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# The effects of pet presence and counselor blindness on the efficacy of a counseling session

JoEllen McAdams  
Iowa State University

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efficacy of a counseling session**

**McAdams, JoEllen, Ph.D.**

**Iowa State University, 1988**

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**The effects of pet presence and counselor blindness  
on the efficacy of a counseling session**

**by**

**JoEllen McAdams**

**A Dissertation Submitted to the  
Graduate Faculty in Partial Fulfillment of the  
Requirements for the Degree of  
DOCTOR OF PHILOSOPHY**

**Department: Professional Studies in Education  
Major: Education (Counselor Education)**

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## INTRODUCTION

Close relationships link all living things in the environment. The forces that link people and animals are especially strong. Man's existence has been interrelated with animals through physical dependency on animals as sources of food and transportation, and psychologically in terms of protection and companionship. Today, more than ever before, human beings are feeling the effects of alienation. In the path of changing family structures, changing economic pressures, changing population and aging trends, alienation is a recurring cultural theme. Man has become estranged from his relationship with his past and his need to be connected with nature. More frequently, people are in need of external agencies to assist in bringing about a "wholeness" in their lives into focus. Albert Schweitzer spoke of the need to be connected:

Man can no longer live for himself alone. We must realize that all life is available and that we are united to all life. From this knowledge comes our spiritual relationship with the universe (Arkow, 1984, p. 35).

Interdisciplinary researchers in the fields of veterinary medicine, public health, and behavioral sciences are beginning to explore the physical and psychological correlates of human-animal interactions (Levinson, 1962, 1964, 1965, 1967, 1968a, 1969a, 1972; Beck, 1981; Savishinsky, 1983). One of the most important aspects of this human-animal bond focuses upon the bonding process as an adjunct to

facilitating an individual's well-being. Chief Seattle, in 1855, eloquently identified human-animal relatedness.

What is man without the beasts? If all the beasts were gone, man would die from great loneliness of spirit, for whatever happens to the beasts also happens to man. All things are connected (Arkow, 1984, p. 37).

The tactile contact and emotional bonding between pets and humans are well-documented by Ashley Montagu in his book Touching (1978). Montagu points out that the touch sensation represents significant afferent somatopsychic input essential for optimal physical, emotional, and mental health. Searles (1960) suggests that elements of the non-human environment, such as animals, provide a practical ground for experience in relatedness which is carried over into human relationships.

Boris Levinson, an early pioneer in the interrelations between humans and animals, addressed the effects of separation from animal life and nature on the 20th century Western man. Alienation, anxiety, despair, fear, insecurity, isolation and tension have their roots in human mastery over nature. The law of relatedness governs mental health and urges the achievement of ecosystem homeostasis, which promotes symbiosis among all its members (Levinson, 1969a). Levinson sought to reaffirm the present day family as a micro-ecosystem in the larger ecosystem of nature. Bonding through family members with the inanimate, then with the animate, and lastly with the animate human members of the immediate family and the family of nature. The contention for incorporating animal-human interactions in the therapeutic sense is not without some basis in the psychological literature.

Pet-Facilitated Therapy (PFT) is "the introduction of a pet animal into the immediate surroundings of an individual or a group, as a medium for the purpose of eliciting physical, psycho-social, and emotional interactions and responses that are remedial" (Cass, 1981, p. 124). For the purpose of this study, the use of the word "remedial" indicates any therapeutic change or response. Much of the research regarding Pet-Facilitated Therapy focuses on some degree of interspecies bonding.

During the past ten years numerous studies have been written in regard to the therapeutic potential of human-animal bonding with the emotionally and mentally disabled (McCulloch, 1981; Levinson, 1969a; Smith, 1983; Lee, 1983; Olsen, Anderson, Quigley, & Beahl, 1983; Katcher, Segal, & Beck, 1984).

The use of animals, particularly dogs, horses and monkeys, in assisting the physically disabled to extend mobility, independence and improve over-all well-being is growing in recognition and scope (DePauw, 1984; McCowan, 1984; Bergin, 1984; MacFayden, 1986; Bassing, 1984; Zee, 1983). With the advent of Public Law 94-142 in 1975, and a statute known as the Model White Cane Law enacted in 1973, the beginnings for the equal rights to education for disabled children, and employment, safe streets, public accommodations, and housing for the disabled are becoming a part of the consciousness of the nondisabled (Burgdorf, 1980). However, the disabled, particularly the visually impaired and the blind, continue to experience discrimination because of stereotypes, prejudices, and misconceptions. The interrelationship between a blind



person and his/her guide dog provide an untapped area of research due to the unique relationship of the pair.

#### Purpose of the Study

Research studies abound regarding counselors and clients. There is also a growing body of literature on the positive effects of pet presence and interaction with humans (Lockwood, 1983; Ruby, 1983; Quigley, Vogel, & Anderson, 1983). However, there is no literature regarding the efficacy of the counseling done by a blind counselor who uses a guide dog. The purpose of this study is to examine the efficacy of four counseling settings: one setting with a counselor and dog and client; a second setting with a counselor and client; a third setting with a blind counselor and client; and a fourth setting with a blind counselor with dog and client. It is assumed that the counselor's blindness and use of the guide dog will, to some degree, affect the counseling sessions he/she conducts and, therefore, contain different elements than counseling sessions in which blindness and guide dog presence are not issues. This study will examine observers' responses to four counseling settings: counselor and client; counselor with dog and client; blind counselor with client; blind counselor with dog and client.

#### Research Questions and Hypotheses

A general research question was formulated for the purpose of this study: Do pet presence and counselor blindness effect the efficacy of an evaluation of a counseling session?

From this research question, the following four null hypotheses were generated and tested at the .05 level of significance:

Null hypothesis 1: There will be no significant mean differences on the Counselor Rating Scales and subscales for the four counseling sessions.

Null hypothesis 2: There will be no significant mean differences on the Counselor Rating Scales and subscales for the four counseling sessions when controlling for the Animal Affinity Instrument.

Null hypothesis 3: There will be no significant mean differences on the Counselor Rating Scales and subscales for the four counseling sessions when controlling for the Attitudes Toward Disabled Persons Scales.

Null hypothesis 4: There will be no significant mean differences on the Counselor Rating Scales and subscales for the four counseling sessions when controlling for the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales.

#### Limitations

The scope of this study was limited by the use of a simulated guide dog as a "co-therapist". The dog used in this research study is the author's pet German shepherd. The relationship between a true working

guide dog and owner and a pet dog and owner is of a different nature due to, in part, the dependency between the guide dog and blind individual. Another limitation of this study is the simulation of a blind counselor. There are many differences between the body language of a blind person and one who is simulating blindness. Another limitation to this study is that the concept of "pet" is a highly personalized concept. For instance, a person who scored a high affinity towards pets may be responding to a high affinity toward cats. This high affinity may not be transferred to a high affinity toward dogs, and therefore effect that person's response to the video vignette with the guide dog present. Another limitation was that the length of the counseling session video tape vignette was eight minutes. A discussion of how these limitations were controlled for is given in the Methodology chapter.

#### Definitions

1. **Pet-Facilitated Therapy:** Pet-Facilitated Therapy refers to the introduction of a pet animal into the immediate surroundings of an individual or a group, as a medium for the purpose of eliciting physical, psycho-social, and emotional interactions and responses that are therapeutic. Pet-Facilitated Therapy is synonymous with Animal-Facilitated Therapy.
2. **Co-therapist:** Co-therapist refers to an additional person or animal which, along with the primary counselor, participates in

the oounseling process in bringing about therapeutic changes.

3. **Guide dog:** Guide dog refers to an animal used in service to a visually-impaired individual.

## REVIEW OF LITERATURE

### Introduction

This review of literature is focused upon two components of human-animal bonding: therapeutic uses of companion animals and the use of a guide dog by a blind counselor in a counseling setting. The review of literature is divided into three parts. The first part addresses the theoretical foundations of human-animal therapy. The second part addresses animal role functions. The third part of the review of literature focuses on the emergence and uses of guide dogs for the visually disabled.

### Theoretical Foundations of Human-Animal Therapy

The concept of using animal companions in therapeutic roles is not a new one. In the middle of the eighteenth century, a rather holistic and innovative mental hospital, "The York Retreat," was established in England. "The York Retreat" was unique in its approach to the treatment of the mentally ill. The introduction of the care of pets--rabbits, poultry and others--was a part of assisting patients learn self-control through the animals' dependence on the patients (Jones, as cited in Levinson, 1969a). Samuel Tuke commented ". . . that the intercourse with (the animals) sometimes tends to awaken the social and benevolent feelings" (Jones, as cited in Levinson, 1969a). Although "The York Retreat" illustrated a variety of psychosocial ways of improving mental

and social functioning through the use of animals, the notion of continuing this technique lay dormant until the early 1960s. Pet-Facilitated Therapy (PFT) and Animal-Facilitated Therapy (AFT) are the introduction of a pet animal or nonpet animal into the immediate surroundings of an individual or a group, as a medium for the purpose of eliciting physical, psychosocial and emotional interactions and responses that are remedial (Cass, 1981). The terms Pet-Facilitated Therapy and Animal-Facilitated Therapy will be used synonymously for the purpose of this study.

An early pioneer in Pet-Facilitated Therapy, psychologist Boris Levinson, presented the findings of his own experiences incorporating his dog Jingles at the early stages of therapy with children at the Annual Convention of the American Psychological Association in 1961. His findings were met with significantly mixed reviews (Levinson, 1969a).

Since Levinson's presentation in 1961, there has been a growing interdisciplinary approach from those interested in adding to the body of research in the therapeutic applications of human-animal interactions. It is interesting to note that in a questionnaire study of the practice of pet-oriented psychotherapy in the state of New York in 1971, Levinson found that 39% of the respondents (N=319) were familiar with the use of pets in psychotherapy and 16% had themselves used pets in therapy (Levinson, 1971). Levinson's questionnaire results were corroborated in a similar study conducted by Rice, Brown and Caldwell

(1973). The survey was undertaken to evaluate the extent to which animals were used by psychotherapists in the United States as a whole and to classify the ways in which animals serve psychotherapeutic roles. Results of the study indicated that of the 64% participating in the study, 21% reported some use of animals or animal content in conjunction with psychotherapy. Respondents to the study noted the use of dolphins, snakes, goats, lambs, horses, fish, birds, dogs and cats (Rice, Brown, & Caldwell, 1973).

Pet-Facilitated Therapy is being conducted in a variety of settings, with a variety of clientele and animals. Wolff (1970) found that in psychiatric clinics for children in Pennsylvania, between one-third and one-half of the clinics used pets in psychotherapy. In a nation-wide survey of institutionalized children undertaken for the American Humane Association almost half of the clinics had animals available for the children (Wolff, 1970).

#### Theory building in Pet-Facilitated Therapy

The diversity of the interdisciplinary approaches to understanding animal interactions within a common framework has presented researchers with a challenge in establishing a format for theory building.

Serpell (1983a) suggested that researchers may be encountering not one phenomenon, but several, all of which have the same general therapeutic outcomes. In essence, animals represent whatever we want them to, given our current needs and biases. Serpell has categorized the general psychological and physiological benefits resulting from

human-animal interactions. Serpell can be supported through literature when he suggested that Pet-Facilitated Therapy can be viewed through its instrumental, anthropomorphic and passive effects.

Instrumental effects      Instrumental effects of human-animal interactions include viewing the animal as an extension of self, having control of the animal, increased mobility, coordination and skill, and improved confidence and self-esteem. In general, a child who is physically active is less likely to be tense than a sedentary child. A pet is often an active and energetic playmate, facilitating the release of a child's pent-up energy and tension (Feldmann, 1977). The security of a companion animal may encourage exploratory behaviors, particularly for fearful children in unfamiliar situations. Pets also serve as a bridge or facilitator toward relationships with other children. Shared responsibility in caring for a pet with other family members can become a source of mutual enjoyment (Robin, ten Bensel, Quigley, & Anderson, 1983). The use of seeing eye dogs and therapeutic horseback riding are also examples of the instrumental effects of human-animal interactions.

Anthropomorphic effects      Anthropomorphic effects can occur when an animal is perceived as a person, a source of interpersonal interaction, a source of being loved/needed, a source of self-esteem and sense of responsibility. In a survey conducted with 267 students in the second, fifth, eighth and eleventh grades regarding attitudes toward domesticated and wild animals, it was found that the majority of students owned pets. The most typical perception of animals was that



they are anthropomorphic beings. The students also appreciated animals more for their recreational and emotional attributes than for practical reasons. In this study, the females had more affection for pets than the males (Kellert, 1983).

Beck and Katcher (1983) noted that children often treat a pet as an extension of themselves and treat it as they want to be treated themselves. They also observed that pets simultaneously or alternately function as children for some pet owners. Studies in New York State showed that pets can elicit maternal behaviors in children as young as three years of age. Much of the usual activity of children and pet animals resembled a parent-child relationship, with the animal representing the child (Fogle, 1983). Corson and Corson (1978) eloquently wrote of the benefits of pet introduction into the elderly institutional setting. The benefits of Pet-Facilitated Therapy included a form of reality therapy; transforming dependent infantized self-neglecting behavior into responsible, more self-reliant modes of interaction; increases in mobility and social interactions; increases in communications between patients and staff; and alleviating loneliness, depression and hopelessness.

Passive effects      Passive effects can be derived when the animal is perceived as an object of interest, when one is absorbed in the animal's activities and in the facilitation of relaxation. At the World Dolphin Foundation in Miami, neurologically impaired persons were observed to respond positively when watching the resident dolphins.

Truby, Smith, and Phillips (1980), motivated by this observation, selected eight autistic youngsters (aged 10-17) and exposed them to six play sessions with the dolphins. Sessions were videotaped. The researchers found that all of the subjects demonstrated prolonged attention spans when in the presence of the dolphins and several of the children demonstrated increased verbalization and interactive play.

Viewing an aquarium could be another way of experiencing passive benefits of pets. To study how contemplation of the life in a home aquarium could influence blood pressure, Katcher (1981) set up a forty-gallon aquarium in his office. Using volunteers (N=15), initial blood pressure readings were taken. Blood pressure readings were taken again when the subjects were reading, watching a blank wall, looking at the fish and reading again. Blood pressure readings were lowest when the subjects were watching the fish in the aquarium.

Veevers (1985) parallels Serpell in categorizing the social meanings of pets by identifying three major functions that pets can serve: the projective function, the sociability function and the surrogate function.

The projective function involves the extent to which pets may serve as a symbolic extension of the self. The sociability function involves the role of pets in facilitating human-to-human interaction. The surrogate function involves the extent to which interaction with pets may supplement human-to-human interaction.

### Psychosocial Approaches

An investigation into the literature of Pet-Facilitated Therapy not only lends itself to, but also expands the traditional theoretical approaches to therapy. Levinson's intuitive sense in initially observing and building on his observations of his dog with a child who was sitting in his office waiting room was sound use of his therapeutic skills. Theorists have noted interspecies relationships throughout history. Levinson and others researching this interdisciplinary field emphasized the need for empirical study of interspecies bonding is in its infancy.

Erickson and Sullivan have formulated stage theories of psychosocial development, one of which addressed the preadolescent period. These two theories will be used to identify the developmental concerns of the preadolescent. Based on these distinguishing characteristics, it is proposed that interaction with pets serves specific purposes in fostering healthy psychosocial development during the middle years of childhood (Davis & Juhasz, 1985).

#### Erickson

Erickson's developmental theory reflects a psychodynamic influence through its concern with ego maturation. It is a life-span approach which delineates qualitatively unique stages of ego development in chronological order. The child of between 6-12 is in the developmental stage of "industry versus inferiority" according to Erikson. It is during this time that the individual learns feelings of achievement

from completing tasks well. The child develops a new strength, a sense of competence from achievement outside the family system (Erikson, as cited in Davis & Juhasz, 1985, pp. 86-90). During the middle years of childhood a person's "sense of individual identity," also referred to as ego identity or self-concept, is strongly tied to school performance (Erikson, as cited in Davis & Juhasz, 1985, pp. 86-90). Concern about academic performance is a major worry during the preadolescent years (Gesell, Ilg, & Ames, 1953). A crisis in ego identity can occur if the individual fails to develop a sense of pride in personal achievements. This failure can compromise the individual's progress into a healthy adulthood. By not achieving a sense of "industry," the preadolescent is ill-prepared to meet the demands of adolescence, the next developmental stage.

### Sullivan

Sullivan (as cited in Davis & Juhasz, 1985, pp. 86-90) has postulated an interpersonal theory of personality development which includes age-related stages. According to his theory, the way in which a person develops and maintains a sense of self is related to perceptual feedback from others. How others perceive and how the individual interprets these communicated perceptions affect the self-image. The self-concept is based on an internal processing of the external environment. The environment contains different significant figures throughout the life cycle. For the preadolescent the important figure is a special friend. A salient characteristic of this type of friend is empathetic

understanding. The friendship functions to validate the personal worth of each partner. Sullivan terms this reciprocity "collaboration." If the preadolescent does not have a "collaboration" friendship, personality development is considered stifled because the individual is lacking an age-appropriate significant figure. This lack of "collaboration" hampers present as well as future personality development (Sullivan, as cited in Davis & Juhasz, 1985, pp. 86-90).

The developmental concerns of the preadolescent as presented by Erikson and Sullivan are met through an internal procession of external social system resources. The owner-pet dyad is one type of social system within which development can be examined. Interaction with a pet on a daily basis has several features which might serve as resources for psychosocial growth. One aspect of interaction with companion animals concerns human-pet play. Play involves mental health considerations as it often provides a safe outlet for the expression of feeling (Monte, 1980). A companion animal has several characteristics which make it an ideal playmate. The pet is a consistently available companion, one which is never too busy. Furthermore, the animal is automatically a subordinate to its owners.

Studies indicate that the preadolescent finds it easier to express feelings to a nonauthoritative playmate such as a friend or younger sibling (Siegel, 1962; Stephenson, 1973). A pet makes an ideal confidant. Bryant (1982) reports that 83% of her 7-10 year old subjects felt that their family pet was a special friend to them. Large families

had lower competitive attitudes if they reported having intimate talks with a pet on a routine basis.

Juhasz (1983) conducted an exploratory study on factors in self-esteem of early adolescents (12 to 14-year-old males and females) which revealed the importance of a pet for this age group. The subjects were asked to list things that made them feel satisfied and good about themselves. In this category, pets were ranked below parents but above other adults in the subjects' lives, such as teachers. Davis and Juhasz (1985) note that a pet is classified as a developmental resource during preadolescence since it is perceived as a responsibility and a friend.

#### Role theory

Another theory which notes the human-animal bonding is the Role Theory. Role Theory is commonly referred to in predicting successful aging and can be generalized to all age groups (Kalson, 1976; Knapp, 1977). Social role, as the major link of an individual's attachment to the larger social system, provides an image and self-definition, both of which ultimately impact feelings of self-value. Positive self-feelings are retrievable through activity. Lemon, Bengtson, and Peterson (1972) indicate that activity provides role supports required to reaffirm self-concepts and enhance psychological self-maintenance. The Role Theory is commonly referred to in predicting successful aging (Kalson, 1976; Knapp, 1977). Deny meaningful activity and losses of role and self-concept follow. Roles differ in terms of importance. In examining role clusters, Havighurst (as cited in Brickel, 1985, pp. 44-45) extracted

two general factors: 1) a family-centered configuration consisting of thoroughly internalized first order roles (parent/spouse/worker); and 2) an extra-family centered configuration (user of leisure time/friend/association member) of a second order, being less deeply internalized, but still rewarding. Another finding of this research indicated that high levels of role performance were correlated with high adjustment.

With the onset of maturity, interacting with animals can come to represent a functionally meaningful activity. Animals become the tabula rosa upon which the person inscribes, through activity, roles necessary for self-enhancement. Persons who are dissatisfied with their roles or undergo role conflicts experience manifestations of anxiety, withdrawal or depression. Therefore animals additionally take on a therapeutic stance in presenting opportunities for "trying on" new roles and working out role conflicts (Brickel, 1985). Our psychologically ambiguous perception of animals makes them attractive for role-activity integration, insuring maintenance of the human-animal bond for older age groups. Brickel (1985) notes that young and middle aged adults satisfy many emotional needs through their interest in animals. Childless couples may enjoy "parenting" pets. Even persons who have never owned animals would like to have pets for their children (Wilbur, 1976), and so the possibility for family expansion entails pet ownership and bond maintenance. In reference to the elderly as a group undergoing systematic role loss, Roscow (1973) states that such losses result in

diminished self-esteem, eroded images of self-identity. In addition the losses exclude the aged from meaningful social participation and give rise to an unstructured life style which arouses anxiety. Engaging in pet-related activities brings about a reacquisition of usefulness and purpose for the elderly. Depression levels can be lowered (Brickel, in press, 1984). Pets can also serve as "therapeutic distraction" for house-bound elderly (Brickel, 1982).

Salmon and Salmon (1983) study in Australia has shown that a dog seems to have different characteristics to an owner, depending on one's life-stage. The Salmons discovered that "single people tended to describe their dogs as less reliable; to young childless couples, their dog was more active and rough; people with older children saw their dog as more confident; widowed, separate, and divorced persons saw their dog as more aggressive; whereas old childless couples described their dog as more reliable" (p. 254).

Data analysis also yielded certain points of comparison between human-dog and human-human relationships. Salmon and Salmon (1983) discovered that "a pet is seen as a living creature with whom a person can share a relationship involving trust and the warm feelings of love and emotional support. This relationship also includes a recognition of intelligence on the part of the pet" (p. 254).

One study has indicated that dog ownership may contribute to ego strength as measured by the Ego Strength Scale of the Minnesota Multiphasic Personality Inventory (Harris, 1981). Voith (1983a) pointed



out that the attachment between an adult and a companion animal may be so powerful that the adult will decide to keep the pet even though it has proven itself to be destructive or dangerous. Lockwood (1983) reported that people associated with animals in scenes from the Thematic Apperception Test (TAT) were often judged by subjects to be friendlier, happier, more confident, and more relaxed than people not associated with animals in TAT scenes. In England, Messent (1983) found that people in public parks were considered more approachable for conversation when accompanied by a pet. A conclusion was that persons publicly identified with a companion animal make a symbolic statement of their personality and self-image. The pet presence and the way it is treated become factors which are taken into account in the assessment of the social self. Consequently, pets facilitate interaction by being social lubricants.

#### Physiological Effects of Human-Animal Bonding

Montagu (1978) believed that touch is essential for physical, emotional and mental health. Research supports the use of touch through human-animal bonding as an integral part of health. Studies of the effect of tactile contact on the heart and respiratory rates of dogs and horses have further suggested that petting, as a form of touch, resulted in decreased heart rates and slower, deeper respiration (Gantt, 1972; Lynch, Fregin, Mackie, & Monroe, 1974).

Shared behaviors between humans and pets are tactile and/or kinetic rather than just verbal (Levinson, 1969a). In laboratory experiments,

it was found that people of all ages, including children, used animals to feel safe and create a sense of intimacy. Pets may satisfy the child's need for physical contact and touch without the fear of entanglements that accompany contact with human beings. As Beck and Katcher (1983) noted, pairing an animal with a strange human being apparently acts to make that person, or the situation surrounding that person, less threatening. For example, in an experiment where children were brought into a room with an interviewer alone or brought in with an interviewer with a dog, the children were found to be more relaxed, as measured by blood pressure rates, when entering a room with the interviewer and an animal.

In a study of coronary patients (N=225) whose ventricular arrhythmias decreased following the tactile contact of pulse palpation. Katcher (1981) found decreases in blood pressure were greater when a person petted their companion dog than when they simply sat quietly. There is also a report of the effects of pets on the one year survival rate after discharge from a coronary unit (Friedmann, Katcher, Lynch, & Thomas, 1980). From a sample of patients with a diagnosis of myocardial infarction or angina pectoris, one year survival was associated with the ownership of pets. This association was not related to the walking of the pets or to the severity of illness; therefore, pet ownership itself was identified as an important source of companionship and positive health benefits. In another study of blood pressure and pets, blood pressure, heart rate, and respiratory rate were recorded in 24 subjects

during three 9-minute measurement sessions in which they petted an unknown dog, petted a dog with whom a companion bond had been established, or read quietly. Based on the findings of this study, several conclusions were drawn: (1) There is a significant difference in changes over time in both systolic and diastolic blood pressure between petting a dog with whom a companion bond has been established and petting a dog with whom no bond exists; (2) the decreases in both systolic and diastolic blood pressure that occur during petting a dog with whom a companion bond has been established parallel the relaxation effect of quiet reading; and (3) there is a "greeting response" to the entry of a dog with whom a companion bond has been established, which results in significantly higher systolic and diastolic pressures than the response to an unknown dog or to reading (Baun, Bergstrom, Langston, & Thomas, 1983a).

Middle-aged patients with medical diagnoses of a chronic disease and a depressive reaction were surveyed by McCulloch (1981) in relation to the value of pet ownership for such persons. Of the 30 subjects, 20 reported that their pet helped their morale, and 26 identified their pet as an important source of companionship during illness. The most valued attribute of the pet was that of encouraging a sense of humor. Overall, the pet served as a social support (McCulloch, 1981). Social support and a sense of humor in facilitating recovery during an illness is also substantiated by Cousins (1979) and Siegel (1986).

Twinaime (1984) discussed the use of pet presence with rehabilitation patients a preventing "disuse syndrome." This syndrome is a preventable occurrence that frequently causes secondary disabilities related to the rehabilitation process which can accompany most common as well as most serious chronic illness. The syndrome exacerbates physical aspects of the illness that increase disability. Hirschberg points out that there are parallel mental images that may become dominant in any syndrome (as cited in Twinaime, 1984, p. 34).

#### Animal Role Functions

Pets serve a multitude of functions within a family system and outside of the family. Pets can be described in their roles as mediators in therapy, as reinforcers, socializing catalysts, aids to therapy, co-therapists, patient ward mascots, and psychological support systems (Cass, 1981). It has been suggested that pets can serve as a link between patient and therapist in building and re-establishing a communication link (Levinson, 1972; Corson & Corson, 1981). Levinson (1969a) noted that for emotionally disturbed and/or retarded patients, pets provided stimulation and thus reduced the incidence of maladaptive behaviors. A further study indicated that Pet-Facilitated Therapy was found to increase interactions between patient and pet, patient and therapist, patient and staff (Corson & Corson, 1975a; Twinaime, 1984; Levinson, 1970).

There is a growing body of literature supporting the advantages of therapeutic horseback riding in strengthening muscles, improving

mobility and flexibility of limbs, and improved self-concept (McCowan, 1984; Bieber, 1983).

### Role functions with children

As children develop, animals play different roles for the child at each stage of development. Childhood encompasses a number of developmental tasks including the acquisition of basic trust and self-esteem, a sense of responsibility and competence, feelings of empathy toward others and the achievement of autonomy, all of which can be facilitated by a companion animal. The constancy of animal companionship can help children move along the developmental continuum and may even have an inhibiting effect toward mental disturbance (Levinson, 1970).

A key factor in the relationship between children and companion animals is the unconditional love and acceptance of the animal for the child "as is" and that it does not offer feedback or criticism (Levinson, 1969a, 1972; Beck & Katcher, 1983). The simple, uncomplicated affection of an animal for his master was also noted by Freud in a letter to Marie Bonaparte.

It really explains why we can love an animal like Topsy (or Jo-Fi) with such an extraordinary intensity; affection without ambivalence . . . that feeling of an intimate affinity, of an undisputed solidarity. Often when stroking Jo-Fi, I have caught myself humming a melody, which, unmusical as I am, I can't help recognizing as the aria from Don Giovanni. A bond of friendship unites us both (Freud, as cited in Robin and ten Bensel, 1985, p. 65).

Pets function, particularly for adolescents, as transitional objects by helping adolescents feel safe without the presence of parents

(Perin, 1981). Pets assist children in feeling socially acceptable, confident, act as a love object, a social facilitator and, at times, a status symbol (Fogle, 1983). Pets are perceived by children as attentive and empathetic listeners (Robin, ten Bensel, Quigley, & Anderson, 1983).

The status of the pet as a transitional object was identified by Wolfe (1977) in a study of 22 young male and female adolescents. Those who were characterized as being sensitive and nurturant did use their pet as a comforting object during episodes of stress. They perceived the pet as a faithful and empathetic creature. Bryant (1982) studied children's perceptions of the family pet. Bryant discovered that 83% of her 7-10 year old subjects felt that their family pet was a special friend to them. Large families had lower competitive attitudes if the family members reported having intimate talks with a pet on a routine basis.

The strength of human relationships apparently affects the owner-pet relationship. In fact most pet owners consider the pet an important member of the family (Cain, 1978; Wille, 1982). Wille (1982) noted that pet owners who described pets as family members scored significantly higher in the Purpose in Life Test and the Health Opinion Survey. Furthermore, self-image may be positively affected by a relationship with a pet. The relationship is not stressed by the anxiety of personal inadequacies or failure as with other personal relationships (Bruner, 1983). The relationship promotes self-assurance and confidence in the

owner. In essence, the pet functions as an ego-extension relative to self-esteem. As a responsive source of approval, it is enhancing in maintaining the preadolescent's self-image (Rosenberg, 1979).

Interest in caring for pets has been noted to peak during the middle years of childhood (Gesell, Ilg, & Ames, 1953; Jenkins, Shacter, & Bauer, 1966). One who is able to demonstrate competence to his parents by taking responsibility of a pet can develop a sense of pride in accomplishments (Bossard, 1944; Van Leeuwen, 1981). In contrast to human values, an animal does not impose standards of quality on the young child's performance of tasks (Fox, 1981).

#### Human and Animal Interaction Within the Family

Bridger (1976) believed that there are two complementary dimensions of pet ownership which exist for the family itself: 1) that an animal can be the means by which a family can widen its social network, and 2) that an animal can make even a secure family setting a safer place to test out love and hate, preferences and rivalries, independence and cooperation and destructive and creative feelings. While most studies of pet ownership have shown positive interactions, there have been some early studies that have indicated a negative aspect of human-animal interactions. Researchers concluded from their work that pet owners tended to feel less well-regarded by others, to value people less than animals, and to like animals better than people (Cameron, Conrad, Kirkpatrick, & Bateen, 1966; Cameron & Mattson, 1972). To some extent, benefits of pet ownership in adults seem to be correlated with social

economic status and residential environment. For rural adult women with relatively high incomes, pet ownership was positively correlated with high morale, but in subjects with low incomes, pet owners had lower morale (Ory & Goldberg, 1983). Similar results were obtained in California with rural pet owners (Franti, Kraus, & Borhani, 1974). However, most of the current research demonstrates opposite findings. People who had high affection of dogs were high in affection for other people, while people low in affection for dogs were low in affection for others (Corson & Corson, 1980; Brown, Shaw, & Kirkland, 1972). Mugford (1980) records results of Lee who found that interactive pet owners were higher in their need for affiliation than noninteractive pet owners.

Smith (1983) conducted an ethological study of dogs in homes, observing interactions between dogs and family members. Some of her observations showed that interactions were essentially proportional to the degree of attachment between dogs and family members. She found that interactions between dogs and family members contrasted with the interactions between two humans in ways reflecting the fact that a person had less flexibility and more complexity to deal with when interacting with another person, and that the presence of children reduced the interactions of adult family members with dogs. Levinson (1964, 1968a,b) suggested that the role of the pet in the family depends upon the family structure, the emotional strengths and weaknesses of each family member, the emotional undercurrent within the family, and the social climate of the family.



As a child psychiatrist, Van Leeuwen (1981) looked at human-animal interactions within dysfunctional families. He found that family disturbances over children and companion animals fall under three headings. First, normal formation of attachments can become dysfunctional and result in anxious attachments and compulsive care-giving. This often involves pathological mourning on the death of the pet. Second, fear of a parent may be displaced onto animals resulting in phobias. Third, unresolved fear and rage may be displaced or projected onto animals and result in cruelty toward the pet.

However, a study involving 500 abused and nonabused adolescent children showed that most abused children had very positive experiences with their pets (Robin, ten Benschel, Anderson, & Quigley, 1983). Abused children with characteristically low self-regard are more likely than nonabused children to experience pets as their sole love object and to turn to them for love and support. However, pets of abused children are more likely than those of nonabused children to experience violence or death at the hands of someone other than the abused child, and the abused child is less likely to have someone to talk to regarding the loss of his/her pet. The authors concluded that pets clearly play a prominent part in the lives of an abused child. The relationship of the abused child and a pet is characterized by deep feelings of love, care, and empathy. What seems to divide those who are sadistic to animals from those who are not is the extreme degree of parental abuse.

Displaced children and long-term foster care placements in therapeutic treatment where dogs were part of treatment seemed to progress faster than children in therapeutic treatment without dogs. The dogs provided the children with a sense of constancy and, in some cases, control in an erratic, tumultuous and unpredictable environment (Gonski, Peacock, & Ruckert, 1986).

#### Implications for Pet-Facilitated Therapy

Speck (as cited in Soares, 1985, pp. 57-58) noted that the behavior of family pets has often been revealing as an extension or indicator of human psychopathology. In dysfunctional families, for example, the pet may become ill--either in conjunction with another family member(s) or as a substitute for illness in one of the human members. At such times of distress, the pet may die.

Freidmann (as cited in Soares, 1985, pp. 57-58) stated the pets display behavioral reactions that are extensions of the behavioral reactions of the family members. Pets are very sensitive to emotionally charged affective states with the family unit. Other therapists working with schizophrenic families reported their observations that "a pet's behavior on any particular evening (of therapy) was a direct reflection of the feeling-tone of the family group" (Jungries and Speck, as cited in Soares, 1985, p. 62).

Cain, a family therapist, discovered human-animal interactions in two studies. Cain's practice is based on the theoretical orientation of Murray Bowen. Bowen wrote that the family emotional system "at

times . . . may include members of the extended family network and even nonrelatives and pets" (Bowen, as cited in Cain, 1978, p. 123). Bowen considers the triangle to be the basic building block of any emotional system. A triangle is formed when the tension within a two person emotional system exceeds a certain level. Triangles are patterned ways of dealing with intense feeling states. These triangles consist of three people or two people and an issue or a pet within the family system. Increased closeness between any two members results in increased distance from the third member of the triangle. Pets, like humans, can be triangled into a family system to relieve an uncomfortable situation. In terms of a pet, triangles usually provide a display of affection, anger, or distancing (Cain, 1978). Cain explored the pet's position in the family system. Respondents (N=60) were asked to give an example of triangling that they thought involved the pets in their family. Subjects were asked if the pet was brought in when there was tension between two family members; 44% responded "sometimes," and 8% responded "always" (Cain, 1978).

A study of the human-companion animal bond in military communities in the U.S. was conducted to gain information on a national survey basis of military families and the families' pets. A 32 item questionnaire was developed based on the Bowen Theory. Eight hundred ninety-six surveys were tabulated, which represented a 68% return rate. This return rate would seem to indicate that the families considered their pet to be important. Sixty-eight percent of those surveyed indicated

that pets were considered full family members, 30% considered their pets close friends, and 96% described their pets' role in the family as very important (Anderson, 1985).

Some therapists note the use of a pet to express resistance to therapy by being identified as the reason the client needs to leave the room or by using the animal to create havoc when the individual or family is under pressure from the therapist (Sonne and Freidmann, as cited in Soares, 1985, pp. 57-58).

Mitchell (as cited in Soares, 1985, p. 58) felt that companion animals were so integral to the dysfunctional family system that he included the human-animal relationship as one of the five subsystems of which the family therapist should be aware. Jungries (as cited in Soares, 1985, p. 58) pointed out that drawing attention to the behavior of family pets is highly productive as useful therapeutic material. Schowalter (1983) concluded that "the inquiry of patients about their experiences with animals is often a very fruitful approach for understanding their wishes, fears, and displaced feelings" (p. 72). Ruby (1983) also noted that most families include their pets in their family photographs. Family members not only interact with their pets in their own characteristic manner, but they also interact with each other in relationship to the pet. In some families, pets become the major focus of attention and assume a position even more important than human family members (Levinson, 1969a).

Carroll Meek, a psychotherapist in a counseling center at Washington State University, found that the presence of his Maltese dog had positive effects on clients as they waited to see a counselor in the waiting room of the counseling center. The dog particularly interacted well with schizophrenic clients, borderline personalities and those suffering from severe depression. The general benefits of pet presence included dissipation of anxiety, increased communication between the clients as they waited to see a counselor and an increase of humor in the waiting room. Meek also noted that he gained a wealth of information about his clients, the ways they related to him, to their world, and to their needs (Meek, 1982).

In an intake interview with juvenile offenders entering a resident facility, the interviewer included her dog in her office in ten of twenty interviews. In every case with the dog present, the interviewer found that the young men responded with increased openness and less hostility than in the interviews without the dog present (Gonski, Peacock, & Ruckert, 1986).

#### A Historical Perspective of Guide Dogs

There is one area specifically that appears to have been neglected in the rapidly growing literature of Pet-Facilitated Therapy--that of the therapeutic bond between the guide dog and master. During the two hundred year gap from "The York Retreat" and Levinson's paper supporting Pet-Facilitated Therapy in 1961, the emergence of the use of dogs as more than chattels was evident.

Nelson Coon traces dog guides through the arts (1959). A fresco dating from 79 A.D., uncovered among the ruins of Pompeii, depicts a marketplace in which a blind man with a staff is being led by a small dog. A thirteenth century Chinese scroll painting, "Spring in the Yellow River," offers a similar scene. The blind man carrying a staff in his right hand is being led by a dog with his left hand. Rembrandt's "Begger" and "Tobias" illustrate the dog employed as an assistant and as a guide, respectively. The nineteenth century engraving by Dibart of "Le Chien do L'Avergle" shows the dog in the act of soliciting alms. A George Willis engraving done in Paris in 1801 shows blind beggars, each with a staff and a dog, approaching one another with cups held forth (Coon, 1959).

Early personal attempts at using dogs as an aid to the blind were probably not uncommon. One account comes from Joseph Reisinger, who in the late 1790s trained three dogs during his lifetime to give him a combined twenty-seven years of guide service (Bassing, 1984). The formalized training of dogs as guides was recorded by Father Johann Wilhelm Klein of Vienna in his Textbook for Teaching the Blind in 1819. In 1845, the blind German Jacob Birrer introduced, in writing, the training he had employed with his dogs as guides for the benefit of others (Bassing, 1984).

World War I brought about further developments of the use of dogs as guides as well as messengers, for sentry duty, and in rescue work (Bassing, 1984). The first guide dog training center was started in

1916 in Oldenburg, Germany, as well as additional centers in Wurttemberg, Potsdam and Munich (Bassing, 1984). In 1929, The Seeing Eye, America's first guide dog program, was incorporated in Tennessee until 1931, when it moved to Morristown, New Jersey.

In his history of The Seeing Eye, Inc., P. Putnam (1979) provides an overview of the intimate relationship that develops between a guide dog and his/her master. Letters written to The Seeing Eye acknowledge the significance of the guide dog in exhilaration of walking with the dog, freedom to relax, feelings of safety and security, relationships of profound affection and trust, and of continued interdependence. Putnam also notes letters emphasizing the guide dog being instrumental in generating and reinforcing his (Putnam's) courage to go forward and to reach for goals.

#### Guide dogs and therapy

In particular to this study, any investigation into the unique bonding between a guide dog and master who is also a counselor appears to be nonexistent. The literature on the interrelationships of guide dogs and owners is scant. Zee (1983) conducted research based on the assumption that a relationship with a guide dog will have physical, social and psychological significance for the visually impaired owner. Of the original respondents (N=39), 21 were female and 18 male. The subjects were asked to respond to a questionnaire designed to elicit descriptive responses, indicating the nature of the bond between individuals and guide dogs. Subjects responding (N=31) to the survey

specified some characteristics differentiating the relationship with a guide dog from that with other pets owned. In comparison to pets previously owned, seeing eye dog owners felt that their relationship with the guide dog was characterized by more time spent with the animal, more dependence on the dog, more affection for the dog, greater requirement for attention to the dog, more dependence on the owner by the guide dog, more communication with the animal, more attachment of the animal to its owner, and more worry about the health and well-being of the dog. The dog seemed to be an impetus for growth and change (Zee, 1983). Zee cautions researchers that her results were gathered from a small and biased sample and that more research is needed to substantiate the nature of the interrelationships between guide dog and master.

Bassing (1984) gives an overview of guide dog uses with the blind, the training of guide dogs and information on guide dog schools. There is also a thesis in progress by Elizabeth Murphy, at the University of Pittsburgh, focusing on the bonding and grief process when a visually-impaired person loses his/her guide dog. This research should prove helpful in understanding relationships of guide dog and owner (phone conversation with Phil Arkow, 10/7/87). Personalized accounts of the unique bonding between guide dog and owner support research that the bonding between guide dog and owner can be dynamic and positive (Hocken, 1977; Curtis, 1982; Putnam, 1979; Serpell, 1983a; Bassing, 1984; Zee, 1983).



The literature on the specific bonding and benefits that guide dogs and their owners elicit in the psychotherapeutic environment of a blind counselor and sighted client is scant. Jack Wilcox, a clinical psychiatrist and a blind counselor, noted:

King's calmness and imperturbability are his outstanding traits. This has turned out to be a very fortunate circumstance in my work. I have worked with him in mental hospitals where I might at any time run into disturbed patients who make all sorts of approaches to him. Even when their behavior is what might be considered threatening by most dogs, King pays absolutely no attention and calmly concentrates on taking me where I want to go. He also makes himself inconspicuous when a patient comes to the office, and only once in all my experience have I had a patient sufficiently frightened by him to make it necessary to put him in another room. Very often his presence is a definite contribution to a patient who finds it difficult to talk. Almost all of them have a dog story that comes to mind and furnishes a beginning topic for conversation (Putnam, 1979, p. 186).

Kathy Schneider, a blind clinical psychologist at Iowa State University, praises her guide dog as a co-therapist. She supports Meek and King in citing many benefits of the presence of a dog when doing therapy. Some benefits include client humor regarding seeing a dog in a therapeutic setting, the dog interacting positively with depressed persons and having the dog as a source of conversation in beginning a therapy session (K. Schneider, Student Counseling Center, personal communication, February, 1987).

The American Council of the Blind in Washington, DC; the American Foundation for the Blind, New York City, NY; the Association for the Education and Rehabilitation of the Blind and Visually Impaired, Alexandria, VA; the Council of Rehabilitation Specialist (Blind),

Washington, DC; and Guide Dog Users (Blind) in Baldwin, NY and Waterton, MA were contacted for information for this study. The only agency which was able to be positive toward guide dog use among the blind was the Guide Dog Users (Blind) G.D.U. Phyllis Stern, past president, and Kim Charleson, president, confirmed the lack of research-oriented literature in the area of guide dogs and owners. The lack of literature may be a result of the prevailing attitude of the above-mentioned agencies, including the Iowa State Department of Rehabilitation, to view the use of guide dogs as a block to true independence for the blind. My contacts with many agencies for the blind supports findings that much social policy and legislation reflect a protective attitude, rather than embracing approaches to integrate the blind into the cultural mainstream (Bowe, 1977).

#### Summary

The concept of Pet-Facilitated Therapy is of both long-term standing and a recent development. Levinson's benchmark investigations and writings on Pet-Facilitated Therapy began a legitimization of the concept of use of animals in a holistic sense of bonding. The strength of the research on human-animal bonding and the multifaceted effects of that bonding is growing and being supported by an interdisciplinary approach to the research questions proposed by the very nature of human-animal bonding.

The uses of Pet-Facilitated Therapy are well documented through the literature. There is support for the continuing use of animals as

co-therapists in the areas of socialization, connection with reality, and in supporting and maintaining good mental health. Physiological aspects of human-animal bonding are becoming areas of increasing interest for research. To date, the findings are indicative of the benefits of animals in terms of facilitating relaxation, lowered blood pressure, increased survival after a coronary, and as a source of exercise.

The vast majority of the literature would tend to support the premise that the relationship between a blind counselor and guide dog would bring additional benefits to those seeking counseling from this dual pair of "therapists." It would seem legitimate that research begin in this area.

## METHODOLOGY

### Purpose of the Study

The purpose of this study was to examine the effects of pet presence and counselor blindness on the efficacy of a counseling session. The procedures undertaken for the completion of this study included: sample selection, development of videotape vignettes, development of an animal affinity instrument, instrumentation, collection of data, and data analysis. The procedures are explained in the aforementioned order indicated.

### Sample Selection

The subjects for this study were undergraduate and graduate students from Iowa State University, Ames, Iowa, and the University of Wisconsin-River Falls, River Falls, Wisconsin. Subject demographic information was included as a part of the Animal Affinity Instrument. The subject demographic information sheet consisted of open-ended questions and forced choice questions (Appendix A). A summarization of the subjects' demographic data follows.

A total of 162 students participated as subjects in the study. There were 32 males and 129 females. One subject did not respond to the identification of gender question (Table 1).

Educational levels ranged from university freshmen (N=1) to graduate students (N=63). Institutional departments represented

included physical education (N=15), education (N=59), professional studies (N=51), business (N=10), science and humanities (N=19), and unidentified departments (N=8).

Residential information included data on town size, type of residence, and ownership of residence. Home town size varied from under 1,000 to over 20,000 residents. The majority (N=79) of those sampled originated from home towns over 20,000. The majority (N=57) of subjects currently resided in a house. In regards to residential ownership, a large majority (N=116) rented.

When asked to respond to the question of what pet first comes to mind when thinking about the concept of a pet, dog was the most reported (N=128), with cat being reported by smaller number (N=30), and four responses that were inappropriate to the question. No other pet category was identified.

Subjects were asked to respond to various aspects of pet ownership by checking appropriate blanks next to ownership statements. Of those sampled, 82 respondents were current pet owners. Those who had been a pet owner but who were not currently pet owners numbered 94. The vast majority of subjects (N=153) had been pet owners at some point in their life. A majority of those sampled (N=111) had grown up with pets. Of those sampled, 75 subjects would like to be a pet owner in the future. A break down of the subjects' demographic information by treatment group is included in Table 1.

Table 1. Demographic data on treatment groups (N=162)

Variable	Treatment Groups				Totals
	1	2	3	4	
<b>Age:</b>					
Age range	20-55	21-54	19-41	19-50	
Average age	23.50	33.68	23.48	24.62	
<b>Sex:</b>					
Female	27	39	26	37	129
Male	3	9	6	14	32
Blank				1	1
<b>Education:</b>					
Freshman				1	1
Sophomore			2	4	6
Junior	15	3	7	11	36
Senior	8	4	22	21	55
Graduate	7	41	1	14	63
Blank			1		1
<b>Department:</b>					
Physical Education		8	3	4	15
Education	23	1	27	8	59
Professional Studies	6	34		11	51
Business				10	10
Science & Humanities	1		2	16	19
Blank		5	1	2	8
<b>Hometown size:</b>					
0-1,000	1	7	2	7	17
1,000-6,000	7	7	7	13	34
6,000-10,000	3	6	3	1	13
10,000-20,000	1	9	2	6	18
20,000 +	18	19	18	24	79
Blank			1		1

Table 1. (Cont).

Variable	Treatment Groups				Totals
	1	2	3	4	
<b>Current residence:</b>					
Dorm	6	2	18	14	30
Apartment	10	9	14	23	56
House	9	34	6	8	57
Sorority/Fraternity	5	1	3	5	14
Condo		1		1	2
Mobile home		1	1		2
Blank			1		1
<b>Residence:</b>					
Rent	24	19	27	46	116
Own	6	29	5	5	45
Blank			1		1
<b>Pet concept:</b>					
Dog	22	41	25	40	128
Cat	7	7	5	11	30
Blank	1		3		4
<b>Pet ownership:</b>					
Current owner	17	30	20	15	79
Not current owner	13	18	12	36	82
Blank			1		1
Past owner	16	33	22	23	94
Not past owner	13	15	10	28	66
Blank			1		1
Like to own	15	18	14	28	86
Not like to own	15	30	18	23	75
Blank			1		1
Grew up with pet	25	31	18	37	50
Didn't grow up with pet	5	17	14	14	111
Blank			1		1

Table 1. (Cont).

Variable	Treatment Groups				Totals
	1	2	3	4	
Never been pet owner		4	2	2	8
Pet owner at some time	30	44	30	49	153
Blank			1		1

#### Videotape Development

It was essential for the instrumentation of this study to develop two sets of videotapes; i.e., videotaped simultaneously. One set of videotapes was representative of a client, and a sighted counselor, without and with a dog, during a counseling session. One set of videotapes was representative of a client, and a blind counselor, without and with a dog, during a counseling session.

There were three settings used during the development of the videotapes. A blind clinical psychologist with her guide dog (golden labrador) assisted in the development of the first two sets of videotapes. The first setting was in the television studio in the Instructional Media Resources room at Iowa State University. This set of videotapes were unsuitable for use due to difficulties with arrangement of the furniture in allowing for the necessary camera angles. The second setting was a classroom. In previewing this set of videotapes, it became apparent that there was a need to control for technical difficulties, i.e., sound and lighting, during the taping.



The third setting for the videotaping was in a counseling laboratory group room. The counselor and client followed the counseling transcript of therapist Carl Rogers demonstrating counseling with a client, Gloria (Shostrom, 1965), in order to control for the quality and content of the counseling session.

Counselor blindness was simulated by the sighted counselor by closing her eyes during the video vignettes where counselor blindness was being videotaped. The German shepherd wore a simulated guide dog harness during the video vignette where counselor blindness and guide dog presence was being videotaped. The harness was removed for the videotaping of dog presence with the sighted counselor. Thus, the four different videotape vignettes were developed using the same Rogerian transcript of the same counseling session. Each vignette represented one treatment group. The first video vignette represented the first treatment group: sighted counselor without dog present, and client. The second video vignette represented the second treatment group: sighted counselor with dog present, and client. The third video vignette represented the third treatment group: blind counselor without dog present, and client. The fourth video vignette represented the fourth treatment group: blind counselor with dog present, and client.

#### Validating simulated counselor blindness

Blindness is a disability that includes not only observable lack of vision but also includes observable physical differences in body movement. In the video vignettes where the counselor simulated

blindness, she did so by closing her eyes. The German shepherd used in the video vignette when blindness and guide dog presence were being assessed wore a simulated guide dog harness. It was essential for the instrumentation of the study to determine if the simulated counselor blindness and guide dog videotape vignettes were going to be seen as authentic. Two videotape vignettes were used in a pilot study to determine the effects of simulated counselor blindness. One video vignette was of the real blind counselor, guide dog, and client following their own counseling format. One video vignette was of the counselor, who simulated blindness and used her pet dog as a simulated guide dog. This simulated vignette followed the Rogerian transcript of a counseling session.

Both video vignettes were shown to a class (N=21) of undergraduate elementary education students. After viewing the two video vignettes, the subjects were asked to respond to a paper and pencil evaluation of the two tapes. They were asked: "How are the settings and the people alike and how are the settings and people different?" in the two sessions.

A majority of the subjects (N=16) indicated that both counselors appeared to be blind. Blindness itself was not mentioned as a factor in four of the respondents' answers. One respondent mentioned that one of the counselors was blind. The differences in physical settings was mentioned in 18 of the responses. The setting used by the counseling videotaped vignette simulating blindness and guide dog was identified as

being more comfortable and appealing. Two professionals in special education were consulted regarding the authenticity of the simulated guide dog harness. Based on these responses, the simulated blind counselor vignettes were considered appropriate for use in data collection for the main study.

#### Instrumentation

Three Counselor Rating Scales and four subscales were used in the evaluation of the efficacy of the counseling session. These were: 1) the Confidence for Counseling Outcomes Expectancy Scale, 2) the Continuation of Counseling Scale, 3) the Counselor Traits Scale, and the subscales of effectiveness, perceived expertness, social attractiveness, and trustworthiness.

The Animal Affinity Instrument was developed for the completion of this study. The Animal Affinity Instrument was used to assess the subjects' relationship with animals. The Attitudes Toward Disabled Persons Scales was used to assess the subjects' attitudes toward disabled persons. Each of these will be discussed as they pertained to this study.

#### The Counselor Rating Scales and subscales

Three separate Counselor Rating Scales and four subscales (Cash & Salzbach, 1978) were used in the evaluation of the efficacy of the counseling session viewed on the video vignette.

The Confidence for Counseling Outcomes Expectancy Scale was developed (Cash & Salzbach, 1978) to assess the degree of confidence

subjects had of a counseling session. Subjects rated the degree of confidence placed in the counselor's effectiveness with each of 15 specific personal problems chosen on the basis of relevance to a college population. These items were used in previous research and provided indices of counseling outcome expectancies (Cash et al., 1978; Cash, Kehr, & Salzbach, 1978).

The Continuation of Counseling Scale (Cash & Salzbach, 1978) consists of two items. The first item was to assess the subject's degree of optimism about the general helpfulness of continuing counseling. The second item was used to indicate the subject's expected likelihood of returning to the counselor for a second interview. An eight point Likert scale was used with each item.

The Counselor Traits Scale (Cash & Salzbach, 1978) consists of items pertaining to physical attractiveness, sexiness, perceived expertness, social attractiveness and trustworthiness. The subscales identified for use were perceived expertness (i.e., unintelligent-intelligent, inexperienced-experienced, unskillful-skillful); social attractiveness (i.e., unfriendly-friendly, unlikable-likeable, cold-warm); and trustworthiness (i.e., untrustworthy-trustworthy, unreliable-reliable, insincere-sincere). The authors, in development of this instrument, also utilized a composite of the three subscales and referred to this arrangement as the Counselor Effectiveness Instrument. The Counselor Rating Scales and subscales are presented in Appendix B.

### Animal Affinity Instrument development

An extended review of the literature in the area of Pet-Facilitated Therapy revealed no specific instrument to analyze animal affinity that was transferable for the purpose of this study. It has been difficult for researchers to agree upon the nature of the human-animal bond as well as its relationship to the multidimensional nature of bonding and attachment. The variance in previous studies is exacerbated by the lack of a measurement tool than could be used to evaluate pet ownership, characteristics such as demographics, attitudes toward ownership, attachment levels, socioeconomic factors which could be transferred to a variety of settings.

In the process of developing an Animal Affinity Instrument, six instruments were examined. Those instruments were: 1) Pets and Personal History Questionnaire (Bustad, 1981); 2) Pet Inventory Assessment (Ory & Goldberg, 1983); 3) Companion Animal Project Survey (Lago, Kafer, Delaney, & Connell, 1983); 4) Pet Attitude Scale (Templer, Salter, Dickey, Baldwin, & Veleber, 1981); 5) Pet Attitude Inventory (Wilson, Netting, & New, 1987); and 6) the Human-Animal Relationship Closeness Scale (HARCS) (Ellis & Gage, 1986). A brief summary of each of these instruments follows. A copy of each instrument appears in the appropriate appendix.

Pets and Personal History Questionnaire      The Pets and Personal History Questionnaire was developed for use in the homes of potential candidates for placement in a residential home (Bustad, 1981). Input

from a physician or therapist regarding the reasons for recommending pet placement with a potential candidate is an important component in this instrument. The instrument is brief and can be administered with a minimum of interviewer difficulties. The questionnaire is open-ended and deals only with the physical dimensions of health status. It is limited by its open-ended structure and in the fact that it does not address all aspects of health (Appendix C).

Pet Inventory Assessment      The Pet Inventory Assessment (Ory & Goldberg, 1983) provides three types of information: information on the presence of a pet in the household, the type of pet, and the degree of attachment to the pet. This instrument attempts to assess attachment levels, attitudes toward ownership, and social interaction. However, the questions are designed without consideration to the location and type of residence of the subject. A copy of the complete Pet Inventory Assessment was unavailable.

Companion Animal Project Survey      The Companion Animal Project Survey (Lago, Knight, & Connell, cited in Lago et al., 1985, p. 12) includes demographic information, measures of physical, mental, and social resources, as well as functional status. Mortality of respondents and animal ownership practices are also assessed. Two subscales, "pet involvement" and "mutual caregiving," have alpha reliabilities of .85. However, reliability data were unavailable on the remainder of the instrument (Appendix D).

Pet Attitude Scale      The Pet Attitude Scale (Templer et al., 1981) was developed to measure the favorableness of attitudes toward

pets. The instrument is related to three factors: love and interaction, pets in the home, and joy of pet ownership. The Pet Attitude Scale has been evaluated in terms of reliability and criterion validity. The Conbach's Alpha coefficient is .93 ( $p < .001$ ) and test-retest reliability is .92 ( $p < .001$ ) (Appendix F).

Pet Attitude Inventory The Pet Attitude Inventory is a two-track instrument designed for owners and nonowners for use in a community setting (Wilson, Netting, & New, 1987). The Pet Attitude Inventory is intended to assess pet ownership attitudes and attachment levels and answer questions related to the fields of medicine, psychology, social work, and aging. The inventory contains both open and forced-choice questions and can be interviewer or self-administered in approximately five to ten minutes. Strengths of the instrument include its attention to the conceptual issues of life-span development, ease of administration, and attention to housing. The Pet Attitude Inventory has been determined to have content validity, but has not been tested for reliability (Appendix F).

Human-Animal Relationships Closeness Scale The Human-Animal Relationships Closeness Scale (Ellis & Gage, 1986) was developed to assess closeness and the degree of emotional bonding in a human-companion animal relationship among 250 men and 260 women who owned a dog. Using factor analytic techniques, the validity of the instrument was examined and revisions made. This instrument is in the process of being further validated (M. G. Gage, Department of Family Social Science, personal communication, Nov. 11, 1987) (Appendix G).

Animal Affinity Instrument      The development of the Animal Affinity Instrument took into account the focus of the pre-existing instruments for measuring home-animal relationships and included 13 open-ended questions pertaining to demographic, socioeconomic, educational questions as well as pet ownership. Subjects were also asked to respond to 24 questions regarding pet attachment, pet ownership, and psychosocial interactions with pets. Instructions were printed at the beginning of the instrument and could be self-administered or interviewer-administered. Responses are recorded using a five point Likert Scale on the test forms. The Animal Affinity Instrument takes approximately ten minutes to complete.

The Animal Affinity Instrument was pretested with a group of graduate students (N=39) enrolled in counselor education classes at Iowa State University. The reliability analysis consisted of running a correlation matrix for internal consistency. The coefficient alpha was found to be .87. The Animal Affinity Instrument is in Appendix H.

Attitudes Toward Disabled Persons Scales      The Attitudes Toward Disabled Persons Scales (ATDP) was constructed in the late 1950s in an attempt to provide an objective, reliable, and valid measure of attitudes toward persons with physical disabilities. In developing the scale, it was assumed that some persons perceive disabled individuals as different from and inferior to nondisabled persons (Yuker & Block, 1986).

Three forms of the Attitudes Toward Disabled Persons Scale have been developed in order to provide flexibility and permit the



interchangeable use of the scales in pre-post measurement designs. The original scale, Form 0 (cited in Yuker & Block, 1986, p. 83), contains 20 items. The ATDP may be either individually or group administered. For the purpose of this study, Form 0 of the ATDP was administered. Subjects responded to each item by indicating the extent of their agreement or disagreement according to a 6-point Likert Scale.

Instructions are printed at the top of the form. The instructions were read by the subjects. Responses to the questions are recorded on the test form. An additional question, question 21, "Blind people make people feel uncomfortable" was included for the purpose of this study and not included in the scoring of the ATDP.

The coefficient alpha for Form 0 of the ATDP was .76. Correlations of the ATDP with attitudes toward persons with specific disabilities were tabulated. Correlations of the ATDP with blindness ranged from .19-.83 (Yuker & Block, 1986). Data indicate that the ATDP is a reliable measure. Many studies have tested four types of reliability (test-retest, split-half, equivalence, and alpha) and the overall median for the scale is approximately .80 (Yuker & Block, 1986, p. 26). Data further indicate that the ATDP is valid with both nondisabled and disabled populations. The measure correlated highly with other measures of attitudes toward disabled persons.

ATDP scores are relatively highly correlated with measures of prejudice and ethnocentrism ( $r=.43$ ), as would be expected. Correlations between the ATDP and demographic variables are low. In summary, the

research indicates that the ATDP scales are reliable and valid measures of attitudes toward disabled persons (Yuker & Block, 1986). The Attitudes Toward Disabled Persons Scale, Form O, is in Appendix I.

#### Data Collection

Collection of the data involved the subjects viewing one video vignette, approximately eight minutes in length, of a counseling session and the completion of the Animal Affinity Instrument, the Attitudes Toward Disabled Persons Scale, the Confidence for Counseling Outcomes Expectancy Scale, the Counselor Traits Scales, and the Continuation for Counseling Scale. The selection of the video vignette for subject viewing was arbitrary except when there was a possibility of any of the students having knowledge of the identity of the counselor who simulated blindness. When the counselor was known by the subjects, the video vignettes using sighted counselor or sighted counselor with pet dog were shown.

The investigator discussed the purpose of the study and the use of the deception in the simulated vignettes immediately after the questionnaires were completed. Participation in the study was voluntary. The viewing time of the video vignettes was approximately eight minutes. The time for completing the paper and pencil questionnaires and inventories was approximately twenty-two minutes. Total time for the data collection for each class took approximately thirty minutes.

Data collection involved showing the four video vignettes to a total of 11 classrooms at Iowa State University and the University of

Wisconsin-River Falls. The first treatment group consisted of thirty subjects. The second treatment group consisted of forty-eight subjects. The third treatment group consisted of thirty-three subjects. The fourth treatment group consisted of fifty-one subjects.

#### Data Analysis

The completed questionnaires and inventories data were coded and key punched for computer analysis. Statistical treatment of the data was performed using SPSSX.

Data were first treated by obtaining a Pearson Product Moment Correlation for the Counselor Rating Scales and subscales. Homogeneity of treatment groups was tested to determine if the treatment groups were the same in terms of the score distribution of the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales. Six analyses of variances were applied to the three Counselor Rating Scales and subscale effectiveness. Duncan's Multiple Range Test was applied to those Counselor Rating Scales and subscales which were significant. Multiple Classification Analysis revealed unadjusted and adjusted means for the Counselor Rating Scales and subscale effectiveness. Analyses of variance of the treatment groups with the Animal Affinity Instrument and Attitudes Toward Disabled Persons Scales, as single and combined covariates, were used to test effects on the treatment groups.

## FINDINGS

### Introduction

The research undertaken in this study was designed to investigate whether pet presence and counselor blindness would effect evaluation of a simulated counseling session. Counselor effectiveness was assessed by using three Counselor Rating Scales: the Confidence for Counseling Outcomes Expectancy Scale (CON), the Continuation of Counseling Scale (COC), and the Counselor Traits Scale (CONT). Three subscales of the Counselor Traits Scale were also utilized. The subscales of effectiveness (exp) was a summation of perceived expertness, social attractiveness, and trustworthiness. The single subscales of perceived expertness (pe), social attractiveness (sa), and trustworthiness (tw) were also utilized.

The Animal Affinity Instrument was developed for the purpose of this study to assess the subject's affinity to animals. The word affinity is synonymous with the word relationship for the purpose of this study. The Attitudes Toward Disabled Persons Scales was used to assess the subjects' attitudes toward disabled persons. The Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales were used as covariates for the Counselor Rating Scales and subscales.

The following research question was formulated for the purpose of this study: Do pet presence and counselor blindness influence the evaluation of a counseling session?

The remainder of this chapter presents findings pertinent to the research question. The results of the statistical analysis will be presented in the following sequence: a correlation matrix of appropriate Counselor Rating Scales and subscales, homogeneity of treatment groups, analysis of variance for the Counselor Rating Scales and subscales, the Duncan's Multiple Range Tests, analysis of variance of treatment groups on the Animal Affinity Instrument as a covariate, analysis of variance of treatment groups on the Attitudes Toward Disabled Persons Scales as a covariate, and analysis of variance of the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales as covariates. The format utilized with each null hypothesis will be that of a hypothesis followed by the appropriate analysis, the obtained F-ratio, and the appropriate means table. If significant differences ( $p > .05$ ) are found, the Duncan's Multiple Range Test will be presented.

#### Results of the Statistical Analysis

This section examines the analysis of the null hypotheses, which includes the results of the Pearson Product Moment Correlation Coefficients for the Counselor Rating Scales and subscales, the homogeneity of treatment groups, and the Duncan's Multiple Range Tests.

##### Pearson Product Moment Correlation Coefficient

Pearson Product Moment Correlation Coefficients on the Counselor Rating Scales revealed a high level of relationship between the scales.

The Pearson Product Moment Correlation Coefficients ranged from  $r=.97$  on the Counselor Traits Scale's subscale of effectiveness (exp) which is the sum of the subscales of perceived expertness (pe) to  $r=.38$  on the Continuation of Counseling Scale and the subscale of trustworthiness. The high correlation between CONT and exp was expected due to the nature of the subscale. The Pearson Product Moment Correlation summarizes the strength of an association. When one variable is high, the other one tends to be high. The results indicated a high and positive relationship between the Counselor Rating Scales and subscales. The correlation matrix is presented in Table 2. The two Counselor Rating Scales are in upper case letters while the subscales are in lower case letters. CON signifies the Confidence for Counseling Outcomes Expectancy Scale; CONT signifies the Counselor Traits Scales; sa signifies the Counselor Traits Scale's subscale social attractiveness; tw signifies the Counselor Traits Scale's subscale trustworthiness; exp signifies effectiveness which is the sum of perceived expertness, social attractiveness and trustworthiness; and pe signifies perceived expertness.

Table 2. Pearson Product Moment Correlation Coefficients for the Counselor Rating Scales and subscales

	COC	CON	CONT	exp	sa	pe	tw
COC							
CON	.78						
CONT	.59	.69					
exp	.55	.64	.97				
sa	.51	.60	.82	.85			
pe	.50	.54	.85	.86	.58		
tw	.38	.48	.83	.86	.59	.63	

Homogeneity of treatment groups

Two analyses of variances were run to test if the treatment groups were the same in terms of score distributions on the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales. There is evidence (see Table 3) that there are no significant mean differences between and within the four treatment groups on the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales at the .05 level of significance.

Therefore, subjects' scores on animal affinity and attitude toward disabled persons indicated that the four treatment groups were the same on each of the two instruments (Table 3).

Table 3. Analysis of variances on the Animal Affinity Instrument and Attitudes Toward Disabled Persons Scales by treatment groups

Instrument	Source	DF	MS	F	p
AAI	Between Groups	3	436.53	2.20	.09
	Within Groups	147	198.18		
	Total	150			
ATDP	Between Groups	3	44.48	.29	.83
	Within Groups	153	152.92		
	Total	156			

Analysis of variance for treatment groups

Null Hypothesis 1. There are no significant mean differences for the four treatment groups on the Counselor Rating Scales and subscale.

To test Null Hypothesis 1, seven analyses of variance were utilized. Three of them involved the total scale scores and four of them were applied to subscales. The results are reported in Table 4. The analysis of variance revealed that there were significant differences for the three scales and four subscales. Analysis of variance revealed that for the Confidence for Counseling Outcomes Expectancy Scale, the Counselor Traits Scales, the Continuation of Counseling Scale, and the Counselor Traits Scale's subscales there was a significant effect. The results of analysis of variance for the scales and the treatment groups are reported in Table 4. The results, by treatment groups, of the frequencies, means, and standard deviations of



the three Counselor Rating Scales are in appendices 12-23. The three Counselor Rating Scales are designated by upper case letters while the subscales are designated in lower case letters.

Table 4. Analysis of variance on the Counselor Rating Scales and subscales by treatment groups

Scale	Source	DF	MS	F	p
CON	Between Groups	3	3805.51	9.30	.00
	Within Groups	156	409.01		
	Total	159			
COC	Between Groups	3	107.90	8.81	.00
	Within Groups	145	12.30		
	Total	148			
CONT	Between Groups	3	735.12	7.20	.00
	Within Groups	154	102.05		
	Total	157			
exp	Between Groups	3	363.09	4.45	.01
	Within Groups	155	81.55		
	Total	158			
pe	Between Groups	3	40.55	3.01	.03
	Within Groups	156	13.49		
	Total	159			
sa	Between Groups	3	50.72	3.67	.01
	Within Groups	156	13.79		
	Total	159			
tw	Between Groups	3	43.69	3.92	.01
	Within Groups	155	11.16		
	Total	158			

### Duncan's Multiple Range Tests

In reporting this analysis procedure, a general statement is followed by statements concerning specific scales. Duncan's Multiple Range Tests were run to determine where the mean differences were located between the four treatment groups. The Duncan's Multiple Range Tests on the Counselor Rating Scales and subscales revealed that the highest mean for all the treatment groups and Counselor Rating Scales was the mean identified with the treatment group 2, sighted counselor with dog. The lowest mean for all the treatment groups and Counselor Rating Scales, with the exception of the subscale on perceived expertness, was the mean identified with the treatment group 3, blind counselor without dog. For the perceived expertness subscale, the lowest mean was that of treatment group 4, blind counselor with dog.

Duncan's Multiple Range Test on the Confidence for Counseling Outcomes Expectancy Scale revealed that treatment group 3, blind counselor with dog, was significantly different from group 1, sighted counselor without dog, and group 2, sighted counselor with dog. Each treatment group mean was significantly different from treatment group 2, sighted counselor with dog. In addition, treatment group 3, blind counselor without dog, was significantly different from group 1, sighted counselor without dog (Table 5).

The Duncan's Multiple Range Test on the Continuation of Counseling Scale revealed that the mean of treatment group 3, blind counselor without dog, was significantly different from the means of treatment

group 4, blind counselor with dog; treatment group 1, sighted counselor without dog; and treatment group 2, sighted counselor with dog. The mean of treatment group 4, blind counselor with dog, was significantly different from the mean of treatment group 2, sighted counselor with dog. The mean of treatment group 1, sighted counselor without dog, was significantly different from the mean of treatment group 2, sighted counselor with dog. Therefore, the mean of treatment group 2, sighted counselor with dog, was significantly different from all other means (Table 6).

Table 5. Duncan's Multiple Range Test on the Confidence for Counseling Outcomes Expectancy Scale by treatment groups

Mean	Treatment Group	3	4	1	2
64.94	3 Blind without				
70.34	4 Blind with				
77.30	1 Sighted without	*			
87.09	2 Sighted with	*	*	*	

\*Indicates significance at the .05 level.

The Duncan's Multiple Range Test on the Counselor Traits Scale revealed that the mean of treatment group 3, blind counselor without dog, was significantly different from the means of treatment group 1, sighted counselor without dog and treatment group 2, sighted counselor with dog. The mean of treatment group 4, blind counselor with dog, was

Table 6. Duncan's Multiple Range Test on the Continuation of Counseling Scale by treatment groups

Mean	Treatment Group	3	4	1	2
7.86	3 Blind without dog				
9.94	4 Blind with dog	*			
10.04	1 Sighted without dog	*			
12.11	2 Sighted with dog	*	*	*	

\*Indicates significance at the .05 level.

significantly different from the means of treatment group 1, sighted counselor without dog, and treatment group 2, sighted counselor with dog (Table 7).

Table 7. Duncan's Multiple Range Test on the Counselor Traits Scale by treatment groups

Mean	Treatment Group	3	4	1	2
54.40	3 Blind without				
56.20	4 Blind with				
61.20	1 Sighted without	*	*		
63.60	2 Sighted with	*	*		

\*Indicates significance at the .05 level.

The Duncan's Multiple Range Test on the Counselor Traits Scale's subscale effectiveness revealed that the mean of treatment group 3,

blind counselor without dog, was significantly different from the mean of treatment group 2, sighted counselor without dog. The mean of treatment group 4, blind counselor with dog, was significantly different from the mean of treatment group 2, sighted counselor without dog (Table 8).

Table 8. Duncan's Multiple Range Test on the Counselor Traits Scale's subscale effectiveness by treatment groups

Mean	Treatment Group	3	4	1	2
49.70	3 Blind without				
50.37	4 Blind with				
54.20	1 Sighted without				
55.83	2 Sighted with	*	*		

\*Indicates significance at the .05 level.

The Duncan's Multiple Range Test on the Counselor Traits Scale's subscale perceived expertness revealed that the mean of treatment group 4, blind counselor with dog, was significantly different from the mean of treatment group 2, sighted counselor with dog, and the means of treatment group 3, blind counselor without dog, and treatment group 1, sighted counselor without dog (Table 9).

The Duncan Multiple Range Test on the Counselor Traits Scale's subscale social attractiveness by treatment group revealed that the mean of treatment group 3, blind counselor without dog, was significantly

Table 9. Duncan's Multiple Range Test on the Counselor Traits Scale's subscale perceived expertness by treatment groups

Mean	Treatment Group	4	3	1	2
16.38	4 Blind with				
16.61	3 Blind without				
18.20	1 Sighted without		*		
18.21	2 Sighted with	*			

\*Indicates significance at the .05 level.

different than the mean of treatment group 2, sighted counselor with dog. The mean of treatment group 4, blind counselor with dog, was significantly different than the mean for treatment group 2, sighted counselor with dog (Table 10).

Table 10. Duncan's Multiple Range Test on the Counselor Traits Scale's subscale social attractiveness by treatment groups

Mean	Treatment Group	3	4	1	2
16.46	3 Blind without				
16.80	4 Blind with				
17.60	1 Sighted without				
18.89	2 Sighted with	*	*		

\*Indicates significance at the .05 level.

Duncan's Multiple Range Test revealed that on the Counselor Traits Scale's subscale trustworthiness, the mean of treatment group 3, blind without dog, was significantly different from the mean of treatment group 1, sighted counselor without dog, and the mean of treatment group 2, sighted counselor with dog. The mean of treatment group 4, blind counselor with dog, was significantly different from the mean of treatment group 2, sighted counselor with dog (Table 11).

Table 11. Duncan's Multiple Range Test on the Counselor Traits Scale's subscale trustworthiness by treatment groups

Mean	Treatment Group	3	4	1	2
16.64	3 Blind without				
17.00	4 Blind with				
18.40	1 Sighted without	*			
18.72	2 Sighted with	*	*		

\*Indicates significance at the .05 level.

The means were significantly different at the .05 level for the four treatment groups on the Counselor Rating Scales and subscales. Therefore, Null Hypothesis 1 was rejected at the .05 level. Pet presence and counselor blindness had a significant effect on the four treatment groups.

### Covariate Animal Affinity Instrument

In order to test this null hypothesis, it was necessary to run an analysis for the three Counseling Rating Scales and the Counselor Traits Scale subscale effectiveness. When controlling for the Animal Affinity Instrument on the four scales, there were no mean scores which proved to be significant. All the adjusted and unadjusted means are in Appendix J. This process was completed by examining four subhypotheses.

**Null Hypothesis 2:** There are no significant mean differences on the Counselor Rating Scales for the four treatment groups when controlling for the Animal Affinity Instrument.

**2a:** There are no significant mean differences on the Confidence for Counseling Outcomes Expectancy Scale when controlling for animal affinity.

While the four treatment groups were significantly different, the Animal Affinity Instrument as a covariate had no significant effect on the Counselor Rating Scale. Subhypothesis 2a was accepted at the .05 level of significance (Table 12).

**2b.** There are no significant mean differences on the Continuation of Counseling Scale when controlling for the Animal Affinity Instrument.

While the four treatment groups were significantly different, the Animal Affinity Instrument as a covariate had no significant effect on the Counselor Rating Scale. Subhypothesis 2b was accepted at the .05 level of significance (Table 13).



Table 12. Analysis of variance on the Confidence for Counseling Outcomes Expectancy Scale by treatment groups on the covariate animal affinity

Source of Variation	DF	MS	F	p
Animal Affinity Inventory	1	868.93	2.40	.12
Treatment	3	3281.09	9.06	.00
Residual	132	362.30		
Total	136	430.41		

Table 13. Analysis of variance for the Continuation of Counseling Scale by treatment groups on the covariate animal affinity

Source of Variation	DF	MS	F	p
Animal Affinity Inventory	1	27.37	2.33	.13
Treatment	3	106.88	9.10	.00
Residual	132	11.75		
Total	136	13.96		

2c. There are no significant mean differences on the Counselor Traits Scale when controlling for the Animal Affinity Instrument.

While the four treatment groups were significantly different, the Animal Affinity Instrument as a covariate had no significant effect on the Counselor Traits Scale. Subhypothesis 2c was accepted at the .05 level of significance (Table 14).

Table 14. Analysis of variance for the Counselor Traits Scale by treatment groups on the covariate animal affinity

Source of Variation	DF	MS	F	p
Animal Affinity Inventory	1	267.77	2.81	.10
Treatment	3	543.99	5.73	.01
Residual	132	95.01		
Total	136	106.20		

2d. There are no significant mean differences on the Counselor Traits Scale's subscale effectiveness when controlling for the Animal Affinity Instrument.

While the four treatment groups were significantly different, the Animal Affinity Instrument as a covariate had no significant effect on the Counselor Traits Scale's subscale effectiveness. Subhypothesis 2d was accepted at the .05 level of significance (Table 15).

Table 15. Analysis of variance for the Counselor Traits Scale's subscale effectiveness by treatment groups on the covariate animal affinity

Source of Variation	DF	MS	F	p
Animal Affinity Inventory	1	174.00	2.90	.14
Treatment	3	294.14	3.70	.01
Residual	132	79.52		
Total	136	84.95		

All four subhypotheses under Null Hypothesis 2 were accepted. Therefore, Null Hypothesis 2 was accepted at the .05 level of significance. Animal affinity as a covariate had no significant effect on the Counselor Rating Scales and subscale.

#### Covariate Attitudes Toward Disabled Persons Scales

In order to test this null hypothesis, it was necessary to run an analysis of variance of the three Counselor Rating Scales and the Counselor Traits Scale's subscale effectiveness. When controlling for the Attitudes Toward Disabled Persons Scales on the four scales, there were no mean scores which proved to be significant. This process was completed by examining four subhypotheses.

Null Hypothesis 3. There are no significant mean differences on the Counselor Rating Scale for the four treatment groups when controlling for the Attitudes Toward Disabled Persons Scales.

3a. There are no significant mean differences on the Confidence for Counseling Outcomes Expectancy Scale when controlling for the Attitudes Toward Disabled Persons Scales.

While the four treatment groups were significantly different, the Attitudes Toward Disabled Persons Scales as a covariate had no significant effect on the Counselor Rating Scales and subscale. Subhypothesis 3a was accepted at the .05 level of significance (Table 16).

Table 16. Analysis of variance for the Confidence for Counseling Outcomes Expectancy Scale by treatment groups on the covariate attitudes toward disabled persons

Source of Variation	DF	MS	F	p
Attitudes Toward Disabled Persons	1	503.23	1.32	.25
Treatment	3	3326.32	8.71	.00
Residual	137	381.84		
Total	141	445.35		

3b. There are no significant mean differences for the Continuation of Counseling Scale when controlling for the Attitudes Toward Disabled Persons Scales.

While the four treatment groups were significantly different, the Attitudes Toward Disabled Persons Scales as a covariate had no significant effect on the Counselor Rating Scale. Subhypothesis 3b was accepted at the .05 level of significance (Table 17).

Table 17. Analysis of variance for the Continuation of Counseling Scale by treatment groups on the covariate attitudes toward disabled persons

Source of Variation	DF	MS	F	p
Attitudes Toward Disabled Persons	1	23.82	2.54	.11
Treatment	3	102.18	8.70	.00
Residual	137	11.80		
Total	141	13.81		

3c. There are no significant mean differences on the Counselor Traits Scale when controlling for attitudes toward disabled persons.

While the four treatment groups were significantly different, the Attitudes Toward Disabled Persons Scales as a covariate had no significant effect on the Counselor Rating Scale. Subhypothesis 3b was accepted at the .05 level of significance (Table 18).

Table 18. Analysis of variance for the Counselor Traits Scale by treatment groups on the covariate attitudes toward disabled persons

Source of Variation	DF	MS	F	p
Attitudes Toward Disabled Persons	1	310.56	3.26	.07
Treatment	3	575.04	6.03	.00
Residual	137	95.33		
Total	141	107.06		

3d. There are no significant mean differences for the Counselor Traits Scale's subscale effectiveness when controlling for the Attitudes Toward Disabled Persons Scales.

While the four treatment groups were significantly different, the Attitudes Toward Disabled Persons Scales as a covariate had no significant effect on the Counselor Rating Scale. Subhypothesis 3d was accepted at the .05 level of significance (Table 19).

Table 19. Analysis of variance for the Counselor Traits Scale's subscale effectiveness by treatment groups on the covariate attitudes toward disabled persons

Source of Variation	DF	MS	F	p
Attitudes Toward Disabled Persons	1	201.74	2.57	.11
Treatment	3	323.24	4.11	.01
Residual	137	78.57		
Total	141	84.65		

All four subhypotheses were accepted. Therefore, Null Hypothesis 3 was accepted at the .05 level of significance. Attitudes toward disabled persons as a covariate had no significant effect on the Counselor Rating Scales and subscale.

Covariates Animal Affinity and Attitudes Toward Disabled Persons

In order to test this null hypothesis, it was necessary to run an analysis of variance for the three Counselor Rating Scales and for the Counselor Traits Scale's subscale effectiveness. Of the four scales run individually in controlling the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales, there were no mean scores which proved to be significant. This process was completed by examining four subhypotheses.

Null Hypothesis 4: There are no significant mean differences on the Counselor Rating Scale for the four treatment groups when controlling for the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales.

4a. There are no significant mean differences on the Confidence for Counseling Outcomes Expectancy Scale when controlling for the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales.

While the four treatment groups were significantly different, the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales as covariates had no significant effect on the Counselor Rating Scales. Subhypothesis 4a was accepted at the .05 level of significance (Table 20).

Table 20. Analysis of variance for the Confidence for Counseling Outcomes Expectancy Scale by treatment groups on the covariates animal affinity and attitudes toward disabled persons

Source of Variation	DF	MS	F	p
Animal affinity	1	760.57	2.10	.15
Attitudes Toward Disabled Persons	1	292.72	.80	.37
Treatment	3	3070.52	8.36	.00
Residual	128	367.26		
Total	133	431.71		

4b. There are no significant mean differences on the Continuation of Counseling Scale when controlling for the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales.

While the four treatment groups were significantly different, the Animal Affinity Instrument and the Attitudes Toward Disabled Scales as covariates had no significant effect on the Continuation for Counseling Scale. Subhypothesis 4c was accepted at the .05 level (Table 21).

Table 21. Analysis of variance for the Continuation of Counseling Scale by treatment groups on the covariates animal affinity and attitudes toward disabled persons

Source of Variation	DF	MS	F	p
Animal Affinity	2	15.93	1.38	.24
Attitudes Toward Disabled Persons	1	18.83	1.63	.20
Treatment	3	101.01	8.75	.00
Residual	128	11.54		
Total	133	13.69		

4c. There are no significant mean differences for the Counselor Traits Scale when controlling for the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales.

While the four treatment groups were significantly different, the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales as covariates had no significant effect on the Counselor Traits Scales. Subhypothesis 4c was accepted at the .05 level of significance (Table 22).



Table 22. Analysis of variance for the Counselor Traits Scales by treatment groups on the covariates animal affinity and attitudes toward disabled persons

Source of Variation	DF	MS	F	p
Animal Affinity	1	216.10	2.31	.13
Attitudes Toward Disabled Persons	1	183.25	1.96	.16
Treatment	3	456.33	4.90	.00
Residual	128	93.64		
Total	133	103.90		

4d. There are no significant mean differences on the Counselor Traits Scale's subscale effectiveness when controlling for the Animal Affinity and the Attitudes Toward Disabled Persons Scales.

While the four treatment groups were significantly different, the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales as covariates had no effect on the Counselor Traits Scale's subscale effectiveness. Subhypothesis 4d was accepted at the .05 level of significance (Table 23).

All four subhypotheses were accepted. Therefore, Null Hypothesis 4 was accepted at the .05 level of significance. Animal affinity and attitudes toward disabled persons as covariates had no significant effect on the Counselor Rating Scales and subscales.

**Table 23. Analysis of variance for the Counselor Traits Scale's subscale effectiveness by treatment groups with the covariates animal affinity and attitudes toward disabled persons**

Source of Variation	DF	MS	F	p
Animal Affinity	1	137.29	1.73	.19
Attitudes Toward Disabled Persons	1	125.26	1.58	.21
Treatment	3	244.89	3.08	.03
Residual	128	79.41		
Total	133	84.22		

#### Summary

The findings of the statistical analysis used to test four null hypotheses were presented in this chapter. A Pearson Product Moment Correlation Coefficient run on the two Counselor Rating Scales, Confidence for Counseling Expectancy Scale and Counselor Traits Scale composite subscale of effectiveness and the single subscales of perceived attractiveness, social attractiveness and trustworthiness, revealed a high level of correlation between the scales. The four treatment groups were tested for homogeneity on Animal Affinity Instrument and Attitudes Toward Disabled Persons. The analyses of variance of treatment groups revealed a significant treatment effect on all three Counselor Rating Scales and subscales. The Duncan's Multiple Range Test was then applied to the Counselor Rating Scales and subscales to determine which group means were significant. Statistical analysis

revealed that the four treatment group means were significant. The analyses of variance of treatment groups revealed no significant effect on the covariates the Animal Affinity Instrument and Attitudes Toward Disabled Persons on the Counselor Rating Scales and subscale effectiveness.

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Summary

The purpose of this study was to examine the effects of pet presence and counselor blindness on the efficacy of a counseling session. The efficacy of the counseling session was assessed by utilizing three Counselor Rating Scales, the Confidence for Counseling Outcomes Expectancy Scale, the Counselor Traits Scale, and the Continuation of Counseling Scale. The subscales of the Counselor Traits Scale of effectiveness which is the summation of perceived expertness, social attractiveness and trustworthiness (exp) and perceived expertness (pe), social attractiveness (sa), and trustworthiness (tw) were also utilized.

The subject's degree of affinity for pets was assessed by developing and utilizing an Animal Affinity Instrument. The subject's degree of attitudes toward disabled persons was assessed utilizing the Attitudes Toward Disabled Persons Scales.

The following research question was formulated for this study: Do pet presence and counselor blindness influence the evaluation of a counseling session? Four null hypotheses were developed to test this research question:

1. There are no significant mean differences for the four treatment groups on the Counselor Rating Scales and subscales.

2. There are no significant mean differences on the Counselor Rating Scales and subscales for the four treatment groups when controlling for the Animal Affinity Instrument.
3. There are no significant mean differences on the Counselor Rating Scales and subscales for the four treatment groups when controlling for the Attitudes Toward Disabled Persons Scales.
4. There are no significant mean differences on the Counselor Rating Scales and subscales for the four treatment groups when controlling for the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales.

Subjects for this study were 162 undergraduate and graduate students from two midwest universities. Data were obtained while the students were in classes. After each of the four treatment groups viewed a video tape vignette of a simulated counseling session, subjects were asked to respond to a questionnaire regarding the efficacy of a counseling session. Analyses of the resulting data were examined by analysis of variance on the Counselor Rating Scales and subscales and by analysis of variance on the two covariates.

Previous to testing the null hypotheses, it was found that the three Counselor Rating Scales and four subscales were significantly correlated. The Pearson Product Moment Correlation Coefficient indicated a strong, positive correlation for two of the Counselor Rating Scales and subscales. It was also found that the four treatment

groups were equal in terms of score distribution for animal affinity and attitudes toward disabled persons.

#### Null hypothesis 1

There are no significant mean differences for the four treatment groups on the Counselor Rating Scales and subscales.

This hypothesis was tested by applying an analyses of variance to the Counselor Rating Scales and subscales by treatment groups. The analyses revealed significant effects on the scales of Confidence for the Counseling Outcomes Expectancy Scale (CON), the Confidence of Counseling Scale (COC), the Counselor Traits Scale (CONT), and the subscales effectiveness (exp), perceived expertness (pe), social attractiveness (sa), and trustworthiness (tw).

The results revealed that there were significant mean differences on the Counseling Rating Scales and subscales by treatment group. This null hypothesis was rejected at the .05 level of significance.

Application of the Duncan's Multiple Range Test to these results revealed that the highest ranked treatment group was treatment group 1, sighted counselor with dog. The second highest ranked treatment group was treatment group 2, sighted counselor without dog. With exception of the subscale perceived expertness, the third highest ranked treatment group was treatment group 4, blind counselor with dog, and the lowest ranked treatment group was treatment group 3, blind counselor without dog. On the subscale perceived expertness, treatment group 3, blind

counselor without dog, ranked third, above treatment group 4, blind counselor with dog.

### Null hypothesis 2

There are no significant mean differences on the Counselor Rating Scales and subscales for the four treatment groups when controlling for the Animal Affinity Instrument.

The results of analysis of variance with the Animal Affinity Instrument treated as a covariate revealed no significant effect on the Counselor Rating Scales and subscales. The individual's animal affinity score did not have any significant statistical effect on the analysis of variance on subject's Counselor Rating Scales and subscales scores. This null hypothesis was accepted at the .05 level of significance.

### Null hypothesis 3

There are no significant mean differences on the Counselor Rating Scales and subscales for the four treatment groups when controlling for Attitudes Toward Disabled Persons Scales.

The results of the analysis of variance with the Attitudes Toward Disabled Persons Scales treated as a covariate revealed no significant effect on the Counselor Rating Scales and subscales. The individual's attitude toward disabled persons score did not have any significant effect on subject's Counselor Rating Scales and subscales scores. This null hypothesis was accepted at the .05 level of significance.

#### Null hypothesis 4

There are no significant mean differences on the Counselor Rating Scales and subscales for the four treatment groups when controlling for the Animal Affinity Instrument and Attitudes Toward Disabled Persons Scales.

The results of analysis of variance with the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales treated as covariates revealed no significant effect on the Counselor Rating Scales and subscales. The individual's animal affinity and attitudes toward disabled persons scores did not have a significant effect on the subject's Counselor Rating Scales and subscales scores. This null hypothesis was accepted at the .05 level of significance.

#### Conclusions

There were five basic conclusions drawn from the hypothesis testing. The first conclusion was that differences existed on the Counselor Rating Scales and subscales for the four treatment groups. Dog presence and counselor blindness significantly affected the treatment group means on the Counselor Rating Scales and subscales. In all cases, treatment group means with sightedness and dog presence were higher than blindness with and without dog presence. With the exception of the perceived expertness subscale, blindness without dog was ranked as the lowest mean.

The second conclusion was that the covariates animal affinity and attitudes toward disabled persons had no significant effect on



the Counselor Rating Scales and subscales scores. The subjects' relationships with animals and attitudes toward disabled had no significant effect as to their evaluation of a counseling session.

The third conclusion was that a sighted counselor with dog was viewed as most effective. The finding that an alliance between animals and humans appear to have an initial impact on others was supported by this study.

A fourth conclusion was that a blind counselor with a dog was viewed as more effective than a blind counselor without a dog on all but one of the Counselor Rating subscales.

A fifth conclusion was that a sighted counselor without a dog was viewed as more effective than both blind counselor with and a blind counselor without a dog. While dog presence seemed to be an asset for the effectiveness of a blind counselor, it was not strong enough to raise the means of the treatment groups 3 and 4, blind counselor without and with dog, above the means of the treatment groups 1 and 2, sighted counselor without and with dog.

### Discussion

The literature tends to support findings that the blind counselor with dog present would rank above the blind counselor without dog present in all Counselor Rating Scales and subscales. The result that both sighted counselor with dog present and blind counselor with dog rated over their counterparts of sighted and blind counselor with no dog present strongly supported the literature on the significance of

Pet-Facilitated Therapy and pet presence. People in public parks were deemed more approachable for conversation when accompanied by a pet (Messent, 1983). People associated with animals in scenes from the Thematic Apperception Test (TAT) were often judged by subjects to be friendlier, happier, more confident and more relaxed than those people not associated with animals (Lockwood, 1983). In a study of initial interviews with juvenile offenders, the presence of a dog resulted in increased openness and decreased hostility (Gonski, Peacock, & Ruckert, 1986). Pet presence used in conjunction with an interviewer was found to reduce anxiety and blood pressure in children (Beck & Katcher, 1983). Pets may also be seen as a comforting object during episodes of stress (Wolff, 1977).

Persons publicly identified with a companion animal make a symbolic statement of their personality and self-image. The strength of the relationship of a blind person and guide dog has been documented (Zee, 1983; Bassing, 1984; Putnam, 1979). Pet presence and the way it is treated become factors which are taken into account in the assessment of the social self (Messent, 1983).

Veevers (1985) identified three major functions that pets serve which were mentioned earlier in the review of literature section of this study. The sociability function involves the extent to which interaction with pets may supplement human to human interaction. Projective function involves the extent to which a pet may serve as an extension of self. Both of these functions would be formidable with a blind person using a guide dog.

Sighted and blind counselors using dogs within the therapeutic setting relate positive effects. These effects included: lowering of apprehension about the counseling, having the dog present as a social facilitator and transitional object, and lowering of depression levels (Meek, 1982; Putnam, 1979; Levinson, 1969a, 1972; Gonski, Peacock, & Ruckert, 1986; Cass, 1981; and Brickel, 1985). The literature tended to support the findings that pet ownership promotes self-assurance and confidence in the owner (Wille, 1982) and that self-image may be positively affected by a relationship with a pet (Bruner, 1983; Levinson, 1969a, 1972). It follows that these skills would enhance a counselor's ability to function more effectively.

In regard to the findings that on the subscale of perceived expertness treatment group 3, blind counselor without dog, ranked above treatment group 4, blind counselor with dog, it was essential to examine the demographic data of this study. Demographics indicated that the main differences between those subjects in treatment group 3, blind counselor without dog differed from those subjects in treatment group 4, blind counselor with dog in some aspects which may account for the difference in blind counselor ranking. Treatment group 3 was a smaller group (N=33) than treatment group 4 (N=51). Treatment group 3 subjects were younger, were in the Elementary Education department, were non-pet owners, and fewer had grown up with pets. In general, treatment group 4 subjects were older, were in the Science and Humanities department, and had grown up with pets.

### Recommendations

Based on the findings from this investigation the following recommendations are made:

1. Mental health practitioners might wish to incorporate animals into the counseling milieu.
2. Research is needed to further explore the biases in seeking psychological counseling from physically disabled persons.
3. Blind counselors might wish to incorporate their guide dogs within the counseling setting, rather than excluding the dog.
4. Agencies working with disabled persons need to be cognizant of the enhancing qualities of pet presence.
5. Interaction between the pet and the client is recommended for sighted counselors using pet facilitated therapy.
6. Those persons considering implementing the use of animals in conjunction with human therapies should have responsible knowledge of animal behavior, zoonosis, liabilities, the appropriateness of the animal used, and be active professionally in this specialized field of pet therapy.

### Limitations

Limitations to this study were as follows:

1. The videotaped counseling session vignettes were simulations of an actual counseling session done by Carl Rogers.
2. The Rogerian approach to counseling may not be appreciated by others.

3. Counselor blindness was simulated. Although simulated blindness and guide dog presence were checked for authenticity, there are many physical manifestations (i.e., head motions, gestures, responses to client statements) of blindness that were not observable on the videotaped counseling session.
4. The subjects for this study were attending a university. Therefore, the results of this particular sample may not be able to be applied to a different population.
5. The videotaped counseling session vignettes were approximately eight minutes long. The length of the viewed session may have affected the results on the Counselor Rating Scales and subscales.
6. Any animal used in pet therapy requires the therapist to consider positive and negative reactions due to the reputation of the animal, nature of the breed, size of pet and purpose of the pet in a therapeutic setting.

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**APPENDIX A.**

**ANIMAL AFFINITY INSTRUMENT**

Subject Number \_\_\_\_\_

ANIMAL AFFINITY INSTRUMENTBackground Information

Age (in years) \_\_\_\_\_

Sex M \_\_\_\_\_ F \_\_\_\_\_

Education Level

Fresh \_\_\_\_\_ Soph \_\_\_\_\_ Jr \_\_\_\_\_ Sr \_\_\_\_\_ Grad \_\_\_\_\_

University Department \_\_\_\_\_

The size of my home town is (circle one)

1. under 1,000
2. 1,000 - 6,000
3. 6,000 - 10,000
4. 10,000 - 20,000
5. over 20,000

Current Residence (check one)

Dorm \_\_\_\_\_ Apt \_\_\_\_\_ House \_\_\_\_\_ Sorority/Fraternity House \_\_\_\_\_

Condo \_\_\_\_\_ Mobile Home \_\_\_\_\_

Check one of the following related to residence

Rent or pay fee \_\_\_\_\_ Own \_\_\_\_\_

When I think of the concept of pet, the first type of pet that comes to mind is \_\_\_\_\_.

Pet ownership (check all that apply)

Currently own a pet \_\_\_\_\_

Have been a pet owner but currently do not own a pet \_\_\_\_\_

Would like to be a pet owner in the future \_\_\_\_\_

I grew up with pets \_\_\_\_\_

I have never been a pet owner \_\_\_\_\_

**APPENDIX B.**

**THE COUNSELOR RATING SCALES AND SUBSCALES**

---

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**APPENDIX C.**

**PET AND PERSONAL HISTORY QUESTIONNAIRE**

**APPENDIX D.**

**COMPANON ANIMAL PROJECT SURVEY**

**APPENDIX E.**

**PET ATTITUDE SCALE**

APPENDIX F.

PET ATTITUDE INVENTORY

**APPENDIX G.**

**HUMAN-ANIMAL RELATIONSHIPS CLOSENESS SCALE (HARCS)**

**APPENDIX H.**

**ANIMAL AFFINITY INSTRUMENT**

ANIMAL AFFINITY INSTRUMENT

**Instructions:** Following are a series of statements about people and pets. Please read each statement and circle the number which most applies to you. Circle "5" for those statements for which you STRONGLY AGREE, and "1" for those statements for which you STRONGLY DISAGREE. Use the full range of numbers from 1 to 5 to indicate the strength of your belief.

	1	2	3	4	5
	strongly disagree	disagree	agree somewhat	agree	strongly agree
				Strongly Disagree	Strongly Agree
1. I am (would be) attached to a pet(s).	1	2	3	4	5
2. People tend to think about their pet(s).	1	2	3	4	5
3. A pet(s) is an extension of its owner.	1	2	3	4	5
4. A pet(s) is a source of socializing.	1	2	3	4	5
5. People and their pet(s) have similar characteristics.	1	2	3	4	5
6. People interact with their pet(s) on a daily basis.	1	2	3	4	5
7. People grieve over the loss of a pet(s).	1	2	3	4	5
8. A pet(s) is a member of the family.	1	2	3	4	5
9. It is important for children to be around a pet(s).	1	2	3	4	5
10. I do (would) experience benefits from being a pet owner.	1	2	3	4	5
11. It is important for my well-being to be in contact with pets.	1	2	3	4	5
12. People view their pet(s) as a source of enjoyment.	1	2	3	4	5
13. One can learn about oneself through pet ownership.	1	2	3	4	5
14. A pet(s) respond(s) to peoples' moods.	1	2	3	4	5
15. I do (would) confide in my pet(s).	1	2	3	4	5
16. I value pets.	1	2	3	4	5
17. A pet is (would be) part of my emotional support.	1	2	3	4	5

	Strongly Disagree			Strongly Agree	
18. A pet is (would be) a source of activity.	1	2	3	4	5
19. I am (would be) concerned about diseases transmitted by pets.	1	2	3	4	5
20. A pet is (would be) a source of companionship.	1	2	3	4	5
21. I am (would be) concerned about pet being destructive.	1	2	3	4	5
22. I am likely to be a pet owner at sometime during my life.	1	2	3	4	5
23. I would not want a pet because they are restrictive.	1	2	3	4	5
24. I would not want a pet because they are expensive.	1	2	3	4	5



**APPENDIX I.**

**ATTITUDES TOWARD DISABLED PERSONS SCALE**

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**APPENDIX J.**

**UNADJUSTED AND ADJUSTED MEANS**

**Table 24. Unadjusted and adjusted means for the Counselor Rating Scales and subscale effectiveness (exp) by Group with the Animal Affinity Instrument (N=137)**

Scale	Means	Group 1	Group 2	Group 3	Group 4
CON	Unadjusted	77.74	86.56	61.04	72.84
	Adjusted	77.00	86.38	61.30	72.95
COC	Unadjusted	9.83	12.00	7.32	9.98
	Adjusted	9.80	11.97	7.38	10.01
CONT	Unadjusted	60.75	63.66	54.28	56.32
	Adjusted	60.63	63.51	54.50	56.42
exp	Unadjusted	53.96	55.93	49.04	50.51
	Adjusted	53.86	55.80	49.22	50.60

**Table 25. Unadjusted and adjusted means for the Counselor Rating Scales and subscale effectiveness (exp) by group with the Attitudes Toward Disabled Persons Scales (N=137)**

Scale	Means	Group 1	Group 2	Group 3	Group 4
CON	Unadjusted	77.15	87.33	64.11	71.75
	Adjusted	77.13	87.19	64.06	71.93
COC	Unadjusted	9.82	12.05	7.78	9.93
	Adjusted	9.82	12.01	7.76	9.98
CONT	Unadjusted	60.75	64.14	55.41	56.55
	Adjusted	60.74	64.02	55.36	56.70
exp	Unadjusted	53.97	56.33	49.82	50.64
	Adjusted	53.96	56.23	49.78	50.76

**Table 26. Unadjusted and adjusted means for the Counselor Rating Scales and subscale effectiveness (exp) by group with the Animal Affinity Instrument and the Attitudes Toward Disabled Persons Scales (N=137)**

Scale	Means	Group 1	Group 2	Group 3	Group 4
CON	Unadjusted	77.15	86.57	6.171	72.59
	Adjusted	77.01	86.28	61.78	72.92
COC	Unadjusted	9.82	12.00	7.45	9.95
	Adjusted	9.80	11.95	7.43	10.02
CONT	Unadjusted	60.75	63.66	54.92	56.64
	Adjusted	60.64	63.43	55.02	56.89
exp	Unadjusted	53.96	55.92	49.54	50.73
	Adjusted	53.86	55.73	49.63	50.94

**APPENDIX K.**

**INSTRUMENT COVER LETTER TO SUBJECTS**

---

Dear Participant:

Attached are three questionnaires which include questions about your attitudes toward pets, the disabled, and a counseling setting. I would appreciate your filling these out. I realize this will take up some of your time, but in doing so you would be helping us learn more about pet affinity, attitudes toward the disabled, and counseling.

Your participation is completely confidential and voluntary. Your name is not included on the questionnaires and the subject number at the top of the page will be used for statistical coding only. If filling out this questionnaire makes you uncomfortable, you are free to terminate responding at any time.

If you choose to participate, it is very important that you answer as honestly as you can. Again, let me stress your answers will remain confidential.

Sincerely,

Jodi McAdams

APPENDIX L.

TREATMENT GROUP 1 - CONFIDENCE FOR COUNSELING OUTCOMES EXPECTANCY SCALE



TREATMENT GROUP 1 - CONFIDENCE FOR COUNSELING OUTCOMES EXPECTANCY SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
38.00	1	3.3	3.3	3.3
49.00	2	6.7	6.7	10.0
55.00	1	3.3	3.3	13.3
57.00	1	3.3	3.3	16.7
61.00	1	3.3	3.3	20.0
65.00	1	3.3	3.3	23.3
66.00	1	3.3	3.3	26.7
68.00	1	3.3	3.3	30.0
70.00	2	6.7	6.7	36.7
71.00	1	3.3	3.3	40.0
75.00	2	6.7	6.7	46.7
76.00	1	3.3	3.3	50.0
80.00	2	6.7	6.7	56.7
82.00	1	3.3	3.3	60.0
84.00	2	6.7	6.7	66.7
85.00	1	3.3	3.3	70.0
86.00	1	3.3	3.3	73.3
88.00	1	3.3	3.3	76.7
94.00	1	3.3	3.3	80.0
95.00	1	3.3	3.3	83.3
97.00	1	3.3	3.3	86.7
101.00	1	3.3	3.3	90.0
103.00	1	3.3	3.3	93.3
105.00	1	3.3	3.3	96.7
110.00	<u>1</u>	<u>3.3</u>	<u>3.3</u>	100.0
TOTAL	30	100.0	100.0	

MEAN = 77.300

STANDARD DEVIATION = 17.870

VALID CASES = 30

MISSING CASES = 0

**APPENDIX M.**

**TREATMENT GROUP 1 - THE CONTINUATION OF COUNSELING SCALE**

## TREATMENT GROUP 1 - THE CONTINUATION OF COUNSELING SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
3.00	1	3.3	3.4	3.4
4.00	3	10.0	10.3	13.8
7.00	2	6.7	6.9	20.7
8.00	4	13.3	13.8	34.5
9.00	1	3.3	3.4	37.9
10.00	3	10.0	10.3	48.3
11.00	4	13.3	13.8	62.1
12.00	4	13.3	13.8	75.9
13.00	2	6.7	6.9	82.8
14.00	3	10.0	10.3	93.1
15.00	1	3.3	3.4	96.6
16.00	1	3.3	3.4	100.0
	<u>1</u>	<u>3.3</u>	<u>Missing</u>	
TOTAL	30	100.0	100.0	

MEAN = 10.034

STANDARD DEVIATION = 3.479

VALID CASES = 29

MISSING CASES = 1

**APPENDIX N.**

**TREATMENT GROUP 1 - THE COUNSELOR TRAITS SCALE**

## TREATMENT GROUP 1 - THE COUNSELOR TRAITS SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
37.00	1	3.3	3.3	3.3
44.00	1	3.3	3.3	6.7
49.00	2	6.7	6.7	13.3
51.00	1	3.3	3.3	16.7
52.00	2	6.7	6.7	23.3
53.00	2	6.7	6.7	30.0
56.00	3	10.0	10.0	40.0
59.00	1	3.3	3.3	43.3
60.00	3	10.0	10.0	53.3
62.00	2	6.7	6.7	60.0
63.00	2	6.7	6.7	66.7
65.00	1	3.3	3.3	70.0
67.00	1	3.3	3.3	73.3
70.00	1	3.3	3.3	76.7
72.00	1	3.3	3.3	80.0
73.00	1	3.3	3.3	83.3
74.00	1	3.3	3.3	86.7
75.00	1	3.3	3.3	90.0
77.00	1	3.3	3.3	93.3
80.00	1	3.3	3.3	96.7
86.00	<u>1</u>	<u>3.3</u>	<u>3.3</u>	100.0
TOTAL	30	100.0	100.0	

MEAN = 61.20

STANDARD DEVIATION = 11.202

VALID CASES = 30

MISSING CASES = 0

**APPENDIX O.**

**TREATMENT GROUP 2 - CONFIDENCE FOR COUNSELING OUTCOMES EXPECTANCY SCALE**

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## TREATMENT GROUP 2 - CONFIDENCE FOR COUNSELING OUTCOMES EXPECTANCY SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
52.00	1	2.1	2.1	2.1
58.00	1	2.1	2.1	4.3
60.00	1	2.1	2.1	6.4
65.00	2	4.2	4.3	10.6
70.00	1	2.1	2.1	12.8
72.00	1	2.1	2.1	14.9
73.00	1	2.1	2.1	17.0
74.00	1	2.1	2.1	19.1
75.00	2	4.2	4.3	23.4
79.00	1	2.1	2.1	25.5
80.00	3	6.3	6.4	31.9
81.00	2	4.2	4.3	36.2
83.00	3	6.3	6.4	42.6
84.00	1	2.1	2.1	44.7
85.00	1	2.1	2.1	46.8
86.00	1	2.1	2.1	48.9
87.00	1	2.1	2.1	51.1
88.00	1	2.1	2.1	53.2
90.00	3	6.3	6.4	59.6
91.00	2	4.2	4.3	63.8
93.00	1	2.1	2.1	66.0
94.00	1	2.1	2.1	68.1
95.00	1	2.1	2.1	70.2
98.00	1	2.1	2.1	72.3
99.00	1	2.1	2.1	74.5
102.00	4	8.3	8.5	83.0
105.00	6	12.5	12.8	95.7
112.00	1	2.1	2.1	97.9
113.00	1	2.1	2.1	100.0
	<u>1</u>	<u>2.1</u>	<u>Missing</u>	
TOTAL	48	100.0	100.0	

MEAN = 87.085

STANDARD DEVIATION = 14.666

VALID CASES = 47

MISSING CASES = 1

APPENDIX P.

TREATMENT GROUP 2 - THE CONTINUATION OF COUNSELING SCALE

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## TREATMENT GROUP 2 - THE CONTINUATION OF COUNSELING SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
4.00	1	2.1	2.3	2.3
5.00	1	2.1	2.3	4.5
6.00	1	2.1	2.3	6.8
7.00	3	6.3	6.8	13.6
8.00	1	2.1	2.3	15.9
11.00	5	10.4	11.4	27.3
12.00	9	18.8	20.5	47.7
13.00	4	8.3	9.1	56.8
14.00	12	25.0	27.3	84.1
15.00	6	12.5	13.6	97.7
16.00	1	2.1	2.3	100.0
	<u>4</u>	<u>8.3</u>	<u>Missing</u>	
TOTAL	48	100.0	100.0	

MEAN = 12.114

STANDARD DEVIATION = 2.919

VALID CASES = 44

MISSING CASES = 4

APPENDIX Q.

TREATMENT GROUP 2 - THE COUNSELOR TRAITS SCALE

## TREATMENT GROUP 2 - THE COUNSELOR TRAITS SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
45.00	1	2.1	2.1	2.1
49.00	2	4.2	4.3	6.4
51.00	2	4.2	4.3	10.6
53.00	2	4.2	4.3	14.9
54.00	2	4.2	4.3	19.1
55.00	2	4.2	4.3	23.4
56.00	1	2.1	2.1	25.5
57.00	1	2.1	2.1	27.7
59.00	2	4.2	4.3	31.9
60.00	1	2.1	2.1	34.0
61.00	4	8.3	8.5	42.6
62.00	2	4.2	4.3	46.8
63.00	1	2.1	2.1	48.9
64.00	1	2.1	2.1	51.1
66.00	6	12.5	12.8	63.8
67.00	1	2.1	2.1	66.0
68.00	2	4.2	4.3	70.2
69.00	1	2.1	2.1	72.3
70.00	3	6.3	6.4	78.7
71.00	2	4.2	4.3	83.0
74.00	2	4.2	4.3	87.2
75.00	2	4.2	4.3	91.5
77.00	2	4.2	4.3	95.7
80.00	1	2.1	2.1	97.9
82.00	1	2.1	2.1	100.0
	<u>1</u>	<u>2.1</u>	<u>Missing</u>	
TOTAL	48	100.0	100.0	

MEAN = 63.596

STANDARD DEVIATION = 8.878

VALID CASES = 47

MISSING CASES = 1

APPENDIX R.

TREATMENT GROUP 3 - CONFIDENCE FOR COUNSELING OUTCOMES EXPECTANCY SCALE

## TREATMENT GROUP 3 - CONFIDENCE FOR COUNSELING OUTCOMES EXPECTANCY SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
15.00	1	3.0	3.0	3.0
18.00	1	3.0	3.0	6.1
24.00	1	3.0	3.0	9.1
30.00	1	3.0	3.0	12.1
32.00	1	3.0	3.0	15.2
39.00	1	3.0	3.0	18.2
45.00	1	3.0	3.0	21.2
47.00	1	3.0	3.0	24.2
48.00	1	3.0	3.0	27.3
49.00	1	3.0	3.0	30.3
51.00	1	3.0	3.0	33.3
54.00	1	3.0	3.0	36.4
59.00	1	3.0	3.0	39.4
60.00	1	3.0	3.0	42.4
61.00	1	3.0	3.0	45.5
62.00	1	3.0	3.0	48.5
64.00	1	3.0	3.0	51.5
66.00	1	3.0	3.0	54.5
73.00	2	6.1	6.1	60.6
76.00	1	3.0	3.0	63.6
78.00	1	3.0	3.0	66.7
79.00	1	3.0	3.0	69.7
80.00	1	3.0	3.0	72.7
84.00	1	3.0	3.0	75.8
89.00	1	3.0	3.0	78.8
94.00	1	3.0	3.0	81.8
95.00	2	6.1	6.1	87.9
96.00	1	3.0	3.0	90.9
99.00	1	3.0	3.0	93.9
103.00	1	3.0	3.0	97.0
105.00	1	3.0	3.0	100.0
TOTAL	33	100.0	100.0	

MEAN = 64.939

STANDARD DEVIATION = 25.392

VALID CASES = 33

MISSING CASES = 0

APPENDIX S.

TREATMENT GROUP 3 - THE CONTINUATION OF COUNSELING SCALE

## TREATMENT GROUP 3 - THE CONTINUATION OF COUNSELING SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
2.00	3	9.1	10.3	10.3
3.00	2	6.1	6.9	17.2
4.00	2	6.1	6.9	24.1
5.00	2	6.1	6.9	31.0
6.00	4	12.1	13.8	44.8
7.00	3	9.1	10.3	55.2
8.00	1	3.0	3.4	58.6
9.00	2	6.1	6.9	65.5
10.00	2	6.1	6.9	72.4
11.00	1	3.0	3.4	75.9
12.00	2	6.1	6.9	82.8
13.00	2	6.1	6.9	89.7
14.00	1	3.0	3.4	93.1
16.00	2	6.1	6.9	100.0
	<u>4</u>	<u>12.1</u>	<u>Missing</u>	
TOTAL	33	100.0	100.0	

MEAN = 7.862

STANDARD DEVIATION = 4.189

VALID CASES = 29

MISSING CASES = 4

**APPENDIX T.**

**TREATMENT GROUP 3 - THE COUNSELOR TRAITS SCALE**



## TREATMENT GROUP 3 - THE COUNSELOR TRAITS SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
36.00	1	3.0	3.1	3.1
39.00	2	6.1	6.3	9.4
41.00	1	3.0	3.1	12.5
43.00	3	9.1	9.4	21.9
48.00	2	6.1	6.3	28.1
49.00	2	6.1	6.3	34.4
50.00	1	3.0	3.1	37.5
52.00	1	3.0	3.1	40.6
53.00	1	3.0	3.1	43.8
54.00	1	3.0	3.1	46.9
55.00	1	3.0	3.1	50.0
56.00	1	3.0	3.1	53.1
57.00	2	6.1	6.3	59.4
58.00	5	15.2	15.6	75.0
59.00	1	3.0	3.1	78.1
61.00	1	3.0	3.1	81.3
63.00	1	3.0	3.1	84.4
64.00	1	3.0	3.1	87.5
69.00	1	3.0	3.1	90.6
73.00	1	3.0	3.1	93.8
74.00	1	3.0	3.1	96.9
75.00	1	3.0	3.1	100.0
	<u>1</u>	<u>3.0</u>	<u>Missing</u>	
TOTAL	33	100.0	100.0	

MEAN = 54.375

STANDARD DEVIATION = 10.207

VALID CASES = 32

MISSING CASES = 1

APPENDIX U.

TREATMENT GROUP 4 - CONFIDENCE FOR COUNSELING OUTCOMES EXPECTANCY SCALE

**TREATMENT GROUP 4 - CONFIDENCE FOR COUNSELING OUTCOMES EXPECTANCY SCALE**

<b>Value</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cum Percent</b>
15.00	1	2.0	2.0	2.0
22.00	1	2.0	2.0	4.0
23.00	2	3.9	4.0	8.0
25.00	1	2.0	2.0	10.0
41.00	1	2.0	2.0	12.0
49.00	3	5.9	6.0	18.0
54.00	1	2.0	2.0	20.0
55.00	1	2.0	2.0	22.0
60.00	1	2.0	2.0	24.0
61.00	1	2.0	2.0	26.0
64.00	1	2.0	2.0	28.0
65.00	2	3.9	4.0	32.0
67.00	1	2.0	2.0	34.0
69.00	3	5.9	6.0	40.0
71.00	1	2.0	2.0	42.0
72.00	1	2.0	2.0	44.0
73.00	1	2.0	2.0	46.0
74.00	1	2.0	2.0	48.0
75.00	2	3.9	4.0	52.0
76.00	3	5.9	6.0	58.0
77.00	1	2.0	2.0	60.0
78.00	1	2.0	2.0	62.0
79.00	3	5.9	6.0	68.0
80.00	1	2.0	2.0	70.0
82.00	1	2.0	2.0	72.0
83.00	1	2.0	2.0	74.0
85.00	1	2.0	2.0	76.0
87.00	3	5.9	6.0	82.0
88.00	1	2.0	2.0	84.0
89.00	1	2.0	2.0	86.0
90.00	2	3.9	4.0	90.0
93.00	1	2.0	2.0	92.0
94.00	1	2.0	2.0	94.0

**Treatment Group 4 - Confidence for Counseling Outcomes Expectancy Scale**

Value	Frequency	Percent	Valid Percent	Cum Percent
106.00	1	2.0	2.0	96.0
107.00	1	2.0	2.0	98.0
115.00	1	2.0	2.0	100.0
	<u>1</u>	<u>2.0</u>	<u>Missing</u>	
TOTAL	51	100.0	100.0	

MEAN = 70.340

STANDARD DEVIATION = 22.140

VALID CASES = 50

MISSING CASES = 1

APPENDIX V.

TREATMENT GROUP 4 - THE CONTINUATION OF COUNSELING SCALE

## TREATMENT GROUP 4 - THE CONTINUATION OF COUNSELING SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
2.00	3	5.9	6.4	6.4
3.00	1	2.0	2.1	8.5
5.00	2	3.9	4.3	12.8
6.00	2	3.9	4.3	17.0
7.00	1	2.0	2.1	19.1
8.00	5	9.8	10.6	29.8
9.00	4	7.8	8.5	38.3
10.00	7	13.7	14.9	53.2
11.00	4	7.8	8.5	61.7
12.00	7	13.7	14.9	76.6
13.00	3	5.9	6.4	83.0
14.00	4	7.8	8.5	91.5
15.00	4	7.8	8.5	100.0
	<u>4</u>	<u>7.8</u>	<u>Missing</u>	
TOTAL	51	100.0	100.0	

MEAN = 9.936

STANDARD DEVIATION = 3.547

VALID CASES = 47

MISSING CASES = 4

APPENDIX W.

TREATMENT GROUP 4 - THE COUNSELOR TRAITS SCALE

## TREATMENT GROUP 4 - THE COUNSELOR TRAITS SCALE

Value	Frequency	Percent	Valid Percent	Cum Percent
27.00	1	2.0	2.0	2.0
33.00	1	2.0	2.0	4.1
35.00	1	2.0	2.0	6.1
38.00	1	2.0	2.0	8.2
40.00	1	2.0	2.0	10.2
44.00	1	2.0	2.0	12.2
45.00	1	2.0	2.0	14.3
46.00	1	2.0	2.0	16.3
49.00	1	2.0	2.0	18.4
50.00	2	3.9	4.1	22.4
51.00	3	5.9	6.1	28.6
52.00	3	5.9	6.1	34.7
54.00	1	2.0	2.0	36.7
55.00	2	3.9	4.1	40.8
56.00	3	5.9	6.1	46.9
57.00	4	7.8	8.2	55.1
58.00	2	3.9	4.1	59.2
59.00	2	3.9	4.1	63.3
60.00	2	3.9	4.1	67.3
63.00	2	3.9	4.1	71.4
64.00	2	3.9	4.1	75.5
65.00	2	3.9	4.1	79.6
66.00	2	3.9	4.1	83.7
67.00	1	2.0	2.0	85.7
68.00	3	5.9	6.1	91.8
69.00	1	2.0	2.0	93.9
70.00	1	2.0	2.0	95.9
73.00	1	2.0	2.0	98.0
75.00	1	2.0	2.0	100.0
	<u>2</u>	<u>3.9</u>	<u>Missing</u>	
TOTAL	51	100.0	100.0	

MEAN = 56.204

STANDARD DEVIATION = 10.430

VALID CASES = 49

MISSING CASES = 2