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# The Influence of a Companion Animal's Presence on Aspects of the Therapeutic Alliance

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# THE INFLUENCE OF A COMPANION ANIMAL'S PRESENCE ON ASPECTS OF THE THERAPEUTIC ALLIANCE

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It has been well-documented that the therapeutic use of companion animals has the potential to provide physiological and psychological benefits to humans; however, very little research has been conducted to examine the use of animal-assisted interventions on the process of psychotherapy. The current study utilized a sample of 71 college-student men and women to explore the impact of a companion animal's presence (viz., a dog) on several aspects of the therapeutic alliance. Primary findings of the study determined that the presence of a companion animal did not influence participants' overall perceptions of the interviewer, willingness to self-disclose to the interviewer, and perceptions of the interviewer's level of empathic understanding. Analyses also did not reveal significant findings when controlling for participants' levels of exposure to animals (current and past). Analyses revealed marginally significant findings when participants' attitudes toward pets were examined as a moderating variable; specifically, positive attitudes toward pets were associated with a greater willingness to self-disclose. Overall, the results imply that the presence of a companion animal during the initial stages of psychotherapy does not influence aspects of the therapeutic alliance examined in this study. Although there is some evidence to suggest that positive attitudes toward pets may enhance client willingness to self-disclose to a therapist, no solid conclusions can be drawn. The need for future research is discussed.

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# CHAPTER ONE

## REVIEW OF RELATED LITERATURE

The nature of the human/animal bond is an intriguing phenomenon that is increasingly being examined for its therapeutic potential. For many years, proponents of animal-assisted interventions (AAI) have endorsed the use of companion animals as agents of therapeutic change across numerous disciplines in the field of human healthcare. Some progress has been made in establishing empirical support for the physiological and psychological benefits that animals provide to humans (Friedmann & Thomas, 1995; Souter & Miller, 2007); however, research regarding the impact of companion animals on the process of psychotherapy has been primarily qualitative. Attempts have been made to standardize terminology and procedures associated with AAI, but in order for the field to move beyond its fringe status, it will need to establish its credibility through empirically-based studies demonstrating the efficacy and validity of AAI (Kruger & Serpell, 2010).

An animal-assisted intervention refers to, "any intervention that intentionally includes or incorporates animals as part of a therapeutic or ameliorative process or milieu" (Fine, 2004). The current body of research on AAI points to the promising potential of incorporating companion animals into the process of psychotherapy. Specifically, there is evidence to suggest that the presence of a companion animal during psychotherapy could positively influence the client's perceptions of the psychotherapist and increase his/her willingness to self-disclose to the psychotherapist (Schneider & Pilchak Harley, 2006). There is an abundance of literature supporting the strength of the therapeutic alliance as a robust indicator of the outcome of psychotherapy (Horvath, 2001; Lambert & Ogles, 2004; Martin, Garske, & Davis, 2000;

Norcross, 2002); therefore, it seems logical to further explore the impact of companion animals on components of the therapeutic alliance.

Despite receiving support from a few empirical research efforts, most of the support for the use of AAI in the mental health field stems from anecdotal evidence. Additionally, many of the experimental research attempts to explore the effects of AAI are plagued by methodological issues, including small sample sizes, lack of suitable control groups, and failure to control for extraneous variables that may have influenced outcomes (Nimer & Lundahl, 2007; Souter & Miller, 2007). Due to the serious limitations associated with the current body of literature, there is a clear need for future research to examine the efficacy of AAI through the lens of carefully designed scientific investigations.

The present study represents an attempt to address some of the limitations that exist in previous research on AAI. There have been very few efforts to directly examine the efficacy of companion animals on processes of psychotherapy; therefore, this study specifically investigated the influence of companion animals on components of the therapeutic alliance. Previous attempts to examine this issue were fraught with methodological issues, such as using videotapes of therapists with their dogs to measure the impact of having a companion animal present during psychotherapy (Schneider & Pilchak Harley, 2006). The current study examined the influence of companion animals on aspects of the therapeutic alliance through an experimental design in which ecological validity was carefully balanced with experimental control.

What follows in the introduction of this dissertation is a description of different types of animal-assisted interventions, including ways in which these interventions are currently being used in practice across various disciplines of the healthcare field. The following section will review the current body of empirical evidence on the effects of human/animal interaction. Most

of this research stems from investigations of the impact of companion animals on human physiological indicators of health and well-being. The small base of literature examining the effect of companion animals on human psychological well-being will also be reviewed.

Attention will then be focused on the relevant research pertaining to the current uses of companion animals in the mental health field. This will include a brief examination of the significance of the therapeutic alliance on the processes and outcomes of psychotherapy. Additionally, components of the therapeutic alliance, including client self-disclosure, empathic understanding of the therapist, and client perceptions of the therapist, will be reviewed. The empirical basis for the current study is derived from research conducted by Schneider and Pilchak Harley (2006); an in-depth description and analysis of their study will be included, in addition to a brief discussion of its pertinence to the current study. Finally, a description of the hypotheses and rationale for each hypothesis will be provided.

## Overview of Animal-Assisted Interventions

Companion animals play an integral role in the lives and families of many Americans; in fact, market research statistics estimate that approximately 60% of U.S. households include a pet (American Veterinary Medical Association, 2007). Research on the human/animal bond indicates that humans frequently perceive animals as significant members of their family. It has been reported that companion animals often take on important roles within the family, including close friend, confidante, and an outlet of affection and support (Triebenbacher, 2000). Likewise, it is well-documented that pets and animal companions generally lead to increased social interaction and have positive effects on the physical and mental health of their owners (Bryant, 2008; Friedmann et al., 1980; Garrity & Stallones, 1998; Siegel, 1993). Based on the profuse amount of literature highlighting the benefits of pet ownership, it is reasonable to consider

whether such benefits could similarly be garnered from incorporating companion animals into therapeutic settings.

The notion that animals possess certain inherent qualities that may enrich the therapeutic process is widespread in the literature on animal-assisted interventions. The use of animals in a therapeutic capacity has been referred to by many terms, including pet therapy, pet-oriented therapy, pet-facilitated therapy, and animal-assisted therapy. In an effort to promote the standardization of terminology, the Delta Society (n.d.), one of the largest and most prominent organizations responsible for the certification of therapy animals in the U.S., has differentiated between two distinct forms of animal-assisted interventions (AAI) and has put forth widely cited definitions to describe these interventions. The Delta Society asserts that any form of AAI falls under the category of either animal-assisted therapy or animal-assisted activity. Each of these forms of AAI encompasses distinct features and goals, and is employed differently in practice.

According to the Delta Society, animal-assisted therapy (AAT) is defined as "a goal-directed intervention in which an animal that meets specific criteria is an integral component of the treatment process. AAT is directed and/or delivered by a health/human service professional with specialized expertise, and within the scope of practice of his/her profession." The purpose of AAT is "to promote improvement in human physical, social, emotional, and/or cognitive functioning" (Delta Society, n.d.). There are two key features that set AAT apart from other animal-assisted interventions: first, in AAT, specified goals and objectives are developed for each individual being treated. Second, the progress of the individual being treated is continually measured over the course of the treatment episode. AAT may be used to achieve a diverse array of goals, such as improving fine motor coordination, reducing anxiety, increasing attention skills, reducing loneliness, improving motivation, and enhancing interactions with others (Gammonly et

al., 2000). For example, an occupational therapist might utilize a therapy dog to help a client to improve his/her fine motor skills by manipulating the buckles on the dog's collar and leash; similarly, a physical therapist may utilize therapy dogs for improving a client's ambulation skills by having the client take the dog on a short leash-walk.

With regard to the mental health field, proponents of animal-assisted interventions contend that AAT also has a multitude of psychotherapeutic uses and can be integrated flexibly into various therapy modalities and therapeutic styles. Kruger, Trachtenberg, and Serpell (2004) have documented that "some of the diagnoses and problems to which AAT has been applied are anxiety; eating disorders; mood disorders; suicidality; obsessive-compulsive disorder; post-traumatic stress disorder; attention deficit hyperactivity disorder; conduct disorder; substance abuse; recovery from physical-, sexual-, or emotional abuse; and interpersonal and relationship deficits" (p.12). AAT can be incorporated into individual or group therapy and can be used with a wide range of age groups and clients with varying abilities. Also, AAT is not a theoretical orientation like Cognitive-Behavioral therapy or Rational-Emotive therapy; rather, AAT can be incorporated into a therapist's preferred theoretical orientation and can be integrated into the framework of therapeutic goals (Chandler, 2001). Accordingly, common mental health treatment goals in AAT include: improving socialization and communication, reducing isolation and loneliness, brightening affect and mood, improving self-esteem, providing opportunities to succeed and feel important, reducing depression and general anxiety, improving the ability to trust, and learning how to appropriately respect others' boundaries (Gammonly et al., 2000).

According to the Delta Society, animal-assisted activity (AAA) provides a different function than AAT; specifically AAA is defined as a form of animal-assisted intervention in which opportunities are provided "for motivational, educational, recreational, and/or therapeutic

benefits to enhance quality of life" (Delta Society, n.d.). AAA can be delivered in a variety of environments by either specially trained professionals or volunteers. In contrast to AAT, in which goals are made and progress is measured, AAA is conducted in a more spontaneous manner; to elaborate, in AAA, specific treatment goals are not planned for each visit, the treatment providers are not required to keep notes on the interactions, and the content of the visit and length of the visit are not planned beforehand. An example of AAA would include a volunteer bringing his/her dog to a nursing home once a month to "visit" with the residents.

Practitioners may choose to utilize any number of domestic animals for therapeutic purposes; however, dogs tend to be the most commonly used companion animals for animal-assisted interventions (Nimer & Lundahl, 2007). In addition to dogs, other frequently used animals include horses, cats, rabbits, and aquarium fish. There are several explanations for the prominent use of dogs in AAI, including their greater availability and trainability compared to other animals, in addition to their decreased risk of zoonotic infections (Brodie, Biley, & Shewring, 2002). Dogs that are used in AAI are typically registered with an organization that screens and certifies therapy animals. The most widely accepted organizations for therapy-animal certification are the aforementioned Delta Society, and Therapy Dogs International. To become registered as a therapy dog, the organizations require the animal/handler teams to pass a certification test that displays the animal's temperament and ability to follow commands, as well as the handler's ability to effectively control the dog across different situations (Chandler, 2005).

## Empirical Evidence on the Effects of Human/Animal Interaction

With very few exceptions, statements about the benefits of AAI have historically stemmed from anecdotal evidence or research that was poorly designed and executed; as a result, practitioners in the field of human healthcare have approached the use of AAI with an

appropriate degree of skepticism. During the last thirty years, however, empirically validated explanations for the therapeutic benefits of animal companionship have begun to receive support from some practitioners, especially those in the medical establishment. The primary catalyst for this change in attitude stems from a ground-breaking study on the impact of pet ownership, in which it was found that among patients with cardiac issues, the patients who owned pets were more likely to live longer (Friedmann et al., 1980). This finding prompted the development of a series of studies investigating the impact of animal companionship on human health and well-being.

As previously mentioned, Friedmann and colleagues (1980) conducted a novel study in which the impact of owning a pet on cardiovascular health was investigated. According to the study, pet ownership was associated with survival among 92 patients who were hospitalized for heart attacks (myocardial infarctions) or severe chest pain (angina pectoris). Specifically, the results indicated that only 5.7% of the pet owners compared with 28.2% of the patients who did not own pets died within one year of discharge from a coronary care unit. Interestingly, the researchers determined that the relation between pet ownership and improved survival was independent of severity of the cardiovascular disease; that is, across people with equally severe disease, the results indicated that pet owners were less likely to die than non-owners.

Friedmann et al.'s (1980) landmark study was replicated more recently, with improved methodology that included a larger number of participants and improved measures of cardiovascular physiology (Friedmann & Thomas, 1995). Consistent with the results of the previous study, among the 369 patients who experienced myocardial infarctions and had ventricular arrhythmias, owning a pet predicted one-year survival. Similarly, the association of pet ownership with survival could not be explained by differences in the severity of the illness,

psychological or social status, or demographic characteristics between those patients who owned pets and those patients who did not.

In addition to companion animals positively impacting cardiovascular health, there is also evidence to suggest that owning a pet is related to indicators of physiological health, such as number of medical visits, health problems, and overall physical functioning. Siegel (1990) examined the direct and indirect effects of pet ownership on physician utilization behavior of a sample of 938 Medicare enrollees in a health maintenance organization. When sex, age, race, education, income, employment status, social network involvement, and chronic health problems were controlled for, it was determined that pet owners ($n$ = 345) reported fewer doctor contacts than non-owners during a 1-year period. Interestingly, analyses of the data suggested that pets also serve as a buffer to stress during distressing events. To elaborate, the accumulation of stressful events (e.g., death of a loved one, diagnosis of a major medical issue) was associated with increased physician utilization for respondents without pets; however, a positive relation between the occurrence of stressful events and physician utilization did not emerge for respondents who owned pets.

The notion that pets are good for people's health has increasingly received empirical support; however, researchers have not yet examined specific types of interactions with animals that benefit people, under what conditions people derive the greatest benefit, or what human or animal characteristics are associated with these benefits. In an attempt to more clearly understand the physiological pathways through which pets afford health benefits to their owners, a number of researchers have investigated the short-term effects of companion animals on humans.

A recent study involving patients with heart failure provides evidence for the benefit of brief human/animal interaction on physiological stress and cardiopulmonary health indicators

(Cole, Gawlinski, Steers, & Kotlerman, 2007). In a sample of 76 patients with heart failure, participants were randomly assigned to a 12-minute animal-assisted interaction (AAI) with a volunteer/therapy dog team, a 12-minute interaction with a volunteer only, or usual care. Data were collected at baseline, at 8 minutes (midway through the experimental time period), and at 16 minutes (4 minutes after the end of the intervention). The AAI group displayed significantly greater decreases in blood pressure during and after the visit than the control group. Additionally, the AAI group experienced significantly larger reductions in epinephrine and norepinephrine levels, in addition to reductions in blood pressure both during and after the intervention, as compared with the volunteer group. Finally, the results revealed that following the intervention, the AAI group demonstrated a significantly greater decrease in state anxiety, as compared to the volunteer-only and control groups. Based on these results, the authors concluded that a brief animal-assisted intervention improves cardiopulmonary pressures, neurohormone levels, and anxiety in patients with cardiac issues.

Barker, Knisely, McCain, and Best (2005) conducted a study which lends support to the theory that interaction with a companion animal has beneficial effects on health parameters related to stress. Specifically, the researchers determined that following a 5-minute period of interaction with a therapy dog, changes in the salivary cortisol levels in a sample of nurses could be detected. These results suggest that even very brief interaction with a companion animal can have discernible effects. Interestingly, the results of similar studies in which cortisol levels were measured following participation in activities commonly considered to be relaxing (e.g., listening to music, guided imagery, resting quietly, and watching a humorous movie) did not reach significance (Barker et al., 2005). As such, it appears that interaction with a companion animal is associated with more powerful effects on stress responses than many other relaxing activities.

This suggests a noteworthy degree of potential for animal-assisted interventions to provide stress-reduction benefits to humans.

The biological benefits of human-animal interaction have also been documented by empirical studies designed to examine the impact of the presence of animals on various neurotransmitters in the body. Odendaal and Meintjes (2003) investigated the biochemical effects of having participants briefly pet and talk to their pet dogs. Their data revealed that participants' level of oxytocin almost doubled following interaction with a dog. Additionally, decreases in both blood pressure and cortisol levels were found, as well as increases in beta endorphins and dopamine production. The results of this study highlight the degree to which interaction with companion animals impacts biochemical responses in humans and provides further support for the physiological benefits that can be derived from human-animal interaction.

As indicated by the research, there is evidence to suggest that companion animals have a favorable physiological effect on humans in both the short- and long-term. It seems reasonable to question, however, whether this impact is specific to the presence of a companion animal, or if the same effect could be achieved by the mere presence of another person. Lutwack-Bloom, Wijewickrama, and Smith (2005) conducted a study in which they sought to answer this question. A sample of patients residing in two different nursing homes ($n = 68$), were randomly selected and assigned to receive visits from either a volunteer with a dog, or from a volunteer without a dog. Each of the groups received 15- to 20-minute visits, three times a week, for a period of six months. The results demonstrated a significant positive change in mood for those patients receiving visits from volunteers with a dog. Despite observing a similar trend in mood for those patients receiving visits from a volunteer alone, the results did not reach significance.

Other studies have also established evidence to support the value of a pet over the presence of another human. In a standard laboratory stress task, women who had their dog present displayed a reduced cardiovascular stress response, compared with the presence of another person. Specifically, Allen, Blascovich, Tomaka, and Kelsey (1991) found that "heart rate, systolic blood pressure, and diastolic blood pressure responses to both mental and physical stressors were significantly lower with a woman's own dog present than when a close friend of the woman was present." Similarly, in an experiment in which Barker, Knisely, McCain, Schubert, and Pandurangi (2010) compared AAI to a similar interaction with a volunteer without a pet, the results indicated that patients with end-stage renal disease displayed higher heart rate variability (an indicator of healthy autonomic activity) associated with AAI, compared with the visit by the volunteer without a pet.

A number of studies have accrued data to support the notion that the presence of a companion animal is effective at improving physiological and mood responses, more so than the presence of another human alone. Although research has documented the benefits of a companion animal's presence, variations in how individuals interact with the companion animal should also be explored to gain a clearer understanding of the most constructive ways to incorporate a companion animal into animal-assisted interventions. Presently, few research studies have aimed to explore this question; however, thus far, it appears that research conducted in this area has yielded similar results across studies.

For example, in a study conducted by Straatman, Hanson, Endenburg, and Mol (1997), thirty-six participants were randomly assigned to either a control group or an experimental group, in which a friendly but unfamiliar dog sat on their lap during the preparation and delivery of a videotaped, locally televised speech. Measurements of the blood pressure and heart rate of

those participants with the dog on their lap and the control group members at various intervals during the preparation and speech periods did not differ across groups. The results of this study suggest that interacting with an animal may, at times, serve as an irrelevant distraction to the task one is attempting to accomplish.

Likewise, it has been suggested that the mere presence of a companion animal is more effective at reducing stress than interacting with the animal. DeMello (1999) tested this hypothesis by engaging participants in a mild cognitive stressor and then measuring the recovery of each participant's resting blood pressure and heart rate scores. Each individual participated in each of the three conditions: no pet present, pet present with visual but not tactile interaction, and pet present with tactile interaction. Analyses of the results revealed that the return-to-normal rate of blood pressure and heart rate was faster with the pet present than not present, and recovery rates were faster with visual contact than with tactile contact. It can be concluded from these results that, at times, even the presence of a companion animal can offer reductions in physiological arousal. Still, further research on the differing effects of the mere presence of a companion animal versus interaction with a companion animal could provide information regarding the most beneficial ways to incorporate a companion animal into the psychotherapeutic setting.

It is methodologically challenging to accurately investigate the short- and long-term health benefits of animal companionship. Results of research examining the physiological effects of companion animals are intriguing and could provide valuable data to inform the use of animal-assisted interventions in the mental health field. Based on the current body of literature on the health benefits of animal-assisted interventions, it could be inferred that the use of companion animals may also be beneficial to individuals engaged in psychotherapy. For

instance, due to evidence that companion animals serve to reduce physiological arousal in humans, it seems reasonable to propose that the presence of a companion animal during an initial therapy session may serve to reduce a client's anxiety and facilitate the development of rapport between the client and therapist. As of yet, there has been very little empirical research aimed at addressing the role of a companion animal during the process of psychotherapy.

## Historical and Current Applications of Companion Animals in the Mental Health Field

The nature of the human/animal bond has been the subject of investigation for several centuries. The documented use of animals to benefit human health extends back to the 17th century when John Locke advocated that children have animals to care for as a means of gaining a sense of responsibility and developing tender feelings (as cited in Serpell, 2000, p. 12). The first published research to document the value of using companion animals in psychotherapy occurred several centuries later when child psychologist Boris Levinson first observed the effect of having an animal present during therapy sessions. Levinson, considered to be the founder of animal-assisted therapy, discovered that he could make significant progress with a disturbed child when his dog, Jingles, attended the therapy sessions (Levinson, 1969, 1984). Intrigued by this observation, Levinson began to deliberately employ Jingles' presence in his therapy sessions with numerous clients during the next several years. Levinson kept careful records of the interventions and the observed effect on his clients; in 1965, he published a seminal article on the use of pets in the treatment of children with behavior disorders. In this initial publication on what he termed "pet therapy," Levinson asserted that having an animal present at the outset of therapy frequently aided in reducing the client's anxiety and in helping the client overcome his/her fears about therapy (Levinson, 1965). In subsequent publications, Levinson suggested that the presence of companion animals in therapy is particularly helpful in facilitating the establishment

of rapport, building trust between the client and therapist, and creating a more relaxed and comfortable environment for the client (Levinson, 1984).

Boris Levinson's contributions were founded upon anecdotal evidence and qualitative research; however, his assertions about the benefits of animal-assisted interventions garnered significant attention regarding the impact of companion animals on individuals in therapy, and spurred researchers to continue investigating this area of interest. Based on more recent quantitative analyses exploring the effects of animals in psychotherapy, a pattern of findings has emerged to support the idea that animals impact both an individual's physiological response to being in a treatment setting, in addition to an individual's overall psychological well-being. Additionally, there is some evidence to support the notion that companion animals have differential effects across different types of mental disorders, suggesting that a client's mental health diagnosis may be an important variable for a clinician to consider when determining whether AAI could be a beneficial adjunct to psychotherapy.

For example, Barker and Dawson (1998) documented the anxiolytic effect of AAI with a sample of 230 hospitalized psychiatric patients by comparing patients' anxiety levels following either AAT or traditional therapeutic recreational activities. In the AAT condition, the participants interacted with a therapy dog and its handler for a period of 30 minutes. During this time, the dog was allowed to wander around the room freely and its interaction with participants was unstructured. Additionally, the dog handler provided general information about the dog and encouraged the participants to share stories about their own pets and experiences with animals. In contrast, participants in the condition assigned to therapeutic recreational activities engaged in activities such as music and art projects, education regarding how to spend leisure time, and education about community resources for leisure activities (Barker & Dawson, 1998).

The state scale of the State Trait Anxiety Inventory (STAI) was used to measure patients' levels of anxiety both before and after group sessions in each condition. Barker and Dawson (1998) grouped participants "according to diagnosis, with categories consisting of mood disorders, psychotic disorders, substance use disorders, and all other disorders" (p. 799). The results of their analyses revealed significant reductions in anxiety across all types of disorders following AAT. Specifically, the results demonstrated the most significant decreases in anxiety for patients diagnosed with psychotic disorders, mood disorders, and other disorders. In the comparison group, in which the patients engaged in therapeutic recreational activities, only patients with mood disorders displayed significant reductions in anxiety. Interestingly, the reduction in anxiety levels for the population of individuals with psychotic disorders following AAT was twice as great as that found following therapeutic recreation, suggesting that AAT is particularly impactful for individuals with psychosis. Based upon analyses of the results, the researchers speculated that interacting with a companion animal may be less intimidating for patients than participating in traditional group activities with other patients (Barker & Dawson, 1998). Additionally, consistent with previous research on the physiological effects of AAI, it appears that the physical contact of hugging or petting an animal resulted in physiological reductions in stress across all populations of mental disorders, which was not similarly achieved through interaction with other patients during therapeutic recreation.

A meta-analysis conducted by Souter and Miller (2007) lends support to the theory that companion animals have positive effects on the psychological well-being of humans. Specifically, Souter and Miller's (2007) meta-analysis examined the effectiveness of AAA and AAT for reducing depressive symptoms in humans. To be included in the meta-analysis, studies had to meet specific selection criteria, including "random assignment, inclusion of a control

group, exposure to some form of AAA or AAT, and a measure of depressive symptoms" (Souter & Miller, 2007). The depression measures utilized in each of the studies had to be a validated self-report questionnaire, either completed by the participant or verbally administered by the researcher. Additionally, each of the studies included had to report results in sufficient detail to enable the researchers to calculate effect sizes. Based upon their stringent selection criteria, Souter and Miller (2007) identified only 5 studies for inclusion in their meta-analysis.

The results of the meta-analysis support the efficacy of AAA/AAT interventions in the treatment of depression. By standardizing the results across the 5 identified studies, analyses indicate that exposure to AAA/AAT produces significant improvement in depressive symptoms, as measured by psychometrically-validated measures of depression. Specifically, a mean effect size of 0.61 was established, indicating statistically significant differences between an AAA/AAT intervention and a control group comprised of either a treatment as usual or wait-list condition. Overall, the researchers concluded that despite including only a small number of studies in their meta-analysis, their results lend statistical support for the use of AAI in the treatment of depression. It should be noted that the inclusion of only a small number of studies may be indicative of the lack of quality empirical research in this area.

le Roux and Kemp (2009) examined the effect of a companion dog on depression and anxiety levels of elderly residents in a long-term care facility. A total of 16 residents (eight men and eight women) were randomly assigned to either a control group of normal recreational activities ($n$ = 8) or an animal-assisted activity (AAA) group ($n$ = 8) that met once a week for 6 weeks. The Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI) were administered weekly, pre- and post-intervention. As expected, the results did not reveal differences in the control group between depression and anxiety pre- and post-intervention

measures; however, significant differences were found for the AAA group between the pre- and post-BDI mean scores ($p$ = .017). Differences between the pre- and post-BAI mean scores were non-significant, which may be due to the small sample size in this experiment. Additionally, the authors reported that the participants in the AAA group provided qualitative support for the benefits of companion animals that was not measured or reflected by the measures used. Specifically, verbal feedback from the AAA group participants reflected an increase in social interaction, an increase in the experience of pleasant feelings, and improvements in overall mood. The authors concluded that AAA visits may significantly reduce depression levels in elderly individuals living in long-term care facilities.

Despite attempts by the researchers to supplement the statistical results of their study by gathering qualitative data, the small sample of residents included in this study by le Roux and Kemp (2009) does not yield sufficient statistical power to support the efficacy of AAA, nor does it allow for the results to be generalized to other individuals living in long-term care facilities. Although the results of this study are promising, as a whole, research on the effectiveness of AAI lacks the methodological leverage to make clear and certain inferences about the impact of AAA/AAT. In order to build a solid base of literature regarding the effects of animal-assisted interventions, researchers studying this topic area must improve the methodology of their experiments.

## Significance of the Therapeutic Alliance

A growing body of literature has demonstrated that companion animals have a beneficial impact on the psychological well-being of individuals across different settings; therefore, it seems logical to consider whether the presence of a companion animal during psychotherapy (particularly during the initial sessions of psychotherapy) might similarly provide a beneficial

impact on the therapeutic alliance. The therapeutic alliance is a component of the therapeutic process that describes the quality of the relationship between the therapist and client (Horvath, 2001; Orlinsky, Grawe, & Parks, 1994). As stated by Horwitz (1974), "the therapeutic alliance is not only a prerequisite for therapeutic work, but often may be the main vehicle of change." There is an abundance of literature in the field supporting Horwitz's notion that successful psychotherapy is dependent upon the quality of the relationship between the therapist and the client (Horvath, 2001; Orlinsky et al., 1994). Extensive research on the topic has consistently demonstrated a significant relationship between the therapeutic alliance and therapy process and outcome, such that the therapeutic alliance has been found to be one of the most robust predictors of positive outcome, regardless of the type of therapy utilized (Horvath, 2001; Lambert & Ogles, 2004; Martin et al., 2000; Norcross, 2002). In other words, it appears that relationship factors between the therapist and client correlate more highly with client outcome than do specialized treatment techniques or theoretical orientation (Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996).

The importance of the therapeutic alliance is supported by both client and therapist report. Clients who report experiencing a stronger alliance during psychotherapy consistently endorse feeling that they gained a new understanding and insight into their problems and felt more understood and respected by their therapist (Hilsenroth & Cromer, 2007). As it is well-documented that the strength of the therapeutic alliance is highly correlated with client outcome, the focus of research on this area has expanded to examine specific therapist characteristics and techniques that may impact the therapeutic alliance.

Due to data documenting the fundamental benefits of the therapeutic alliance, researchers have delved into exploring specific components of the alliance that are predictive of positive

client outcome. Hilsenroth and Cromer (2007) examined this topic in a comprehensive examination of therapist interventions and characteristics that have been found to positively influence the therapeutic alliance during the initial interview/intake session. The results of their analysis revealed that clients who perceived their therapist as warm, friendly, and as facilitating a greater sense of understanding rated the working alliance more highly. Likewise, Lambert and Barley (2001) established that common factors, such as empathy and warmth, tend to be integral components of developing a strong alliance. These conclusions further emphasize the importance of the therapist's ability to connect with a client and instill a sense of confidence and trust in the therapeutic process.

Clients often attribute their positive therapy outcomes to the personal attributes of the therapist, highlighting the importance of therapist variables in creating a strong therapeutic alliance. Strupp, Fox, and Lessler (1969) reported that clients who felt therapy was successful described their therapist as "warm, attentive, interested, understanding, and respectful." Additionally, in a comprehensive review of more than 2,000 process-outcome studies dating back to the 1950's, Orlinsky and colleagues (1994) identified several therapist variables and behaviors that have consistently been shown to positively impact treatment outcome. Specifically, their results revealed that factors including "therapist credibility, skill, empathic understanding, and affirmation of the patient, along with the ability to engage the patient, to focus on the patient's problems, and to direct the patient's attention to the affective experience were highly related to successful treatment." The authors concluded that the therapist's behaviors and interactions with the client throughout the course of the treatment episode significantly influence the outcome of psychotherapy.

Consistent with the findings of Orlinsky and colleagues (1994), a recent meta-analysis conducted by Elliott, Bohart, Watson, and Greenberg (2011) determined that empathic understanding by the therapist is linked to positive outcomes in psychotherapy; specifically, clients' perceptions of feeling understood by their therapist was found to be a robust predictor of therapeutic outcome. According to humanistic therapist Carl Rogers (1980), therapist empathy is defined as "the therapist's sensitive ability and willingness to understand the client's thoughts, feelings, and struggles from the client's point of view." Empathic therapists exhibit a compassionate attitude toward the client and attempt to demonstrate understanding of the kinds of experiences the client has had, both historically and presently. This type of empathic understanding allows therapists to assist clients in symbolizing their experience in words, attending to and deepening their emotional experience, and reflexively examining their feelings, values, and goals (Elliot, Bohart, Watson, & Greenberg, 2011).

The client's willingness to self-disclose to the therapist has also emerged as an important aspect of the therapeutic alliance. Client self-disclosure refers to the process of revealing personally intimate thoughts, feelings, and information, and is considered to be a necessary component of psychotherapy (Regan & Hill, 1992). Some research indicates that client disclosure is associated with components of the psychotherapeutic process (e.g., depth of the session) found to be associated with positive treatment outcomes (Mallinckodt, 1993); however, there is also research to suggest that client disclosure does not impact the severity and incidence of clients' psychological symptoms over the course of treatment (Stiles & Shapiro, 1994). Despite the apparent inconsistencies in the body of literature exploring the link between client disclosure and positive psychotherapy outcomes, many clinicians agree that the process of client self-disclosure contributes to the client's overall healing, reduction in symptoms, and positive

therapeutic outcome (Farber, 2003; Farber, Berano, & Capobianco, 2004; Hall & Farber, 2001). Likewise, a majority of clients feel positively about their decision to self-disclose to their therapist, and report that the process of disclosing generates a sense of relief from emotional, as well as physical tension (Hall & Farber, 2001). According to the results of a study conducted by Farber and colleagues (2004), clients reported that the process of self-disclosure initially generates shame and anticipatory anxiety, but ultimately engenders feelings of relief, safety, pride, and authenticity. Still, data indicate that approximately 50% of clients keep secrets from their therapists, leading many researchers to speculate that the process of client disclosure is complex and worthy of further investigation (Farber, 2003).

Results of the research on this topic suggest that the process of client self-disclosure involves a pattern of decision-making in which the client's expectations of the emotional, cognitive, and interpersonal benefits that could be derived from self-disclosure are weighed against the client's anticipation of shame and vulnerability due to revealing oneself to another (Farber, 2003). In their research on client disclosure, Hall and Farber (2001) determined that two factors emerged as most strongly predictive of overall disclosure: (1) length of time in therapy, and (2) strength of the therapeutic alliance. It is generally expected that the length of the therapeutic episode will directly correlate with disclosure, as the longer a client is engaged in therapy, the more opportunity he/she will have to disclose information to the therapist. More importantly, the results of this study suggest that a strong therapeutic alliance is not only impactful in itself (e.g., by allowing the client to interact with an empathic other), but facilitates an atmosphere in which increased disclosure and self-discovery occur; this, in turn, will provide opportunities for alternative means of understanding and coping with issues (Hall & Farber, 2001). These findings are consistent with previous research linking the strength of the

therapeutic relationship to increased disclosure and provide further validation for the necessity of an effective therapeutic alliance.

In addition to the factors set forth by Hall and Farber (2001), there are numerous other variables that impact a client's decision to self-disclose (i.e., specific client characteristics, the nature of the material being discussed); additionally, the therapist's actions have a significant role in facilitating the process of client disclosure. As previously mentioned, most clients anticipate experiencing anxiety prior to self-disclosing; despite this, many clients also acknowledge that the anticipation of their therapist's level of understanding and acceptance of the material being disclosed greatly mitigates their initial feelings of anxiety and shame. Additionally, it is reported that client disclosures that occur during the therapy session often facilitate subsequent disclosures to one's therapist, as well as increased disclosures to one's support system outside of therapy (Farber et al., 2004). Based on this information, it can be concluded that the therapist plays an important role in helping the client to feel comfortable revealing personal information; as such, it seems sensible to consider whether the presence of a companion animal during psychotherapy, particularly during an initial session of psychotherapy, might also facilitate a client's willingness to self-disclose to the therapist.

## Impact of Companion Animals on the Therapeutic Alliance

An increasing number of studies have provided data to support the positive impact of AAI on the psychological well-being of individuals in both psychotherapy and other settings; however, more research is needed in order to gain a better understanding of the influence of AAI on the therapeutic process. In particular, the influence of AAI on aspects of the therapeutic alliance is a component of the therapeutic process that has received very little attention by researchers. As there is a significant amount of research documenting the importance of the

therapeutic alliance for successful psychotherapy outcomes, it is important to explore how animal-assisted interventions might influence the therapeutic alliance.

The notion that animals provide physical and emotional comfort to a client is frequently cited in the AAI literature. One of the most prominent researchers in the field of AAI, Aubrey Fine (2004), developed two hypotheses to explain why animals are likely to have positive effects on psychotherapy. First, he asserts that "pets are perceived as being available and interested in interacting with humans." Companion animals have the ability to demonstrate acceptance by allowing themselves to be petted, hugged, or groomed by the client (Barker, 1999). Second, acquiring positive attention from an animal generally does not require an individual to have well-refined social skills (Fine, 2010). According to Fine (2010), in comparison to a companion animal, humans are frequently considered to be much more judgmental and critical of others' social skills. As such, during the initial stages of psychotherapy, it is common for clients to experience anxiety about how they are being perceived by their therapist (Farber, 2003). In contrast, due to their unambiguous, "honest," and immediate responses to both pleasurable and aversive stimuli, companion animals have the capacity to provide feedback about a client's social behavior without appearing judgmental or critical (Kruger & Serpell, 2010). It follows that during the course of psychotherapy, particularly during its initial stages, a companion animal may offer the potential value of serving as a non-judgmental confidante and source of unconditional positive regard for the client.

The observation that animals can serve as catalysts of human social interaction is also frequently noted in the AAI literature. In therapeutic contexts, animals are commonly employed to alleviate the stress of the initial phases of therapy via their comforting presence; additionally, companion animals are thought to expedite the rapport-building process between the client and

therapist (Kruger & Serpell, 2010). Beck, Hunter, & Seraydarian (1986) proposed that a psychotherapist who conducts therapy with a companion animal present may appear less intimidating and, consequently, the client may feel more comfortable revealing him/herself to the therapist. Accordingly, companion animals have often been referred to as "social lubricants" or "social mediators," due to their ability to facilitate social interactions among humans. As such, the quality in animals that promotes human social interaction may also encourage client disclosure during therapy (Arkow, 1982; Schneider & Pilchak Harley, 2006).

According to Kruger and Serpell (2010), research studies on "the ability of animals to alter perceptions of social desirability and increase positive social interactions between strangers have been uniformly positive." Additionally, Wells and Perrine (2001) concluded that "people tend to be perceived as happier, friendlier, wealthier, less threatening, and more laid-back when they appear in a photograph with an animal, versus how they are perceived when the same photograph is presented with the animal omitted." Similarly,it has been found that advertising and marketing industries have paired friendly-looking pets with the person being promoted to effectively bolster a sense of safety, believability, and trustworthiness in the publicized individual (Lockwood, 1983).

The results of these studies may have significant implications for incorporating the use of companion animals into psychotherapy. That is, if the presence of an animal could make the therapist appear happier, friendlier, and less intimidating, it follows that clients may be more likely to experience a greater sense of comfort in the therapy setting more quickly (Kruger & Serpell, 2010). Given that there is empirical evidence indicating that overall treatment outcomes are strongly related to the quality of the therapeutic alliance, it is reasonable to suggest that

research regarding the influence of a companion animal on the therapeutic alliance could produce findings to enrich the field of psychotherapy.

The expectation that companion animals influence the evaluation of psychotherapists has received empirical support. Schneider and Pilchak Harley (2006) designed a study to investigate the effect of a companion animal (viz., a dog) on participants' overall satisfaction with psychotherapists, in addition to their willingness to self-disclose to psychotherapists. The authors collected data from 85 participants, all of whom were students at the University of Toronto. The sample of participants was comprised of 60% females ($n = 51$) and 40% males ($n = 34$). The participants ranged in age from 18 to 52 years old, with a mean age of 26 years old. The study utilized an experimental design in which participants viewed one of four videotaped segments of a psychotherapist introducing him/herself. Each of the four videotapes corresponded to an experimental condition. Specifically, the experimental conditions consisted of: (a) a male psychotherapist alone, (b) the same male psychotherapist accompanied by a dog, (c) a female psychotherapist alone, and (d) the same female psychotherapist accompanied by a dog. The participants were randomly assigned to one of the four experimental conditions. After viewing the designated videotaped segment, the participants were asked to complete a demographic questionnaire and three measures, two of which assessed their evaluation of the psychotherapist, the other scale assessing attitudes toward animals.

Each videotaped segment consisted of one of the two psychotherapists in their own office, with their own dog. The authors indicated that they chose to give priority to ecological validity, rather than experimental control, by choosing to utilize different settings and different animals in their experiment. They reasoned that the dogs would be calmer in the presence of their owner and that, in practice, psychotherapists would be accompanied by their own

companion animal in their own work setting. Additionally, Schneider and Pilchak Harley (2006) determined that the videotaped segments would not be scripted; therefore, each psychotherapist was given general instructions to introduce him/herself and describe his/her qualifications and approach to therapy. Each psychotherapist was videotaped once with his/her dog present and then once without the dog present. During the segment in which the dog was present, the psychotherapist introduced the dog at the beginning of the segment, but then made no other mention of the animal.

As a result of having given priority to the ecological validity of the study, Schneider and Pilchak Harley (2006) acknowledged that there were conspicuous differences between the two therapist conditions. First, due to the unscripted nature of the video segments, each of the segments appeared to be relatively spontaneous and included slight variations in content. Additionally, each of the psychotherapists owned a different breed of dog; thus, the appearance and behavior of the dog differed across the two conditions. Specifically, the female therapist owned a Golden Retriever, which lay quietly on the floor during the video segment; in contrast, the male therapist owned a black Collie/Labrador cross, which appeared to be restless during the video segment and sat up to be petted. Lastly, Schneider and Pilchak Harley (2006) acknowledged that the Golden Retriever was easier to see in detail in the video due to the light color of her coat and contrasting features. The features of the black dog were less distinguishable when viewed in the videotaped segment.

Each participant was asked to complete three measures and a background questionnaire after watching the videotaped segment. Each of the measures corresponded to one of the following domains: (1) perception of the therapist, (2) willingness to self-disclose to the therapist, and (3) general attitudes toward pets. Perception of the therapist was measured by the

Counselor Rating Form-Short Version (CRF-S), a brief, 12-item instrument designed to measure perception of the therapist as trustworthy, expert, credible, attractive, powerful, and an overall "good person" (Corrigan & Schmidt, 1983). The CRF-S requires respondents to rate their perceptions of the therapist on a 7-point Likert scale; characteristics such as "honest," "sincere," "sociable," and "experienced" are included on the rating form. The participants' willingness to self-disclose to the therapist was evaluated by the Disclosure to Therapist Inventory-III (DTI-III), a measure typically utilized to assess self-disclosure levels within a current, ongoing therapeutic relationship (Farber & Hall, 1997). In this particular study, the authors requested that the participants complete the measure with the following question in mind: "How willing would I be to discuss these topics in the first few sessions of therapy, with the therapist I just saw?" The respondent indicated his/her likelihood of discussing a given topic on a 5-point Likert scale ranging from "not at all" to "thoroughly." Lastly, the respondents' attitudes toward pets were measured by the Pet Attitude Scale (PAS), a scale designed to assess an individual's favorableness of attitudes toward pets (Templer, Salter, Dickey, Baldwin, & Veleber, 1981).

Schneider and Pilchak Harley (2006) proposed three main hypotheses. First, it was hypothesized that the psychotherapists accompanied by a dog would receive a higher overall score on the Counselor Rating Form-Short Version, as well as a higher score on the three sub-scales (i.e., expertness, attractiveness, and trustworthiness) than those without a dog. Secondly, it was hypothesized that the psychotherapists accompanied by a dog would elicit a greater willingness to self-disclose than those without a dog, as indicated by scores on the Disclosure to Therapist Inventory-III. Finally, the authors anticipated an interaction effect to occur between attitude toward pets as measured by the Pet Attitude Scale and each participant's personal history with companion animals.

Analyses conducted by Schneider and Pilchak Harley (2006) clearly demonstrate that the presence of a dog exerted a positive influence on perceptions of psychotherapists compared to conditions in which the therapist was not accompanied by a dog. Specifically, the psychotherapists were rated significantly higher on the CRF-S when accompanied by a dog, were perceived to be more attractive than those without a dog, and were perceived to be more trustworthy. The presence of a dog had no influence on the ratings of expertness. Additionally, the authors did not find an interaction for participants' scores on the PAS, indicating that a favorable attitude towards animals did not influence participants' ratings in either direction when the animal was present. The analyses also revealed support for the authors' second hypothesis, such that participants reported a greater willingness to self-disclose when the therapist was accompanied by a dog, as opposed to when the therapist was viewed without a dog present. Interestingly, a post hoc analysis indicated a notable difference between the two therapists in terms of the magnitude of the influence of the dog. Specifically, the dog's presence increased participants' willingness to disclose to both the male and female therapist, however, the effect was actually significant only for the female therapist. Schneider and Pilchak Harley's (2006) final hypothesis, that there would be an interaction between the participants' rating of the therapist and their attitude toward pets, was not supported by the results of the study. With the exception of history of pet ownership, the participants' status regarding current pet ownership and attitudes toward pets did not influence the effect of the presence or absence of the dog.

Schneider and Pilchak Harley (2006) concluded that the presence of a companion animal enhances perceptions of the therapist and the willingness to disclose to the therapist, regardless of attitudes toward companion animals or past history with companion animals. This study marks a novel attempt in the mental health field to explore the impact of a companion animal's

presence on various aspects of the psychotherapeutic process; however, there are several methodological issues within the design of this study that may limit its validity. For instance, data regarding the participants' perceptions of the therapist and willingness to disclose to the therapist were gathered after a group of participants viewed a videotaped segment of the therapist. With regard to the design of this study, one must question how accurately the quality of the client/therapist relationship can be evaluated when no actual interaction occurred between the participants in the study and the therapist and companion animal. Additionally, as previously mentioned, the researchers did not control for the environment, breed of dog, or dialogue across the two therapist conditions, which may have compromised the outcome of their analyses. Despite its limitations, Schneider and Pilchak Harley's (2006) study serves as the first empirical attempt to yield information about whether companion animals have a beneficial impact on the various components of the psychotherapeutic process. Similarly, this dissertation will investigate the impact of a companion animal on aspects of the therapeutic alliance; however, the current study will attempt to achieve greater experimental control by improving upon the methodology used in the previous study.

## Purpose of Study

The study on the influence of companion animals by Schneider and Pilchak Harley (2006) provided an empirical basis for the hypothesis that the presence of a companion animal during psychotherapy would influence aspects of the therapeutic alliance. Evidence on the use of animal-assisted interventions in the mental health field suggest that companion animals have a beneficial impact on the physical and psychological well-being of humans; still, very few studies have specifically explored the influence of companion animals on the various processes of psychotherapy. The study conducted by Schneider and Pilchak Harley (2006) is one of the only

studies to directly investigate the influence of companion animals on aspects of the therapeutic alliance. The conclusions from their study provide support for the notion that companion animals have a beneficial influence on psychotherapy, however; methodological weaknesses in the study limit the generalizability of its results to real-world applications. The current study was developed to investigate the impact of a companion animal's presence (viz., a dog) on aspects of the therapeutic alliance. Specifically, this study examined whether the presence of a companion animal influenced an individual's perceptions of an interviewer, his/her willingness to self-disclose to an interviewer, and his/her ratings of an interviewer's level of empathic understanding.

Clients often attribute their positive outcomes in psychotherapy to the personal attributes of their therapist. For instance, a sample of clients who considered their therapeutic experience to be successful reported that they viewed their therapist as being "warm, attentive, understanding, and respectful" (Strupp et al., 1969). Accordingly, it seems logical to suggest that a client's perception of his/her therapist could facilitate the establishment of an effective therapeutic alliance between the client and therapist. It has been well-documented in the literature that the strength of the therapeutic alliance is a robust predictor of psychotherapy outcomes (Horvath, 2001; Lambert & Ogles, 2004; Martin et al., 2000; Norcross, 2002); therefore, it may be beneficial to examine whether the presence of a companion animal has an impact on how the therapist is perceived. Previous research has suggested that therapists are perceived as being more credible, attractive, powerful, and as being an overall "good person," when they are in the presence of a dog (Schneider & Pilchak Harley, 2006). The current study attempted to replicate the findings that companion animals positively influence clients' perceptions of their therapist. Based upon research indicating that people are perceived to be happier, friendlier, wealthier,

less-threatening, and more laid-back in the presence of animals (Wells & Perrine, 2001), it was hypothesized that study participants would report more favorable perceptions of the interviewer when a companion animal was present during a pseudo-therapeutic interaction.

Therapists and clients both agree that client self-disclosure is a necessary and beneficial component of the psychotherapy process; still, many clients report that they refrain from self-disclosing information to their therapist due to feelings of anxiety and vulnerability (Farber et al., 2004; Hall & Farber, 2001; Farber, 2003). The quality of the therapeutic alliance is one of the variables that have been found to influence a client's likelihood of self-disclosing to his/her therapist (Hall & Farber, 2001). Proponents of AAI theorize that the presence of a companion animal may facilitate the establishment of rapport between the therapist and client by serving as a nonjudgmental, noncritical other (Fine, 2004). Furthermore, companion animals have been documented to have anxiolytic effects, which may serve to reduce a client's anxiety about self-disclosing to the therapist during the initial stages of therapy (Barker & Dawson, 1998). Akin to the study conducted by Schneider and Pilchak Harley (2006), this study similarly investigated the extent to which the presence of a dog influenced a client's willingness to self-disclose to an interviewer. In the study conducted by Schneider and Pilchak Harley (2006), respondents were asked to rate their willingness to disclose to a therapist whom they viewed in a videotaped segment. In order to acquire a more realistic measurement of clients' willingness to disclose to a therapist during psychotherapy, this study attempted to create a pseudo-therapeutic interaction between the participant and interviewer and then asked respondents to rate their willingness to disclose to the interviewer. It was hypothesized that participants would be more willing to self-disclose when a dog is present during the interaction, as opposed to when the dog is not present.

An integral component of developing a strong therapeutic alliance is the degree to which a therapist is able to convey a sense of empathic understanding (Lambert & Barley, 2001). The therapist's ability to exhibit a compassionate attitude toward the client and demonstrate that he/she understands the client's experience provides the context to establish rapport with the client and strengthen the therapeutic alliance (Elliot et al., 2011). According to Orlinsky and colleagues (1994), a therapist's empathic understanding of the client is one of the factors found to be highly related to successful treatment outcomes. As such, it seems logical to examine whether the presence of a companion animal during psychotherapy might influence a client's perception of the therapist's level of empathic understanding. Results of empirical research support the positive influence of the presence of a companion animal on people's perceptions of others (Lockwood, 1983; Wells & Perrine, 2001); therefore, in this study it was hypothesized that when a companion animal was present with the interviewer, participants would rate the interviewer as having higher levels of empathic understanding than when the companion animal was not present with the interviewer.

There is evidence to suggest that the mere presence of a companion animal is more effective at reducing physiological indicators of stress than is actual physical interaction with the companion animal (DeMello, 1999). As such, the current study examined the influence of a companion animal by having a dog present during a pseudo-psychotherapy session, designed to replicate an initial therapy session. In this study, participants were not encouraged to interact with the dog; rather, the dog was seated in a chair next to the interviewer, in the participant's line of sight. It is important to recognize that variability exists in individuals' attitudes toward companion animals and to consider how this might influence the variables being examined. Some evidence suggests that individuals with negative attitudes toward dogs do not experience

the same physiological reduction in stress indicators as individuals with positive attitudes toward dogs (Friedmann, Locker, & Lockwood, 1993); however, other research has found that attitudes toward pets does not influence individuals' perceptions of a therapist (Schneider & Pilchak Harley, 2006). In this study, it was expected that participants with negative attitudes toward animals would neither endorse animals as having a positive influence on the therapeutic alliance, nor would they report that the presence of a dog negatively affected aspects of the alliance. Results of previous research generally indicate that negative attitudes toward dogs are not associated with physiological or psychological benefits, but they also do not appear to impact the individuals' perceptions of the therapist; as a result, it was hypothesized that this study would not find an interaction effect between participants' attitudes toward pets and their ratings of the interviewer, willingness to self-disclose to the interviewer, and ratings of the interviewer's level of empathic understanding.

In addition to the primary hypotheses examined in this study, participant characteristics (i.e., age, sex/gender, and race/ethnicity), as well as participants' current and past levels of exposure to animals, was also explored. In the few studies that have been conducted to investigate the effect of companion animals on psychotherapy, participant characteristics were not considered as potential moderating variables for the relationship between the presence of a companion animal and perceptions of the therapist, likely due to a lack of diversity within the sample of participants. On the contrary, there is some evidence in previous research to suggest that an individual's history of pet ownership does not influence perceptions of a therapist in the presence of a companion animal (Schneider & Pilchak Harley, 2006). The current study similarly investigated this factor, by examining the influence of participants' reported current and past levels of exposure to animals.

This study examined four main hypotheses. First, it was hypothesized that when the interviewer was accompanied by a dog, she would receive a higher overall score on the Counselor Rating Form-Short Version than when she was not accompanied by a dog. Second, it was hypothesized that the interviewer would elicit a greater willingness to self-disclose, as measured by an adapted version of the Disclosure to Therapist Assessment Protocol, when she was accompanied by a dog, as opposed to when a dog was not present. Third, it was hypothesized that when a companion animal was present with the interviewer, participants would rate the interviewer as having higher levels of empathic understanding than when the companion animal was not present with the interviewer. Finally, it was not expected that participant attitudes toward pets (as measured by the PAS) would moderate the relationship between the presence of a companion animal and participant perceptions of the interviewer, willingness to self-disclose to the interviewer, and ratings of the interviewer's level of empathic understanding.

CHAPTER TWO

METHOD

## Participants

Participants in the study were recruited through the Psychology Subject Pool at Indiana University of Pennsylvania (IUP). The Psychology Subject Pool is comprised of undergraduate students enrolled in an Introductory Psychology course. The sample included 71 participants, of which 55 were women and 16 were men, with a median age of 18 years (range = 18-27). Sixty-three participants identified as White American/Caucasian (non-Hispanic), 7 identified as African American/Black American, and 1 participant identified as Arabic. Demographic information for participants in the sample is depicted in Table 1. Participants were randomly assigned to either the companion animal condition ($n$ = 36) or the control condition ($n$ = 35).

Table 1

*Participant Characteristics*

| Demographic | Sample *n* | Percentage of Sample |
|---|---|---|
| *Age* | | |
| 18 | 41 | 57.7% |
| 19 | 18 | 25.4% |
| 20 | 7 | 9.9% |
| 21 | 2 | 2.8% |
| 22 | 2 | 2.8% |
| 27 | 1 | 1.4% |
| *Sex/Gender* | | |
| Male | 16 | 22.5% |
| Female | 55 | 77.5% |
| *Race/Ethnicity* | | |
| African American/ Black American | 7 | 9.9% |
| White American/ Caucasian (non-Hispanic) | 63 | 88.7% |
| Arabic | 1 | 1.4% |

## Measures

Four measures and a demographic questionnaire were administered to each participant. The measures included: the Counselor Rating Form-Short Version, an adapted version of the Disclosure to Therapist Assessment Protocol, the Pet Attitude Scale, and the Empathy Subscale of the Barrett-Lennard Relationship Inventory.

The Counselor Rating Form-Short Version (CRF-S; Appendix A) is a brief, 12-item instrument developed to measure an individual's perception of the therapist on three subscales: trustworthiness, expertness, and attractiveness (Corrigan & Schmidt, 1983). The CRF-S asks respondents to rate their perceptions of the therapist on a 7-point Likert scale, ranging from 1 (not very) to 7 (very). The therapist is rated on characteristics such as, "honest," "likable," "trustworthy," and "skillful." Each of the three subscales of the CRF-S has four items that have been shown to load onto its respective dimension during factor analyses. The measure is scored by summing the scores on each dimension for an overall rating ranging from 4 to 28, with higher scores indicating more positive ratings. Split-half reliabilities for the expertness, attractiveness, and trustworthiness subscales of the CRF-S were reported to be 0.90, 0.91, and 0.87, respectively (Ponterotto & Furlong, 1985).

In addition to the CRF-S, participants completed an adapted version of the Disclosure to Therapist Assessment Protocol (DTAP; Appendix B; Farber, Berano, Capobianco, Fries, & Welsh, 2001). The DTAP utilizes a semi-structured interview format to assess the nature of client self-disclosure to therapists. Examination of the psychometric properties of the DTAP reveals an adequate level of internal consistency with a Cronbach's alpha coefficient of 0.66 (Farber et al., 2004). The first 10 items on the DTAP are comprised of open-ended questions. In the second portion of the measure, respondents are asked to answer 10 questions using a 7-point

Likert scale, ranging from 1 (very little) to 7 (a great extent). These questions assess respondents' attitudes toward self-disclosure within their interpersonal relationships and explore the extent to which respondents experience certain emotions (e.g., ashamed, sad, or anxious) following self-disclosures in therapy (Farber et al., 2004). For the purposes of this study, a small selection of the questions (viz., 4 questions) on the DTAP were adapted and transformed into a 7-point Likert scale. Items on the DTAP assessing aspects of the self-disclosure process that are not applicable to measuring the respondents' willingness to self-disclose were excluded from the adapted version of the measure. The following is a sample of one of the questions included in the adapted version of the DTAP: "Imagine that in the future the interviewer was to be your therapist—how comfortable would you feel disclosing personal information to her?" The measure was adapted to allow the researcher to better evaluate those items most pertinent to examining participants' willingness to self-disclose to the specific interviewer with whom they interacted during the experiment. Additionally, many of the items on the original DTAP ask respondents to comment on their attitudes toward self-disclosure following several sessions (or more) with a psychotherapist, which is not applicable to the design of this study. Due to the fact that some items on this measure were altered and other items eliminated, reliability and validity data on the items as formatted in the current study have not been established.

Study participants also completed the Empathy Subscale of the Barrett-Lennard Relationship Inventory (BLRI; Appendix C; Barrett-Lennard, 1962). The BLRI was designed to be a self-report questionnaire evaluating the relationship between the client and counselor (from the perspective of the client) along several different dimensions. The client/counselor relationship is assessed through 5 subscales on the BLRI: "(1) level of regard, (2) empathic understanding, (3) congruence, (4) unconditionality, and (5) willingness to be known" (Barrett-

Lennard, 1962). Each subscale on the instrument is represented by 16-18 items rated on a 6-point Likert scale (-3 = *I feel strongly that it is not true;* +3 = *I feel strongly that it is true*). For the purposes of this study, 15 items of the Empathy Subscale of the BLRI were administered to participants. Despite the availability of more recent versions of the BLRI, the original version of the Empathy Subscale was chosen for inclusion in this study because the wording of the questions was most appropriate for measuring perceived empathic understanding following a single, brief interaction with a therapist. For example, participants were asked to rate their interaction with the interviewer on items such as, "She is interested in what my experiences mean to me," and "She understands me." The Empathy Subscale of the BLRI has been found to have adequate psychometric properties with a Spearman-Brown split-half reliability of 0.86 and a test-retest reliability of 0.89 (Barrett-Lennard, 1962).

Participants also completed the Pet Attitude Scale as a pre-test measure (PAS; Appendix D; Templer et al. 1981). The PAS was developed to measure the favorableness of attitudes toward pets, regardless of whether the respondent currently owns a pet or has ever previously owned a pet. There are two versions of the PAS: the original PAS and the revised PAS (in which the wording of three items has been changed). The current study utilized the original format of the PAS due to its demonstrated psychometric superiority. The measure includes 18 items, which are rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample statements that participants were asked to rate included, "I would like to have a pet in my home," "Pets are fun but it's not worth the trouble of owning one," and "You should treat your housepets with as much respect as you would a human member of your family." The higher the respondent's score on the overall sum of the items (including items that must be reverse-scored), the more favorable attitude the individual has toward animals. This measure has been shown to

have adequate psychometric properties, with a test-retest reliability of 0.92. (Templer et al., 1981) and has been demonstrated to differentiate between individuals who have experience with animals versus the general population (Netting, Wilson, & Fruge, 1988).

Lastly, in addition to the measures that were administered, participants also completed a demographic questionnaire (Appendix E) to provide the researcher with information regarding age, sex/gender, race/ethnicity, and current/past exposure to animals.

## Procedure

Potential participants in the Psychology Subject Pool were required to complete a pre-test (see Appendix D) prior to being eligible for participation in the study. The pre-test consisted of a question assessing whether the respondent has an allergy to dogs that would have precluded him/her from being in the presence of a dog during the study, in addition to the 18 items of the Pet Attitude Scale. The Pet Attitude Scale was administered to participants prior to their involvement in the study to ensure that participants' reported attitudes toward pets were not influenced by their specific interaction with the dog used in this study. Participants who reported allergies to dogs on the pre-test questionnaire were not contacted for inclusion in this study. The selected participants were randomly assigned to either the companion animal condition or the control condition. Each participant was contacted by the researcher via email to establish the day and time he/she was scheduled to participate in the experiment.

Participants in the study were interviewed by the primary researcher, who acted (and was introduced) as the "interviewer" in both of the study conditions. To reduce the possibility of respondent bias, a pseudonym was used to conceal the identity of the primary researcher. Interviews were conducted according to a script (see Appendix F). During the study, participants in the control group met exclusively with the interviewer, whereas participants in the companion

animal condition met with the interviewer in the presence of a dog. The dog used in this study is a Cavalier King Charles Spaniel who is owned by the primary researcher. The dog is an experienced therapy animal who has participated in AAA in various long-term care facilities during the past two years. During the interviews, the dog was instructed to lie in a chair placed directly next to the interviewer's chair, within arm's reach of the interviewer.

The experiment took place in the Center for Applied Psychology (CAP), which is the graduate student training clinic of the University's Psychology Department. When participants arrived at the CAP, they were greeted by a research assistant. The research assistant provided each participant with a consent form to review and sign, indicating that he/she agrees to participate in the study (Appendix G). Additionally, the research assistant reminded participants that they could withdraw from the study at any time. This point was emphasized so that, in the event that a participant became uncomfortable during the interview or expressed a fear of dogs, he/she would be aware that participation in the experiment could be discontinued. Following the consent procedure, study participants were asked to remain in the waiting area for their turn to meet with the interviewer. The purpose of asking participants to remain in the waiting area of the CAP was to strengthen the ecological validity of the study by attempting to closely replicate the process associated with an initial therapy session. When the interviewer was prepared to meet with the participant, the research assistant retrieved the participant from the waiting room and briefly explained that he/she would be meeting with an interviewer named Claire. The interviewer greeted the participant in the doorway of the therapy room, introduced herself, and directed the participant to a chair in the room where he/she could have a seat. If the participant was assigned to the companion animal condition, in which the dog was present, the interviewer

briefly introduced the dog and stated that he would be quietly lying in his chair throughout the meeting.

In both of the conditions, the room was arranged with the interviewer's and participant's chairs facing one another, several feet apart. The interviewer's chair was positioned nearest to the door, such that participants in the companion animal condition had to walk past the dog to their chair. This seating arrangement was designed to increase participants' exposure to the dog and provide an opportunity for participants to acknowledge or briefly interact with the dog upon entering or exiting the room.

During each interview, the interviewer held a clipboard on her lap with a copy of the script. The scripted interview consisted of 16 questions designed to engage each participant in a "pseudo-therapy session," intended to simulate the experience of a client's initial session of psychotherapy. Each interview lasted approximately 10-15 minutes, and as expected, there was slight variability in the time required for each interview based upon differences in the length of each participant's responses. The questions included in the interview were created to gather personal information from participants. Several of the questions included in the interview were designed to gain general information about the participant, such as the participant's major in college and extracurricular interests, whereas other questions were designed to allow participants to disclose negative or challenging personal experiences. Hall and Farber (2001) found that clients tend to be most reluctant to self-disclose issues that evoke feelings of shame; therefore, a small number of questions in the interview were expected to elicit disclosures regarding shameful experiences in order to highlight individual variability regarding a person's willingness to disclose personal information to the interviewer.

Another purpose for asking participants to discuss difficult experiences was to simulate the discomfort that clients might experience during an initial therapy session. Examples of questions intended to facilitate participant disclosure of difficult experiences included: "Could you tell me about a situation in which you felt rejected by another person?" and "Tell me about an event in your life that was upsetting or distressing to you." Each of the questions in the interview was carefully designed to allow the participant to maintain control over the magnitude and depth of the disclosures made to the interviewer; as a result, it was expected that participants would not choose to reveal information to the interviewer that might engender emotional distress following participation in the study.

Standardized follow-up responses to a large portion of the questions were included in the interview script. The inclusion of standardized follow-up responses served several purposes. First, responding to a participant's disclosure with either an empathic response (e.g., "That sounds like it was really difficult.") or a neutral response (e.g., "That's interesting.") was intended to more realistically emulate the flow of conversation that occurs during a typical initial appointment with a client. Second, standardized empathic responses were built into the script because perceived therapist empathy is one aspect of the therapeutic alliance investigated by this study; therefore, for the purposes of measuring the participants' perceptions of the interviewer's level of empathy, the interviewer responded to some participant disclosures with an empathic statement. To acquire an unbiased measurement of therapist empathy, empathic follow-up responses to interview questions were balanced with either neutral follow-up responses or the absence of a follow-up response.

In addition to asking standardized interview questions, the interviewer's nonverbal behavior during the interview was also standardized. Specifically, the interviewer sat in the chair

opposite each participant with one leg crossed over the other and a clipboard on her lap. She maintained eye contact with the participant and nodded her head during responses to questions. Additionally, the interviewer followed the standardized nonverbal responses specified in the interview script (see Appendix F). In the companion animal condition, the interviewer briefly used one hand to pet the dog lying in the chair next to her at several specified points throughout the interview (see Appendix F).

At the conclusion of the interview, the interviewer thanked the participant for his/her time, walked the participant to the classroom in the CAP and explained that the research assistant would provide the participant with several forms to complete. After completing and returning the post-interview measures to the research assistant, the participant was provided with a list of referral sources to contact in the event that he/she would like to seek mental health services (Appendix I). Participants received a complete debriefing form via email three weeks following the completion of data collection. The debriefing form informed participants of the actual purpose of the study and explained that some information about the true purpose of the study was withheld in order to maintain the integrity of the research (Appendix J).

To ensure that standardization of the interview process was upheld, eight interviews were randomly observed live (through a one-way mirror) by a research assistant. During each of the observed interviews, the observer completed an Observer Rating Form (Appendix H), which assessed the degree to which the interviewer followed the experiment protocol. Results of the Observer Rating Forms indicated very high consistency across the interviews. Specifically, the interviewer was rated as being 100% consistent with the script on seven of the rating forms. It was noted on the eighth form that the interviewer deviated from the script by failing to smile at the participant following a response to one of the questions.

It is also worth mentioning that a total of 80 individuals participated in this study, however, data collected from the first nine participants were excluded from analyses due to participant feedback regarding lack of clarity in the format of one of the measures. The format of this measure was subsequently modified and administered to the 71 participants who were included in the data analyses of the study. Despite being unable to use the data collected from the initial nine participants, these interviews served as a trial for the data collection process and provided the researcher with an opportunity to make adjustments for glitches within the experiment protocol. Additionally, several of these first nine interviews were observed by research assistants, thereby providing the interviewer with valuable feedback that served to further ensure the standardization of the interview process.

# CHAPTER THREE

# RESULTS

Results of the primary MANOVA, which examined differences between the two conditions (dog and no dog) on the combination of dependent variables, will be reported first. Following the results of the main analyses, mean scores on the Pet Attitude Scale (PAS; administered as a pre-test) will be examined through multivariate regression to determine whether participant attitudes toward pets (in the dog condition) influenced outcomes on the dependent variables. Next, the influence of participants' current and past levels of exposure to animals, as well as participant characteristics (viz., age, sex/gender, and race/ethnicity) will be explored.

## Primary Analyses

A one-way between-groups MANOVA was conducted to investigate the effect of the independent variable (presence of a dog) on the three dependent variables: overall perceptions of the interviewer (as measured by the Counselor Rating Form-Short Version [CRF-S]), willingness to self-disclose to the interviewer (as measured by the adapted version of the Disclosure to Therapist Assessment Protocol [DTAP]), and perceptions of interviewer empathy (as measured by the Empathy Subscale of the Barrett-Lennard Relationship Inventory [BLRI]). Three hypotheses were being tested through the primary MANOVA. First, it was hypothesized that participants who met with the interviewer when the dog was present would report significantly higher overall perceptions of the interviewer, as compared to participants who met with the interviewer alone. Second, it was hypothesized that participants would report a greater willingness to self-disclose to the interviewer when she was accompanied by a dog. Lastly, it was hypothesized that participants in the dog condition would rate the interviewer as having

higher levels of empathic understanding than participants in the no dog condition. The analysis revealed no statistically significant differences between conditions on the combined dependent variables, $F(3, 67) = .23$, $p = .873$; Wilks' Lambda = .99. Likewise, examination of the impact of the presence of a companion animal on the separate dependent measures did not reveal any significant findings: CRF-S, $F(1, 69) = .34$, $p = .563$; adapted version of the DTAP, $F(1, 69) = .03$, $p = .866$; Empathy Subscale, $F(1, 69) = .04$, $p = .840$. See Table 2 for the means and standard deviations of participant ratings of the interviewer across conditions on each of the dependent variable measurement scales: the CRF-S, adapted version of the DTAP, and Empathy Subscale of the BLRI.

Table 2

*Mean Scores on Dependent Variable Measures across Conditions*

| | Counselor Rating Form-Short Version | Disclosure to Therapist Assess. Protocol | Empathy Subscale of the BLRI |
|---|---|---|---|
| Condition | *M (SD)* | *M (SD)* | *M (SD)* |
| Dog ($n$ = 36) | 70.94 (14.22) | 17.78 (5.22) | 11.88 (14.27) |
| No Dog ($n$ = 35) | 72.66 (10.22) | 17.57 (5.05) | 12.49 (10.82) |

*Note.* CRF-S scale ranges from 7 to 84. Adapted version of the DTAP scale ranges from 4 to 28. Empathy Subscale of the BLRI scale ranges from -45 to 45.

## Participant Attitudes Toward Pets

The impact of participant attitudes toward pets was investigated through multivariate regression. Participant scores on the pre-test administration of the PAS were included as a covariate. The three dependent variables being examined included: overall perceptions of the interviewer, willingness to self-disclose to the interviewer, and perceptions of interviewer empathy. The effect of the PAS on the dependent variables was only examined in the dog condition, as participant attitudes toward pets were not relevant for those participants who met with the interviewer without the dog present. After adjusting for participant attitudes toward pets, there were no significant differences between the two conditions on the combined dependent variables of interest: $F(3, 32) = 2.04$, $p = .128$; Wilks' Lambda = .84. Interestingly, when the dependent measures were examined separately, the effect of the presence of a companion animal on mean scores on the adapted version of the DTAP revealed marginal significance: B = .093, $F(1, 34) = 4.71$, $p = .037$ and the effect on mean scores on the CRF-S was near significance, B = .233, $F(1, 34) = 3.89$, $p = .057$. No significance was found for mean scores on the Empathy Subscale, B = .148, $F(1, 34) = 1.46$, $p = .236$. Figures 1 and 2 contain a graphical representation of the modest relationship between participant ratings on the PAS and participant ratings of the interviewer on the adapted version of the DTAP and CRF-S, respectively. The scatterplot demonstrates that participants who endorsed having positive attitudes toward animals were more likely to report higher ratings of the interviewer on the adapted version of the DTAP and CRF-S; however, the data do not support participant attitudes toward pets as being a significant predictor of participant ratings on these measures.

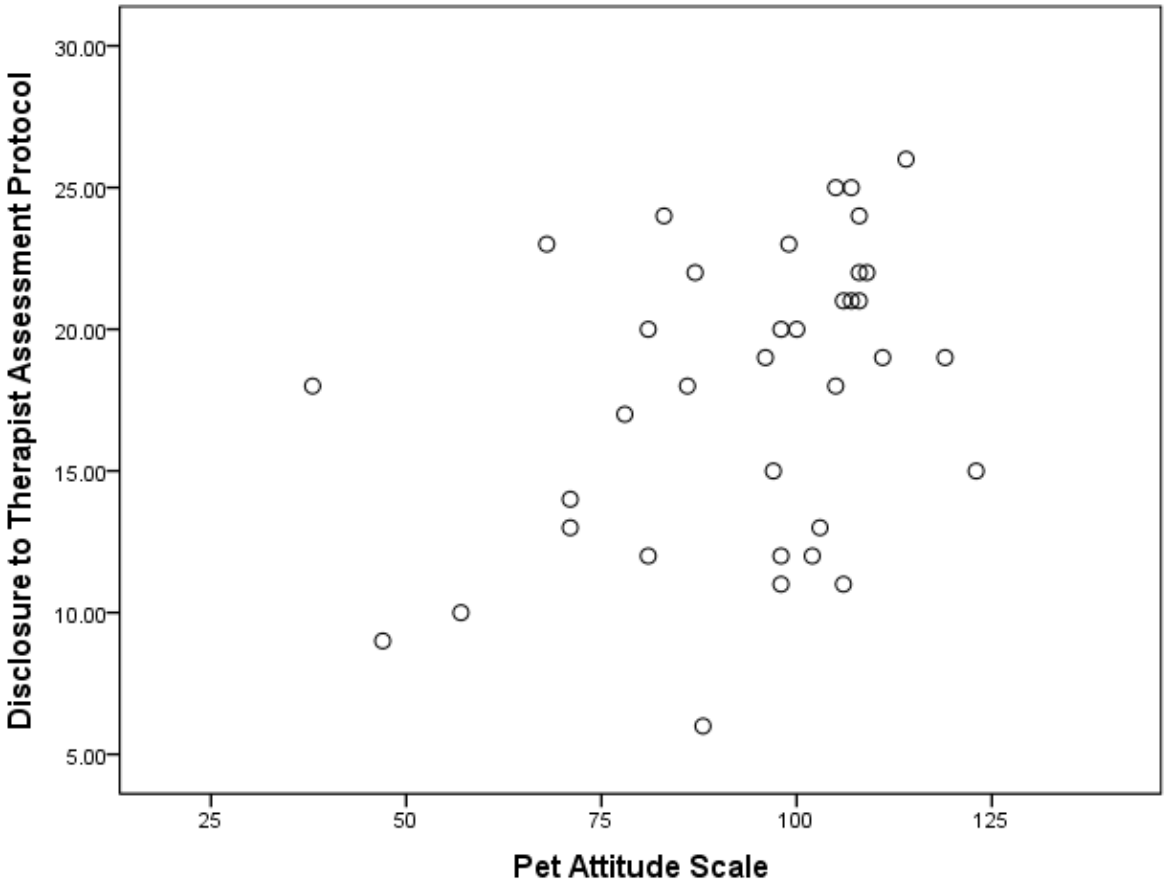


*Figure 1.* Scatterplot of participant ratings on the PAS and adapted version of the DTAP.

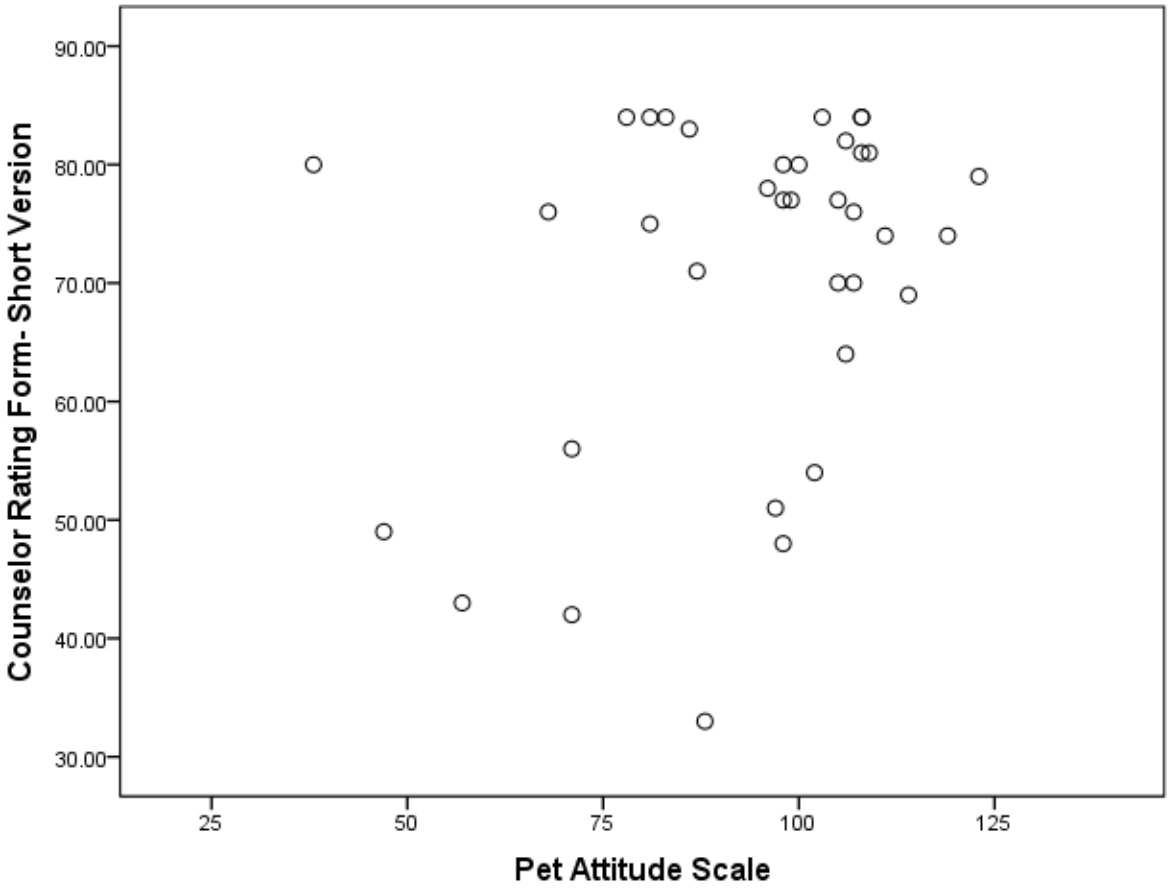


*Figure.* Scatterplot of participant ratings on the PAS and CRF-S.

**Participant Level of Exposure to Animals (Current and Past)**

Multivariate regression analyses were conducted to examine the influence of participants' current and past levels of exposure to pets on the dependent measures for participants in the dog condition. When a multivariate regression analysis was performed with current exposure to pets as the covariate, no significant results were found on the combined dependent variables of interest: $F(3, 32) = 1.15$, $p = .344$; Wilks' Lambda = .90. As expected based on results of the combined dependent variables, no significant differences were found when the dependent

measures were examined separately: CRF-S, $F(1, 34) = .79$, $p = .381$; adapted version of the DTAP, $F(1, 34) = .06$, $p = .815$; Empathy Subscale, $F(1, 34) = 2.32$, $p = .137$.

A second multivariate regression analysis, in which past exposure to pets was included as the covariate, also did not reveal significant findings on the combined dependent variables: $F(3, 32) = .16$, $p = .921$; Wilks' Lambda = .99. Accordingly, examination of the dependent measures separately also did not reveal any significant findings: CRF-S, $F(1, 34) = .01$, $p = .905$; adapted version of the DTAP, $F(1, 34) = .15$, $p = .700$; Empathy Subscale, $F(1, 34) = .023$, $p = .880$.

## Participant Characteristics

Several separate analyses were conducted to explore specific participant characteristics in relation to participant responses on the dependent variables. The means for each participant characteristic are displayed in Tables 3 and 4.

First, a one-way MANCOVA was performed to explore differences between groups (dog and no dog), controlling for participant age. Presence of a companion animal was included as the independent variable. The three dependent variables being examined were: overall perceptions of the interviewer, willingness to self-disclose to the interviewer, and perceptions of interviewer empathy. Participant age was included as a covariate. The overall analysis revealed no statistically significant differences between conditions (dog vs. no dog) on the combined dependent variables, $F(3, 66) = .24$, $p = .869$; Wilks' Lambda = .99. Examination of the impact of the presence of a companion animal on the separate dependent measures also did not reveal any significant findings: CRF-S, $F(1, 68) = .34$, $p = .561$; adapted version of the DTAP, $F(1, 68) = .03$, $p = .867$; Empathy Subscale, $F(1, 68) = .04$, $p = .842$. When the results were adjusted for age, there were no significant findings on the combined dependent variables, $F(3, 66) = 1.23$, $p =$

.306; Wilks' Lambda = .95. As expected, the results also did not reveal any significant findings when the dependent measures were examined separately: CRF-S, $F(1, 68) = 2.67$, $p = .107$; adapted version of the DTAP, $F(1, 68) = .01$, $p = .918$; Empathy Subscale, $F(1, 68) = .82$, $p = .367$.

To investigate the effects of sex/gender on the three dependent variables, a two-way between-groups MANOVA was conducted. Analyses revealed no significant interaction or main effects for the presence of a companion animal or for participant sex/gender on the dependent variables. Specifically, no significant differences were found on the combined dependent variables for: presence of a companion animal, $F(3, 65) = .23$, $p = .873$; Wilks' Lambda = .99; sex/gender (male or female), $F(3, 65) = .51$, $p = .677$; Wilks' Lambda = .98; interaction between presence of a companion animal and sex/gender, $F(3, 65) = .83$, $p = .480$; Wilks' Lambda = .96.

Lastly, a two-way between-groups MANOVA was conducted to examine the effect of participant differences in race/ethnicity on measures of the dependent variables. The two groups included in the analysis were comprised of participants who identified as White American/Caucasian (non-Hispanic) or African American/Black American. One participant in the study identified as Arabic, however, this individual was excluded from this specific analysis due to insufficient sample size. Results revealed no significant interaction or main effects from condition or participant race on the combined dependent variables of interest: presence of a companion animal, $F(3, 64) = .13$, $p = .939$; Wilks' Lambda = .99; race, $F(3, 64) = .25$, $p = .862$; Wilks' Lambda = .99 ; interaction between presence of a companion animal and race, $F(3, 64) = .11$, $p = .952$; Wilks' Lambda = 1.00.

Table 3

*Mean Scores across Conditions by Participant Sex/Gender*

| Condition | Sex/Gender | *n* | Counselor Rating Form-Short Version *M(SD)* | Disclosure to Therapist Assess. Protocol *M(SD)* | Empathy Subscale of the BLRI *M (SD)* |
|---|---|---|---|---|---|
| Dog | | | | | |
| | Female | 27 | 71.19 (14.25) | 18.15 (5.25) | 10.89 (15.00) |
| | Male | 9 | 70.22 (14.97) | 16.67 (5.27) | 14.84 (12.10) |
| No Dog | | | | | |
| | Female | 28 | 72.64 (11.07) | 17.36 (5.40) | 12.29 (11.29) |
| | Male | 7 | 72.71 (6.34) | 18.43 (3.55) | 13.29 (9.43) |

Table 4

*Mean Scores across Conditions by Participant Race/Ethnicity*

| Condition | Race/Ethnicity | *n* | Counselor Rating Form-Short Version *M(SD)* | Disclosure to Therapist Assess. Protocol *M(SD)* | Empathy Subscale of the BLRI *M (SD)* |
|---|---|---|---|---|---|
| Dog | | | | | |
| | Afr. Am. | 3 | 71.33 (15.53) | 18.33 (5.69) | 11.33 (19.76) |
| | Caucasian | 32 | 71.81 (13.60) | 17.88 (5.28) | 12.36 (14.08) |
| No Dog | | | | | |
| | Afr. Am. | 4 | 70.00 (11.60) | 16.50 (7.85) | 6.50 (12.07) |
| | Caucasian | 31 | 73.00 (10.18) | 17.71 (4.76) | 13.26 (10.61) |

# CHAPTER FOUR

# DISCUSSION

The discussion section of this dissertation will provide a comprehensive summary and interpretation of the results of analyses examining the impact of a companion animal's presence on participants' overall perceptions of the interviewer, willingness to self-disclose to the interviewer, and perceptions of the interviewer's level of empathic understanding. Previous research pertaining to each hypothesis will be briefly highlighted, followed by a summary of the results obtained in the current study, and discussion regarding inferences that can be drawn based on these results. Improvements to the design and methodology of this study, in comparison to previous research in this area will also be discussed. Additionally, limitations of the current study will be addressed, as well as potential directions for future research.

## Overall Perceptions of the Interviewer

Previous research illustrates that clients often attribute their positive therapy outcomes to personal characteristics of the therapist, such as warmth, attentiveness, and understanding (Strupp et al., 1969). Based on evidence indicating that perceptions of therapist characteristics impact treatment outcomes, it can be suggested that positive perceptions of a therapist could provide a foundation for developing an effective therapeutic alliance. It is well-documented that the presence of animals tends to have a halo effect, imparting positive attributes onto the people they accompany (Lockwood, 1983; Schneider & Pilchak Harley, 2006). For instance, empirical studies examining the relationship between humans and animals have determined that the presence of a companion animal often enhances perceptions of social desirability, such that a person with an animal will appear kinder and more approachable (Hunt, Hart, & Gomulkiewicz 1992; Kruger & Serpell, 2010; Wells & Perrine, 2001). As such, it can be reasoned that the

formation of an effective therapeutic alliance could be facilitated by having a companion animal present with the therapist during psychotherapy.

Contrary to expectations, the findings of the current study suggest otherwise. Specifically, results of this study revealed no statistically significant differences between mean ratings on the Counselor Rating Form-Short Version (CRF-S) of individuals who met with the interviewer in the presence of a companion animal and those who met with the interviewer alone. Therefore, the hypothesis that more favorable perceptions of the interviewer would be reported by participants who met with the interviewer when the companion animal was present, was not supported by this study.

It can be inferred from these findings that the presence of a companion animal during an initial psychotherapy session does not, in fact, influence an individual's perceptions of a therapist. The findings obtained in this study differ from those found in similar research, in which it was determined that the presence of a dog exerted a positive influence on the evaluation of psychotherapists (Schneider & Pilchak Harley, 2006). There are several potential explanations to account for inconsistencies in the results of these studies. First, differences may be attributed to better-quality methodology employed by the current study. Previous studies have been limited by considerable methodological issues, including small sample size, lack of suitable control groups, and failure to control for extraneous variables. This study attempted to improve upon the methodology used in previous research through use of a randomly selected sample of sufficient size, inclusion of a control group (i.e., the no dog condition), and an experimental design developed to foster greater ecological validity. Of notable importance, the design of this study maintained high standards of external validity by creating a pseudo-therapeutic encounter to simulate the experience of an initial psychotherapy session. In contrast to previous studies that

utilized videotaped segments of a therapist with a dog, participants in this study experienced an in-person interaction with the interviewer and an actual companion animal.

It is likely that the nature of the interaction between the interviewer and participants is also an important factor in explaining the mixed results. The interviewer in the current study engaged participants in a scripted question-and-answer dialogue designed to simulate a therapy session. To enhance ecological validity, the interviewer responded to participants' answers with empathic comments at specified points during the interview. Additionally, throughout the course of the interview, the interviewer acknowledged each participant's answers with nonverbal behaviors (e.g., nodding her head), as well as scripted follow-up questions to the participant's responses. Based on improvements to the methodology utilized in the current study as compared to previous studies, it is reasonable to suggest that these findings more accurately depict the effect of a companion animal's presence on participants' overall perceptions of the interviewer.

If the presence of a companion animal does not influence individuals' perceptions of a therapist, attention should be paid to alternate factors that could influence how a therapist is perceived (and consequently, impact the development of an effective therapeutic alliance). An abundance of literature lends support to the notion that specific therapist behaviors (i.e., therapist skill level, empathic understanding, attunement to the patient, ability to engage the patient, and ability to focus on the patient's problems) positively impact treatment outcomes (Hilsenroth & Cromer, 2007; Orlinsky et al., 1994). Accordingly, it can be inferred that external variables (such as the presence of a companion animal) are not as influential to the therapeutic alliance as factors related to the therapist's interactions with a client.

The nature of a client's interaction with a companion animal should also be examined as a potential factor affecting client perceptions of the therapist. In particular, it remains to be

determined whether direct interaction between the client and companion animal would achieve different results. In the current study, participants were exposed to a companion animal, but not encouraged to interact with the animal. In fact, it should be noted that only a handful of participants asked to pet the dog upon entering or exiting the interview room. It is possible that manipulating the nature of the participants' interaction with the companion animal may increase its saliency as a factor affecting perceptions of the interviewer. Future research can examine this possibility by including a condition in which participants interact with the companion animal.

Gaining a clearer understanding of the nature of an individual's interactions with a companion animal and its potential influence on the process of psychotherapy could have important clinical implications. For instance, numerous empirical studies have utilized physical measures of stress and/or self-report measures of anxiety to demonstrate that interaction with a companion animal reduces stress and anxiety in humans (Barker & Dawson, 1998; Cole et. al., 2007; Wilson, 1991). Accordingly, it may be worthwhile for future research to examine whether interaction with a companion animal will similarly affect a client who experiences anxiety during the initial sessions of psychotherapy. It is possible that interaction with a companion animal could serve to reduce clients' anxiety associated with beginning therapy, thereby facilitating the development of rapport between the client and therapist.

### Willingness to Self-Disclose

The quality of the therapeutic alliance is an important factor in a client's willingness to self-disclose to a therapist (Hall & Farber, 2001). In therapeutic contexts, animals are commonly employed to alleviate the stress of the initial phases of therapy via their comforting presence and anxiolytic effects; additionally, companion animals are thought to expedite the rapport-building process between the client and therapist (Barker & Dawson, 1998; Kruger & Serpell, 2010).

Furthermore, there is evidence to suggest that a psychotherapist who conducts therapy with a companion animal present may appear less intimidating and, consequently, the client may feel more comfortable revealing him/herself to the therapist (Beck, Hunter, & Seraydarian, 1986).

Contrary to the literature suggesting that the use of companion animals in psychotherapy promotes client willingness to self-disclose to the therapist, the results of this study suggest otherwise. No statistically significant differences were found between ratings on the adapted version of the Disclosure to Therapist Assessment Protocol (DTAP) of those participants who met with the interviewer in the presence of the companion animal and those who met with the interviewer alone. As such, the hypothesis that the interviewer would elicit a greater willingness for participants to self-disclose when she was accompanied by a dog was not supported.

Consistent with the data regarding overall perceptions of the therapist, it seems reasonable to conclude that the presence of a dog does not impact a client's willingness to self-disclose to a therapist. Another potential explanation for these results is that the design of this study was not conducive to investigating the impact of a companion animal's presence on self-disclosure. Previous research determined that length of time in therapy is one of the most strongly predictive factors of clients' willingness to self-disclose to a therapist (Hall & Farber, 2001). It is generally expected that the longer a client is engaged in therapy, the more opportunity he/she will have to make self-disclosures; additionally, it is assumed that the client will feel more comfortable self-disclosing to a therapist after having attended several meetings with the therapist, during which time rapport was likely established. Individuals in this study were only required to attend a single meeting with the interviewer; as such, it is possible that the interaction between the participants and the interviewer was not of sufficient length for participants to feel comfortable disclosing information about themselves to the interviewer.

Future studies could explore this possibility using a longitudinal design across multiple sessions with an individual.

Additionally, the notion that companion animals serve as a social lubricant has received a significant amount of empirical support (Arkow, 1982; Schneider & Pilchak Harley, 2006). It has been noted in the AAI literature that an animal may act as a link in the conversation between the therapist and client; however, in this study, the interviewer's interaction with participants was scripted, which eliminated the opportunity for spontaneous interaction between the interviewer and participants. As such, it is possible that attempts to maintain adequate experimental control in the study obstructed one of the well-documented benefits of having a companion animal present during a social interaction. To account for this possibility, future research in this area may want to consider employing a naturalistic experimental design to further examine the impact of a companion animal's presence on individuals' willingness to self-disclose during a therapeutic interaction.

### Perceptions of Interviewer Empathy

A substantial body of literature emphasizes the therapist's ability to convey empathic understanding as an integral component in the development of a strong therapeutic alliance (Elliot et al., 2011; Lambert & Barley, 2001; Orlinsky et al., 1994). Proponents of AAI have theorized that when clients observe the therapist behaving compassionately toward a companion animal, it is logical to expect that clients will be more likely to perceive the clinician as being warm and caring toward the client as well (Fine, 2010). Contrary to these expectations, however, the results of the current study provide evidence to refute the hypothesis that the presence of a companion animal positively impacts client perceptions of therapist empathy. Specifically, it was determined that participant ratings of the interviewer's level of empathic understanding did not

differ significantly between those participants who met with the interviewer when the companion animal was present, and those participants who met with the interviewer alone.

Clinical implications of these results suggest that a companion animal's presence does not affect client perceptions of therapist empathy. Consideration should also be given to the possibility that these results could be attributed to methodological weaknesses within the design of the study. For instance, the use of a script during the pseudo-therapeutic interaction may have negatively impacted participants' perceptions of the interviewer's responses. Specifically, there were numerous occasions across participant interviews in which the scripted empathic response did not match the depth of the disclosure made by the participant. For example, the response "I can imagine that was really difficult," might not be an appropriate reply to a participant disclosing that he missed watching his favorite television show the night before. In such instances, it is likely that participant perceptions of the interviewer's level of empathy were impacted by the inability of the interviewer to respond with a spontaneous and genuinely empathic comment.

It may be beneficial for future empirical studies in this area consider employing an experimental design in which the interviewer engages participants in an unscripted dialogue. While this alteration in the design of the current study may have improved its external validity, it would have occurred at the expense of experimental control and may have resulted in significant examiner effects. Still, there are notable benefits to examining whether a companion animal influences participants' perceptions of the interviewer during a spontaneous interaction, as opposed to a scripted interaction.

### Influence of Participant Attitudes Toward Pets and Current/Past Exposure to Animals

Finally, it was hypothesized that participant attitudes toward pets (as measured by the Pet Attitude Scale [PAS]) would not function as a moderator for the relationship between the presence of a companion animal and participants' responses on the dependent measures. This hypothesis was supported by the results for overall perceptions of the interviewer and perceptions of interviewer empathy; however, results did not support this hypothesis for willingness to self-disclose to the interviewer. It can be inferred from these results that individuals' attitudes toward pets significantly affect their willingness to self-disclose to a therapist when a companion animal is present, but do not impact their overall perceptions of a therapist and perceptions of the therapist's level of empathic understanding. Previous research on the attitudes toward pets as a moderating variable in individuals' responses to animal-assisted activities has obtained mixed results. For instance, it has been documented that individuals with negative attitudes toward animals do not derive physiological or psychological benefits from interacting with an animal (Friedmann, Locker, and Lockwood, 1993). Conversely, there is also research to suggest that negative attitudes toward animals do not impact client perceptions of the therapeutic alliance (Schneider & Pilchak Harley, 2006). The findings of Schneider and Pilchak Harley (2006) were supported by the current study, which employed better-quality methodology to assess the influence of participant attitudes toward pets on ratings of the interviewer.

It is important to highlight that the results of the combined measures did not reveal significant findings when the analyses were adjusted to control for attitudes toward pets; however, when participant mean scores on each of the measures were evaluated separately, a slightly significant effect was found for participants' willingness to self-disclose to the interviewer ($p = .037$). Additionally, participants' overall perceptions of the interviewer were

found to be approaching significance ($p$ = .057). Based on this pattern of results, it is assumed that the significant effect of participant attitudes toward pets on their reported willingness to self-disclose to the interviewer was diluted by the non-significant effects of the other dependent variables in the combined analysis.

Further analysis of these results revealed a positive correlation between attitudes toward pets and willingness to self-disclose, such that participants in the dog condition who endorsed having positive attitudes toward pets and were more likely to report a greater willingness to self-disclose to the interviewer. A similar investigation conducted by Schneider and Pilchak Harley (2006) concluded that the presence of a companion animal enhances an individual's willingness to disclose to a therapist, regardless of his/her attitudes toward companion animals or past history with animals. In this study, the results indicated that the presence of a companion animal is only predictive of greater willingness to self-disclose for participants who reported having positive attitudes toward pets. Interestingly, the study conducted by Schneider and Pilchak Harley (2006) and the current study both utilized the same scale (i.e., the PAS) to measure participant attitudes toward pets.

It is likely that the mixed results can be attributed to differences in methodology between the two studies. In particular, variability in the administration of the PAS may have had a prominent effect. Specifically, in the current study, the PAS was administered as a pre-test measure, whereas, Schneider and Pilchak Harley (2006) administered the PAS subsequent to their intervention. It is also possible that the differences in results can be attributed to either characteristics of the specific sample or limited sample size in each of the studies. Further examination of the effect of individuals' attitudes toward pets on perceptions of the therapist

merits consideration in future research, in which well-controlled methodology is implemented and a larger, more diverse sample of participants can be obtained.

It is also worth mentioning that, consistent with those results obtained by Schneider and Pilchak Harley (2006) regarding individuals' level of exposure to animals and perceptions of the therapist, this study similarly found that participants' current and past exposure to animals did not influence participant ratings of the interviewer on any of the dependent measures. Based on these data, the inference can be drawn that the presence of a companion animal does not impact an individual's overall perceptions of a therapist, willingness to self-disclose to a therapist, and perceptions of empathic understanding of the therapist, regardless of the individual's current or past level of exposure to animals.

## Directions for Future Research

Although a substantial number of empirical studies in the field of AAI suggest that companion animals benefit humans both physiologically and psychologically, the results of this study provide evidence to the contrary with regard to the value of having a companion animal present during a client's initial sessions of psychotherapy. According to Katcher (2000), "many have pointed out that although the utilization of companion animals may be highly appealing, it needs to be understood that just because an interaction with an animal is enjoyable, does not imply that it is therapeutic." The field is lacking in well-controlled, quantitative research on the uses of companion animals in psychotherapy; therefore, a need exists for future studies that employ rigorous methodology and utilize diverse populations in various settings. This dissertation represents an attempt at implementing a scientific investigation with high internal and external validity to examine the impact of a companion animal on aspects of the therapeutic alliance.

Although a large body of literature exists to document the effect of AAI in various healthcare settings, few empirical studies have been conducted to specifically examine the influence of companion animals on the process of psychotherapy. Attempts were made in the design of the current study to closely simulate a client's experience of an initial therapy session in order to acquire data that could be generalized to clinical settings. Despite these efforts, it should be noted that the methodology utilized in this study was a step removed from actual clinical practice. Accordingly, a need exists for future research to examine the impact of a companion animal's presence in the context of actual psychotherapy.

Another area for future exploration is investigating whether there are conditions in which having a companion animal present during psychotherapy would prove detrimental or harmful to the therapeutic alliance. Findings from the current study suggest that the presence of a companion animal does not have any significant effect on the aspects of the therapeutic alliance being examined; however, it should be acknowledged that only 5.6% of the sample reported having attitudes toward pets that would be considered negative. Additionally, none of the participants who endorsed having negative attitudes toward pets reported being fearful of dogs. Intuitively, it seems reasonable to assume that individuals who are fearful of animals would respond negatively to having an animal present during psychotherapy; still, research has not been conducted to document this effect. This information is clinically relevant, as knowledge about circumstances in which a companion animal might be harmful to the therapeutic alliance would limit the use of animals in therapeutic settings.

It may also be worthwhile for future research to examine participants' previous involvement in therapy as a potential moderator for the impact of companion animals on aspects of the therapeutic alliance. Individuals without prior exposure to therapy may experience higher

levels of anxiety during the initial stages of therapy, which could impede the development of the therapeutic alliance. Such clients may be more likely to benefit from the well-documented anxiolytic effects of interacting with a companion animal (Barker & Dawson, 1998; Cole et al., 2007; Wilson, 1991). The current study did not examine previous therapy experience as a moderating variable. Additionally, study participants were aware that they were participating in an experiment, as opposed to actual therapy; therefore, it is possible that a ceiling effect occurred, such that participants experienced low levels of anxiety prior to participating in the interview and were consequently less likely to derive benefit from the presence of a companion animal. Examination of previous therapy experience as a moderator may facilitate a better understanding of whether companion animals impact the process of psychotherapy.

Future research is also necessary to further explore whether characteristics such as, age, race/ethnicity, and sex/gender moderate the effect of a companion animal's presence on the therapeutic alliance. The current sample was demographically homogeneous in terms of race/ethnic background and age; additionally, 78% of the sample was comprised of women. The lack of demographic variability limits the generalizability of these results to various clinical settings.

## Conclusion

The intention of this dissertation was to explore the impact of a companion animal's presence on several aspects of the therapeutic alliance, while considering attitudes toward pets as a potential moderating variable. Results of the study determined that the presence of a companion animal did not impact participants' overall perceptions of the interviewer, willingness to self-disclose to the interviewer, and perceptions of the interviewer's level of empathic understanding. Consideration of attitudes toward pets, current and past levels of exposure to

animals, and participant characteristics (i.e., demographic variables) did not appear to impact the results when examined separately as covariates. One exception to these results should be noted, such that participant attitudes toward pets were found to be positively correlated with willingness to self-disclose when a companion animal was present.

The results of the current study are inconsistent with the findings of previous research, which indicated that the presence of a companion animal positively influences client evaluation of a psychotherapist. This study improved upon previous research attempts by employing an experimental design in which participants engaged in a pseudo-therapeutic interaction with an interviewer and companion animal, as opposed to utilizing videotaped segments of a therapist with a dog. Accordingly, it is reasonable to suggest that the findings of the current study more accurately illustrate the effect of a companion animal's presence on aspects of the therapeutic alliance. Despite obtaining evidence contrary to the expectations of the study, these findings can be considered meaningful, as they highlight the need for continued investigation of the benefits and drawbacks to incorporating the use of companion animals into therapeutic settings.

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# APPENDIX A

# COUNSELOR RATING FORM-SHORT VERSION

**Instructions:** Please circle the number that best represents your perception of the interviewer from the session you just completed.

Insincere |_____|_____|_____|_____|_____|_____|_____| Sincere

1 2 3 4 5 6 7

Very Insincere — Very Sincere

Unskillful |_____|_____|_____|_____|_____|_____|_____| Skillful

1 2 3 4 5 6 7

Very Unskillful — Very Skillful

Dishonest |_____|_____|_____|_____|_____|_____|_____| Honest

1 2 3 4 5 6 7

Very Dishonest — Very Honest

Inexpert |_____|_____|_____|_____|_____|_____|_____| Expert

1 2 3 4 5 6 7

Very Inexpert — Very Expert

Unlikable |_____|_____|_____|_____|_____|_____|_____| Likable

1 2 3 4 5 6 7

Very Unlikable — Very Likable

Unsociable |_____|_____|_____|_____|_____|_____|_____| Sociable

1 2 3 4 5 6 7

Very — Very

Unsociable Sociable

Cold |_____|_____|_____|_____|_____|_____|_____| Warm

1 2 3 4 5 6 7

Very Cold Very Warm

Untrustworthy |_____|_____|_____|_____|_____|_____|_____| Trustworthy

1 2 3 4 5 6 7

Very Untrustworthy Very Trustworthy

Inexperienced |_____|_____|_____|_____|_____|_____|_____| Experienced

1 2 3 4 5 6 7

Very Inexperienced Very Experienced

Unreliable |_____|_____|_____|_____|_____|_____|_____| Reliable

1 2 3 4 5 6 7

Very Unreliable Very Reliable

Unprepared |_____|_____|_____|_____|_____|_____|_____| Prepared

1 2 3 4 5 6 7

Very Unprepared Very Prepared

Unfriendly |_____|_____|_____|_____|_____|_____|_____| Friendly

1 2 3 4 5 6 7

Very Unfriendly Very Friendly

# APPENDIX B

# DISCLOSURE TO THERAPIST ASSESSMENT PROTOCOL-ADAPTED VERSION

**Instructions:** Self-disclosure refers to the process of revealing yourself to another person. Please complete this survey based on your experience with the interviewer whom you just saw.

During your interaction with the interviewer, how often did you feel hesitant to disclose to her what you were really thinking or feeling?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Never | | | Some of the time | | | Always |

What number best describes how much of yourself you would be willing to reveal to the interviewer?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Very little | | | A moderate amount | | | A great amount |

Please think about a personal issue or experience you have not told anyone about. How willing would you be to disclose this issue or experience to the interviewer?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Unwilling | | | Somewhat willing | | | Very willing |

Imagine that in the future the interviewer was to be your therapist—how comfortable would you feel disclosing personal information to her?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Uncomfortable | | | Somewhat comfortable | | | Very comfortable |

# APPENDIX C

# BARRETT-LENNARD RELATIONSHIP INVENTORY-EMPATHY SUBSCALE

**Instructions:** Please circle the number that best represents your perception of the interviewer from the session you just completed.

**+3** I feel strongly that it is true

**+2** I feel it is true

**+1** I feel that it is probably true, or more true than untrue

**-1** I feel that it is probably untrue, or more untrue than true

**-2** I feel that it is not true

**-3** I feel strongly that it is not true

---

1. She tries to see things through my eyes.

   **-3** **-2** **-1** **+1** **+2** **+3**

2. She understands my words but not the way I feel.

   **-3** **-2** **-1** **+1** **+2** **+3**

3. She is interested in knowing what my experiences mean to me.

   **-3** **-2** **-1** **+1** **+2** **+3**

4. She always knows exactly what I mean.

   **-3** **-2** **-1** **+1** **+2** **+3**

5. At times she jumps to the conclusion that I feel more concerned about something than I actually do.

   **-3** **-2** **-1** **+1** **+2** **+3**

6. Sometimes she thinks that I feel a certain way because she feels that way.

   **-3** **-2** **-1** **+1** **+2** **+3**

**Rating Key:** **+3** I feel strongly that it is true

**+2** I feel it is true

**+1** I feel that it is probably true, or more true than untrue

**-1** I feel that it is probably untrue, or more untrue than true

**-2** I feel that it is not true

**-3** I feel strongly that it is not true

---

7. She understands me.

**-3** **-2** **-1** **+1** **+2** **+3**

8. Her own attitudes toward some of the things I say, or do, stop her from really understanding me.

**-3** **-2** **-1** **+1** **+2** **+3**

9. She appreciates what my experiences feel like to me.

**-3** **-2** **-1** **+1** **+2** **+3**

10. She does not realize how strongly I feel about some of the things we discuss.

**-3** **-2** **-1** **+1** **+2** **+3**

11. She responds to me mechanically.

**-3** **-2** **-1** **+1** **+2** **+3**

12. She usually understands all of what I say to her.

**-3** **-2** **-1** **+1** **+2** **+3**

13. When I do not say what I mean at all clearly, she still understands me.

**-3** **-2** **-1** **+1** **+2** **+3**

14. She tries to understand me from her own point of view.

**-3 -2 -1 +1 +2 +3**

15. She can be deeply and fully aware of my most painful feelings without being distressed or burdened by them herself.

**-3 -2 -1 +1 +2 +3**

# APPENDIX D

# PARTICIPANT PRE-TEST
# (INCLUDES PET ATTITUDE SCALE)

**Instructions:** Please answer each of the following questions as honestly as you can, in terms of how you feel right now. Please answer by circling one of the following seven numbers for each question.

**1. I really like seeing pets enjoy their food.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**2. My pet means more to me than any of my friends (or would if I had one).**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**3. I would like a pet in my home.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**4. Having pets is a waste of money.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**5. Housepets add happiness to my life (or would if I had one).**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**6. I feel that pets should always be kept outside.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**7. I spend time every day playing with my pet (or would if I had one).**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**8. I have occasionally communicated with my pet and understood what it was trying to express (or would if I had one).**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**9. The world would be a better place if people would stop spending so much time caring for their pets and started caring more for other human beings instead.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**10. I like to feed animals out of my hand.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**11. I love pets.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**12. Animals belong in the wild or in zoos, but not in the home.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**13. If you keep pets in the house you can expect a lot of damage to the furniture.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**14. I like housepets.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**15. Pets are fun but it's not worth the trouble of owning one.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**16. I frequently talk to my pet.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**17. I hate animals.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

**18. You should treat your housepets with as much respect as you would a human member of your family.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | moderately disagree | slightly disagree | unsure | slightly agree | moderately agree | strongly agree |

Do you have an allergy to dogs that prohibits you from being in the same room as a dog?

YES NO

# APPENDIX E
# DEMOGRAPHIC QUESTIONNAIRE

Please answer the following questions:

1. Age: _____

2. Please circle your sex/gender: Male Female

3. Please select your race/ethnicity:
   a. African American/Black American
   b. Hispanic American/Latino(a) American
   c. Asian American/Pacific Islander
   d. Native American/Alaska Native
   e. White American/Caucasian (non-Hispanic)
   f. Biracial (please specify)_____
   g. Other (please specify)_____

4. How much exposure do you currently have to animals?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Very Little | | | Occasional | | | Great amount |

5. How much exposure have you had to animals in the past?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Very Little | | | Occasional | | | Great amount |

6. If you currently have (or have previously had) exposure to animals, please briefly describe the type(s) of animals, the frequency of exposure, and the nature of the interaction(s):

# APPENDIX F
# EXPERIMENT PROTOCOL

EXPERIMENT PROTOCOL:

When participants arrive at the Center for Applied Psychology (CAP), they will be greeted by a research assistant (R.A.). The research assistant will confirm each participant's attendance on a sign-in sheet. The R.A. will then explain to each participant:

R.A.: "Today you will be meeting with an interviewer who will be asking you several questions about yourself. Before we begin, please read and sign this Informed Consent form if you agree to participate in the study."

After the participant completes the Informed Consent and returns it to the R.A., the R.A. will respond by saying:

"Do you have any questions? Just to remind you, you can withdraw from the study at any point. Please have a seat in the waiting room and I will come and get you when the interviewer is ready to meet with you."

When the interviewer is prepared to meet with the participant, the R.A. will locate the participant in the waiting room. As the R.A. and the participant are entering the CAP, the R.A. will say to the participant:

R.A.: "A woman by the name of Claire will be acting as the interviewer today."

The R.A. will bring the participant to the room where the interviewer is waiting. When the participant arrives at the room, the interviewer will meet the participant in the doorway and offer a handshake. The interviewer will introduce herself by saying:

Interviewer: "Hi, my name is Claire. It's nice to meet you. Come in and have a seat in the chair by the window." (*Interviewer will smile as she greets the participant.)*

If the participant has been randomly assigned to the condition in which there is a dog present in the room, the interviewer will briefly introduce the dog by saying:

Interviewer: "This is my dog Logan. He is going to be here while we talk today, but he'll just be lyinging quietly in the chair."

If the participant asks to pet the dog, the interviewer will allow the participant to pet the dog, but will encourage the interaction to be brief. The interviewer will politely and briefly respond to any questions about the dog from the participant (e.g., "What breed of dog is that?").

Once the participant and interviewer are seated in their chairs, the interviewer will begin the interview by saying:

Interviewer: "I am testing out different interview questions, so today I'll be asking you several questions about yourself. Afterward, you'll be asked to complete some forms asking about your opinion of the interview. Everything that you say during our meeting will be kept confidential, meaning that it won't leave this room. There is a video camera and the microphone up there *(interviewer will point toward the ceiling),* but both of them are turned off right now so you don't have to worry about our meeting being recorded. Do you have any questions before we get started?"

The interviewer will briefly address any questions asked by the participant. If the participant does not have any questions, the interviewer will start the interview.

If at any point during the interview the participant responds to a question by saying something such as, "I've already told you about that," the interviewer will ask the participant to think of another example that will answer the question.

During each interview, the interviewer will sit in the chair opposite the participant with one leg crossed over the other and a clipboard on her lap. She will maintain eye contact with the participant while he/she is responding to the interviewer's questions. The interviewer will also nod her head while listening to the participants' responses.

Interviewer: "Okay, let's get started. I'd like to begin by asking you some general questions about yourself."

1. "What is your major here at IUP?"
    a. Follow-up: "Okay, how did you choose that?"
        i. Follow-up: "Interesting."

2. "Tell me about an activity that you enjoy or something that you do for fun."
    a. Follow-up: "I can imagine that would be really enjoyable for you."
    *(Interviewer will briefly pet the dog while the participant responds.)*

3. "Tell me about a time that you accomplished something that you were very proud of."
    a. Follow-up: "That sounds like a big accomplishment."
    *(Interviewer will smile at participant as she makes the follow-up comment.)*

Interviewer: "I'd also like to ask you some questions about your relationships with other people."

4. "Tell me about a person who is, or was, really important to you."
    a. Follow-up: "Okay."

5. "Tell me about a time in which you experienced a serious conflict with someone and what the conflict was about."

a. Follow-up: “I can imagine that was really difficult.”

6. “Could you tell me about a situation in which you felt rejected by another person?”
    a. Follow-up: “Mmmm.”
    *(Interviewer will furrow her brow.)*

7. “Tell me about a time someone trusted you with something.”
*(Interviewer will briefly pet the dog while the participant responds.)*

8. “When was there a time when you felt the need to apologize to someone for the way you treated them?”
    a. Follow-up: “Did you kind of feel like you let them down a little bit?”
    *(Interviewer will furrow her brow.)*

Interviewer: “I’d like to switch gears and ask you about some different types of experiences that you may have had in the past.”

9. “Tell me about an incident in which you felt really embarrassed.”
    a. Follow-up: “I can definitely see why that was embarrassing.”
    *(Interviewer will smile at participant during response.)*

10. “Tell me about a time when you had to be brave.”
    a. Follow-up: “I can see that.”

11. “Tell me about an event in your life that was upsetting or distressing to you.”
    a. Follow-up: “That sounds like it was really difficult.”
    *(Interviewer will furrow her brow and will briefly pet the dog while the participant responds.)*

12. “Describe an experience you’ve had in which you ended up learning an important lesson.”
    a. Follow-up: “Okay.”

13. “Could you describe a time when you knew something you were doing was wrong, but you did it anyway?”

14. “Could you tell me about your favorite place to visit for fun?”
    a. Follow-up: “That sounds really nice.”
    *(Interviewer will smile at participant as she makes the follow-up comment.)*

15. “Can you recall a time when you felt disappointed in yourself for something you said or did?”

a. Follow-up: “Mmmm.”
*(Interviewer will furrow her brow and will briefly pet the dog while the participant responds.)*

16. “Tell me about a time you did something nice or generous for someone else.”
    a. Follow-up: “That sounds really rewarding.”
    *(Interviewer will smile at participant during response.)*

Interviewer: “That was actually the last question on my list. Thank you so much for coming in today. (*Interviewer will smile at participant).* Let me take you to the other room where you can fill out the forms about the interview.”

The interviewer will walk the participant down the hall to the classroom in the CAP and instruct him/her to have a seat at the table. The interviewer will explain to the participant that the R.A. will come in shortly and provide the forms for the participant to complete.

Prior to leaving, the interviewer will say to the participant:

Interviewer: “Thank you again. It was nice meeting you.” *(The interviewer will smile as she thanks the participant.)*

The R.A. will provide the participant with a packet of measures to complete. After the participant completes the measures, he/she will return the packet to the interviewer. The R.A. will then provide the participant with a list of referral resources and inform the participant that once data collection has been completed, he/she will receive a debriefing form by email describing the nature of the study.

As the R.A. hands the list of referral resources to the participant, the R.A. will state: “Some of the questions you were asked today were personal in nature. If by chance they raised any issues for you, here is a list of places you can contact. Thank you again for coming in.”

# APPENDIX G
# INFORMED CONSENT

## Informed Consent

You are invited to participate in this research study, which is being conducted through Indiana University of Pennsylvania. You have been randomly selected from the Psychology Subject Pool to participate in this study. The following information is provided in order to help you to make an informed decision about whether or not to participate. If you have any questions, please do not hesitate to ask the researcher.

The purpose of this study is to investigate the use of different interview questions. Participation in this study entails meeting with an interviewer and answering the interview questions that are being tested in this study. The interviewer will ask you a series of questions about yourself and about both good and bad experiences you may have had in the past. The meeting will not be video-taped or recorded. Several randomly selected interviews will be observed live by a research assistant to ensure standardization of the interview process. All of the information shared during the interview will remain confidential. Following the meeting with the interviewer, you will be asked to complete several forms related to your perceptions of the interview. Study participation should require approximately 30 minutes. You will receive research participation credit for your general psychology class for each hour or part of an hour you spend participating in this study.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigator(s), with IUP, or your psychology professor. If you choose to participate, you may withdraw at any time by notifying the researcher. Upon your request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence. The information obtained in this study may be published in scientific journals or presented at scientific meetings but your identity will always be kept strictly confidential and your responses will not be connected to your name.

If you are willing to participate in this study, please sign the statement below and return it to the person administering the study. Please take the extra, unsigned copy with you. If you choose not to participate, simply return the unsigned copies to the research assistant.

To obtain further information please contact:

Student Researcher:
Kara Goldmann, M.A.
Clinical Psychology Doctoral Student
Uhler Hall
1020 Oakland Avenue
Indiana, PA 15705
315-289-5148

Faculty Sponsor:
Derek Hatfield, Ph.D.
Associate Professor
Uhler Hall, Rm. 218
1020 Oakland Avenue
Indiana, PA 15705
724-357-4527

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-7730).

**Informed Consent (continued)**

**VOLUNTARY CONSENT FORM:**

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this Informed Consent form to keep in my possession.

**Name (PLEASE PRINT): _____**

**Signature: _____**

**Date: _____**

**Phone number or location where you can be reached: _____**

I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participating in this research study, have answered any questions that have been raised, and have witnessed the above signature.

_____ _____

Date Investigator's Signature

# APPENDIX H
# OBSERVER RATING FORM

Observer Rating Form

1. Did the interviewer follow the scripted questions?

   YES NO

   a. If yes, did the interviewer follow the indicated responses and follow-up comments?

      YES NO

   b. If no, please specify how/when the interviewer deviated from the script.

2. Did the interviewer maintain eye contact with the participant while he/she responded to the interviewer's questions?

   YES NO

3. Did the interviewer nod her head during and after every question, as indicated in the script?

   YES NO

4. Did the interviewer smile during/after the following interactions/questions:

| | | |
|---|---|---|
| When greeting the participant: | YES | NO |
| Question 3: | YES | NO |
| Question 9: | YES | NO |
| Question 14: | YES | NO |
| Question 16: | YES | NO |

When thanking participant: YES NO

5. Did the interviewer furrow her brow during/after the following interactions/questions:

   Question 6: YES NO

   Question 8: YES NO

   Question 11: YES NO

   Question 15: YES NO

6. Did interviewer maintain her posture, as indicated in the script (i.e., the interviewer will sit in the chair opposite each participant with one leg crossed over the other and a clipboard on her lap)?

   YES NO

7. Did the interviewer maintain a neutral, but attentive facial expression throughout the course of the interview (with the exception of when a specific facial expression was indicated in the script).
   *Note: Deviations from a neutral facial expression may include: frowning, smirking, furrowing of the brow, laughing.*

   YES NO

   a. If no, please describe how/when the interviewer's facial expression deviated from a neutral expression.

# APPENDIX I
# LIST OF REFERRAL RESOURCES

Referral Resources

| | |
|---|---|
| IUP Counseling Center……...…… | (724) 357-2621 |
| Center for Applied Psychology……... | (724) 357-6228 |
| Neuropsychiatric Assoc. INC PC…… | (724) 464-0270 |
| Community Guidance Center…….…… | (724) 465-5576 |
| Indiana Psychology Associates……... | (724) 349-8021 |
| Professional Psychologists and Associates.…….……... | (724) 349-7580 |
| Paulette Blais……..……..……... | (724) 349-9277 |
| Open Door Counseling and Crisis Center……..……..….. | (724) 465-2605 |
| *24-hour hotline*…...…….…….……... | (800) 794-2112 |
| Alice Paul House……..……..…… | (724) 349-4444 |
| *Domestic Violence or Rape Crisis*...……... | (800) 435-7249 |
| Clarion Psychiatric Center…..……..……...……..... | (800) 253-4906 |

# APPENDIX J
# DEBRIEFING FORM

Debriefing Form

*The Influence of a Companion Animal's Presence on Aspects of the Therapeutic Alliance*

At the beginning of this study, you were informed that the purpose of the experiment was to investigate the use of different interview questions. Some of the participants in this study were interviewed with a dog present in the room, whereas other participants met with the interviewer alone. The actual purpose of this study is to determine what effect interaction with a companion animal (specifically, a dog) has on a therapy client's perceptions of the therapist, willingness to self-disclose to the therapist, and ratings of the therapist's level of empathy. Additionally, attitudes toward companion animals will be examined to determine whether an individual's ratings of the therapist/animal team are influenced by his/her attitudes toward animals.

The use of animals as an adjunct to the therapeutic process has not received a lot of attention by researchers in the mental health field; therefore, research is needed to determine what effects, if any, the presence of a companion animal might have on various components of the therapeutic process, such as the relationship between the client and therapist. This study represents an attempt to examine the influence of a companion animal on aspects of the therapeutic relationship.

When you were chosen to participate in this experiment, you were randomly assigned to one of two conditions:

1) Companion animal condition: In this condition, there was a dog present in the room during the interview.
2) Control group: In this condition, there was not a dog present during the interview. The purpose of the control group is to allow the researchers to compare participants' ratings of aspects of the therapeutic alliance when there is no dog present, to the ratings of participants who were interviewed with a dog present.

The deception used in this study was necessary to ensure that study participants were unaware that the researcher was investigating the influence of the companion animal on the participants' ratings. Awareness of the purpose of the study might have influenced participants' reporting of how they perceived aspects of the therapeutic alliance. Withholding information about the true purpose of the study from participants increases the likelihood of discovering true effects for the presence of the dog, should they exist. All of the information disclosed during the interview by participants will be kept confidential.

If you would like to learn more about animal-assisted therapy, please visit the following website: www.deltasociety.org.

If you have any questions or would like further information about this study, including the results when the study has been completed, please contact the following individuals:

Student Researcher:
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315-289-5148

Dissertation Chair:
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