincoln & Guba, 1985) to verify the accuracy of the transcripts. Following a thematic analysis process, I read through the transcripts and my field notes several times to gain familiarity of the data, paying special attention to phrases or actions where supportive and/or affectionate messages were present (Lincoln & Guba, 1985).

I drew from relevant literature to begin to develop a coding system of supportive messages in AAIs. My purpose was to identify messages/behaviors from the handler and dog (or from handler on behalf of the dog), as opposed to messages and behaviors from the client. As such, I used existing coding schemes as guides and combined deductive and inductive reasoning to identify elements in the process that seemed to relate to supportive behaviors in AAIs (Koenig Kellas & Trees, 2005). Using deductive coding, I identified categories from existing social support and affectionate communication typologies including the ACI (Floyd & Morman, 1998), the SSBC (Cutrona & Suhr, 1992), and the ICBCS (Barbee & Cunningham, 1995) that are applicable in the context of AAIs. In the following section, I expand on how these existing measures were leveraged for the present study.

LEVERAGING EXISTING MEASURES OF AFFECTION AND SUPPORT

In order to apply the conceptual frameworks of affectionate communication and social support to AAIs, I identified several existing measures of these concepts which proved useful when extending these concepts to AAIs. I assessed each of these existing measures for their applicability to an AAI context and subsequently leveraged portions of them when creating a typology specifically for AAIs.

AFFECTIONATE COMMUNICATION INDEX

Floyd and Morman (1998) have developed an Affectionate Communication Index (ACI), a 19-item self report, in which respondents indicate the frequency of both verbal and nonverbal affectionate behavior. Respondents are asked to indicate on a 7-point Likert-type scale how often they engage in these verbal and nonverbal behaviors within

an identified relationship. Although designed for human-to-human interaction, the affectionate communication items in the ACI, particularly the nonverbal behaviors, helped to inform the development of a typology of supportive and affectionate behaviors that are expressed to and from a therapy dog in AAIs. Based on the interviews and observations I conducted, as well as my direct experiences in AAIs, I found 13 out of 19 items from the ACI (Floyd & Morman, 1998) to be relevant in a human/animal interaction. The ACI items deemed not applicable to AAIs were either behaviors that a dog is not capable of (e.g., put arm around shoulder) or behaviors that are not permitted for handlers to enact (e.g., share private information) due to their role as a volunteer in healthcare or educational setting. Table 3 includes selected components of the ACI and a description of how that behavior would translate in an AAI context. The first column consists of items directly from the ACI and the second column is my conception of how that particular affectionate communication behavior would occur in an AAI.

Table 3

ACI Application to AAIs

Affectionate Communication Index	
Items	Application/Translation to AAIs
Hold hands	Dog allows client to hold his/her 'paw'
Kiss on lips	Dog accepts kisses and/or gives 'kisses' (licks) the client
Kiss on cheeks	Dog accepts kisses and/or gives 'kisses' (licks) the client
Hug each other	Dog accepts a hug
Sit close to each other	Dog sits close to client
Look into each other's eyes	Dog makes eye contact with the

	client
Say “You’re a good friend”	Handler says client is dog’s friend
Say “I like you”	Handler says dog likes client
Say “I love you”	Handler says dog loves client
Say “You’re my best friend”	Handler says client is dog’s best friend
Say how important relationship is	Handler says how important relationship is
Give each other compliments	Handler gives client compliments
Praise each other’s accomplishments	Handler praises client’s accomplishments

SOCIAL SUPPORT BEHAVIOR CODE

The study of social support has generated multiple classification or coding systems of supportive behaviors including emotional support, e.g. expressions of caring and compassion, which is the type of support provided in AAIs. Goldsmith (2004) identifies examples of emotionally supportive behavior as mere presence, companionship, listening, comforting, being pleasant, honesty, being treated normally, and distracting with other topics. Other types of social support include esteem support (encouraging feelings of self-worth), informational support (providing advice or guidance), appraisal support (providing new perspectives on a situation), tangible support (providing direct resources or services), and network support (accessing social relationships) (Goldsmith, 2004). These types of behaviors have been compiled into various measures of social support. For example, House (1981) collapses these behaviors

into four classifications of supportive behavior: emotional support, appraisal support, informational support and instrumental support. Alternatively, Barbee (1990) identified four different types of behaviors that comprise enacted social support: support behaviors, solve behaviors, escape behaviors and dismiss behaviors. Most recently, two coding systems have been developed to measure the provision of socially supportive behaviors: the Social Support Behavior Code (SSBC) (Cutrona & Suhr, 1992) and the Interactive Coping Behavior Coding System (ICBCS) (Barbee & Cunningham, 1995).

The SSBC, which measures verbal behavior, was created to measure socially supportive behavior in married couples, but has also been utilized more recently to measure friendship dyads. The measure asks the participant to disclose a source of personal stress and then complete a questionnaire regarding their partner's supportive behavior regarding the stressor. The SSBC measures the frequency of 23 subcategories of behaviors within the five supracategories of informational support, tangible support, emotional support, esteem support, and network support as described earlier. It also tabulates negative behaviors such as sarcasm, criticism, and complaints (Cutrona & Suhr, 1992).

In regard to the SSBC (Cutrona & Suhr, 1992), three of the eight main categories are relevant to AAI's –Emotional support, Esteem support and Attentiveness. Similar to the ACI, the other categories in the SSBC (Informational support, Tangible assistance, Social network support, Tension reduction and Negative behaviors) are behaviors that are not allowed or not appropriate for handlers to enact as volunteers in a healthcare setting. In Table 4 is a listing of the subcategories within the SSBC that are applicable to AAI's as

well as the description of the behavior code which has been slightly modified to be applied in an AAI context by specifying the handler and therapy dog roles. For example, the SSBC defines the category of Relationship as:

A expresses closeness and love to B, stresses importance of his/her relationship with B in solving the problem. Does not specify a particular action directed toward problem solution. Example: “I love you”; “We will deal with it together”; “We will find the best way to solve this together”, “Together we will make it”.

Therefore in order to apply this category to an AAI context, I have modified this definition of Relationship by specifying that the *handler* would express the *dog’s* closeness to the client and stress the importance of the *dog’s* relationship with the *client*. Since AAIs do not deal with direct problem-solving, I omitted the references to problem solution contained in the original category of Relationship in the SSBC.

Table 4

<i>SSBC Application to AAIs</i>	
SSBC Support Type	Definition of Behavior Code (modified specifically for AAIs)
Emotional Support:	
Relationship (express closeness, and togetherness)	Handler expresses dog’s closeness and love to client, stresses importance of his/her relationship with client. Example: “S/he (dog) loves you”.
Physical Affection (hug, kiss, hand hold, touch)	Client and dog exchange affection, such as hugs, kisses, holding dog’s paw, petting dog, etc.
Understanding/Empathy (“I understand”)	Handler expresses or demonstrates understanding of client’s problem and how client

	feels about it, expressing empathy or providing evidence for an understanding to the problem with a summary statement. Example: “That must have been embarrassing.”
Reassurance (nonspecific comfort)	Handler provides nonspecific support. Not a reconceptualization of the situation, but more the equivalent of “there, there.”
Esteem Support: Compliment (emphasize abilities, say positive things)	Handler says positive things about client, emphasizes client’s abilities, gives positive feedback to client. Example: “You are a very good reader (when reading to dog).”
Attentiveness: Responsiveness (attentive remarks: yeah mmm-hmmm, ok)	Handler demonstrates attentiveness and interest without making specific statements that have content. Example: “Yes”, “Uh huh”, “OK”, “Oh, really”.

INTERACTIVE COPING BEHAVIOR CODING SYSTEM

The ICBCB (Barbee & Cunningham, 1995) is designed to measure communicative behaviors during coping situations and has been used primarily in friendship dyads (Barbee, 1990). The codes in this measure attempts to explain support provider and support recipient exchanges in regard to characteristics of the participants, their relationship and the context of the interaction (Reis & Collins, 2000). The ICBCB focuses on the support provider and measures 28 verbal and nonverbal behaviors that they may display. The supracategories consist of solving behaviors (giving help or advice), solacing behaviors (consoling or providing affection), dismissing behaviors

(minimizing or avoiding the problem), and escaping behaviors (ignoring or avoiding the problem) (Reis & Collins, 2000).

Of the four ICBCS categories, the category of Solace Behaviors is the most relevant to AAI, as opposed to Solve Behaviors (giving help or advice), Dismiss Behaviors (minimizing or avoiding problems), and Escape Behaviors (ignoring or avoiding the problem). Again, these categories in the index are not applicable to AAI since they consist of behaviors that are expressly prohibited by therapy dog certifying organizations and the facilities where these AAI occur. Since the handler is acting in a volunteer capacity, supportive behaviors such as physical contact from the handler, providing advice, or giving tangible assistance to the client such as money are not permitted. In Table 5 are descriptions of the Solace Behaviors which I have adapted to be pertinent in an AAI context. For example in the ICBCB, the category of Affection is described as “Gives seeker a hug; touches seeker on the shoulder; puts arms around seeker’s shoulder; gives a kiss; verbal affection; conveys attachment to seeker.” In order to apply this description to AAI, I specified that the dog is the one that is exchanging affection with the seeker (client) and describe dog behaviors that are perceived as affectionate.

Table 5

ICBCB Application to AAI

ICBCB Category	Description
Affection	Dog allows a hug; dog allows/seeks being touched/petted; dog allows being kissed; dog gives a kiss (lick); dog wags tails when close to client

Empathy	Handler shows understanding; makes empathic remarks such as uh-huh, oooh
Compliment	Handler compliments the looks of the seeker; handler compliments the ability of the seeker
Available	Handler and/or dog leans forward and displays quiet attentiveness to client
Reassure	Handler tries to boost the client's self-esteem
Lift Mood	Handler encourages client to engage in a task with the dog to lift spirits

These portions of existing affection and social support measures that I adapted to an AAI context were considered as I collected my data and began the coding process to develop my AAI Typology. My analysis process began by first reviewing these adapted existing measures then reading and reviewing the interview transcripts and field notes.

TYPOLOGY DEVELOPMENT

As I read through the interview transcripts and my notes, I focused on behaviors and messages that handlers described or performed that were intended to help the client. As I read each handler's account of a special AAI they provided, I first underlined key words or phrases, such as "looking for interest from clients," "responding accordingly," and "make eye contact" that suggested supportive behavior. I focused on both verbal and nonverbal behaviors that handler and dog exhibited in order to parse out the interactive processes of support. Once I had underlined key phrases in the transcripts and notes, I handwrote these behaviors on a sheet of paper in order to compile and compare these

items into potential typology categories. I used constant comparison to begin to create categories by grouping similar supportive phrases or behaviors that were identified across interviews and observations, and differentiating each category with specific, unique properties (Corbin & Strauss, 2008). For example, I began grouping behaviors that the dog exhibited such as approaching the client, wagging his/her tail, and lying on the client's bed that suggest affectionate communication. At this point in the analysis process, I then used my handwritten list of supportive behaviors to transfer the supportive behaviors onto index cards in order to more physically sort the behaviors into distinct categories. I developed preliminary category titles and wrote each one on the top of a separate index card. I then went through the list of behaviors and wrote each behavior on the index card category that I felt it fit best.

Using inductive coding, I created categories as merited that were unique to supportive messages in AAIs and that did not fit into existing support measures. For example, many handlers described taking actions during AAIs in order to help the client interact with therapy dog such as positioning the dog in a certain location or asking the dog to perform his/her obedience commands or other tricks. I took note of the words the handlers used to describe these actions such as facilitating, connecting, and building a relationship. Another example of emergent behaviors that were identified during coding, particularly while coding my observation notes, was the notion of attention. Many distractions occur during AAIs, with multiple people seeking the handler and dog's attention at any one time. I noticed that handlers, while being polite, clearly strove to focus on the client who was the intended recipient of service. For example, when

observing AAIs at a public library during a session designed for children to read to the therapy dogs, the handlers and therapy dogs garnered a lot of attention from the patrons. Not only were library staff standing nearby and watching the dogs, but also other patrons visiting the library were interested in the dogs as well. In this situation, I witnessed the handlers concentrating on the child who was currently reading to her dog. However, although the handler's attention was on the client, but the therapy dog was at times distracted by another person or occurrence. I realized that when enacting some supportive behaviors, individual categories were needed for each the handler and the dog to account for the actions of each participant. At this point, I reviewed the existing measures of support that I had adapted to an AAI context again to ensure the applicable concepts were reflected. For example, the ICBCS behavior of "Compliment" was reflected under my preliminary category of Encouragement. I continued gathering data until theoretical saturation was reached and no new categories emerged and the existing categories were fully developed and dimensionalized (Corbin & Strauss, 2008). My draft Typology now consisted of a preliminary category name followed by a list of behaviors that served as verbal and nonverbal indicators of the category.

TYPOLOGY REFINEMENT

Once I had identified the initial typology categories and behavioral indicators, I worked to clearly label and define the category names, as well as ensure each category was as discrete as possible from the other categories. One particularly challenging category to distill down was the category that I eventually titled Responsiveness. Many handlers described behaviors such as 'reading the environment' and 'reading cues' from

prospective clients as well as their therapy dog, especially upon entering the AAI setting. They talked about being aware of occurrences that would preclude a visit from their therapy dog, such as dropped medication on the floor where the dog could ingest it, to occurrences that would invite a visit from the therapy dog such as a person smiling warmly at their dog. I initially categorized this concept as Assessment in order to capture the handlers' safety surveillance of the situation and their observance of interest from potential service recipients. Upon further reflection, I realized that this assessment takes place not just upon entry to the facility, but throughout the entire visit so that the handler can respond appropriately to the client's actions and comments and the dog's behavior. In addition, I initially created a category related to the concept of Assessment entitled Adaptation to account for the need for handlers to adjust their behaviors and messages when the environment changes during the interaction. For example, during an observation I witnessed a client who initially wanted to see the dog but upon approach, became agitated and did not want the dog near. With further reflection, I came to the conclusion that all of these behaviors are encompassed in the category of Responsiveness. Although Assessment and Adaptation are indeed commonly performing during AAIs according to handler accounts, what is crucial is the handler's resulting Responsiveness to the information they garner through surveying and adjusting to the dynamic setting of AAIs.

Another category of the AAI Typology that went through several naming iterations was the category of Encouragement. Some handlers that were interviewed described their behaviors as acting friendly and having a pleasant demeanor during AAIs.

Others mentioned complimenting the client on their efforts and achievements, particularly in physical therapy exercises or reading activities. Several talked about the importance of listening and silence when clients interact with their therapy dog. By taking the client's perspective, handlers attempted to give the client whatever affirmation s/he might need to interact with therapy dog. These handler affirmations may range from verbal cheering to simply staying in the background and allowing a moment to happen between the client and dog, but the essence of this supportive handler action is to promote and encourage the client's interaction with the therapy dog. For example, when I observed AAIs in a special needs classroom, the handlers continually reinforced the child's positive behavior throughout the interaction by saying phrases such as 'good job' or 'Meg (the dog) really likes it when you pet her so gently.' Although I considered terms such as Understanding and Empathy to describe this supportive handler behavior, in the end Encouragement seemed to be the best descriptor since the handlers did not necessarily say they understood or empathized with the client's particular standpoint, but they did recognize their dog's positive impact on the client and either overtly or covertly encouraged the client's interaction with their therapy dog.

As described earlier, I realized in some instances that distinct categories were needed for handler versus therapy dog behavior. As such, I separated the category of handler attention from dog attention and renamed this concept as Interest as it pertains to the therapy dog. The thought behind this category name is that the therapy dog's attention can easily be diverted by a sound, smell or activity. However, the root behavior that is imperative in providing a client with the perception of support is interest from the therapy

dog. In other words, the dog should want to interact with the client and optimally approach the client of his/her own volition. If a handler must force their therapy dog to get close to a client or if the dog refuses to approach a client, the client may feel ‘the dog doesn’t like me,’ which would not be a successful AAI. The other category that pertains to the dog’s behavior is Affection. Affection is not included as a handler category since handlers are not allowed to physically touch clients and must maintain professional boundaries. When determining the nonverbal indicators for the dog’s behavior this category, I needed to rephrase some of the behaviors I initially recorded that were actions from the client toward the therapy dog. Since the AAI Typology is a measure of handler and dog behavior as opposed to client behavior, it was necessary to change my wording from ‘client petted the dog’ to ‘dog allowed petting from the client,’ as an example. The concept of this category is the dog’s expression of affection and his/her acceptance and hence perceived enjoyment of receiving affection from the client.

TYPOLOGY VALIDITY CHECKING

Several methods of validity checking were employed (Suter, 2010) in the present study to ensure I derived appropriate conclusions. In terms of data collection validity, both data triangulation and method triangulation were utilized in that data was collected from multiple sources of information (various handlers who serve in various settings) and different data collection modes were utilized (both interviews and observation) (Denzin, 1970). In terms of data analysis validity, constant comparison (Glaser and Strauss, 1967) was performed to check the categories against the data and exemplars were extracted and included in the typology in order to highlight how the themes fit the data (Geertz, 1973).

For interpretation validity, I conducted member checking by inviting five interview participants to review these items and give their feedback, which proved helpful in its refinement. I also asked several colleagues in the animal-assisted therapy field to review the typology and rating scale. Reviewers made formatting suggestions such as presenting the verbal and nonverbal indicators with bullet points for ease of reading. Some interview participants mentioned regulations from therapy dog certification organizations that discourage the therapy dog from licking the client due to infection control policies. I decided to keep this affectionate behavioral indicator in the Typology; however, since it occurs frequently and when invited by the client, can be therapeutic.

Other feedback that participants offered revolved around measuring the client's behavior, such as the client petting the dog, which is outside the scope of this study. In addition, some participants suggested measuring handler behaviors toward the therapy dog such as praising and encouraging the dog which is an important part of AAIs, but not directly pertinent to measuring supportive behavior toward the client. One participant suggested also providing non-indicators of each category, for example, 'dog pulls away from client' would indicate a lack of Interest behavior. For brevity of the Typology description, I did not include non-indicators; however, I did describe examples of behaviors that would indicate a low score in a category during the rater training session. It may be valuable for future iterations of the AAI Typology to include this type of information in the verbal and nonverbal indicators of each category.

By leveraging existing social support and affectionate communication measures as well as creating categories of support that are unique to AAls, a draft typology emerged. After further refinement as well as incorporation of feedback from interview participants, the final typology was developed. The next section describes the results of these methods by presenting the final typology in depth.

CHAPTER THREE: RESULTS I — TYPOLOGY OF AAIS

The Research Question of the present study asked: “What types of supportive and affectionate messages do handlers and therapy dogs communicate during AAIs?” By leveraging existing measures of social support and affectionate communication, as well as conducting a thematic analysis of handler interviews and observations, a typology specific to AAIs was developed. The final typology consists of six categories: Responsiveness, Attention, Encouragement, Facilitation, Dog Interest, and Dog Affection and includes a description of each category as well as verbal and nonverbal behavioral indicators of the category. Table 6 contains the six categories of the AAI Typology that were developed, their corresponding descriptions and a few example behaviors. Following the table, I provide a detailed description of the categories along with participant exemplars in order to thoroughly examine the typology.

Table 6

<i>AAI Typology</i>		
<i>AAI Typology Category</i>	<i>Category Description</i>	<i>Example Behaviors</i>
Responsiveness	Degree to which the handler responds to cues from the client, therapy dog and environment as to the appropriateness of an interaction at that point in time	Looking for signs of interest from the client in interacting with the dog; responding to client’s signs of fear or discomfort

Attention	Degree to which the handler focuses on the client, despite distractions	Making eye contact with client, talking directly to the client
Encouragement	Degree to which the handler shows encouragement and support of what the client is doing and saying	Nodding, complimenting client
Facilitation	Degree to which the handler actively works to help the dog and client connect and relate to each other through activities	Presenting the dog for petting, offering activities to do with the dog such as grooming
Interest (Dog)	Degree to which the dog shows interest in the client	Approaches the client, makes eye contact
Affection (Dog)	Degree to which the dog shows or accepts affection from the client	Allows/seeking petting, wags tail

RESPONSIVENESS

The first domain, *Responsiveness*, involves the handler continually scanning the environment to assess safety issues and gauging client interest in the therapy dog. The handler must identify and respond appropriately to situations which may preclude an AAI such as a person sleeping, eating, acting unsafely (e.g., yelling, acting violently) or actively undergoing a medical consult/treatment with staff. In these situations, it may not be appropriate for the dog to approach the intended recipient for an AAI. Another aspect of Responsiveness is for the handler to read cues from any potential clients who are present to see if they may want to interact with the dog; and if so, offer an AAI. For example in a long-term care setting, a group of clients may be gathered in a common room, so the handler looks for eye contact from clients and/or comments from the clients

as to who may want to participate in an AAI. A handler may verbally ask the client if they would like to see or pet the therapy dog. Conversely, a handler must also be aware of signs of fear or discomfort such as the client's facial expression or the client and or dog moving away from the other; and if so, does not initiate/ends the visit. Finally, the handler must be responsive to when the client wants to conclude the AAI and end the visit accordingly.

During the interview process, many handlers described ways in which they determined whether a client wanted to interact with their therapy dog and how they were responsiveness in that situation. As one handler explained:

I'll look at somebody as I'm walking up to them and you can tell by looking at them if they're interested in meeting the dog or not. Their faces will light up, they make eye contact with you. A lot of them will go, 'oh,' or whatever, and I'll say to them, 'would you like to meet the dog,' or 'are you a dog person,' or something like that, and they'll either say yes or no. But most of the time people see the dogs, they respond to it either with a facial cue, visual cue or, you know, just saying, 'oh, what a beautiful dog' and so then we'll, we'll start talking to them about the dog ... people see them and they let you know they're interested in talking to the dog or meeting the dog. And you respond accordingly.

Handlers described not only being responsive to interest from potential clients in interacting with the therapy dog, but also being responsive to what type or extent of interaction the client would prefer with the dog. One handler elaborates:

But, uh, usually what we try and do is figure out what the patient or visitor is looking for and, um, we have to, everybody wants something different from the visit. And some people just want to meet the dog and hug the dog, and get all of the feel-good feelings that come from contact with the dogs. Some people want to talk about their dog and we really try and encourage folks to do that because that's the reason they want to, one of the big reasons they want to get out of the hospital and go home. And then there are some people that we see who could care less about dogs one way or another, but they want, they want to talk to somebody.

The handler must always be aware of how the interaction between the dog and client is unfolding and follow the client's lead by responding to their comments and actions. Not only does this responsiveness occur upon entrance to the setting, the handler observes the environment throughout the entire visit so that they can constantly respond appropriately to the dynamic setting. Unusual situations or conversations may occur that a handler must be responsive to, such as a person acting unsafely toward the therapy dog or making an inappropriate comment to the handler. One handler described an uncomfortable situation and how she responded:

She (the client) looked at me and she said you're ugly. You have an evil laugh. You have a dark heart. You just kind of brush it off and it was almost Christmas, you know, and so whatever. So then I get up and I look at Oakley (therapy dog) and I say something about, well, I know I'm no beauty queen but my husband loves me, you know, trying to put a positive spin on the whole thing.

In order to be responsive, the handler must continually control their reactions and be sensitive to the client's needs while simultaneously ensuring the safety and well-being of their therapy dog. Their role is to continually adapt and respond to the ever-evolving AAI setting. This includes reading the client's and the dog's behavior as to when to conclude the visit. For example, one handler says:

And then Henry (therapy dog), you know, if he's done, he'll just kind of scoot over to the edge of the bed and I, you know, I take that as his cue and I say, 'well, we're gonna go visit other people.'

This domain has been entitled Responsiveness and encompasses the handler's behavior in ensuring a supportive interaction is appropriate at a particular point in time with a particular client.

ATTENTION

The second domain identified in the AAI Typology is *Attention*, which involves the handler giving undivided attention to the client during the interaction with the therapy dog. From the moment the handler steps out of his/her car with the therapy dog, people are attempting to attract the handler's attention so they can engage with the dog. As the handler makes his/her way into the facility to the area where the client(s) are located, s/he continually receives comments and questions about the therapy dog and many times, people other than the intended recipient of service, such as staff, family, or other visitors in the facility, would like to interact with the therapy dog. Thus, the handler must constantly strive to seek out the intended recipients of the AAI service and give the client their full focus, despite these distractions and interruptions.

In order for the handler to focus on the client, s/he is typically within close proximity of the client and facing the client as much as possible while managing the dog's position. If the client is in a wheelchair or lying in a bed, the handler may sit or kneel so that s/he is at eye level with and not standing over the client. During the AAI, handlers demonstrate attention by making eye contact and/or nodding to acknowledge the client's presence or comments. The handler talks directly to the client as opposed to a group or others in the area.

Since many clients of AAIs may not receive regular interactions with family and friends, this category of Attention can be especially important in helping a client to feel self-worth. A handler describes:

Maybe like you're in some sort of assisted living or nursing home - there are a lot of other people always around them that need attention too, so to say 'I'm here just for you' and I'm gonna be singularly focused and that can be tremendously supportive.

The handler strives to center his/her focus on the client in order to make the client feel important, as this handler elucidates:

I'm providing something for that patient by being, by being there, so, um, you know, asking a lot of questions and taking an interest and taking an interest in the person. When we go to nursing homes or older people they want to reminisce and tell you about their kids and the role of the handler there is the same thing, you know, being present and they crave that. Have you ever met somebody who is just terribly charismatic and they may have

a ton of things on their mind and when you are their sole focus, like you are so important it just makes you feel overwhelmed, like, wow, loved or appreciated or something. And so the handler has the ability to give that, I think that is just huge and, um, and helps.

Not only is attention important for adults to feel from the handler and dog, but also children as this handler comments:

I just came from an elementary school where the dogs, the kids read to the dogs for an hour and they take turns. The kids, interestingly enough, they, a lot of them are ADD or they're hyperactive, or whatever, if you give them your a hundred and ten percent attention...they are so thankful.

Providing the client with Attention is essential behavior for the handler to exhibit in order to be supportive during the AAI. This ensures the client is the focal point of the interaction and that the AAI is directed toward him/her for his/her benefit and enjoyment.

ENCOURAGEMENT

The third domain of the AAI Typology is *Encouragement*, which consists of behaviors in which the handler communicates encouragement to the client. The handler may use nonverbal gestures to symbolize support of the client such as nodding and smiling to show tacit encouragement of what the client is doing or saying, whether it simply be petting the dog appropriately or describing their physical challenges. Many times, a handler encourages a client's behaviors by simply listening and being silent so as not to interrupt the client's experience with the therapy dog. As one handler elucidates:

As a handler, there are really important times to engage and talk, but there are really important times to say nothing. And I think as we grow, the more and more experience we get and the more profoundly we know that what we do is meaningful, silence is often the best thing you can do.

Some examples of verbal encouragement that the handler may give the client during an AAI are saying ‘I’m sorry’ or ‘that must be hard/frustrating’ to express sympathy for what the client may be describing regarding their illness or disability. The handler may give encouragement to the client through expressing well wishes or by letting the client know that they care and wish for the patient’s health to improve. For example, one handler encourages people she visits in a hospital setting by saying: “If it’s the patient or the client I say, you know, ‘hope you feel better’ or ‘we’re thinking about you.’”

The handler may also encourage the client’s behavior when interacting with the therapy dog by saying ‘good job’ or giving the client a compliment or praise especially in a setting where the client may be performing physical therapy exercises with the dog or practicing their reading skills aloud to the therapy dog. During a physical therapy session, a handler describes her encouraging messages in this way:

Especially with the children, my job is really encourage them; oh, you’re doing a good job; there you go; that was a good throw; okay, see if you can throw it farther this time; see how far you can make Ryder run.

Another handler describes people’s positive response to an immobile child in the hospital who reached for the therapy dog: “The nurses gave great praise to the child for moving

on his own. I praised him and his mother praised him. We all commented and I commented on his great smile and dimples.”

The encouragement and positive reinforcement that a therapy dog handler delivers during an AAI can be motivational in helping the client work toward his/her goals. For example in a library setting, one handler describes the encouragement that AAIs can give to struggling readers:

I think it’s like, wow, yes, this totally strange dog likes me, and, and to be a part of saying that, to say to a child, oh, he’s wagging his tail, he loves what you’re doing and you’re a really good reader and, um, it’s all esteem boosting and confidence building, totally.

As another example of encouragement, a handler describes how she talks “for” the animal to reassure the patient that s/he can seek comfort from the therapy dog:

Heidi’s asking your permission to come up on the bed and just cuddle with you. She says she has all the time in the world and she thinks that she’d like to hug you right now. She thinks that you need a hug and you need to be a hugger; I’ll say something like that.

Handler behavior in this domain supports the client by praising and encouraging his/her actions with the therapy dog. Due to the handler’s encouragement, the client may be motivated to work toward a physical or educational goal, or simply feel reinforced that s/he may interact with the therapy dog as s/he desires.

FACILITATION

The fourth domain of the AAI Typology is *Facilitation*. This domain consists of the verbal and nonverbal actions of the handler that are intended to create an interaction between the therapy dog and the client. As opposed to standing back and letting the interaction unfold without overt handler participation, this domain describes the degree to which the handler actively works to create a connection between the parties.

Several consistent behaviors emerged as handlers described the actions they undertook in order to help the client interact with their therapy dog. Upon entrance, the handler typically presents the dog by introducing the dog and inviting the client to pet the dog. The handler may facilitate the interaction by positioning the dog so that the client can reach the dog, e.g. placing the dog on the hospital bed or directing the dog to sit near the client. As an example, this handler describes how she facilitates the interaction by physically placing the dog near the client: “I usually pick her (the dog) up because she’s little, so I pick her up and I squat down and then her head is right about wheelchair arm’s height.” Another handler with a large dog explained how she facilitates an interaction by positioning the dog in a way to ameliorate concern about the dog’s size:

If you’re seeing a client or a child or a toddler who is tentative and fearful, I always present the rear end of the dog to them because that’s less scary than the face. So if I see somebody that’s tentative, I will turn the dog around so they can come and pet the back end. The other thing my dog knows is that if it’s a small child, he lies down on the floor because that way he becomes a small dog and he’s not a big dog anymore.

In conjunction with the physical position of the therapy dog, handlers talked about ways they introduced and presented their dog to the client:

I said ‘this is Morgan and I’m Charmaine.’ I walked slowly to the bedside where I positioned Morgan beside his arm and I am by the child’s head. The tear is falling down his cheek. The nurses are asking him to move his arm because they are supporting his arms slowly moving them. One nurse placed his hand on Morgan’s head and I am bending over by the child’s head and talking with him on eye level and I said ‘would you like a visit?’

Some handlers may have their therapy dog perform his/her commands or tricks such as ‘sit’ or ‘shake’ for the client. Other activities that the handler may offer in order to facilitate an interaction between the therapy dog and the client may include inviting the client to walk the dog, brush the dog, take photos of the dog, give the dog a treat, or offer the dog’s trading card as a memento. This handler elaborates on how she facilitates an interaction between the client and her dog through the dog performing her trained commands:

Botchie did all her tricks. She knows how to sit, lay down, crawl, roll over, wave, whether she’s sitting and waving or whether I’m holding her and she’s waving.

She knows how to sneeze on command and that gets them the most.

Other facilitation activities such as giving mementos of the therapy dog were also described: “They (the young clients) get bookmarks and baseball cards and stickers and sometimes one of the stationery companies will have bookmarks on sale for Valentine’s or Christmas and so I give those.” These mementos not only help to facilitate the

interaction in the moment, but also serve as a comforting reminder of the therapy dog interaction after the AAI has ended. Another creative facilitation technique described by one handler in a counseling setting entailed using the dog as a ‘talking stick’:

The therapist has a talking stick that they’ll pass around for everyone to talk a little bit with. But, instead of the talking stick, they have Sam. So Sam and I move from child to child when it’s their turn to talk, Sam will sit in their lap or sit in between me and the child and then the child will pet Sam when it is their turn to talk.

Under the direction of professional clinicians, handlers’ facilitation activities act as physical therapy exercises for the client:

We bring dogs in, active dogs, so we’ll bring a puppy there where they would ask the dog, you know, throw the ball or brush the dog or let’s go for a walk around the hall and walking is huge even in a wheelchair holding a leash, you know, where those mobility exercises become a lot easier when you have a dog present and see that you’re simulating it as a physical therapist with balls and toys.

Another dimension of facilitation is the handler utilizing the therapy dog as a conversation topic in order to create a connection with the client. The handler may ask the client questions about his/her own dog, thereby using dog ownership as something they have in common. As one handler explains:

The questions I have and one I usually ask is I tell them what the breed is then I ask them if they have any pets and see where that conversation takes us, and then

the third thing I do is tell them what the dog likes to do. He likes to swim and I ask them if they swim.

Another handler describes her conversation techniques in order to facilitate the interaction:

I immediately talked with him and told him a little bit about my dog and I asked if they, you know, if they had a dog at home and if they do, oh, who's taking care of the dog, oh, I bet your dog is just going to be over the moon when you get home, you know, he or she is going to be so excited, or if they had a dog, I'm just trying to get them to talk to me. I'll ask a couple of questions that are open-ended and try to get them to, um, just talk with me a little bit.

By talking about the therapy dog and his/her personality traits, activities and physical attributes, the handler helps build a relationship between the client and the dog by creating familiarity. Additionally, the handler may parlay talk about the dog as a bridge to other conversational topics. For example, the handler may make the comment that dogs are like your children, which may lead the handler to then ask the client if they have children. Through experience of interacting with the therapy dog, the handler can help foster a relationship between the dog and the client by telling the client that 'the dog likes you,' saying the dog recognizes or remembers the client, or referring to client as dog's friend. Overall, the domain of Facilitation consists of efforts that the handler makes in order for the client to interact and connect with the therapy dog.

INTEREST

The fifth category of the AAI Typology is *Interest* from the therapy dog, which consists of behaviors that the therapy dog exhibits that convey attentiveness to the client. As described earlier, the dog may become distracted in the dynamic environment of a healthcare or educational facility. Other times, the therapy dog may simply not want to interact with a client for a variety of reasons such as feeling unsafe, distracted or tired. Some clients may become disappointed or take it personally if a therapy dog will not interact with them, so it is important that therapy dogs be inclined to initiate interaction with people. Therapy dogs may show interest in a person by making eye contact and walking toward him/her. Once the dog has greeted the client, s/he may indicate interest facing the client or merely being in close proximity to the client. In general, a therapy dog seems interested in a client when s/he has a friendly, welcoming demeanor such as a wagging tail, relaxed ears and a softened facial expression.

Many handlers that were interviewed described how their therapy dog shows an interest in a client during an AAI. For example:

Brier will work the room. She will make sure that she touches base with everybody, and it's like, oh, you haven't petted me yet; here, let me come over here. And she'll like lean on somebody's leg or she'll, you know, put her foot up, you know, like, oh, could you pet me please.

One of the key behavioral indicators of Interest is the dog independently approaching the client without the handler leading the dog to approach as typified by this handler's comments:

He, um, one time he actually jumped up, and I had no idea he could jump that high, but he jumped up in the bed with this lady and I said, oh my gosh, I'm so sorry and she was like, oh, no, let him up here, and he didn't want to leave her. He just cuddled up with her and he was, of course, laying on her back and he put his head on top of her shoulder and just laid there and looked at her with those brown puppy dog eyes, you know, and everything, and she just loved on him and, um, talked to him, cooed to him, and he listened to every word she said.

When a dog willingly approaches and show interest in a client, s/he may provide social support by making the client feel liked or special: "I walk into the nursing home and he knows he's on duty and he, um, he, he gives to every single visit and to each person individually - he'll give to them, he'll sit right next to them." For people who are feeling isolated, a dog soliciting their attention can help them feel less lonely. When a dog shows interest in what a person is doing or saying, it can help decrease depression. As one handler describes her therapy dog entering a client's room: "(the dog) just kind of waits but when the door opens, she wiggles her way in." During the visit, the same handler observes the client talking to the dog as if s/he is human:

At the table she (the client) has more conversation with Lucy. You know, she's chatting with the dog and I'll be in the kitchen doing the breakfast dishes and I'll hear her say, 'well, look at that; well, look at what you did; now, wait a minute, now; you don't get this whole thing'; you know? All that kind of conversation when (earlier) she was just tired and depressed.

This domain of Interest from the therapy dog is a key supportive behavior in order to make the client feel that the dog likes him/her and wants to interact.

AFFECTION

The sixth and final AAI Typology category is *Affection* from the therapy dog. This category is differentiated from the Interest category since it encompasses not just acknowledging the client with interest, but identifies the propensity of the therapy dog to show and/or accept affection from the client. Behavioral indicators of dog accepting affection may include allowing touching or petting from the client, allowing kissing or hugging from the client, allowing client to hold his/her paw, and allowing client to lie on him/her. This domain also encompasses behaviors from the therapy dog that indicate the seeking of affection from the client such as nuzzling the client, offering his/her paw to the client, placing his/her head on client's lap, or leaning against client. A therapy dog may also demonstrate affection by licking the client, wagging his/her tail, or rolling over for a belly rub.

Physical touch with the therapy dog plays an important role in AAIs since many of the service recipients may not commonly be offered or may not enjoy physical affection from a human. One handler describes her dog's affectionate interaction with an autistic child:

He reached his hand out and put his hand on top of Bru's head, and for an Autistic, severely Autistic child to do that, it's very rare because they don't ever interact. And he touched him once, he touched him again and at

this point the mother was going, ahh, and then the child bent over and kissed Bruno on the head.

Several handlers told incidences in which their therapy dog was able to physically reach a patient through affectionate contact when doctors and medicine had not:

Their son had been in a serious accident and he was not in a coma but he was in a non-responsive state. We brought Andy into the room and he stood by the side of the bed and the mother took the son's hand and they were talking to him, see we brought in this big, beautiful dog, there's a dog here to see you, you know, and so on, and she was holding the child, this boy's hand and letting him pet Andy with her hand. He didn't have the motor skills to pet the dog on his own, but he grabbed, he kind of grabbed Andy's fur in his fist and hung onto his fur. And the mother was just crying her eyes out. And, you know, the father is going, hey, calling the nurse, come, he's awake, he's awake, he knows the dog is there!

Handlers told stories of their therapy dog connecting through touch with their clients:

Ray (the client) is very quiet and he's almost always close to crying. And he, he has the most wonderful way with Gracie. He doesn't talk to us very much, but I think Gracie just loves him because he kind of really understands what dogs love. Just really slowly and quietly and he works his way from her head down along her back, and just rubbing and rubbing and so quiet, so quiet and so careful.

In addition to physical effects, several handlers described the emotional release that affection with their therapy dog can generate:

Andy ends up with a lot of arms around his neck. He does. And his fur has absorbed a lot of tears. But people, they want to, they just want to reach out and hug the dogs and fortunately I think that most dogs that are therapy dogs are very responsive to that and Andy will stand with his head in somebody's lap indefinitely. I can't describe it, but just the relief you get, the peace you get from hugging a dog, and I think that's a huge thing.

Handlers also talked about the sensitivity of their therapy dogs and how dogs can pick up on what clients are feeling:

So, there was one little girl and she looked kind of depressed and I'm sure she was hurting and so I laid the dog up next to her and you could just see her starting to relax and pretty soon both her and the dog were falling asleep.

Another handler tells:

Greta went up to him and he just took Greta's face in his hands and held her face and kissed her and loved her and he said she's a very gentle soul. And he was just very sad. He enjoyed that visit a lot.

One of the primary activities that clients typically want to do is to pet and exchange affection with the therapy dog. Therefore, the dog seeking and accepting affection is an essential component of supportive behavior in AAIs.

Based on the leveraging of existing support measures and a thematic analysis of handler interviews and AAI observations, four domains of supportive behavior were

found to be commonly exhibited by handlers during AAI: Responsiveness, Attention, Encouragement and Facilitation. Two domains of supportive behavior were found to be commonly exhibited by the therapy dogs during AAI: Interest and Affection. Together, these domains form a comprehensive typology of supportive behaviors in AAI. The next step of the present study was to create a rating tool based on this typology. The following section describes the methods used to develop this rating scheme.

CHAPTER FOUR: METHOD II — METHOD FOR DEVELOPING AND TESTING AN AAI OBSERVATIONAL RATING SCHEME

Once the AAI Typology was developed, including verbal and nonverbal indicators of each category, the second purpose of this study was to develop a rating scheme that researchers can use to validly and reliably assess AAIs during the data analysis process. The present section describes my process for creating this rating scale and training raters on how to utilize the scale.

RATING SCALE DEVELOPMENT

In order to create a rating scale from a typology, I referred to Koenig Kellas and Trees (2005) who offer an instructive description of their system for rating interactive behaviors in joint storytelling. I used their process as a model to rate interactive behaviors in AAIs (see Appendix K for a sample of Koenig Kellas and Trees' rating scale). I began the rating scale development by first writing a statement regarding each category. For example, for the typology category of Attention, the rating scale statement is 'Throughout the visit, the handler is attentive to the client.' I then wrote a description to correspond to each point of a five-point, Likert-type scale, ranging from 'not at all attentive' to 'completely attentive.' In order to use the scale, the rater reads the statement regarding the category and circles the corresponding number on the scale that indicates his/her level of agreement with the statement. A '1' rating for this statement indicates the handler was *not attentive at all* throughout the AAI, a '2' rating indicates the handler was *a little*

attentive throughout the AAI, a three rating indicates the handler was *somewhat attentive* throughout the AAI, a four rating indicates the handler was *mostly attentive* throughout the AAI, and a five rating indicates the handler was *completely attentive* throughout the AAI. This rating structure is consistent for all six categories of the AAI Typology. As a result, this rating scale allows researchers who observe an AAI to consider whether each typology category was enacted during the session and if so, determine to what degree each category was enacted. See Appendix L for the full AAI Typology and Rating Scale.

RATER TRAINING

In order to train raters on how to utilize the scale, I again based my methods on Koenig Kellas and Trees's (2005) process. To illustrate this process, I developed a Rater Training Manual (see Appendix N), which details the procedures I used to recruit, prepare and instruct the raters. Once the two raters were identified, I began the in-person training by discussing each category of the AAI Typology, including the definition of the category as well as the verbal and nonverbal indicators of the behavior. Prior to the training, I identified 24 online Youtube videos of AAIs of varying length and setting (Appendix M). I explained to the raters that the videos they would be watching were clips found on YouTube of AAIs and they may not encompass an entire therapy dog visit from entrance to exit. Therefore, the raters were instructed to use N/A if they felt they were not able to observe the typology category due to the limitations of the video, but not to make any assumptions of what may or may not have happened prior or after the videotaping of the AAI. I also expressed to them the purpose of the rating scale is not to make a judgment on the suitability or performance of the handler or the therapy dog in

conducting AAIs and that a low score on any of the categories does not indicate that s/he is a 'bad' handler or 'bad' therapy dog. I advised the raters to watch the video twice as needed in order to watch handler and dog separately and cautioned them not to rate the more lengthy videos with higher scores.

I pre-selected five of the 25 identified videos to utilize for rater training, based on a variety of dog breed and varying levels of handler supportiveness so raters could get a feel for the range of the scale. The raters and I then watched the first video and I presented my ratings for each category. We discussed each of the six categories and what a 1-5 would look like for that particular video. For Video 2 and 3, we watched the interaction together and then discussed how to rate each category. For Videos 4 and 5, we watched the videos together and each rater scored the categories independently. At that point, we discussed basis for our scores and came to a verbal consensus. I stressed that a handler does not have to exhibit every verbal and nonverbal behavioral indicator for a category and reminded them only to score what they witnessed – not to assume a behavior or message took place.

For some categories, the raters seemed to find it helpful when I described a behavior that would indicate a *lack* of one of the typology categories. For example, a handler should not receive a high score on the category of Attention if they leave their dog unattended while s/he is visiting the client and instead turn their attention to talking with staff. Another example of a lack of a typology category behavior is if the rater witnesses the therapy dog pulling away or acting skittish toward a client, they would not receive a high score on Interest. Another clarification point was made around the

category of Affection. We discussed how to assess the affection level of a therapy dog if the client and the dog are not physically able to reach each other. For those instances, the raters were urged to consider other behavioral indicators such as the dog's tail wagging and the dog's attempts to approach or be near the client.

My ratings and rationale for the five practice videos that were presented to the raters are included in the Rater Training Manual (see Appendix N). At this point in the training, the raters were comfortable with each category and they were instructed to rate the remaining videos independently. They were provided with electronic links to the video, a scoring sheet (Appendix O) and the requested completion date. Both raters returned their completed scoring sheets within a few days. Once I received the completed scoring sheets from the raters, I entered the data into SPSS in order to conduct interrater reliability testing. These results are presented in the following chapter.

CHAPTER FIVE: RESULTS II — RESULTS OF TESTING RATING SCHEME

Once the rating scale was developed, the final step of this research study was to demonstrate the reliability and validity of the scale. The present section describes the reliability and validity tests that were conducted and finally, presents the results of these statistical tests.

INTERRATER RELIABILITY

A reliable instrument is one that demonstrates consistency of scores across behaviors evaluated by different raters. For example, if Rater 1 rates an item as a '2,' consistency would be demonstrated if Rater 2 also rated the same item as a '2.' It is imperative to establish reliability in order to draw conclusions from the data. As such, in this study establishing interrater reliability was important because there is a lack of reliable measurement tools to assess AAIs. With a reliable assessment tool, practice improvements can be made in order to ensure a client is provided with supportive behaviors during AAIs. When calculating interrater reliability between two coders, intraclass correlation is the preferred method since percentage agreement does not account for chance agreement and Pearson correlation is insensitive to rater mean differences (Lindahl, 2001). Therefore, to test the reliability of the AAI Rating Scale, intraclass correlations were computed between the pair of independent raters. To input the data into SPSS, the 24 videos each comprised an individual row and the rater's score

of each of the six categories was listed in the columns. In other words, column 1 comprised the Responsiveness score of each video for Rater 1, column 2 was the Attention score for Rater 1, column 3 was the Encouragement score for Rater 1, column 4 was the Facilitation score for Rater 1, column 5 was the Dog Interest score for Rater 1 and column 6 was the Dog Affection score for Rater 1. The following six columns were repeated for each category for Rater 2. In addition, a total support score was created for each rater per video by summing the six category scores for that video. From here, an intraclass correlation was computed in SPSS in order to compare the raters' scores in each category as well as their total support score. For example, to calculate the intraclass correlation for Responsiveness, I used the variables of R_1 and R_2 which represented the Responsiveness scores for each video for Rater 1 and Rater 2. I repeated this calculation using each of the six categories of the typology as the variables as well as the total support score. The intraclass correlation for the total support score resulted in .97, demonstrating that with proper training, the rating scale can be used for rating AAI's with a high degree of reliability. See Table 6 for intraclass correlation results for each category.

Table 7

<i>Intraclass Correlations</i>	
AAI Category	Intraclass Correlation
Reliability	.92
Attention	.94
Encouragement	.72
Facilitation	.95
Interest	.97
Affection	.97
Total	.97

RATING SCALE VALIDITY CHECKING

In order to test convergent validity, six categories from the SSBC (Cutrona & Suhr, 1992) were selected (Relationship, Affection, Understanding, Reassurance, Compliment and Responsiveness) since they are behaviors that are commonly demonstrated by a handler and therapy during AAIs. The raters that were trained to use the AAI Typology in order to establish reliability were then instructed to view the AAI videos again and score them using the identified portion of the SSBC measure. Convergent validity was then assessed by comparing the AAI Rating Scale overall support score with scores obtained from the selected portion of the SSBC by calculating Pearson product-moment correlation coefficients. The results revealed that the overall support score of the AAI Rating Scale was positively correlated with the support score of the SSBC for both Rater 1 ($r = .77, p < .01$) and Rater 2 ($r = .79, p < .01$). The AAI Rating was determined to be reliable and valid by conducting intraclass correlation and convergent validity analysis, respectively. The following section consists of an interpretation and discussion of these results.

CHAPTER SIX: DISCUSSION

The results of this study show that the supportive behaviors that occur during AAI consist of the handler as support provider responding the client's needs, paying attention to the client, encouraging the client and facilitating the client's interaction with the dog. The therapy dog contributes to the supportive nature of the AAI by showing interest in the client and exchanging affection with the client. In the present chapter, I discuss how each of the six supportive behaviors in the AAI Typology are rooted in the social support and affectionate communication literature and I identify ways in which AAI uniquely extend these theoretical frameworks. Finally, I present theoretical and practical implications of this study, along with limitations and directions for future research.

In order to interpret the findings of this study of handler/dog messages during AAI, it is necessary to take into account that some therapy animal handler training, such as that required by Pet Partners (a national certifying agency for therapy animals), encourages the enactment of supportive and affectionate behavior. The Pet Partners Team Training Course Student Manual (Delta Society, 2007) states that the handler's role is to provide general support:

Always remember that your role as a volunteer is to first meet the needs of the person you are visiting, rather than your own. In many instances, this means

listening more than talking. Respect a person's need for privacy and withdrawal. Don't force yourself on him or her. Be a sincere listener.

Sometimes silence is truly the best response. Don't think you need to fill every space with words. Also, remember you are not there to diagnose or treat the client, you are simply there to listen and facilitate the visit with your animal. (p. 2-15)

The training manual further directs handlers to: "Act as a supportive friend. Your role on client visits is closer to that of a supportive friend than to that of an expert, counselor or authority." (p. 6-9). These training instructions direct handlers on ways to provide supportive behavior to recipients in need. As a result, many of these behaviors are reflected within the categories of the AAI Typology. For example, several handlers described the importance of silence during an interaction as a way to tacitly provide encouragement to the client. Inherent in these training instructions are for handlers to be responsive and attentive in order to facilitate the interaction between the client and the therapy dog.

SUPPORTIVE BEHAVIORS IN AAIS

According to Vangelisti (2009), the communicative perspective of social support focuses on the interactions between the support provider and recipients and is evaluated by the verbal and nonverbal messages that are communicated. The present study evaluates the interaction between the support provider (handler and therapy dog) and the support recipient (client in a health or educational facility) to determine what verbal and nonverbal messages are delivered by the handler and dog. AAIs can be viewed from the

theoretical framework of supportive communication since they are comprised by a provider's intentional effort to support a recipient's emotional need. A client in a healthcare facility may communicate a need for support such as asking to interact with the therapy dog or accepting an invitation to interact with the therapy dog. The handler then responds to the request by facilitating an interaction between therapy dog and the client; the client reacts to the supportive messages and behaviors from the therapy dog and handler and finally; the handler and therapy dog respond to the client's responses (Burleson & MacGeorge, 2002). Following, I will discuss how each of the AAI Typology categories fits within and extends the theoretical frameworks of social support and affectionate communication.

RESPONSIVENESS

One of the key supportive behaviors identified in the AAI Typology is the category of Responsiveness. Although social support is conceptualized as the support provider "responding" to the support recipient (Burleson & MacGeorge, 2002), the existing support typologies do not identify this behavior as a distinct category. However, the findings of this study suggest that handler responsiveness to a client's needs and actions is a prevalent supportive behavior in delivering AAIs and therefore merits a discernible category within the AAI Typology. As derived from the data analysis, responsive behaviors such as scanning the environment and ensuring it is an appropriate time to offer the supportive interaction of an AAI are necessary behaviors in order to have a successful intervention. Responsive behavior is exhibited by the handler

throughout the entire AAI to ensure that both the client and therapy dog experience a mutually beneficial interaction.

This type of supportive behavior may extend the typical concept of Responsiveness in a socially supportive interaction since AAIs commonly take between two parties who have no previous knowledge of the other. Therefore, the handler has no idea as to the client's desire to interact with the dog or his/her ability to safely interact with the dog. The handler must constantly read cues and respond to them to ensure the safety and enjoyment of everyone involved. The importance of Responsiveness in an AAI context is heightened due to the risks of the handler introducing a live animal to a stranger in a vulnerable setting such as a hospital when compared to responsiveness in a typical human-human interaction. Furthermore, the act of Responsiveness in an AAI has added implications since interacting with the handler/therapy dog is completely voluntary and this interaction occurs mainly at the discretion of the client. In other words, Responsiveness in an AAI may manifest as not interacting at all, which is the client's choice as the support recipient.

ATTENTION

The unique settings in which AAIs are delivered may also help to explain why another supportive behavior – Attention – merits a category within the AAI Typology. Attention is identified as a category within both the SSBC (Cutrona & Suhr, 1992) and the ICBCB (Barbee & Cunningham, 1995). In these existing support measures, this concept is also referred to interest or availability. Furthermore, two types of nonverbal behavior that have been identified to be particularly salient for supportive communication

are involvement and pleasantness (Miczo & Burgoon, 2008). Involvement, defined as acting attentive in an interaction (Prager, 1999), is typically indicated by body posture that is oriented toward the other person, such as close proximity or leaning, and facial animation including eye contact (Burgoon & Le Poire, 1999). Pleasantness is defined as communicating warmth and friendliness during an interaction (Guerrero, 2005).

Pleasantness is typically communicated by smiling, nodding and facial animation. All of these behaviors were identified during AAI handler interviews and observations and were categorized as the domain *Attention*. For the AAI Typology, Attention is an appropriate term for this type of supportive behavior since the handler must be more than just available or interested in the client – they must strive to actively focus on the client.

The findings of this study indicate that Attention may be more challenging to offer in human-animal interactions as opposed to human-human interactions. Due to the attention that an animal attracts, a handler in an AAI setting must pay particular focus to the service recipient despite the many distractions that may occur. Other people within the facility may seek the handler/dog's attention so it is crucial for the handler to make an effort to show the client that they are visiting that s/he is there to spend time with them as opposed to any one else present. In a typical human-human support interaction, strangers within the facility would not likely be insistently seeking interaction with a support provider that was unfamiliar to them. Another way in which the category of Attention may be unique to an AAI context is that many of the service recipients or clients of AAIs may be in facilities in which they do not often receive individual attention. For example, a person in a nursing home may not have family or friends that visit them regularly. In

these situations, the supportive behavior of Attention may be of even greater value to the client in an AAI. Since a handler and therapy dog are not obligated to visit a client, a client may feel especially valued that a person who is not a family member chooses to interact with him/her.

ENCOURAGEMENT

Similar to the unique nature of receiving Attention from a person who voluntarily chooses to offer this type of support to a client, Encouragement from a non-family or staff member in an AAI may also resonate with a client. People who have close personal relationships with a support-seeker may not have the skills to provide appropriate social support and therefore, encouragement from a non-intimate person may be beneficial (Burlison, 2008). Several studies have indicated that supportive messages from a non-intimate person, as is the type of relationship in AAIs, result in improved task performance and increased ratings of perceived helpfulness when compared with supportive messages from a close relationship (Sarason & Sarason, 1986; Tardy, 1992). Tannen (2004) found that family members use their dog as a communication resource for delivering messages such as an apology, criticism or praise. This was found to also be true in AAIs – the therapy dog is often used as a safe and desirable communication resource for the handler to provide the client with praise and encouragement.

The category of Encouragement in the AAI Typology is somewhat similar to the classifications of Understanding, Empathy, and Compliment in other support typologies. However, I feel Encouragement is a more apt term for this type of supportive behavior that is delivered by the handler during AAIs. The encouraging messages and behaviors

that handlers provide in AAIs do not necessarily indicate understanding or empathy since handlers are not typically healthcare or mental health professionals, are not privy to the client's condition due to HIPAA regulations, and may not have any idea what the client is experiencing. Therefore, handlers likely do not have the experience or depth of relationship to be able to demonstrate understanding or empathy during AAIs. Instead, I posit that the encouraging behaviors that handlers demonstrate during AAIs are a way of showing acceptance and a lack of judgment of the client. By encouraging the client to interact with the therapy dog, complimenting the client's interaction with the dog and thanking the client for interacting with the dog, clients may feel the dog accepts and likes them regardless of their condition.

In terms of explicating this category, it was interesting that although the intraclass correlation for this category was strong (.72), it was noticeably lower when compared to the correlations for the other five categories (next lowest = .92). I believe this was a training issue in which I gave confusing and inconsistent direction on the importance of verbal indicators in this category. When the raters raised a question about this category during the practice videos, I expressed that the handler needed to give compliments or cheer on the client to make them feel good in order to receive a high score in the Encouragement category. In retrospect, this response was incorrect because it discounts the importance of nonverbal encouragement such as listening and smiling and my response to their question is in direct contrast to the overall training instructions which are that the handler needs not to display every type of indicator behavior in order to receive a high score. More accurately, handlers in AAIs encourage the client through

both verbal and nonverbal interactions via the therapy dog with the goal of improving the client's well-being.

FACILITATION

The category of Facilitation, which consists of behaviors to create a connection between the therapy dog and client, appears to be distinctive to AAIs and is not reflected in other existing support or affection measures due to the unique nature of presenting an animal during the interaction. The findings of this study indicate that the extent of usage of this type of support varies widely even by the same handler. Contextual factors such as the type of facility, the health of the client, the client's level of interest in animals, and the dog's behavior all play a role in when and how a handler offers the supportive behavior of facilitation. For example, a handler may exhibit more facilitation support for an active child who is reading to the dog than a person lying in a hospital bed experiencing pain. The first scenario may require the handler to direct the child on how to pet the dog, position the dog in a certain area for the reading activity and perhaps give the child a bookmark with the dog's photo as a reward for practicing their reading skills. In a quiet hospice setting, the handler may only softly say a few words and stand nearby while the therapy dog lies on the bed next to the client. This category appears to be one of the most variable of the support behaviors exhibited during AAIs, depending on the handler, dog and client, and handlers described becoming more comfortable facilitating the interaction in a variety of ways as they gained experience.

Facilitation may convey a feeling of supportiveness due to the value of social support via everyday talk (Leatham & Duck, 1990). The support that is communicated in

everyday interactions, such as those that occur during AAIs, can be effective during a crisis-type context such as in dealing with a serious illness (Barnes & Duck, 1994). One of the reasons that facilitating an AAI may be supportive is that it inserts the mundane, e.g. the petting of a dog, within a situation that can be highly emotionally charged such as a healthcare setting. Handlers also provide support by utilizing the therapy dog to facilitate every-day talk. Kruger and Serpell (2010) state that watching a dog's behavior can stimulate conversation among people. During the handler interviews and observations, it was evident that handlers have common conversation techniques to engage the client and facilitate his/her interaction with the therapy dog, such as talking about the therapy dog and asking questions about the client's dog. In many cases, the dog creates an instant connection and commonality with the handler. Without a dog present, this type of friendly interaction may take longer to occur, if it occurs at all.

INTEREST

The final two categories of the AAI Typology – Interest and Affection - encompass behaviors that the therapy dog exhibits during the interaction so not surprisingly, these supportive behaviors manifest somewhat differently in human-animal interactions than in human-human interactions. Moreover, I posit that interest from a dog may provide social support in a way that interest from a human cannot. Animals have heightened instincts and when a therapy dog chooses to approach a person, it may be perceived as a validation of that person's self-worth. The client may feel that the therapy dog is interested in him/her because s/he is a good person worthy of love. According to Burgoon and Hoobler (2002), people read nonverbal behavior in order to make

judgments of others and gauge their own responses. In AAI, the client reads the interactive signals of the therapy dog and judges whether or not the dog “likes” him/her. Since dogs are incapable of having a hidden agenda like a human may, the client can accept that the dog is not being phony or manipulative in their interest. This line of perceiving genuine feelings applies to affection with the therapy dog as well. As discussed in Chapter 1 of this study, many of the risks of affection exchange between humans such as the possibility of the affection not being welcome or being misconstrued, do not exist in AAI. The support recipient perceives that the dog’s behavior is genuine and true.

AFFECTION

In terms of affection, the findings of this study also uncovered other key differences between affectionate communication among humans and affectionate communication between humans and dogs. Many of the items within the ACI (Floyd & Morman, 1998) apply to an AAI context, with the exceptions of behaviors that canines are not capable of such as giving a massage. However, a marked difference in affectionate communication between clients and therapy dogs versus human-human affectionate communication is that in an AAI, affection is typically exchanged immediately with no prior meeting or relationship between the parties. Conversely, giving affection to a human stranger is typically construed as inappropriate. One contributing factor to this phenomenon may be that affectionate communication is subject to individual, relational and contextual situations (Floyd, 2006). Research has found affectionate communication to be expressed more by females than males (Floyd, 2006)

and often expressed in situations which are emotionally laden such as weddings and funerals (Floyd & Morman, 1998). In terms of AAIs, these interventions are predominantly delivered by female handlers and offered within the context of an emotionally charged setting such as a hospital or mental health center where people may be dealing with a serious illness or disease.

Another notable difference in affectionate communication in AAIs is that the affection between the client and therapy dog is exchanged nearly constantly during the interaction. In other words, therapy dogs typically want to be touched or petted constantly throughout their interaction with the client. In affection exchange between humans, one or both of the parties may not want constant affection showered on him/her and oftentimes, this type of affectionate display can be viewed as inappropriate or excessive, especially in public settings. However, few people would raise an eyebrow if a person continually holds and strokes a dog in public. As opposed to another person, dogs typically do not tire of “being there” for us; and in fact, therapy dogs always want to be with a human. They seek interaction and are generally oblivious to our problems. The present study’s findings indicate that the types of affectionate communication exchanged in AAIs – holding, hugging, and kissing - are similar to those behaviors exchanged between humans; however, the immediacy and constancy of affectionate communication is distinctive to an AAI context.

SUMMARY OF FINDINGS

The findings of the present study suggest that handlers and dog enact several types of social support and affectionate communication that are unique to human-animal

interactions. The dynamic of incorporating a living being that carries the connotation of home and unconditional love creates an interpersonal interaction that differs greatly from the same interaction between two humans without a dog present. The innocence and purity of a dog's intention removes the boundaries that can stand between people. The presence of a dog can instill immediate trust and acceptance of not only the dog itself, but also by extension, his/her handler who may be a perfect stranger to the service recipient. This special context requires the handler to continually present a supportive demeanor and actions in order for the AAI to be considered successful. A significant part of the handler's responsibility is to also ensure the dog is perceived as having a supportive demeanor and actions as well.

The findings of this study have both theoretical and practical implications. This study helps to fill the gaps in social support and affectionate communication theory by applying these frameworks to a complete interactional process occurring within a natural setting. By providing a detailed description of verbal and nonverbal behaviors in supportive interventions (AAIs), this study answers the call for researchers to illuminate specific ways support is delivered. From a practical standpoint, the findings of this study identify the specific messages and behaviors that occur during an intervention with an animal so that they can be measured, thus offering utility in improving the practice of AAIs. The following sections expand further on the theoretical and practical implications of the present study.

THEORETICAL IMPLICATIONS

More studies are needed that examine social support by studying the interactional processes of supportive communication (Reis & Collins, 2000). In other words, there is a lack of understanding of the ways support is offered, discussed and delivered (Goldsmith, 2004). Supportive acts are best understood within the context and sequence of an actual interaction (Sillars & Vangelisti, 2006) in a natural setting to identify what people actually do and say when offering social support (Wortman & Conway, 1985). To answer this call for research, interviews and observations of real-life interventions were conducted in the present study in order to examine the interactional processes of how support is delivered within the context of AAIs.

According to Burleson, Albrecht, Goldsmith, and Sarason (1994), detailed descriptions regarding the form and content of verbal and nonverbal behaviors in supportive interventions must be developed. Further development of social support typologies that identify interactive processes must occur in order to design successful supportive interventions (Lakey & Cohen, 2000). Furthermore, although Floyd (2006) recognizes that people feel affection toward animals or pets, to date there has been no explication of how affectionate communication is exchanged between humans and animals.

Affection Exchange Theory (AET) (Floyd, 2006) may be extended in light of the present study by determining how the five postulates might be adapted to an AAI context. Postulate one states that the need for affection is innate; this could relate to the biophilia hypothesis (Wilson, 1984) which posits that humans have an innate affinity – and

therefore, affection – for animals. Melson and Fine (2010) agree that there is something about animals that attracts humans and Fine et al. (2010) state that humans have an innate need to interact with animals. The findings of the present study support the expansion of this postulate to include that the desire for affection (from humans AND animals) is innate, since it was demonstrated that giving and receiving affection from a therapy dog is a prevalent supportive behavior in AAIs. Even though the dog is unfamiliar to the client, AAI clients typically want to give and receive immediate and constant affection with the therapy dog, suggesting that this behavior is innately rooted in a desire for touch and affection.

Postulate two states that affection exchange and affectionate communication do not always occur together. In other words, a person may internally feel affection toward another person, but not always enact affectionate communication toward that person. The findings of the present study indicate that affection exchange and affectionate communication may occur together more often in AAIs than human-human interaction. In AAIs, the purpose of the dog's presence is for the client to interact with the animal and the present study found that this type of interaction typically consists of affectionate communication such as the client petting the dog. This consistency of affectionate communication from the client to the therapy dog may be due to the low-risk nature of affectionate communication with animals, e.g. it cannot be misconstrued and is not perceived as disingenuous.

The third postulate revolves around human reproduction, which does not directly apply to AAIs. Postulate four states that humans vary on the level of affection they

desire. This threshold may be much higher when it comes to the level of affection desired from an animal, due to the perception of therapy dogs' unconditional love and unflagging happiness to see humans. Therapy dogs are screened to be people-oriented and seek interaction with humans, so their level of desired affection is high and continuous. The findings of the present study indicate that clients of AAIs typically exhibit an immediate and constant exchange of affection with the therapy dog. Therefore, although people may vary on the level of affection they desire, those levels may be different with an animal.

Relatedly, the fifth postulate states that violating a person's level of desired affection can have negative physical and psychological effects. This postulate is consistent with the qualifications for a dog to be a registered therapy dog. That is, it is imperative that the dog accept and enjoy affection from people so that a successful interaction can occur. The risk of violating a client's level of desired affection is likely lower in AAIs than in human-human interaction since therapy dogs seem to have a nearly unlimited capacity for exchanging affection and conversely, do not get angry or hurt when a client stops exchanging affection with the dog. As exemplified here with AET, the present study further extends existing social support and affectionate communication theoretical frameworks by creating a typology and corresponding rating scale that identifies and assesses the verbal and nonverbal supportive behaviors that occur during interactions that include a therapy dog.

PRACTICAL IMPLICATIONS

In addition to theoretical implications, the present study's findings have the potential to improve the practice of AAIs. As previously discussed, past research in the

field of AAIs has been primarily anecdotal and lacks the scientific rigor necessary to understand and validly measure these interventions (Kazdin, 2010). There remains a lack of understanding of the mechanisms of AAIs in terms of how they work and what unfolds during the interactive process (Chur-Hansen et al., 2014). This knowledge gap is detrimental to the field of AAIs as it restricts the analysis of these types of interactions and thus limits the development of best practices to maximize the effectiveness of these interventions (Jenkins et al., 2002). The present study's aim was to identify the specific types of supportive behaviors that take place in AAIs and organize them into a typology of standard behaviors enacted by handlers and therapy dogs in AAIs.

Furthermore, this typology of supportive behaviors demonstrated in AAIs was then utilized to develop a rating scale tool to validly and reliably assess the degree of supportive behaviors exhibited by the handler and therapy dog in an observed interaction. To design this rating scale, each of the six typology categories was applied to a 1-5 Likert-type scale in order to numerically assess the extent to which the category behavior was observed throughout the AAI. To aid in the future implementation of this rating scale, a step-by-step rater training process guide was developed (Appendix N) so that this instrument can be used by AAI researchers to measure the types and level of support delivered in AAIs for the ultimate goal of improving these interactions. There are several areas of practice to which these tools can subsequently be applied.

The AAI Typology and Rating Scale may be a helpful tool in the training and selection of therapy dog handlers. In-depth training could be provided regarding each category of the typology in order to help prepare handlers for how and when to offer

different types of support. For example, in order to train handlers on the supportive behavior of Attention, curriculum could include a review of how to show attention, why it is important, what benefits clients may receive from this type of support, and challenges in offering attention. Handlers could participate in role-playing exercises to help them practice providing attention to a client within a busy, distracting setting. Current handler training focuses on educating handlers on providing general support, but by applying the theoretical framework of social support and affectionate communication, these supportive concepts may be more thoroughly understood and therefore enacted by handlers. Numerous handlers commented during their interviews that many of the supportive skills they offer during AAIs were developed over time with experience and it would have been helpful to learn more about these skills and how to deliver them before they began participating in AAIs.

Quizzes or assessments of the handlers' skill or knowledge regarding the categories of the typology may be helpful for certifying organizations as well as the handlers themselves to identify potential candidates for AAI handlers and to determine areas for improvement of existing handlers. For example, AAI training could include an observational exercise in which the potential handlers watch a video of a gathering room within a nursing home and discuss what they notice in the setting that may preclude or conversely invite a visit from a therapy dog. This would give the instructor and potential handlers an opportunity to point out specific elements in the setting to be aware of and discuss how to handle those elements. Examples might be noticing a person using a walker and looking unsteady – how would you approach this person with your dog?

Perhaps another resident is in a wheelchair and has food crumbs on her lap – how will your dog react and how can you ensure the interaction is safe and pleasant? This type of training on how to enact the various categories of support as identified in the AAI Typology may better prepare handlers for delivering service and result in safer, more effective AAIs.

Other practical implications of the present study can be derived from the responses to the interview question that asked participants to tell what advice they would give to a new handler. Many interviewees responded with advice about learning to read the environment, observing the dog's behavior and noticing cues from potential clients. These behaviors are encompassed within the AAI Typology category of Responsiveness, which underscores the need for more extensive training in this area. Other advice from handlers included recognizing personal traits that a handler should possess such as patience, flexibility, kindness, and friendliness. These findings could be leveraged practically by having handlers take a personality assessment to help determine if they may be a good fit for this type of service. In addition, handlers described the positive impact that providing AAIs has had on their own life. Many described how rewarding it is to know their animal can make a difference in someone's life and how much they enjoy and feel lucky to be able to provide this service. Finally, it is notable how many handlers were interested in participating in the interview process. I received an overwhelming amount of responses to my solicitation email, indicating that people who provide AAIs are enthusiastic about their service and want to share their experiences. This also

potentially speaks to a lack of outlets or vehicles for handlers to communicate about their experiences and perhaps a desire to help other handlers learn from their journey.

ETHICAL CONSIDERATIONS

Although the concept of AAI is becoming more and more mainstream as an accepted treatment modality that benefits human health and well-being, it is not a practice embraced by all and is even considered inhumane by some. Some animal rights activists discourage the use of animals in any type of service to humans, arguing that is selfish to possess dogs and receive love from them. Instead, they believe dogs should be left to live their lives as naturally as possible, without interference from human training, rules and other restrictions that confine and deprive them from their natural behavior. Although this perspective may be extreme, it is important to recognize that AAI involve living, breathing creatures (Mallon, Ross, Klee, & Ross, 2010). It is incumbent upon handlers as well as the institutions where AAI take place to ensure the therapy dogs' safety, health, and well-being. These responsibilities include proper veterinary care, nutrition, exercise, and positive training. Therapy dogs should always be supervised during sessions and allowed proper rest and recuperation after an intervention (Chandler, 2005). Studies of AAI should include the perspective of the therapy dog in terms of the effects of the intervention in order to ensure a mutually beneficial interaction (Serpell, Coppinger, Fine & Peralta, 2010). Clear, ethical standards for the use of therapy dogs are needed in the field (Chandler, 2005). To help address the need to ensure the therapy dog's well-being during AAI, a therapy dog-oriented version of the AAI Typology and Rating Scale could be adapted to assess the extent of the handler's supportive behavior toward the therapy

dog. In other words, the AAI Typology categories that are currently geared toward supporting the client could be modified toward identifying and assessing behaviors to support the therapy dog such as Responsiveness to dog's behavior, Attention to the dog, and Encouragement and praise of the dog.

LIMITATIONS

Although this study offers valuable practical implications, there are several limitations to consider. Optimally, the AAI observations I conducted would have been videotaped. However, this proved to be difficult due to the confidentiality and HIPAA policies of the settings in which AAIs are performed such as schools and hospitals. By videotaping the observations, I could have had the raters utilize those videos in order to determine inter-rater reliability. In addition, the videos of AAIs that I identified on YouTube as an alternate way of testing the rating scale would have been more useful if each of them captured an entire AAI from the dog's entrance to the facility to his/her exit. The brief videos online were portions of therapy dog visits, leaving the rater to wonder what occurred regarding the AAI before and after the film clip. I attempted to mitigate this limitation by instructing the rater to only score what they witnessed and not to make assumptions about what else may have occurred during the AAI that was not captured on tape.

Another limitation of the present study is that all observations were conducted in Denver, Colorado. There is a possibility that there are regional differences in the manner that AAIs are conducted across the country, although this was not readily apparent when interviewing handlers from different states. Similarly, AAIs take place in many different

types of settings; however, observations for this study were conducted in only three facilities. Although the interview respondents represented the majority of AAI setting types, it would have been informative to conduct observations in other facility types such as a long-term care facility or a mental health facility.

In addition, each handler was only observed one time, leaving the question of whether the handler would exhibit different supportive behaviors on another day or in another setting. There are likely variances to the supportive behaviors that a handler and dog enact during an AAI depending on the handler, dog, setting, client and particular moment in time. By conducting multiple observations of the handler, one may determine if a handler tends to use certain supportive behaviors in certain situations or if a handler is simply more comfortable in providing one type of support over another. In other words, further observations may uncover more information on when and why a handler chooses to enact or not enact a particular supportive behavior and to what extent they offer that particular supportive behavior.

A final potential limitation is that the majority of handlers that I interviewed chose to describe an exceptional visit where they witnessed their therapy dog make a marked impact on a client. As a result, there is the possibility that the behaviors reflected in the AAI Typology categories may mainly occur during these types of “aha” visits. However, nearly every handler had several exceptional stories so this could also be positioned as a strength of the present study in that the high-end of the AAI Rating Scale represents the pinnacle of the behavioral range and is useful for assessing “every day” AAI as well.

SUGGESTIONS FOR FUTURE RESEARCH

There are many opportunities to build upon this study for further research within the area of supportive behaviors in AAIs. A logical next step would be to gain the client's perspective on the support that they receive from the handler and therapy dog. Clients could be asked what specific messages and behaviors the handler and dog enacted that resulted in making them feel supported or simply feel better. It would be useful to compare the handler's perceptions of support with the client's in order to see if the handler is indeed offering the type and extent of support that the client desires. Another extension of this study would be to assess the extent of the handler's supportive behavior delivered via the AAI Rating Scale, and then compare those results to physiological and psychological assessments of the client. For instance, does a client score lower on a depression scale when a handler delivers a '5' in Encouragement support on the AAI Rating Scale than when the handler delivers a '2' in Encouragement support? Perhaps there is one type of support that is more effective in improving a specific condition/ailment? For example, perhaps when the dog delivers a '5' in Affection support, does the client's heart rate decrease, regardless of the other AAI Rating Scale support scores? In this way, future studies could help determine how particular supportive behaviors correlate to human health and well-being outcomes.

Further enhancements of the AAI Rating Scale itself may be necessary with additional testing and usage. Due to the complexities of the six typology categories, multiple rating scale items may be useful for parsing the categories out further. For example, it may be useful to separate the category of Dog Affection into a statement such

as “Throughout the visit, the dog *accepts* affection from the client” and “Throughout the visit, the dog *seeks* affection from the client.” The other categories may also be broken down into smaller areas of focus. For example, Encouragement may have multiple rating items that specifically assess the degree of silence behaviors or compliments that the handler delivers. This study is the first step in identifying and assessing the degree supportive and affectionate behaviors that occur during AAIIs so that they can now be further examined in order to make human-animal interventions even more effective.

STUDY SUMMARY

According to Mills and Hall (2014), there is a greater need than ever in this economic climate and soaring healthcare costs for cost-effective, alternative approaches to healthcare such as AAIIs. Yet this low-cost approach continues to be overlooked by healthcare professionals, policymakers and government. The public is generally not aware of AAIIs as a treatment option and/or adjunct since AAIIs are not widely promoted in typical health settings in comparison to medication and counseling (Rabbitt, Kazdin, & Hong, 2014). As opposed to many medications which can have side-effects, AAIIs are nonpharmacological alternatives or complements to other types of treatments (Nordgren & Engström, 2014). Although it is posited that it is a person’s positive and emotional response to an animal that makes AAIIs effective (Nordgren & Engström, 2014), to date the mechanisms and processes behind AAIIs have remained unexamined.

Drawing from existing typologies of support and affection, as well as literature on AAIIs, a typology and rating scale have been developed to measure social support and affectionate communication in AAIIs in order to assess and improve the interactive

processes that underlie AAI. This study extends not only the study of social support and affectionate communication by examining their application in a new context, but importantly, these theoretical frameworks enhance understanding of how social support and affectionate communication are enacted in AAI. This study serves as a progressive step to understanding the mechanisms of AAI and thereby maximizing their effectiveness. The study of AAI is important in order to substantiate their reported benefits to human health and well-being, especially in light of the potential healthcare affordability that an inexpensive treatment such as AAI can offer. AAI may ultimately decrease shorten hospital stays, decrease the need for medication, reduce healthcare costs, and ultimately become a reimbursable expense by third-party payers (Palley, O'Rourke, & Niemi, 2010). Continued scientific evidence must be developed in order to prove that AAI are "more than just puppy love" (Turner, Wilson, Fine, & Mio, 2010, p. 571).

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APPENDIX A

Handler Interview Recruitment Email

Subject Line: Looking for Therapy Dog Handlers to Participate in Research Study

We have all witnessed our therapy animals help improve human health and well-being. However, more research in animal-assisted therapy is needed to illuminate not only the benefits of animal-assisted therapy, but also the actions and processes that occur during animal-assisted therapy sessions that result in improved health and well-being.

Therefore, you as a Pet Partner/TDI Inc. handler are invited to participate in a research study to examine the messages and behaviors that occur in animal-assisted activity/therapy sessions. This research is being conducted by Amy McCullough, National Director of Animal-Assisted Therapy for American Humane, as part of her dissertation study at the University of Denver.

Participation would entail responding to specific questions via a phone interview lasting approximately 30-60 minutes to understand what specific supportive behaviors and messages you and your dog communicate during animal-assisted activity/therapy sessions. Handlers must be 18 years of age or older to participate, have a canine as their therapy animal, and provide one-on-one visits to individuals as opposed to group sessions.

If you are interested in participating, please contact Amy McCullough at amy.mccullough@hotmail.com with the following information:

- Your name
- Your city and state
- Your therapy dog's name, breed and age
- The type of facility you visit (hospital, nursing home, school, etc.)
- Your phone number
- Best times to reach you via phone

APPENDIX B

List of Facilities to Recruit for Observations

- Animal Assisted Therapy Professionals of Colorado
- Anythink Library
- Bridge Project
- Colorado Mental Health Institute at Fort Logan
- Denver Children's Home
- Devereux Cleo Wallace
- Easter Seals Stroke Daycare Program
- The Gathering Place
- Hospice of St. John
- Life Care Center of Littleton
- Little Sisters of the Poor
- Medical Center of Aurora
- Mental Health Center of Denver
- Pine Grove Elementary School
- Platte Valley Medical Center
- Professional Therapy Dogs of Colorado
- Shalom Hospice
- Sky Ridge Medical Center

APPENDIX C

Handler Observation Recruitment Email

Hi <Name>,

I hope you and <dog's name> are doing well. I'm in the process of completing my doctorate at the University of Denver and am at the dissertation stage. I wondered if you might be interested in participating in my research study if you're still visiting at <facility name>?

More research is needed regarding the actions and processes that occur during animal-assisted activity/therapy sessions so the purpose of my dissertation is to look for the messages and behaviors that occur during these sessions.

Participation would entail allowing me to shadow you and <dog's name> on one of your visits. We'd need to get permission from the facility as well as the client(s) and I have developed an informed consent form that the participating client(s) would sign. I'm happy to approach the facility for permission or if you'd prefer to do so, that's great too. Please let me know if you're interested and we can talk about next steps.

I really appreciate your consideration of participating.

My best,
Amy McCullough
303-588-6225
amy.mccullough@hotmail.com

APPENDIX D

Staff Recruitment Email

Hi <Staff Name>,

I'm in the process of completing my doctorate at the University of Denver and am conducting a research study regarding animal-assisted therapy as a part of my dissertation. I wondered if it might be possible for me to shadow some of your animal-handler teams at <facility name> as a part of my research study?

There is more and more evidence that therapy dogs help improve human health and well-being. However, more research is needed to illuminate the actions and processes that occur during animal-assisted therapy sessions that result in improved health and well-being. Therefore, the purpose of my dissertation is to examine the supportive messages and behaviors that occur during animal-assisted activities/therapy sessions.

To conduct the study at your facility, I would shadow a handler during his/her visits and take notes on the supportive behaviors that I see. Attached is the Informed Consent form that the client would sign if s/he agreed for me to observe their animal-assisted therapy visit. Please let me know if you have any questions or if you'd like to talk more. I appreciate your consideration.

My best,

Amy McCullough
303-588-6225
amy.mccullough@hotmail.com

APPENDIX E

Interview Protocol

There is more and more evidence that therapy dogs help improve human health and well-being. However, more research is needed to illuminate what happens during animal-assisted therapy sessions that result in improved health and well-being. Therefore, the purpose of my study is to document what happens during an animal-assisted therapy session.

1. I'd like you to paint me a detailed picture of a particular therapy dog visit in which you feel you and your therapy dog had a positive impact on an individual patient/client – please describe what you did and said as the handler, what your dog did, and also what you and your dog did together.

Let's start with a few logistical questions: What was the setting/what type of facility? Who was present? How long did the session last? Was this your first meeting with the client?

Please take me through the visit from the moment you entered the room until the moment you left.

Prompt: What did you as the handler do and/or say that you feel helped the client (describe verbal behaviors as well as non-verbal behaviors)?

Prompt: What did your therapy dog do that was helpful?

Prompt: Why do you think those behaviors and/or messages were helpful?

Prompt: How did the client respond?

2. Why or how do you think the client benefited from your session?
3. Is there another particular animal-assisted therapy intervention that you'd like to share that is significantly different from the one you just described?
4. If you were going to train or give advice to a new handler on how to conduct an animal-assisted therapy visit that will benefit the client/patient, what would you tell them to do?

APPENDIX F

Interview Procedure Script

Consenting Process

1. Once a handler responds to my solicitation email, respond with an email to thank him/her for participating and provide a link to Qualtrics for the handler to review and agree to the Informed Consent Form and complete the Demographic Questionnaire. (If the handler is unable to complete the consent form online, I will mail them two copies of the form with a stamped, return envelope for them to mail one signed form back to me.) Let the handler know that in the interview, I'll be asking them to describe an AAI session in which they felt that they and their therapy dog provided the client with support so they can begin to think of a session that want to describe including what they did and said as the handler, what their dog did, and also what they and their dog did together that were supportive.
2. Once the two forms have been completed, email the handler to schedule a time for the phone interview.
3. Call handler at agreed upon time.

Introductions

4. Thank you for your participation in this research study. My name is Amy McCullough and I live in Denver, Colorado. I've been practicing animal-assisted therapy for about eleven years. I have two therapy dogs – Bailey and Beckett – and they're both Golden Retrievers. We've visited at a variety of facilities over the years and most recently we are visiting the ER of a hospital here in Denver.
5. I received your completed forms - thank you for completing them, but could you tell me a little bit about you and your dog and where you visit?
6. As you may remember, the purpose of my study is to better understand what goes on during an animal-assisted therapy session. During our interview, I will be asking you some questions about your visits.
7. Are there any questions about your rights as a participant before we get started? Just as a reminder, you can choose not to answer any of the questions and you can withdraw from participation in the study at any time.

Interview

8. Let's get started. I'd like you to think of a specific animal-assisted therapy visit where you feel you and your therapy dog had a positive impact on a patient/client. (See Appendix E for Interview Questions).

Closing

9. Thank you so much for sharing your experiences with me. Do you have any questions for me or any other information you wanted to share before we end our call? As I'm writing up my study findings, I may need to double check that I've accurately interpreted what we've talked about today – would it be okay to possibly contact you again if I need to?

APPENDIX G

Observational Procedure Script

Welcome and Handler Consenting Process

1. Once a handler responds to my solicitation email, respond with an email to thank him/her for participating and provide a link to Qualtrics for the handler to review and agree to the Informed Consent Form and complete the Demographic Questionnaire.
2. Once the two forms have been completed, email the handler to schedule a time for the observation session.
3. Ensure any informed consent/assent forms that are required in advance have been provided to the facility and have been signed by the participants.
4. Meet the handler at the facility at the appointed time.
5. To handler: “Thank you for your participation in this research study. As you may remember, the purpose of my study is to better understand what goes on during an animal-assisted therapy session in terms of the messages and behaviors that you and your therapy dog provide. During our time together today, I will be accompanying you on your visit and will take notes regarding the supportive interactions I witness.”
6. “Are there any questions about your rights as a participant before we get started? Just as a reminder, you can withdraw from participation in the study at any time. I will also be asking the clients you visit (with the exception of minors or others arranged in advance) to complete the Informed Consent form to indicate their agreement for me to observe your session.”

Entrance and Introductions

7. Enter the facility with the handler and check-in at front desk/volunteer office as required for the volunteer.
8. The handler will talk to staff if necessary to confirm the client(s) that will participate in an animal-assisted therapy session.
9. Confirm that if the client(s) is a minor, that the parental informed consent form has been signed and collect signed form.

Session Beginning and Client Consenting Process

10. Follow handler and dog into room where animal-assisted therapy session will occur. This could be a patient’s hospital room, a common area of a nursing home, a school classroom, etc.
11. Have handler introduce me: “This is Amy, if you’re okay with it, she’s going to watch our visit today.”

12. “Hi, it’s nice to meet you. I’m a student at the University of Denver and am doing a research study on therapy dogs. There isn’t a lot of research on what happens during an animal-assisted therapy session, so the purpose of my study is to see what messages and behaviors occur during the time you spend with the dog. During your session today, I will be taking notes regarding the interactions that I see.”
13. If the informed consent form has not already been presented and signed: “To get started, the first step we need to do is review and sign this form which explains your role as a research participant and indicates your permission for me to watch your session.”
14. Read Informed Consent form
15. Have participant sign Informed Consent form
16. “Are there any questions you have before we get started? Just as a reminder, you can withdraw from participation in the study at any time.”

AAI Session

17. The client and dog will likely have already greeted each other before I am introduced, so pay attention to this interaction and record notes if the client consents to participate.
18. Once the consenting process is complete and the AAI starts, move to a place in the room where I can observe the interaction but not distract the dog or make the participants feel that I am part of the interaction. To client: “Thank you for participating. I’m going to stand over here out of the way so can have your session and you can pretend I’m not here.”
19. Attempt to stand near the door or against a wall during the session. For a longer AAI session such as a school or counseling setting, be seated on the floor approximately 4-6 feet away from the client and dog so as not to interfere with the interaction.
20. Using the note-taking sheet (Appendix H), record supportive and affectionate behaviors that are enacted by the handler, the dog, and the handler/dog jointly.

Conclusion

21. When the handler concludes the AAI and exits the room, to client: “Thank you for allowing me to watch your session” and follow the handler out of the room.
22. If conducting additional AAIs, repeat the above procedures to consent the next client and proceed with note taking.
23. Once the entire visit is complete, to handler: “Thank you so much for allowing me to observe your visits” and say goodbye.

APPENDIX H

Note-Taking Sheet

Handler Behavior

Dog Behavior

Joint Behavior

APPENDIX I

Animal-Handler Demographic and Information Sheet

1. Handler Age _____

2. Handler race/ethnicity? Please check one of the following.

_____ Black/Non-Hispanic	_____ White/Non-Hispanic
_____ Hispanic	_____ Asian or Pacific Islander
_____ American Indian or Alaskan Native	_____ Other _____

3. Handler Sex
 - Male
 - Female
 - Other _____

4. Through what organization are you a registered/certified animal-assisted therapy handler (i.e., Delta Society Pet Partners, Therapy Dogs International, Therapy Dogs Inc., etc.)?

5. How long have you been a registered/certified therapy dog handler? _____

6. On average, how often do you provide AAT visits?
_____ times per month

7. What settings do you provide AAT visits? (check all that apply)
 - Hospital
 - Nursing home
 - Hospice
 - Mental health center
 - School
 - Library
 - Homeless shelter
 - Correctional facility
 - Other _____

8. What populations do you provide AAT to? (check all that apply)

- Children (0-12)
- Adolescents (13-18)
- Adults
- Seniors
- Other

9. Think of your primary therapy dog:

What is the approximate age of your dog? _____ years

What breed is your dog? _____

What gender is your dog? _____

Where did you originally get your therapy dog?

- Breeder
- Shelter/rescue
- Other _____

How long has this dog been a registered/certified therapy dog?

APPENDIX J

Informed Consent

Animal Handlers – Interview Only

You are invited to participate in an interview regarding your animal-assisted therapy service. This research is being conducted by Amy McCullough as a part of her dissertation research through the Department of Communication Studies at the University of Denver under the direction of her advisor, Dr. Erin Willer. Ms. McCullough can be contacted at amy.mccullough@hotmail.com or 303-588-6225. Dr. Willer can be contacted at ewiller@du.edu or 303-871-4308.

The purpose of this research is to better understand what occurs during a typical animal-assisted therapy session by specifically examining the messages and behaviors that occur. In order to participate in this study, you must be 18 years or older and a certified animal-assisted therapy handler. If you indicate your agreement to participate at the end of this form, you will be directed to complete a short demographic questionnaire. During the interview, you will be asked to describe a time when you felt that you and/or your therapy dog provided support to a client during an animal-assisted therapy session. The interview should take 30-60 minutes and will be audio-recorded to help capture what was said.

Your participation in the interview and your responses will be confidential. Results of this research may be presented at professional conferences and included in journal articles. However, your interview responses will be kept confidential and your name or dog's name will not be associated in any way with the research findings. Identifying information will not be included in audio files provided to a hired transcriptionist. After the audio-recorded discussion has been transcribed, the audio files and transcriptions will be stored in a locked filing cabinet.

Your participation in this study is voluntary. The risks of your participation in this study are minimal. It is possible that you might experience psychological discomfort when describing a difficult animal-assisted therapy session. If you experience discomfort, you may discontinue participation at any time. You may choose not to answer any questions you do not feel comfortable answering. If you choose not to participate or to withdraw from the study at any time, there will be no penalty or loss of benefits to which you are otherwise entitled. If you experience psychological distress, you may wish to speak with a mental healthcare provider. You may call The University of Denver's Counseling Center at 303.871.2205 for a referral.

Although there may not be direct benefits to you for participating, the findings of the study may contribute valuable knowledge about how to measure and enhance the supportive behaviors provided in animal-assisted therapy sessions. This knowledge could

be useful to clinicians and practitioners working to establish a standard protocol in order to best serve clients.

If you have any concerns or complaints about how you were treated during the interview, please contact Paul Olk, Chair, Institutional Review Board for the Protection of Human Subjects, at 303-871-4531, or you may email du-irb@du.edu, Office of Research and Sponsored Programs or call 303-871-4050 or write to either at the University of Denver, Office of Research and Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121.

Your participation is sincerely appreciated. You may print a copy of this page for your records. Please click 'I agree' below if you understand and agree to the above. If you do not understand any part of the above statement, please contact Amy McCullough with any questions you have.

I have read and understood the foregoing descriptions of the study. I have asked for and received a satisfactory explanation of any language that I did not fully understand. I agree to participate in this study, and I understand that I may withdraw my consent at any time.

By clicking 'I agree' below, you indicate that you have read the informed consent above, and you willingly agree to participate in this study.

I agree

Informed Consent
Animal Handlers – Interview & Observation

You are invited to participate in an observation and interview regarding your animal-assisted therapy service. This research is being conducted by Amy McCullough as a part of her dissertation research through the Department of Communication Studies at the University of Denver under the direction of her advisor, Dr. Erin Willer. Ms. McCullough can be contacted at amy.mccullough@hotmail.com or 303-588-6225. Dr. Willer can be contacted at ewiller@du.edu or 303-871-4308.

The purpose of this research is to better understand what occurs during a typical animal-assisted therapy session by specifically examining the supportive messages and behaviors that occur. In order to participate in this study, you must be 18 years or older and a registered animal-assisted therapy handler. If you indicate your agreement to participate at the end of this form, you will be directed to complete a short demographic questionnaire. During the observation, you and your therapy dog will be accompanied by the researcher during your animal-assisted therapy session. After the animal-assisted therapy session, you will be asked to describe a time when you felt that you and/or your therapy dog provided support to a client during the animal-assisted therapy session. The interview should take 30-60 minutes and will be audio-recorded to help capture what was said.

Your participation in this study is voluntary. Results of this research may be presented at professional conferences and included in journal articles. However, your interview responses and interactions during the visit will be kept confidential and your name or dog's name will not be associated in any way with the research findings. Identifying information will not be included in audio files provided to a hired transcriptionist. After the audio-recorded discussion has been transcribed, the audio files and transcriptions will be stored in a locked filing cabinet.

The risks of your participation in this study are minimal. It is possible that you might experience psychological discomfort when describing a difficult animal-assisted therapy session. If you experience discomfort, you may discontinue participation at any time. You may choose not to answer any questions you do not feel comfortable answering. If you choose not to participate or to withdraw from the study at any time, there will be no penalty or loss of benefits to which you are otherwise entitled. If you experience psychological distress, you may wish to speak with a mental healthcare provider. You may call The University of Denver's Counseling Center at 303.871.2205 for a referral.

Although there may not be direct benefits to you for participating, the findings of the study may contribute valuable knowledge about how to measure and enhance the supportive behaviors provided in animal-assisted therapy sessions. This knowledge could be useful to clinicians and practitioners working to establish a standard protocol in order to best serve clients.

If you have any concerns or complaints about how you were treated during the interview, please contact Paul Olk, Chair, Institutional Review Board for the Protection of Human Subjects, at 303-871-4531, or you may email du-irb@du.edu, Office of Research and Sponsored Programs or call 303-871-4050 or write to either at the University of Denver, Office of Research and Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121.

Your participation is sincerely appreciated. You may print a copy of this page for your records. Please click 'I agree' below if you understand and agree to the above. If you do not understand any part of the above statement, please contact Amy McCullough with any questions you have.

I have read and understood the foregoing descriptions of the study. I have asked for and received a satisfactory explanation of any language that I did not fully understand. I agree to participate in this study, and I understand that I may withdraw my consent at any time.

By clicking 'I agree' below, you indicate that you have read the informed consent above, and you willingly agree to participate in this study.

I agree

Informed Consent
Client – Observation

You are invited to participate in an observation of an animal-assisted therapy session. This research is being conducted by Amy McCullough as a part of her dissertation research through the Department of Communication Studies at the University of Denver under the direction of her advisor, Dr. Erin Willer. Ms. McCullough can be contacted at amy.mccullough@hotmail.com or 303-588-6225. Dr. Willer can be contacted at ewiller@du.edu or 303-871-4308.

The purpose of this research is to better understand what happens during a typical animal-assisted therapy session by looking at what types of messages and behaviors occur. In order to participate in this study, you must participate in an animal-assisted therapy session. During the observation, you will be accompanied by the researcher during the animal-assisted therapy session.

Your participation in this study is voluntary. Results of this research may be presented at professional conferences and included in journal articles. However, your identity will be kept confidential. The risks of your participation in this study are minimal. It is possible that you might experience psychological discomfort by being observed during an animal-assisted therapy session. You may call The University of Denver's Counseling Center at 303.871.2205 for a referral. If you experience discomfort, you may discontinue participation at any time. If you choose not to participate or to withdraw from the study at any time, there will be no penalty or loss of benefits to which you are otherwise entitled.

Although there may not be direct benefits to you for participating, the findings of the study may contribute valuable knowledge about how to measure and enhance the supportive behaviors provided in animal-assisted therapy sessions. This knowledge could be useful to clinicians and practitioners working to establish a standard protocol in order to best serve clients.

If you have any concerns or complaints about how you were treated during the interview, please contact Paul Olk, Chair, Institutional Review Board for the Protection of Human Subjects, at 303-871-4531, or you may email du-irb@du.edu, Office of Research and Sponsored Programs or call 303-871-4050 or write to either at the University of Denver, Office of Research and Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121.

Your participation is sincerely appreciated. You may have a copy of this page for your records. Please sign below if you understand and agree to the above. If you do not understand any part of the above statement, please contact Amy McCullough with any questions you have.

I have read and understood the above descriptions of the study. I have asked for and received a satisfactory explanation of any language that I did not fully understand. I agree to participate in this study, and I understand that I may withdraw my consent at any time. By signing your name below, you indicate that you have read the informed consent above, and you willingly agree to participate in this study.

Participant _____

Date _____

Informed Consent
Parental Permission

Dear Parent/Guardian:

Your child is invited to participate in research study. This research is being conducted by Amy McCullough as a part of her dissertation research through the Department of Communication Studies at the University of Denver under the direction of her advisor, Dr. Erin Willer. Ms. McCullough can be contacted at amy.mccullough@hotmail.com or 303-588-6225. Dr. Willer can be contacted at ewiller@du.edu or 303-871-4308.

The purpose of this research is to better understand what happens during a typical animal-assisted therapy session by looking at what types of messages and behaviors occur. If you allow your child to participate in this study, Amy McCullough will observe one of your child's regularly scheduled interaction with the therapy dog and take notes on the supportive behavior that the handler and dog exhibit.

While your child may not directly benefit from participating in this observation, the findings of the study may contribute valuable knowledge about how to measure and enhance the supportive behaviors provided in animal-assisted therapy sessions. This knowledge could be useful to clinicians and practitioners working to establish a standard protocol in order to best serve clients.

The risks of your child's participation in this study are minimal. It is possible that your child might experience psychological discomfort by being observed during an animal-assisted therapy session. You may call The University of Denver's Counseling Center at 303.871.2205 for a referral. If s/he experiences discomfort, s/he may discontinue participation at any time. If your child chooses not to participate, there will be no penalty or loss of benefits to which s/he is otherwise entitled.

The results from the research may be published or shared at a conference. Your child's individual identity will be kept private when information is presented or published. There are some reasons why people other than the researchers may need to see information provided as part of the study. The records from your participation may be reviewed by people responsible for making sure that research is done safely and properly, including members of the University of Denver Institutional Review Board. However, the only identifying information that will be collected is your signature on this form and all of these people are required to keep your child's identity confidential.

If you have questions about your child's rights as a research participant, or wish to obtain information, ask questions or discuss any concerns about this study with someone other than the researcher(s), please contact Paul Olk, Chair, Institutional Review Board for the Protection of Human Subjects, at 303-871-4531, or you may contact the Office for Research Compliance by emailing du-irb@du.edu, calling 303-871-4050 or in writing

(University of Denver, Office of Research and Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121).

Your participation is sincerely appreciated. You may have a copy of this page for your records. Please sign below if you understand and agree to the above. If you do not understand any part of the above statement, please contact Amy McCullough with any questions you have.



Parental Permission

By signing this document, you are agreeing to allow your child to be part of the study entitled Social Support and Affectionate Communication in Animal-Assisted Interventions. Your child's participation in this study is completely voluntary. If you allow your child to be part of the study, you may change your mind and withdraw your approval at any time. Your child may choose not to be part of the study, even if you agree, and stop participating at any time.

After signing below, please return this form to <contact name> at <name of school or mental health center>. Be sure that the questions you have about the study have been answered and that you understand what your child will be asked to do. You may contact the researcher if you think of a question later.

I give my permission for my child to participate in this study.

Child's Name _____

Signature of Parent/Legal Guardian _____ **Date** _____

Child Assent (8-14 years)

What is research?

We want to tell you about a study we are doing. A “study” is also sometimes called “research”. Research is a way to learn more about something. It is like a science project at school, but harder to do.

What is this study about?

We are doing this study because we want to know more about what happens during a therapy dog visit. You are being asked to join the study because you receive visits from a therapy dog.

The most important thing for you to know is that you do not have to be in the study if you do not want to be. You can ask any question you want before you decide if you want to be in this research study or not. The study staff will answer your questions.

What do you have to do or what will happen to you?

If you are in the study, a research person will watch one of your visits with the therapy dog and write down what happens during the visit.

Will this hurt?

If you’re not comfortable with the research person watching you play with the therapy dog, you can ask her to leave the room at any time.

Do you have questions?

You should ask any questions that you have about this study before signing this form or agreeing to join the study. If you have a question later, you can ask and get an answer.

Do you have to do this?

I know that I do not have to be in this study. No one will be mad at me if I say no.

I want to be in the study at this time. yes no

I will get a copy of this form to keep.

Child’s Printed Name: _____

Child’s Signature: _____

Date: _____

I have explained the research at a level that is understandable by the child and believe that the child understands what is expected during this study.

Signature of Person Obtaining Assent: _____ **Date:** _____

Print Name _____

Verbal Script
Child Assent (5-7 years)

Hi <Child's name>,

My name is Amy and I'm a friend of <Handler's name> and <Dog's name>. I want to learn more about how therapy dogs help kids. Is it okay if I watch you play with <Dog's name> today?

APPENDIX K

Sample of Koenig Kellas & Trees Rating Scale Training Materials

Joint Process Rating Sheet Engagement

Family # _____ Tape# _____ Rater _____

Topic _____

WARMTH

Degree to which the family's interaction (both verbal and nonverbal) is characterized by warmth, affection, and positive affect versus coldness, distance, dissociation from each other and/or negative affect.

- **Behavioral indicators** of warmth include nonverbal behaviors such as pleasant facial expressions, smiles, forward lean, touch, vocal warmth, eye contact and verbal statements of encouragement, affection, and/or approval as well as attentiveness in contrast to verbal statements of disapproval, distancing statements, negatively expressed disagreement. Verbal indicators include the extent to which family members express positive feelings/affect about each other and the story (e.g., "he was so sweet," "that was a really fun time"). Family members may contribute positive and emotions and liking as opposed to negative feelings and disliking or the verbal engagement in negative conflict. Verbal warmth is characterized by fondness, humor and liking, whereas verbal coldness is characterized by negative statements, conflict, or cold or stunted contribution. Verbal warmth is also determined by tone (e.g., family members may engage in conflict, but if the tone is positive, it can still be warm).

Rating indicates level of agreement with the following statement:

As a whole, the family storytelling is characterized by warmth, approach behaviors, and positivity (as contrasted with distance, dissociation, and negativity)

Cold 1 2 3 4 5 Warm

Notes:

- 5: Family interaction is characterized by warm interaction including laughter, smiles, verbal attentiveness and encouragement and affection both verbally and nonverbally.
- 4: The family interaction is mostly warm with some instances of family members disassociating themselves from the interaction. And/or the story is often, but not always characterized by warmth and affection. If engage in conflict, do so with positive nonverbal cues.
- 3: The storytelling interaction is balanced between warm attentiveness and distance or is neither warm nor cold, but relatively neutral.
- 2: Family members are more distant than they are warm. There may be one or two instances of laughter, attentiveness, or affection, but, in general, the family is distant and does not express warm attentiveness. Expressions of negative affect also possible.
- 1: Family members appear distant and cold. There is very little or no warmth and affection. Family members do not appear associated with one another. May express negativity and engage in negatively valenced conflict

APPENDIX L

AAI Typology and Rating Scale

RESPONSIVENESS - Handler

Degree to which the handler is attuned to cues from the client, therapy dog and environment as to the appropriateness and safety of an interaction at that point in time

Behavioral indicators of handler responsiveness may include:

- Responding appropriately to situations which may preclude a visit such as a person sleeping, eating, acting unsafely (e.g., yelling, acting violently) or actively undergoing a medical consult/treatment with staff.
- Looking for signs of an interest in interacting such as dog and client looking at each other and if so, proceeds with the visit
- Listening for comments or questions from the client that suggest s/he is interested in interacting with the therapy dog, such as “what’s your dog’s name?”
- Being aware of signs of fear or discomfort such as the client’s facial expression or the client moving away from the dog; and if so, does not initiate/ends the visit
- Determining when the client is done visiting and ends visit accordingly

Verbal indicators of handler responsiveness may include

- Asking the client if s/he wants to meet the dog and if so, proceeds with visit

Rating indicates level of agreement with the following statement:

Throughout the visit, the handler is responsive to the cues from the client, therapy dog and environment as to the appropriateness for an AAI to occur

Non-responsive 1 2 3 4 5 Responsive

- 5: Handler is completely responsive to cues that suggest whether or not an AAI would be appropriate
- 4: Handler is mostly responsive to cues that suggest whether or not an AAI would be appropriate
- 3: Handler is somewhat responsive to cues that suggest whether or not an AAI would be appropriate
- 2: Handler is a little responsive to cues that suggest whether or not an AAI would be appropriate
- 1: Handler is not at all responsive to cues that suggest whether or not an AAI would be appropriate
- N/A: No chance to observe

ATTENTION - Handler

Degree to which the handler focuses on the client, despite distractions from other people and the environment.

Behavioral indicators of handler attention may include:

- Making eye contact
- Facing the client
- Walking toward the client
- Being in close proximity to the client
- Getting down on client's level if the client is sitting or lying

Verbal indicators of handler attention may include:

- Offering a greeting to the client such as 'hello'
- Talking directly to the client

Rating indicates level of agreement with the following statement:

Throughout the visit, the handler is attentive to the client.

Non-attentive 1 2 3 4 5 Attentive

- 5: Handler is completely attentive to the client throughout the AAI
4: Handler is mostly attentive to the client throughout the AAI
3: Handler is somewhat attentive to the client throughout the AAI
2: Handler is a little attentive to the client throughout the AAI
1: Handler is not attentive at all to the client throughout the AAI
N/A: No chance to observe

ENCOURAGEMENT - Handler

Degree to which a handler shows encouragement and support of what the client is doing and saying.

Behavioral indicators of handler encouragement may include:

- Listening
- Being silent when appropriate
- Offering a tissue
- Nodding
- Smiling
- Having a friendly, pleasant demeanor

Verbal indicators of handler encouragement may include:

- Giving client a compliment, praise, reassurance, or condolence
- Saying 'I'm sorry'
- Saying 'good job'
- Saying 'thank you'
- Saying 'the dog is here for you'
- Saying 'that must be hard/frustrating'

Rating indicates level of agreement with the following statement:

Throughout the visit, the handler is encouraging toward the client.

Non-encouraging 1 2 3 4 5 Encouraging

- 5: Handler is completely encouraging toward the client
4: Handler is mostly encouraging toward the client
3: Handler is somewhat encouraging toward the client
2: Handler is a little encouraging toward the client
1: Handler is not encouraging at all toward the client
N/A: No chance to observe

FACILITATION - Handler

Degree to which the handler actively works to help dog and client connect and relate to each other through activities and conversation.

Behavioral indicators of handler facilitation may include:

- Presenting the dog
- Positioning the dog so the client may interact
- Putting client's hand on dog
- Having the dog do a trick or a command
- Using the dog as something in common or that client can relate to
- Helping to build a relationship between the client and the dog through humor or talking about the dog
- Offering activities with the dog such as walking the dog, brushing the dog, taking photos of the dog, giving the dog a treat, offering the dog's trading card

Verbal indicators of handler facilitation may include:

- Inviting the client to pet the dog
- Asking the client questions about his/her dog
- Using the dog as a bridge to other topics
- Asking the client if s/he would like the dog to participate in her/his activities such as exercise or reading
- Saying 'the dog likes you,'
- Responding to questions on behalf of the dog
- Giving direction on how to touch or teach the dog
- Saying the dog recognizes or remembers the client
- Referring to client as dog's friend
- Facilitating the end of the visit by saying goodbye on behalf of the dog

Rating indicates level of agreement with the following statement:

Throughout the visit, the handler facilitates an interaction between the client and therapy dog

Non-facilitating 1 2 3 4 5 Facilitating

- 5: Handler completely facilitates the AAI
- 4: Handler mostly facilitates the AAI
- 3: Handler somewhat facilitates the AAI
- 2: Handler facilitates the AAI a little

1: Handler does not facilitate the AAI at all
N/A: No chance to observe

INTEREST – Dog

Degree to which the dog shows interest in the client.

Behavioral indicators of dog interest may include:

- Making eye contact
- Facing the client
- Walking toward the client
- Being in close proximity to the client
- Having a friendly, welcoming demeanor
- Showing interest in client through relaxed ears and wagging tail

Rating indicates level of agreement with the following statement:

Throughout the visit, the dog is interested in the client.

Non-interested 1 2 3 4 5 Interested

- 5: Dog is completely interested in the client throughout the AAI
4: Dog is mostly interested in the client throughout the AAI
3: Dog is somewhat interested in the client throughout the AAI
2: Dog is a little interested in the client throughout the AAI
1: Dog is not interested at all in the client throughout the AAI
N/A: No chance to observe

AFFECTION - Dog

Degree to which the dog shows or accepts affection from the client.

Behavioral indicators of dog affection may include:

- Allowing touching or petting from the client
- Allowing kissing or hugging
- Licking the client
- Sitting in the client's lap
- Tail wagging
- Approaching or walking toward client
- Nuzzling client
- Offering paw to client
- Allowing client to hold his/her paw
- Placing his/her head on client's lap
- Leaning against client
- Allowing client to lie on him/her
- Seeking petting
- Rolling over for belly rub

Rating indicates level of agreement with the following statement:

Throughout the visit, the dog is affectionate and/or accepts affection from the client

Non-affectionate 1 2 3 4 5 Affectionate

- 5: Dog is completely accepting of or completely shows affection toward the client
4: Dog is mostly accepting of or mostly shows affection toward the client
3: Dog is somewhat accepting of or somewhat shows affection toward the client
2: Dog is a little accepting of or shows a little affection toward the client
1: Dog is not at all accepting of nor shows any affection toward the client
N/A: No chance to observe

APPENDIX M

Therapy Dog Videos

1. http://www.youtube.com/watch?v=jmBqn9njo_0
2. <http://www.youtube.com/watch?v=V7DsOjN2yas>
3. <http://www.youtube.com/watch?v=d00eiAKyzpw&feature=endscreen&NR=1>
4. <http://www.youtube.com/watch?v=DFi4ILDxgu4>
5. <http://www.youtube.com/watch?v=FpscnnbsZKw>
6. <http://www.youtube.com/watch?v=5biwRzeVnh4>
7. <http://www.youtube.com/watch?v=hev4NNQrbL4>
8. <http://www.youtube.com/watch?v=AKxpec0THdA>
9. <http://www.youtube.com/watch?v=ChwdGLgN8iA>
10. <http://www.youtube.com/watch?v=gvmu8xlGomM>
11. <http://www.youtube.com/watch?v=lxW2xOdfGE>
12. <http://www.youtube.com/watch?v=PDMVQ1ZLGyU>
13. <http://www.youtube.com/watch?v=dCbWErT-too>
14. <http://www.youtube.com/watch?v=rQUL8N9eISg>
15. <http://www.youtube.com/watch?v=wNoqAbHhSa4>
16. <http://www.youtube.com/watch?v=WQX8CktUFnM&list=PLPyMA-grDOs-qkpOblIFLhAdGe5LH0Tp1&index=5>
17. http://www.youtube.com/watch?v=Y-Q0_BKyBWM
18. <http://www.youtube.com/watch?v=eB6CkYIioFM>
19. <http://www.youtube.com/watch?v=8C2vZqU9TdE>
20. <http://www.youtube.com/watch?v=qe87cNLQCqA>

21. <http://www.youtube.com/watch?v=39Lo51MwGcw>
22. <http://www.youtube.com/watch?v=mKtp0OBZQNE>
23. <http://www.youtube.com/watch?v=LzQHuu0xZxE>
24. <http://www.youtube.com/watch?v=7EReIoKtfg0>

APPENDIX N

Rater Training Guide

Rater Selection:

I selected two people to serve as my raters who are therapy dog handlers and thus have experience with animal-assisted interactions.

Email to Raters:

I'd like to invite you to participate in a step of my dissertation process. My dissertation focuses on identifying the supportive messages and behaviors that are communicated during animal-assisted interactions. I have created a rating scale to measure the extent of these supportive messages and now need to test the scale for reliability.

To test the rating scale for reliability, I am asking two people to serve as “raters” and watch 24 videos of animal-assisted interactions and rate the messages viewed using the scale. I will conduct a training session to thoroughly explain the rating scale and together we will do some practice rating of approximately 3-5 videos until you feel comfortable using the scale. Attached is a copy of the rating scale if you would like to review it in advance.

After the training, you will be asked to independently watch the remainder of the videos and rate each of them using the scale. I will then conduct an analysis to determine the amount of agreement between the two raters. This should take approximately two hours of your time.

Thank you for your consideration.

Amy

Pre-training Session

1. Once a rater responds to my solicitation email, respond with an email to thank her for participating and schedule an in-person training session for the week of June 2nd.

Training Session

2. To start the training session, explain the purpose of my dissertation and the reliability process
3. Review the typology and rating scale together:

You'll see that there are six domains – four regarding the handler's behavior and two regarding the dog's behavior. For each domain, I first define the domain, and then provide examples of behavioral indicators of this domain and verbal indicators of this domain. Please note that all of these indicators do not need to be present. Following the

indicators, there is a statement about the domain. You are asked to rate your agreement with the statement from 1-5, with 1 being the lowest and 5 being the highest rating. If you feel like due to the nature of the video clip, you were not able to observe the domain, please score the statement an N/A. Many of the video clips do not comprise the entrance and the exit to the animal-assisted intervention, however, please do not make any assumptions about what behaviors could have happened before or after the videotaping. Only rate based on the behaviors you see. An important thing to bear in mind is that a low rating on any domain of the rating scale does NOT mean the person is a bad handler nor that the dog is a bad therapy dog. The purpose of the scale is to begin identifying and evaluating various supportive behaviors that occur in animal-assisted interactions and every handler/dog/client/setting is different and every domain may not be appropriate in every situation.

4. Pre-select five videos to watch together and during the viewing of the first video, present how I would rate it and why. After the video, go over each domain of the scale and talk through what a 1-5 would look like. Advise the raters to watch the video twice as needed in order to watch handler and dog separately; caution them not to rate the more lengthy videos with higher scores. Instruct them to rate a domain “N/A” if they are not able to observe that particular component in the video.

Practice Video 1 (http://www.youtube.com/watch?v=jmBqn9njo_0):

Leo the Pit Bull visits several patients in an infusion center

Scoring Results:

Video	Respon- siveness	Atten- tion	Encourage- ment	Facilita- tion	Dog - Interest	Dog - Affection
1	5	5	4	3	4	5

This video shows the dog and handler visiting with several different patients, so evaluate their actions over the course of the video.

For Responsiveness, I rated this a 5 based on the handler demonstrating many of the indicators such as bringing the dog to where the client could reach him, reacting to an expression of fear by saying ‘it’s okay, he’s friendly,’ and mentioning being cautious around the patient’s IV so that the dog did not disturb the tubes/cords.

For Attention, I also rated this video as a 5 since the handler always focused on whomever the dog was interacting with. A low score on this domain would be a handler leaving their dog unmonitored/unobserved during his/her interaction with the client and the handler instead turning his/her focus to a conversation with a staff person, for example.

For Encouragement, I rated this as a 4 based on the handler thanking patients for petting the dog, saying ‘he loves it,’ and having a smiling, pleasant demeanor throughout the interactions. A 5 rating would have been appropriate if the handler would have complimented or praised the clients. In general, think of this domain as ‘what is the handler saying to make the client feel good?’

For Facilitation, I rated this video as a 3 based on the handler periodically positioning the dog for the client to interact and talking about the dog some. For the most part, the handler let the dog naturally interact with the clients and did not overtly direct the conversation nor activities with the dog. Again, this is not a judgment of the handler’s ability, just a rating of the amount of her facilitation actions and it does not mean it wasn’t a good interaction or that the client did not benefit/enjoy the interaction.

For Interest, I rated the video as a 4. Overall, the dog seemed interested in each person he met. The reason I did not rate it a 5 is because there were points during longer interactions where the dog would turn away from the client and seem ready to meet the next person.

For Affection, I rated the video as a 5. The dog’s tail was wagging a lot, he willingly approached people, and allowed much petting as well as hugging.

5. Second video – watch and discuss together the behaviors/messages that are evident; discuss together how to rate each domain of the scale

Practice Video 2 (<http://www.youtube.com/watch?v=V7DsOjN2yas>):

Lucy the Westie visits two long-term patients in the hospital

Scoring Results:

Video	Respon- siveness	Attention	Encourage -ment	Facilita- tion	Dog - Interest	Dog - Affection
2	5	5	5	5	5	5

This video has a narrator for parts of it and includes a handler interview. For rating purposes, pay attention to and only code the parts of the video that show the dog interacting with clients.

I rated this video a 5 on all domains. The handler was responsive to the situations and provided undivided attention to the clients. I rated Encouragement as a 5, as opposed to a 4 in the previous video since the handler said encouraging things to every client that was visited. I rated Facilitation as a 5 because in the interactions, the handler placed the dog on the bed next to the client and on the lap of the client, ensuring a constant connection unless the dog chose to move away. I rated Dog Interest as a 5, as opposed to the

previous video which was a 4, since I did not witness the dog turning away from a client in order to move on or leave.

6. Third video – watch and discuss together the behaviors/messages that are evident; discuss together how to rate each domain of the scale

Practice Video 3

<http://www.youtube.com/watch?v=d00eiAKyzpw&feature=endscreen&NR=1>

Lilli the Portuguese Water Dog visits a child in the hospital

Scoring Results:

Video	Respon- siveness	Attention	Encourage- ment	Facilita- tion	Dog - Interest	Dog - Affection
3	5	4	4	5	4	4

This video starts with a staff person talking to a child patient and the handler and dog then enter the room. It is a husband/wife handler team and the wife is videotaping the interaction but verbally interacts during the visit. The interaction should be scored based on the handlers' behaviors together, not separately since they are acting as co-handlers.

For Responsiveness, I rated the video as a 5 since the handler had a staff member assisting with the interaction to ensure it was a good time to visit and the patient wanted to interact.

For Attention, I rated the interaction as a 4 since toward the end of the video, the handler and dog stopped interacting with the child and began visiting with visitors/staff.

For Encouragement, I rated the interaction as a 4 since the handlers gave behavioral indicators of encouragement toward the child, but not a 5 since I did not hear any verbal indicators of encouragement.

For Facilitation, I rated the interaction as a 5 since the handlers actively worked to engage a shy child. They asked the child questions, gave the child a trading card of the dog and had the dog perform her tricks for the child.

For Interest, I rated the interaction as a 4 since although the dog was interested in the child in general, I did not think it merited a 5 because when the dog's front paws were on the bed, she began to look away from the child and want to get down from the bed.

For Affection, I rated the interaction as a 4 since the dog displayed and accepted affection with people in the room. However, I did not rate it a 5 since there was only minimal affection between the dog and patient.

7. Fourth video – watch together, rate separately and then discuss selected ratings

Practice Video 4 (<http://www.youtube.com/watch?v=DFi4ILDxgu4>):

Boston the Golden Retriever visits an elderly woman in the hospital

Scoring Results:

Video	Respon- siveness	Attention	Encourage- ment	Facilita- tion	Dog - Interest	Dog - Affection
4	4	5	3	5	5	5

For Responsiveness, I rated this interaction as a 4. The handler asked the client if she liked dogs before initiating the visit. However, I did not rate the overall responsiveness as a 5 because although the patient is clearly enjoying giving the dog affection, the handler has the dog leave the patient’s side to perform tricks and then ends the visit when the patient seems to want to keep interacting with the dog.

For Attention, I rated it a 5 since the handler is engaged with the client the entire time.

For Encouragement, I rated the interaction a 3 since the handler gave some behavioral indicators of encouragement, but no verbal indicators of encouragement.

For Facilitation, I rated the interaction as a 5 since the handler introduced the dog, initially positioned the dog close to the patient, talked about the therapy dog program at the hospital and had the dog perform his tricks.

For Interest and Affection, I rated the interaction as a 5. The dog was eager to approach the patient and allowed much petting. He also got nose-to-nose with the patient so she could nuzzle him.

8. Fifth video – watch together, rate separately and then discuss selected ratings

Practice Video 5 (<http://www.youtube.com/watch?v=FpscnnbsZKw>):

Denali the Spinone visits several patients at a rehabilitation center

Scoring Results:

Video	Respon- siveness	Attention	Encourage- ment	Facilita- tion	Dog - Interest	Dog - Affection
5	N/A	5	3	5	5	5

Again, ignore the handler interview portion of the video and only evaluate the portions of the video that show the dog and handler interacting with patients.

For Responsiveness, I rated this video as N/A since the video does not capture the handler/dog team entering a situation where we can see his response to cues in the environment.

For Attention, I rated the video as a 5 since the handler is focused on the client in every interaction.

For Encouragement, I rated the video as a 4 since the handler displayed behavioral indicators of encouragement, but no verbal indicators.

For Facilitation, I rated the video as a 5 since the handler was shown having a client brush the dog, having the dog do her tricks, and positioning the dog's front paws up on the nurses' station to interact with people.

For Interest and Affection, I rated the video as a 5 since the dog was continuously engaged with patients, accepted petting and placed her head in clients' laps. Generally speaking, it is possible that you may rate a dog low on interest and/or affection, but more likely, scores will be toward the higher end of this domain since dogs who do therapy work are chosen specifically for their interest in and affection toward people. A low score would be a dog who exhibited fearful or skittish behavior toward the client.

Conclusion

9. Instructions to rate the remainder of the videos independently
10. Email the links of the AAI videos to the raters and give them a deadline for completion
11. Ask them to save a copy of the completed rating scale for each video they watch – give them a naming scheme of the video number and their initials (Video 1_am).
12. Ask if they have any questions
13. Thank them for participating

APPENDIX O

AAI Rating Scale Scoring Sheet

Rater Name: _____ Date: _____

Please rate each video from 1-5 on each of the domains listed; indicate N/A if no chance to observe

Video	Respon- siveness	Atten- tion	Encourag e-ment	Facilita -tion	Dog - Interest	Dog - Affection	NOTES
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							

15								
16								
17								
18								
19								
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21								
22								
23								
24								
25								