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The role of animal-assisted therapy in initial psychotherapy sessions with adolescents

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THE ROLE OF ANIMAL-ASSISTED THERAPY IN INITIAL PSYCHOTHERAPY SESSIONS WITH ADOLESCENTS

An Abstract of a Thesis

Submitted

in Partial Fulfillment

of the Requirements for the Degree

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ABSTRACT

Animal-assisted therapy (AAT) is defined as "a goal directed intervention in which an animal, meeting specific criteria, is an integral part of the treatment process" (Nebbe, 1995, p. 40). Since its first introduction into the scientific community in the 1960s, AAT has grown in both recognition and application. This is primarily attributable to the characteristics of AAT that allow it to be appropriate for a wide range of populations. These qualities are shown to be especially effective in research with children (Menzies Inc., 2003). Interventions that exercise the advantageous qualities of AAT, and its service in promoting the well being of young children, have evolved from teaching humane education to more specialized functions that concentrate on specific disorders and mental health. With that said, little research has focused on the effectiveness of AAT as a targeted therapeutic modality within the adolescent population (Kruger, Trachtenberg & Serpell, 2004). Mental health practitioners report adolescents as one of the most challenging populations to work with; yet few adapted approaches to traditional therapy have been designed to complement adolescent developmental needs. The original intent of this project was to examine the effectiveness of AAT in decreasing adolescent resistance in initial therapy sessions. Regrettably, the initial questions introduced by the examiner could not be investigated as proposed. In its place, a personal and practical exploration into the barriers and challenges facing researchers within the field will be described, along with implications for current practitioners.

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CHAPTER I

INTRODUCTION

Our children are at greater risk than ever before and the response has been to discover new and innovative techniques of alleviating those threats. Animal-assisted therapy is one method that has demonstrated success with this population. Animal-assisted therapy (AAT) is a therapeutic modality that utilizes animals in order to improve an individual's quality of life (Chandler, 2005). These improvements come in all forms; from educational and social difficulties, to issues of mental health. AAT has a theoretical foundation that draws on the human-animal bond as an integral component of goal-directed treatment. While the history of human-animal bonds has existed for centuries, it was only until the second half of the 20th century that documented accounts of its benefits began to emerge in scientific literature (Kruger et al., 2004). Since then, AAT has experienced slow but gradual recognition among researchers and professionals concerning its valuable integration into conventional therapeutic approaches.

Research Problem and Rationale for Study

There has been a witnessed increase in the amount of empirical exploration examining the effectiveness of AAT in academic settings in recent years. Yet, only a small amount of research has focused on the use of AAT in clinical applications for adolescents (Peacock, 1984). AAT has demonstrated therapeutic success for a wide range of populations including the chronically disturbed, the elderly, the incarcerated, and the very young. However, due to the unique developmental tasks of adolescence, traditional approaches to therapy often create resistance in adolescent clients. This

resistance continues throughout initial therapy session and results in frustration in both the therapist and the client (Peacock, 1984). A modified approach to therapy with the adolescent population is needed which is attuned to complementing their specific level of development. This paper proposed a study that would examine the effectiveness of using AAT to reduce the resistance of adolescents in initial therapy sessions. More specifically, the study would examine the impact of directive approaches to therapy on resistance compared to more nondirective approaches. While possible results from these inquiries could prove to be advantageous in the expansion of treatment for adolescent clientele, an equally perplexing phenomenon was taking place before participants were ever involved. At its inception, the mainstay of this study and its theoretical foundation experienced significant obstacles and insularity. Consequently, an empirical analysis of the aforementioned questions could not be performed. Rather, this paper will consider the individual impediments faced by the examiner and explore the implications it imparts to similar fields of study.

Original Research Questions

Two research questions will be addressed. First, will the utilization of AAT in initial therapy sessions help to decrease adolescent resistance so that participants can relax, enjoy self-disclosure, and participate, cooperatively, in the therapeutic process more so than traditional therapy sessions? Secondly, are directive, more structured, approaches towards the application of AAT more effective in decreasing adolescent resistance in initial therapy sessions than nondirective approaches?

Theoretical Framework

The basis of this research is founded on the therapeutic benefit that takes place naturally due to the inherent connection between animals and humans. While the explanation of these bonds is somewhat contended among professionals, it is has been shown that these bonds help facilitate learning and therapy alike (Kruger et al., 2004). While much attention has recently been placed on utilizing AAT in academic pedagogy on account of the administration of No Child Left Behind and educational pressures it has given rise to (U.S. Department of Education, 2002), further empirical research is needed to explore the effectiveness of AAT in therapy settings.

Initial therapy sessions are critical to whether clients continue treatment (Peacock, 1984). However, compared to other populations, adolescents present an additional obstacle in clinical applications as a result of their developmental life tasks. This population is developmentally reluctant to form a rapport with another adult as they are often fixed on the task of separation and independence. Likewise, traditional therapy relies heavily on a patient's verbal skills. Adolescents are ill-prepared for verbal exploration and tend to be nonverbal—expressing themselves through actions rather than through words (Peacock, 1984). These adolescent objectives result in resistance to the therapeutic process and often lead to ineffective therapy. This defiance has professionals and clinicians seeking innovative methods for reaching this challenging population. The research regarding AAT suggests that the human-animal bond has characteristics that make it a particularly promising resource in working with adolescents (Menzies Inc., 2003).

Limitations

There are limitations to the proposed study which should be considered. First, there is an assumption within the study that the therapist has an already existing connection and familiarity with the dog that will be used throughout the initial therapy sessions. However, this established relationship may not be possible if the therapist does not own a dog or if the dog does not meet the requirements necessary for a valuable and safe interactive session. The issue is further complicated if the use of a trained therapy dog is employed since these certified animals are typically assigned to a handler. Participant confidentiality will be compromised if it is necessary for a handler to be present in the room while the counseling session is in progress which may additionally lead to increased resistance on the part of the participant. It is the desire of the researcher to conduct this study with a dog that is highly qualified but is not required to have a handler. This will maintain confidentiality while preventing any outside influences to study outcomes. If the therapist does not already have familiarity with the dog being used, a meeting will be scheduled prior to the beginning of the study so that the therapist can be introduced to the dog and a relationship can be developed.

A second possible limitation of the study is the proposed sample amount. The study is currently looking to involve a total of 30 participants so that an adequate number of adolescents are present in each of the three groups. However, due to turnover rates at juvenile residential facilities, it may not be feasible to conduct the study at one location. In order to complete the study, it may be necessary to make use of several area residential facilities. This utilization of separate facilities may weaken the integrity of the study due

to the lack of standardized procedures and therapeutic approaches among therapists. Yet, it is hoped that this inconsistency amongst therapists can be lessened with the implementation of the provided framework for initial therapy sessions.

Definitions

When the use of animals in a therapeutic application began to acquire recognition, it was not uncommon to find that there was a lack of consistent terminology (Kruger et al., 2004). It wasn't until 1992, when the Delta Society published a handbook to help professionals in the field, that a set of standardized definitions and terminology was established (Nebbe, 1995). Although the terms "pet-facilitated therapy" and "animal-facilitated therapy" may still be found intermittently, the preferred and currently accepted terminology is animal-assisted activity (AAA) and animal-assisted therapy (AAT) (Delta Society, 2005).

The Delta Society (2005) formally defines AAA as a service that:

> provides opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life. AAAs are delivered in a variety of environments by specially trained professionals, paraprofessionals, and/or volunteers, in association with animals that meet specific criteria (para. 2).

Essentially, this means that AAAs are the casual "meet and greet" activities that are comprised of animals visiting people. Unlike a therapy program that is personalized to a specific individual or medical condition, AAA allows for the same activity to be repeated with various people and circumstances. AAT then, as defined by the Delta Society (2005) is characterized as:

> A goal-directed intervention in which an animal, that meets specific criteria, is an integral part of the treatment process. AAT is directed and/or delivered by a

> health/human service professional with specialized expertise, and within the scope of practice of his/her profession.
>
> AAT is designed to promote improvement in human physical, social, emotional, and/or cognitive functioning [cognitive functioning refers to thinking and intellectual skills]. AAT is provided in a variety of settings and may be group or individual in nature. This process is documented and evaluated (para. 6).

The diverse range of possible applications of AAT will be addressed within this paper. One such technique discussed is animal-assisted therapy in counseling (AAT-C). According to the Committee on Definition, Division of Counseling Psychology of the American Psychological Association, counseling is defined as a process "To help individuals thwart overcoming obstacles to their personal growth, wherever these may be encountered, and toward achieving optimum development of their personal resources" (as cited by Nebbe, 1987).

The process of AAT-C can follow two possible therapeutic approaches: directive and nondirective (Chandler, 2005). A directive approach is recognized as a therapist who purposefully structures a therapy session so that a client has consistent and meaningful interactions with a therapy animal. This could include a variety of possible activities or interventions such grooming, performing tricks, or play. In contrast, a nondirective therapist may simply introduce the therapy animal to the client and explain that interaction is welcome at any time during the course of the session (Chandler, 2005). Regardless of a therapist's chosen or preferred modality, two objectives of an initial therapy session remain constant, (1) the establishment of rapport with the client and, (2) conducting a diagnostic inquiry (Peacock, 1984).

Summary

The techniques being employed to help children reach educational and mental health goals are continually expanding; AAT has been one such technique. However, a majority of the current research has only focused on the application of AAT for reaching goals associated to classroom learning and success. More research on the benefits of AAT in counseling and mental health is required in order to form more advanced understandings of how the human-animal bond can help those populations undergoing clinical treatment—especially the adolescent population. Initially, the purpose of this paper and subsequent research proposal was to examine the role and promising effectiveness of decreasing adolescent resistance in initial therapy sessions so that they can be more engaged in the therapeutic process and ultimately have greater individually profitable sessions through use of AAT. The product of this endeavor, however, did not result in statistical evidence either confirming or denying the value of AAT. Instead, unexpected obstacles were revealed in the early stages—obstacles that would ultimately prevent the study from advancing beyond its infancy. It its place, the findings of this research will include a discussion with respect to barriers experienced by the examiner and how individual setbacks can have broader implications within the field, both as a researcher and clinician.

CHAPTER II

REVIEW OF THE LITERATURE

As children grow, they learn and understand the world around them through observation and experience (Nebbe, 1995). Throughout the course of our children's development, our culture stresses the importance of acquiring dual competencies of both social-emotional aptitudes in addition to those centered in core academics. With the intensification of focus on our children's academic success, attributable to the educational agenda of No Child Left Behind, teachers and school administrators are forced to discover innovative techniques to connect with their students and meet educational target goals (Lytle, 2006).

Furthermore, research in the field of childhood mental health is demonstrating that the incidence of psychiatric disorders in youth such as Emotional/Behavioral Disorder (EBD), anxiety, and Attention-Deficit Hyperactivity Disorder (ADHD) is ever-increasing (Kruger et al., 2004). The World Health Organization provides evidence suggesting that by year 2020, "childhood neuropsychiatric disorders will rise by over 50% to become one of the five most common causes of morbidity, mortality, and disability among children" (as cited in Kruger et al., 2004, p. 6). These concerns warrant a serious inquiry of novel approaches to providing instruction and mental health services.

Animal-assisted therapy (AAT) has a long, but undocumented history (Chandler, 2000). It has only been within recent decades that research and professional response towards to use of animals for educational and therapeutic benefit has received acknowledgement (Chandler, 2000). This paper reviews the literature surrounding AAT

and its utilization of the naturally existing human-animal bond to help reach specified objectives in both academic and mental health settings. From this analysis of current literature, it will be revealed that there is a severe paucity in research examining the use of AAT with adolescent populations undergoing counseling. This deficit in research regarding the promising suitability of AAT with adolescent developmental tasks merits further consideration.

Definition of AAT and AAA

Interventions involving the use of animals focus on the primary goal of offering therapeutic effects through direct contact with an animal (Nebbe, 1995). Although it is common for people to combine the therapeutic benefits of animals into the singular category of "animal therapy," it is important to recognize that animal interventions are separated into two distinct classifications: Animal-assisted therapy (AAT) and Animal-Assisted Activities (AAA) (Chandler, 2005).

AAT is described as a goal-oriented intervention that helps meet the specific needs of a particular treatment process. It is a requirement of AAT that it can only be directed or administered by a health or human service professional who has special training that is only used within that individual's range of professional practice (Nebbe, 1995). AAT is typically considered to be an extension to an already existing formal therapy and can take either a directive or nondirective approach (Chandler, 2005).

AAA is a much less structured utilization of animals that helps promote opportunities for motivation, education, and possible therapeutic benefits. An AAA can be delivered in various settings by either a professional or volunteer who has undergone

appropriate training (Nebbe, 1995). Very simply, AAAs are the "casual 'meet and greet' activities that involve pets visiting people" (Delta Society, 2005, para. 3).

Historical Highlights of AAT

While attention and interest in AAT has markedly increased in the past three decades, harnessing the positive effects of human-animal interactions is not a new concept. Evidence of humans' belief in animals' ability to heal can be found as early as Greek mythology and the Roman Empire (Beck & Katcher, 1983; Pettit-Crossman, 1997). Possibly the title of the first animal therapist of its kind can be attributed to Chiron, the half-man half-horse centaur of Greek mythology (Beck & Katcher, 1983). Chiron is credited with the invention of medicine and often taught and gave counsel to Aesculapius (Beck & Katcher, 1983).

However, it is the dog that is typically thought of as man's companion in healing. The belief that dogs have the ability to heal can be linked back to Greek mythology and the sun god, Apollo. According to Apollo, the dog was believed to be sacred and, through association, deemed by man to possess the powers to heal. As the Roman Empire converted to the principles of Greek philosophy, the opinion of the dog thus changed. Canines were no longer believed to be objects of sacrifice, and were instead, nurtured for their innate curative abilities (Pettit-Crossman, 1997).

In spite of this, it was not until the mid 18th century that animals as potential healers went beyond simple ruminations and were incorporated into treatment as actual interventions (Nebbe, 1995). One of the first treatment facilities to include animals was the York Retreat in England. The York Retreat is the earliest in-patient facility with

documented practice of incorporating pets into the overall treatment of the mentally ill (Menzies Inc., 2003). Even the well-known Florence Nightingale alluded to the benefits of animals. In 1860 she was quoted as saying, "a small pet animal is often an excellent companion for the sick" (as cited in Menzies, 2003, p. 3). Later that decade, Bethel, a care center for the treatment of individuals with epilepsy was founded in West Germany and it included the use of animals in their treatment (Nebbe, 1995).

As a result of the increase in the focus and application of scientific medicine and scientific psychology in the late 19th and early 20th centuries, interest in animals as therapeutic agents tapered off, only to regain attention as a consequence of global warfare throughout the early decades of the 20th century (Thigpen, Ellis, & Smith, 2005). As early as 1942, the Pawling Army Air Force Convalescent Hospital in New York used animals in the recovery and rehabilitation of servicemen (Nebbe, 1995).

Yet, it was not until the 1960s that animals began to be truly incorporated into therapeutic techniques. Child psychologist, Boris Levinson, is often recognized as being the "father of animal-assisted therapy" thanks in part to his documentation of the therapeutic effect his dog, Jingles, had on his patients (Beck & Katcher, 1983). His credited publication of *The dog as a 'co therapist'* in the 1962 edition of Mental Hygiene made public his discovery that significant progress was made with withdrawn and uncommunicative children when his dog was present in therapy sessions (Chandler, 2000). In the early 1970s, Sam and Elizabeth Corson conducted pioneering research by empirically studying animal-assisted therapies and their effectiveness. Their research

confirmed the value of human-animal interactions as beneficial to therapeutic practice (Nebbe, 1995).

A tremendous advancement in the field of animal-assisted therapy occurred in the late 1970s when Michael McCollough came together with a group of individuals who shared his conviction for the human-animal bond and founded the Delta Society (Nebbe, 1995). The Delta Society is a non-profit organization committed to "improving human health through service and therapy animals" by providing quality service programs, advocating the benefits of responsible contact with animals, and generating and transferring new knowledge about interactions with animals and nature (Delta Society, 2005, para. 1). To accomplish this, the Delta Society assists in promoting new research endeavors, encourages education, holds annual conferences, and publishes a scholarly journal, *Anthrozoos*, to share new research and knowledge about the field of human-animal bonds (Nebbe, 1995). According to Nebbe, "the founding of the Delta Society marked the beginning of serious research in human-animal interactions" (p. 44).

There is a bevy of case studies and anecdotal accounts of how human-animal interactions benefit the therapeutic process. However, to appreciate AAT as an actual science, more understanding is needed behind why interventions with animals are proving to be effective.

Theoretical Foundations of AAT

The foundational element in understanding AAT is the bond between humans and animals (Menzies Inc., 2003). It seems almost natural for relationships to form between humans and animals, and yet, there is a lack of agreement among professionals as to how

to best explain the development of such a bond (Kruger et al., 2004). The following are brief descriptions of current theories that help to explain human-animal bonds.

Biophilia

The term "biophilia" was coined by Edward O. Wilson to describe human's innate interest in nature and living things (Wilson, 1984). According Wilson's hypothesis, humans are "hardwired" to have a connection to animals as a result of their hunter-gatherer ancestry. Ergo, they have a predisposition to pay attention to animals because it was a function of survival (Wilson, 1984). A variation of the "biophilia" hypothesis attempts to explain the calming affects of animals by stating that "it is the relaxed behavior of animals themselves that is calming because humans have evolved a specific capacity to use animals and their behavior as sentinels of environmental safety or danger" (Kruger et al., 2004, p. 9).

Animals as Objects of Attachment

Regarding published literature detailing AAT and the human-animal bond, many studies will include the loving relationships that are formed between a patient and an animal. Some researchers suggest that it is this attachment between human and animal, in addition to the role that animals play in comforting and reassuring, that helps foster effective therapy (Kruger et al., 2004). In the same way, animals can act as transitional objects in the therapeutic process by providing an emotional bridge between clients and their therapist (Kruger et al., 2004).

Animals as Social Facilitators

Boris Levinson was the first psychologist to document the phenomenon of an animal's ability to facilitate speech in otherwise withdrawn and uncommunicative children (Chandler, 2005). He is quoted as saying that, "a dog can help to break the ice in building a relationship with a child who may not personally want to participate in counseling or therapy" (as cited in Trivedi & Perl, 1995, p. 223). Since this initial discovery in the 1960s, many researchers have validated Levinson's observation and maintain that it can be attributed to the very principles on which Carl Rogers founded his client-centered therapy (Parshall, 2003).

With client-centered therapy, Rogers stressed the importance of unconditional positive regard and warmth in the therapeutic relationship; what better representative of that than an animal (Parshall, 2003). Animals do not assign judgment, nor do they offer harsh words of resentment; consequently, patients find animals to be more approachable than a human therapist (Beck & Katcher, 1983). This communication and building of trust eventually transfers over to the therapist. The success, owed in part, to the animal having acted as a catalyst for the therapeutic relationship between therapist and patient (Kruger et al., 2004).

Animals as Instruments of Learning

One of the current focal points of AAT is its application to learning. Studies show evidence that animals act as positive instructional tools for the learning and development of fundamental skills in children (Kruger et al., 2004). Such skills include a fostering of personal responsibility; a sense of empathy; increased nurturing and social

skills; feelings of self-esteem and self-worth; impulse regulation; and cognitive tasks such as reading, listening and attending, and a decrease in stuttering (Kruger et al., 2004; Nebbe, 1991; Skeffington, 2003).

The wide range of potential theoretical explanations for the effectiveness of the human-animal bond and incongruence between researchers is evident when examining the frameworks mentioned above. However, Kruger et al. (2004) raises a good point when suggesting that it is possible that each foundation may have its own individual contribution to the therapeutic process and that they all may somehow work collectively to improve learning and mental health. Additionally, further research needs to be conducted to examine which of these foundations best encourage change in a client and which are best suited for specific populations (Kruger et al., 2004).

Why Focus AAT Toward Children

In a recent study of children in the United States, the American Institute of Stress reported that "teen suicide and homicide rates have tripled, childhood obesity has jumped 50 percent, and more children are living at poverty level now than twenty hears ago" (Becker & Morton, 2002, p. 38). Furthermore, according to Becker and Morton (2002), it is not uncommon for teachers to report students suffering from anxiety attacks in their 4th and 5th grade classrooms; or for students to experience stress-related ulcers before the age of twelve. This data supports similar findings from a report by the National Advisery Council Workgroup on Child and Adolescent Mental Health Intervention Development that states that "1 in 10 children and adolescents in the United States today suffers from mental illness severe enough to result in significant functional impairment" (National

Institutes of Mental Health [NIMH], 2001). These statistics are hard to ignore and demand the attention and innovativeness of teachers and mental health practitioners to find new ways of reaching our youth. AAT and the human-animal bond provide a promising channel in which to accomplish this.

Infants and Animals

Although the research examining the effects that animals have on childhood development is relatively new, there is reason to believe that the unique characteristics of animals may play a vital role in the developmental areas of language, nonverbal communication, social understanding, and of self. Theorists across various schools of thought agree that a child's sense of self develops within relationships with others (Myers, 2007). It is the relationship with animals that is potentially the most intriguing.

According to Myers (2007), children as young as infants demonstrate an interest in animals. In a study of three-week-olds, researchers found that infants' responses differed when looking at inanimate objects versus animate ones (Myers, 2007). Likewise, a study of 250 infants between the ages of six and thirty months found that the infants attempted to obtain closer proximity and an increase in contact with the family pet when compared to an unfamiliar battery-operated toy dog. Additionally, the infants who were twelve months in age or older, smiled, vocalized, and maintained interactions longer with the family pet (Kidd & Kidd, 1987).

Animals and Communication Development

Researchers in Europe have found similar evidence that suggests the important role that animals may have in the children's social interactions. European studies have demonstrated that young children's contact with animals may positively influence the development of communication skills (Beck and Katcher, 2003). Myers (2007) testifies to this, stating that young children are frequently found talking to animals. According to one study conducted in 1986 by Davis (as cited in Nebbe, 1991), children who suffered from stuttering most often engaged in spontaneous speech when in the presence of an AAT dog. Myers (2007) suggests that this is, in part, due to the fact that children may interpret an animal's inability for language as a welcome place to practice their own speech. Animals do not demand sophisticated dialogue or proper sentence construction; nor do they expect appropriate or perfect word usage in all contexts of conversation. All that animals ask for is a gentle voice and a loving touch; after that, children are free to explore their developing language and communication skills.

Animals and Moral Development

Animals may also help shape moral development in young children (Gilligan & Wiggins, 1987). According to Gilligan and Wiggins (1987), there are "two universal features that constitute the seeds of moral development" (p. 283). The first feature is that young children are powerless when compared to their caretakers. This is a source for concerns later on in life related to independence and equality—an overall moral of justice. Secondly, children are also seen as dependent and emotionally attached to their caretakers. These sentiments provide for the framework of care; that is, responding to need, preventing harm, and rejecting the abandonment of another. These two features

can find relevant applicability to children's interactions with pets, as they can often be seen as the parent figure. Therefore, a child's developing sense of moral obligation can be generalized to his or her interactions with a pet.

Developing Empathy With a Little Help From a Pet

The suggestion of providing children with pets can be documented as far back as 1699 when John Locke (as cited in Parshall, 2003) endorsed "giving children dogs, squirrels, birds, or any such thing as to look after as a means of encouraging them to develop tender feelings and a sense of responsibility for others" (p. 47). Not until the 19th century did the emergence of pets in American homes truly begin as a backlash to an increase in self-interest and pursuit that was characteristic of the time (Myers, 2007). It was the rising middle-class that sought after a rekindling of the traditional values of domesticity and hospitability that ultimately led to a reshaping of parental attitudes. Parents now held the Rousseaunian belief that children were innately good and that their gentle nature should be encouraged. Thusly, "kindness to animals was regarded as a foundation of virtue and an important aspect of character formation" (Myers, 2007, p. 26).

This was especially true for young boys where masculinity and violence were considered to be particularly problematic (Myers, 2007). It was therefore believed that the tending to a pet would aid in positive socialization in two ways. First, pets were good means of practice for instituting humane behaviors while allowing mothers to be in close proximity if intervention was necessary. Secondly, it was believed that animals

themselves were able instructors for the virtues of appreciation, loyalty, and unconditional love.

These were strongly held convictions despite the fact that they were founded purely on philosophical musings. However, research conducted within the past two decades has begun to show evidence supporting the long held beliefs that animals help foster characteristics in children such as empathy and humane treatment of others (Nebbe, 1995). According to a study conducted by Malcarne, children who are raised in homes with a pet who is considered to be a member of the family are more likely to engage in empathic behaviors compared to children who are not (Malcarne, 1986).

A more recent study conducted by Poresky (1996) confirmed these findings by examining eighty-eight families with young children—half of the families owned a pet and half of them did not. The pet and no-pet families were matched on major demographic factors. Poresky discovered higher scores on both the empathy measure and the bonding scale for children with pets in the home through the administration of several instruments of assessment, most notably the Companion Animal Bonding Scale (CABS) and the Young Children's Empathy Measure. It is worth noting that this study also assessed children's verbal intelligence using the Peabody Picture Vocabulary Test-Revised (PPVT). Results indicated that children with pets in the home had higher IQ scores on the PPVT (Poresky, 1996).

Although these results are promising for those children fortunate enough to have the presence of pets within the home, what are the implications for those children who are not as lucky? How do we teach empathy and animal connectedness to those children

who do not have everyday contact with an animal? Thankfully, there is a growing trend among educators of providing humane education in a classroom setting (Rivera, 2004).

Teaching Humane Behavior and Attitudes

When humane education is incorporated into classroom learning, it ensures that all children receive the opportunity to enhance their understanding and attitudes about animals. It is from this foundational understanding that humane education attempts to indirectly encourage children to transfer their caring and compassionate relationships with animals to their human relationships as well (Rivera, 2004). Research defines humane education in numerous ways, with each author adding his or her own personal variation to the definition. In spite of this, there seems to be a universal agreement of the basic principles that make up humane education and is best described by Rosemary Lyons (as cited in Rivera, 2004), a humane educator in the state of Florida:

> Humane education encompasses all of the issues that affect society in general. It touches and asks questions that are not raised in any other area of learning. It helps children to formulate a personal code of ethics by combining the information with other types of learning (pp. 2-3).

History of Humane Education

While not many adults can remember someone coming to their classrooms and teaching them about how to treat animals, the idea of humane education is not a new one (Rivera, 2004). As early as 1889, the American Humane Education Society (AHES) was creating and distributing educational materials on the humane treatment of animals in addition to developing programs for school-aged children. Yet, it wasn't until 1905 that the New York Humane Education Committee was formed to advocate for a state-sponsored requirement that public schools provide humane education as a part of their

curriculum. Later that year, Pennsylvania and Oklahoma joined New York and passed laws that required schools to devote half an hour each week to humane education as part of "the moral education of future citizens" (Rivera, 2004, p. 4).

In 1924, the well-known Parent-Teacher Association (PTA) embraced the concept of humane education under the belief that kindness to animals carries over into the overall way humans interact with each other (Rivera, 2004). Under this assumption, some states have mandated the inclusion of humane education into general education. Some of the states that currently have such mandates in place include California, Illinois, New Jersey, New York, Florida, Wisconsin, Massachusetts, Louisiana, and Pennsylvania (Rivera, 2004). Although researchers agree that humane education can help enhance children's animal-related attitudes, there is little evidence supporting the effectiveness of current school-based programs in improving children's humane attitudes as a whole (Ascione, 1996).

School-Based Humane Education Interventions

One of earliest studies investigating school-based interventions of children and their attitudes towards animals was conducted by Vockell and Hodal in 1980 (Ascione, 1992). The study consisted of a single, one-time, program and divided school-aged children into three different groups: (a) "intensive treatment" which included a classroom visit and print material; (b) "light treatment" which included only print material; and (c) the "control classroom" which received neither a visit nor print material (Ascione, 1992). None of the students in this study were pre-tested and without pre-test information, Vockell and Hodal were unable to definitively attribute post-test scores to specific group

interventions. With little reliable data, the researchers deemed the interventions a failure (Ascione, 1992).

Since the time this initial, aforementioned, study was conducted, others have followed; many of them would seem to suggest that school-based interventions have the ability to increase children's humane attitudes towards animals (Ascione, 1992). However, a majority of these studies are hampered by limitations and are subject to interpretational concerns. According to Ascione (1992), it is believed that much of the failure of past studies can be attributed to interventions that lacked intensity in addition to being too short in length.

In 1992, Ascione reviewed the literature on humane education interventions and designed a study to test the effectiveness of school-based interventions while also addressing many of the issues surrounding previously conducted studies (Ascione, 1992). His goal was to determine whether providing children with a more intensive school-based intervention that was implemented throughout an entire school year would more effectively enhance children's humane attitudes towards animals compared to an intervention that was not. A secondary objective subsequent to the initial inquiry was one pertaining to the determination of whether children generalized the empathic attitudes learned during the humane education interventions to other people as well as to animals (Ascione, 1992).

At the end of the year, results showed a significant difference in attitudes between those students who received intensive instruction compared to those who did not when findings were delineated to specific grade levels (Ascione, 1992). Within the group who

received intensive instruction, there was also a significant generalization effect found between animal-related attitudes and human-related empathy (Ascione, 1992). To determine whether these results were maintainable, Ascione (1996) conducted a one-year follow-up study.

The follow-up study consisted of administering a pretest-posttest during the first year and then administering a successive posttest the following year to students from both the experimental group (children who received intensive intervention) as well as the control group from the original study (Ascione, 1996). Results showed that the children from the experimental group had significantly greater enhancement of animal-related attitudes in addition to a greater generalization of those animal-related attitudes towards human-related empathy on both the first and second year posttests (Ascione, 1996).

These results are encouraging in that they provide evidence in support for the idea that children's humane attitudes can not only be enhanced, but with the proper instruction, these attitudes can be maintained as a part of natural character development. However, the success of humane education rests on the overall characteristics of the intervention and it is therefore imperative that programs be both age-appropriate as well as possessing high-quality educational information. A good place to start is the local Humane Organization where professionals can offer expert humane education in addition to providing quality materials for educators to use on their own in the classroom (Rivera, 2004).

Application of AAT to the Special Education Classroom

Although humane education offers an indirect way for children to become more empathic in their human interactions, it is not the only way that animals are currently providing assistance to children within the classroom setting. Today, AATs are being used to help children with a wide range of disabilities and according to Thigpen et al. (2005), integrating animals into the equation of learning can help to "tap into the naturalistic intelligence of students" who have not found success in traditional classrooms. This section is devoted to specific ways that AAT can help children with various disabilities find success in the school setting.

Emotional/Emotional Behavioral Disorder

Children with emotional disorders (ED) and/or emotional behavioral disorders (EBD) often suffer in the classroom as a result of negative social interactions, inappropriate attention seeking, and a general lack of interest and motivation that is symptomatic of the disorder (Bell, 2003). Currently, the most effective strategy for teaching children with ED/EBD is a direct instruction model in addition to stress management techniques (Thigpen et al., 2005). However, studies are showing that these children generally have lower school attendance, an increase in discipline-related referrals, and more off-task behaviors in the classroom; therefore, researchers in the field stress the importance of discovering new, innovative ways to teach and encourage these students (Bell, 2003; Kogan, Granger, Fitchett, Helmer, & Young, 1999). One promising technique that has gained attention from researchers is the use of AAT as a potential tool for children with ED/EBD (Kogan et al., 1999).

In a study conducted by Kogan et al. in 1999, two adolescent boys identified with ED participated in AAT, in adjunct to their current Individual Education Plan (IEP), to determine whether AAT would help improve progress towards their individual goals. The goals for Participant A primarily focused on improving social skills such as the use of an appropriate tone of voice, vocalizations, eye contact, and relationships with peers. Goals for Participant B were similar, including social skills in the areas of age-appropriate behaviors and improved personal control. The participants underwent an 11-week program consisting of weekly, 45-60 minute sessions with a human-animal team where rapport-building and animal interaction were key elements. At the end of the 11 weeks, both participants showed significant improvement in all areas, with the exception of self-talk relating to a fantasy world for Participant A (Kogen et al., 1999).

A similar study sought to investigate whether or not AAT would improve the disruptive class behaviors of middle school children with EBD (Bell, 2003). Three students in a self-contained special education classroom participated in the study which was comprised of baseline data collection, followed by 6 sessions of an AAT intervention, and then a final observation period to record the maintenance of the intervention. Results showed patterns of unpredictable occurrences of the target behaviors from the three students; however, during the intervention phase, the target behaviors occurred less often than during baseline (Bell, 2003). It is possible that AAT was an active contribution to this finding. These two studies, although promising, had very small subject sizes and the overall generalizability to the greater ED/EBD population is still unknown. Additionally, AAT was investigated in adjunct to already

existing interventions. For these reasons, more research is needed in order to determine whether AAT is effective on its own for children with ED/EBD.

Attention-Deficit Hyperactivity Disorder

Attention-Deficit Hyperactivity Disorder (ADHD) is a developmental disorder that develops in early childhood and continues on through adulthood. Symptoms include impulsivity, trouble maintaining attention, and hyperactivity—all of which contribute to the difficulties children with the disorder often face in daily life as well as in the classroom (Katcher & Wilkins, 2000). According to Katcher and Wilkins (2000), children with ADHD tend to exhibit increased patterns of aggressive behavior and noncompliance when compared to typical children. As a result, increased risks, such as school failure, create the need for professionals and educators to find fresh ways of approaching instruction for children with ADHD.

In a controlled crossover study conducted by Katcher and Wilkins (2000), 50 children identified with ADHD were randomly assigned to one of two groups to determine whether AAT was effective in improving targeted ADHD behaviors. The students in the experimental group participated in a five hours-per-week nature education program called the Companionable Zoo in addition to their regular classroom work. Students in the control group participated in an Outward Bound program as well as regular classroom work. The nature education program required the students to follow two rules: "they had to be gentle with the animals which included talking softly while in the Zoo" and "they had to respect the animals and each other; avoiding speech that devalued each other or the animals." These rules were assigned to specifically target

those behaviors associated with motor inhibition and impulse control. After clear guidelines were explained, those students assigned to the Companionable Zoo program were given an initial task of learning the basic skills necessary to care for an animal. Later, they were assigned the task of implementing these acquired skills with the adoption of a pet of the child's choosing. These skills included such things as learning how to weigh and measure their pet, chart growth, computing food and bedding requirements, and learning how to breed their pet while subsequently caring for the mother and young (Katcher & Wilkins, 2000).

After six months, the Zoo program students returned to their regular classroom fulltime while students in the control group were assigned to the nature education program in adjunct to regular classroom work (Katcher & Wilkins, 2000). Target behaviors such as attendance and impulse control were consistently better in the Zoo program for participants in both groups. When the control group switched to the Zoo program, students' attendance increased from 67% to 87% (Katcher & Wilkins, 2000). The reduction in agitation and aggression, in addition to an increase in motivation and learning, found in this study helps support the previously stated idea that children who find it difficult to learn within the confines of a traditional classroom may benefit from a more naturalistic, AAT approach to learning.

Literacy

One application of AAT designed to help children achieve educational success has gained particular interest in both the academic and general communities. It is the practice of utilizing therapy dogs to enhance children's literacy skills (Jalongo, 2005).

First introduced in 1999, the idea of using registered therapy dogs to help improve children's skills in both reading and communication began with the help of Intermountain Therapy Animals (ITA) (Intermountain Therapy Animals, 2002). ITA's Reading Education Assistance Dogs, or R.E.A.D. Program, is the first and most comprehensive of its kind (Jalongo, 2005). To date, over 80 articles have been published about the program (Intermountain Therapy Animals, 2002).

Often times, children who have difficulty learning to read also suffer from low self-esteem, decreased confidence, and feelings of added stress and anxiety when faced with oral reading tasks (S. Martin, 2001). According to Sandi Martin (2001), the original developer of the R.E.A.D. Program, the act of reading aloud to a dog is advantageous for struggling readers because it allows children to become less apprehensive when reading, thus allowing them to better focus on the actual task of reading while ultimately finding that reading can be fun. Other researchers have examined why reading to dogs is beneficial, concluding that animals are ideal listeners because they allow children to read at their own pace, lower blood pressure which improves relaxation, and are nonjudgmental and are therefore less intimidating than peers (Intermountain Therapy Animals, 2002).

Besides the maintained physiological and emotional benefits of employing therapy dogs, the R.E.A.D. Program finds success because of its dedication to pairing children with level-appropriate books in addition to providing children with a knowledgeable and specially trained dog handler who can offer assistance to children when it is needed (Jalongo, 2005). This assistance helps improve accuracy when children

are forced to read independently (Jalongo, 2005). Anecdotally, the R.E.A.D. Program appears to be promising; the question however is whether or not research would show the program to have positive results.

In a longitudinal study conducted over the course of two school years, children between the ages of 5- and 9-years-old who were identified as reading below grade level participated in the R.E.A.D. Program (S. Martin, 2001). Each week, the children would spend 20 minutes reading aloud to a R.E.A.D. therapy dog and would receive quarterly evaluations of their reading from the school's reading specialist. While the manner in which results were measure was not stated, the study showed that every child had significantly improved reading scores, with one child jumping from a 3.4 grade reading level to a 6.8 grade reading level in a period of 15 months (S. Martin, 2001). In addition to improved literacy, children in the R.E.A.D. Program also have been found to have decreased absenteeism, an increase in self-esteem, greater involvement in school activities, an increased motivation to read aloud in class, and check out books from the library more often (Gerben, 2003).

The above list of disorders and academic concerns offer good examples of how AATs and can be used to create a special education classroom environment conducive to providing instruction to those students who struggle with conventional methods of instruction. However, this list is by no means exhaustive. Research also has been conducted on the effects AAT has on children with disabilities such as autism, pervasive-developmental disorder (PDD), learning disabilities and giftedness, mental retardation, and severe learning disabilities (Frye, 2005; Law & Scott, 1995; Limond, Bradshaw &

Cormack, 1997; F. Martin & Farnum, 2002). This extensive applicability of AATs and its potential for positive gains is considered to be a valuable strength among researchers and educators since it suggests that AAT can service a wide range of populations and needs (Kruger et al., 2004).

Numerous studies exist that examine the benefits of AAT in the classroom and many of them suggest that improvements in students' academic performance are a product of perceived safety and non-judgment during the process of learning (Gerben, 2005). Although these conclusions appear valid, there is emerging evidence to suggest that animals also help the educational process by being direct and active teachers (Kruger et al., 2004). Because animals provide students with immediate feedback via their reactions, children quickly learn what behaviors are acceptable and unacceptable. For example, an animal may break away and avoid contact with a student who is rowdy and forceful. This avoidance helps persuade the child to modify his conduct if he wishes to continue interacting with the animal. It is the hope and expectation of instructors that this clear feedback and consistent reinforcement of behavior will lead to behavior modification that can be generalized and maintained in the student's daily relationships and educational activities (Kruger et al., 2004).

Animals in general education classrooms

Although the greater part of research examining AATs and in the classroom are directed towards the meeting of goals in special education populations, there exists evidence that having the presence of an animal in a general education classroom can demonstrate equally positive outcomes for traditional students (Kotrschal & Ortbauer,

2003). To examine whether a dog has a positive influence on school children's social behavior, researchers introduced a dog into an elementary school classroom and videotaped students' behaviors for two hours each week for a month (Kotrschal & Ortbauer, 2003). These observations in the classroom where then compared to a control period that had been recorded the previous month where the dog was not present. Results showed that the students became more socially homogenous as a group as a product of decreased "behavioral extremes" such as aggressiveness and hyperactivity. Additionally, those students who were previously withdrawn members of the class became more socially integrated with the presence of a dog. From their study, Kotrschal and Ortbauer (2003) concluded that integrating a dog into the general education classroom could inspire greater classroom unity among students while providing a reasonably undemanding method of improving learning conditions.

Despite the increasing amount of research advocating the effectiveness of AATs in school settings, there remain concerns among professionals whether staff members disapprove of the presence of animals in school (Trivedi & Perl, 1995). However, research shows that contrary to initial apprehension, school personnel maintain positive sentiments regarding animals being present at school. To examine school staff members' reactions to having a dog present in the school environment, Trivedi and Perl (1995) administered a five-item survey to all staff members at an elementary school. Staff members responded to the question, "How do you feel about having a therapy dog at school every day?" using a 7-point Likert scale where 0 was *Negative* and 7 was *Positive* (Trivedi & Perl, 1995). Of the 38 returned surveys, 32 respondents gave a rating of 7,

one gave a 6, two gave a 5, one gave a 4, and two gave a 3. Using the same 7-point rating scale, another question asked staff members was "How do you feel a therapy dog affects the emotional climate of the school?" Of the 38 surveys, a total of 28 respondents gave a rating of 7, two gave a 6, two gave a 5, four gave a 4, and two gave a 3 (Trivedi & Perl, 1995).

The remaining three questions on the survey were open-ended questions asking staff members: "Have any parents or children given you feedback about having a therapy dog in the school?" "Do you have any concerns, or do you perceive any possible problems with having a dog in the school" and "Any other comments?" (Trivedi & Perl, 1995). Overall, responses were positive, with an example response given by a respondent describing: "I have observed some situations where angry parents have been diffused [sic] when Sarah Jane was petted. Angry students react the same way" (Trivedi & Perl, 1995, p. 7).

Yet, students are not the only group who is experiencing the benefits from the presence of a therapy dog at school (Trivedi & Perl, 1995). According to Trivedi and Perl (1995), teachers have reported that the presence of a therapy dog at school has helped their relaxation, has reduced stress, and has improved their overall morale. These elements, combined with the benefits for students from integrating animals into school settings, demonstrate that the field of AAT deserves both the recognition and inquiry that it has acquired over recent decades. As more is understood about animal-human interactions and their application to children's academic success with the increase of

empirical research and fewer anecdotal accounts, professionals will continue to discover innovative ways of reaching our youth.

Animal-Assisted Therapy in Counseling (AAT-C)

When AAT-C was first conceptualized, the potential surrounding animal therapy was given serious consideration. However, over the course of the 40 years since, little attention has been given to the integration of animals in formal clinical settings (Peacock, 1984). Only recently has the introduction of animals into the counseling environment received growing attention due to researchers and professionals observing the therapeutic benefits of AAT applied in other contexts. It is important to note that AAT-C is only one form of application in the more expansive field of AAT (Chandler, 2005). AAT-C incorporates the use of animals as therapeutic instruments within the counseling process in adjunct to other already proven methods of therapy (Chandler, 2005; Parshall, 2003). Since AAT-C provides clinicians with relative adaptability regarding how they execute therapy sessions, it can be appropriately applied to a variety of settings including schools, hospitals, agencies, and private practice (Chandler, 2005).

Depending on the setting and client's disorder, a therapist must establish a treatment plan that is characterized by developing specific treatment goals. It is only after treatment goals have been determined that a therapist decides when and how an animal will be integrated into the realization of these objectives (Parshall, 2003). The importance placed on establishing goals is done so that objectives can be systematically monitored over the course of therapy. Common mental health treatment goals include: improve socialization and communication, minimize depressive affects, address grieving

and loss issues, enhance sense of reality, decrease manipulative behaviors, reduce abusive behavior, and learn appropriate touch (Chandler, 2000).

Why Involve Animals in Counseling

The fundamental motive for involving animals in the therapeutic process is that "psychological health can be enhanced by positive human-animal interactions" (Chandler, 2005, p. 16). Therapy animals can alter the dynamics of a traditional session while supplying an added therapeutic value (Chandler, 2005). In a broad sense, the presence of an animal may help to facilitate therapy (Kruger et al., 2004). This may be accomplished in a variety of ways. Often, there is a perceived power differential between a therapist and a client (Kruger et al., 2004). By allowing the client to form a trusting relationship with an animal, confidence in the counselor can consequently be obtained when she is able to demonstrate that she can be trusted by the same animal (Chandler, 2005). Hence, the incorporation of a therapy animal can help decrease tentative initial reactions while making the therapist and counseling setting appear less threatening (Kruger et al., 2004).

The basis for an early establishment of trust between a client and therapy animal can be attributed to many of the theoretical foundations of human-animal bonds discussed earlier in this paper. Most relevant is that of animals as social facilitators. Carl Rogers, the founder of humanistic psychology, emphasized the importance of unconditional positive regard and warmth in the therapeutic relationship (Parshall, 2003). This perceived unconditional acceptance promotes feelings of safety for the client and may encourage more rapid self-disclosure (Chandler, 2005).

An additional motivation for involving animals into the counseling process is their ability to act as surrogates for therapeutic touch (Chandler, 2005). There exist many instances in which a client could benefit from "the nurturance that appropriate, unconditional, genuine, and caring physical contact can offer" (Chandler, 2005, p. 74). However, it is generally prohibited that a therapist touches a client. Through physical contact and petting of a therapy animal, clients may experience healing nurturance and affection (Chandler, 2005). In studies investigating human blood hormone levels, it has been demonstrated that interaction and physical contact with a therapy animal is associated with decreases in biochemicals linked with stress while increasing levels of biochemicals associated with social bonding (Thigpen et. al, 2005). These changes in blood levels may contribute to the experience of comfort clients may encounter from holding or petting a therapy animal (Chandler, 2005).

As a result of the unique dynamics listed, therapy animals can enhance the motivation, encouragement, inspiration, and insight elements of counseling. These enrichments of the therapeutic process may ultimately allow a client to gain more benefit per therapy session, leading to quicker and greater recovery (Chandler, 2005).

AAT-C Techniques

The therapeutic process of AAT-C can follow one of two possible modalities: directive and nondirective (Chandler, 2005). A directive approach is characterized by a therapist who purposefully structures a client's interactions with a therapy animal. This could include a diverse range of possible activities or interventions such grooming, performing tricks, or play. At the other end of the spectrum, a nondirective therapist may

simply introduce the therapy animal to the client and explain that interaction is welcome at any time during the course of the session. However, before a therapist can utilize an animal into therapy, she must inform the client of her intentions before the initial therapy session and obtain consent (Chandler, 2005). Often, whether a client continues to participate in treatment depends on how an initial therapy session transpires (Peacock, 1984).

Regardless of a therapist's chosen or preferred modality, two objectives of an initial therapy session remain constant (Peacock, 1984). First and foremost, the therapist will attempt to develop rapport with the client—that is, develop a relationship based on trust, connection, and communication. Secondly, the therapist will begin a diagnostic inquiry. This will aid in developing historical understanding of a client's presented difficulties (Peacock, 1984). Outside of these standard clinical goals, AAT-C provides therapeutic interactions that are specially tailored to individual clients (Chandler, 2005). Furthermore, this flexibility allows therapists to reach a wide range of populations (Kruger et al., 2004).

AAT-C with Adolescents

In an unpublished workbook, *Animal-Assisted Therapeutic Interventions*, written by DePrekel and Welsch in 2000, over 14 *DSM-IV* –recognized clinical disorders were identified in which AAT-C was believed to be effective (Chandler, 2005). These included internalizing disorders such as General Anxiety Disorder, Bipolar Disorder, and Major Depressive Disorder; externalizing disorders such as Oppositional Defiant Disorder and Substance Related Disorders; and developmental disorders that result in

interpersonal and attachment impairment such as Autism Spectrum Disorders and learning disabilities (Chandler, 2005; Kruger et al., 2004).

Over the past few decades, research has reported successful outcomes when animals have been integrated into counseling with the chronically disturbed, the elderly, the incarcerated, and the very young (Peacock, 1984). Despite this apparent widespread appropriateness of AAT-C to diverse populations, very few studies have investigated the potential benefits of AAT-C with adolescents. According to surveys, while adolescents are among the leading group of people who make use of clinical services, only a third participate in on-going treatment. According to Peacock, "the remainder drop out after initial intake" (p. 7). This can be attributed to the phenomenon of adolescents customarily resisting traditional clinical approaches to therapy—especially the goals associated with initial therapy sessions (Peacock, 1984).

While therapists may seek to build rapport with adolescent clients, developmentally, adolescents are stuck in a life stage of increasing separation and independence from adults. Frequently, adolescents in initial therapy sessions will interpret a therapist's attempts for a connection as blatant interferences with their own objective of autonomy (Peacock, 1984). Consequently, resistance and frustration emerge shortly after an initial session begins (Peacock, 1984).

This resistance and shared frustration continue throughout the initial session as therapists continue to make efforts in initiating diagnostic inquiries (Peacock, 1984). This task is made all the more difficult as a result of adolescents' tendency to deny that a problem even exists. Occasionally, this concealing of information is indicative of an

adolescent's fears that his or her problems may be symptomatic of a more severe, underlying diagnosis. Moreover, psychotherapy and counseling sessions often rely heavily on client's verbal skills. This conflicts with adolescents who are more often characterized as expressing themselves though actions rather than words (Peacock, 1984). These contradictions and disconnect between therapists' goals and adolescents' goals result in initial therapy sessions riddled with resistance and ultimately end in futility (Peacock, 1984).

To overcome the stressful and often unsuccessful task of treating adolescents, researchers, therapists, and professionals have urged for an adapted treatment approach that is more congruent with adolescent developmental tasks (Peacock, 1984). Given this need, the incorporation of animals as an accessory to traditional clinical methodology for this population may prove to be beneficial due to its stimulating and novel approach towards treatment. However, little exploration has been conducted to assess the effectiveness of AAT-C in the ability to engage and diagnose adolescents during this critical initial therapy session (Peacock, 1984). For that reason, further research is needed to examine this promising approach.

Conclusion

While the utilization of AAT has increased in recent decades due to a rise in its recognition among researchers and professionals, greater exposure of AAT throughout popular media has equally bolstered its popularity among the lay public (Chandler, 2000). The naturally existing human-animal bond is the foundation for understanding AAT and its theoretical underpinning. It is this connection that allows for animals to facilitate an

atmosphere of "trust, nurturance, and relationship building" in classrooms and counseling sessions (Chandler, 2000, p. 7; Menzies Inc., 2003). Research has demonstrated that the application of these characteristics by means of AAT has resulted in an increased attainment of children's academic and mental health objectives in areas such as literacy skills, EBD, and ADHD (Katcher & Wilkins, 2000; Kogan et al., 1999; S. Martin, 2001).

Yet, even now, the practice of AAT continues to be in an early stage of development. However, the relocation of attention of anecdotal accounts towards more empirically-based research has helped researchers gain greater insight into the explanations of how and why animals have the potential to be therapeutic. Despite this current appreciation and acceptance within the field, there remains a genuine scarcity of research dedicated to the examination of how the characteristics of AAT can compliment the developmental tasks of adolescents participating in counseling. The original intention of this paper was to present information and propose a research study that aimed to answer two questions, (1) Will the utilization of AAT in initial therapy sessions help to decrease adolescent resistance so that participants can relax, enjoy self-disclosure, and participate, cooperatively, in the therapeutic process? (2) Are directive, more structured, approaches towards the application of AAT more effective in decreasing adolescent resistance in initial therapy sessions than nondirective approaches? As stated previously, factors precluded the prescribed study from transpiring as outlined. Over time, subtle shifts occurred where the questions perplexing the examiner were no longer attributed to AAT, but instead to the research process itself. A journey of self-discovery and the exploits of introducing the clinical into the public mainstream will be provided, along

with a dialogue revealing the possible implications for continued reluctance of empirical research as it relates to the social-emotional health of our youth.

CHAPTER III

METHOD

Chapter Three proposes a study that will examine the role of Animal-Assisted Therapy (AAT) in the initial therapy session of adolescents. The study will model a similar study conducted by Peacock in 1984 which explored the role of the therapist's pet in initial psychotherapy sessions with adolescents. The characteristics of the sample are outlined, and instruments are described. Procedures for both data gathering and for data analysis are reported. The chapter concludes with a summary of the hypothesis for the investigation.

Sample

The sample for this study will be drawn from a population of adolescent boys, aged 12-17, newly admitted to a youth residential detention center located in the Midwest. Residents at the center receive 24-hour supervision and participate in on-site educational programs.

Thirty male adolescents who have not already undergone the facility's initial intake interview will participate in the study. Participants will be randomly assigned to either a control group or one of the two experimental groups: (a) a directive therapeutic approach, where the youth purposefully interacts with a dog during the initial interview, or (b) a nondirective therapeutic approach, where a dog is present in the initial interview room with no structured interactions with the participant. All three groups will be matched for age, race, socioeconomic status, and presenting diagnosis. Ideally,

participants within the experimental groups should not have any significant fears or phobias of dogs.

Measures

Participant Self Report

Because a successful first interview partially relies on the building of a therapeutic alliance (Peacock, 1984), it is felt that the participant's self-report of his experience with the interview would be a valuable assessment tool. Six questions will be posed to each participant about this participation. After each initial intake session, the facility's clinical coordinator will ask participants to complete a self-report which solicits their responses to the interview experience (see Appendix B). The interviewer will not administer the self report to avoid bias in eliciting participant's responses.

The self report form consists of six questions which will be answered on a Likert scale. Questions one through three require the participant to assess the quality of rapport between him and the interviewer. In answering question four, the participant will report his degree of relaxation during the session. Questions five and six will aim at encouraging the participant to gauge his level of self-disclosure during the interview in addition to his comfort at talking about himself with the interviewer.

After a participant completes the self report, it will be returned to the clinical coordinator who will keep it in a secure location until giving it to the researcher. These forms will be kept confidential with participants identified by a code number rather than by name. Only the researcher will be aware of participant code numbers.

Interview Content Analysis Chart

All interviews will be videotaped and transcribed. A content analysis will be done by the researcher who will tabulate the number of the following three variables as they occurred in interviews of participants in both the experimental and control groups: (1) number of resistant statements, (2) number of affective statements, and (3) number of references to historical materials. It is felt that an index of resistance and a measure of the participant's willingness to share feelings will be informative indicators of rapport. The final variable, the participant's references to historical material, is seen as reflective of the interviewer's success in diagnostic inquiry during the session (Peacock, 1984). The researcher will analyze all interviews and tabulate results on the Interview Content Analysis Chart (see Appendix C). All three variables have been previously operationalized in Peacock's study and a glossary of terms associated with each variable has been developed to ensure rating accuracy (see Appendix D).

The above variables have been defined very specifically. The participant's willingness to cooperate was measured by the number of *resistant statements* made by the participant. Five types of resistant statements have been identified. These include: (1) direct resistance, (2) indirect resistance, (3) silent resistance, (4) direct requests to terminate the interview, and (5) indirect requests to terminate the interview.

As an additional measure of rapport, the rater will note the participant's *provision of affective statements*. The participant's expression of feelings of anger, boredom, depression, excitement, fear, frustration, gratitude, guilt, hatred, happiness, hope, loneliness, loss, love, and sadness will be tabulated.

To measure the *amount of historically significant material* provided by the participant during the session, the rater will record the number of times the participant referred to his mother, father, stepmother, stepfather, sisters, brothers, stepsiblings, grandmothers, grandfathers, aunts, uncles, cousins, girlfriends, and peers. Mention of medical problems, significant losses, and physical or sexual abuse will also be noted.

Procedures

Participants will be randomly assigned to either a control group or one of two experimental groups: (1) a directive approach where a dog is used actively and consistently as an adjunct to the therapeutic process of the initial interview, or (2) a nondirective approach where a dog is simply present in the initial interview room. All participants will participate in an initial intake interview conducted by a therapist employed by the facility.

During interviews with all of the participants, the therapist will seek to achieve two consistent objectives that are generally accepted clinical goals of any standard initial interview. First, the therapist seeks to establish rapport with the client. Second, the therapist seeks to gather relevant information, including the patients' presenting problem and historical material about significant people and events in the patient's life, both in the past and the present.

Interview Procedure for Control Group Participants

Participants in the control group will participate in an initial interview that follow's the facility's standard procedure. During the session, the interviewer will attempt to develop rapport with the participant in addition to gathering information about

the participant's presenting problem, which might include a discussion about the participant's current court charges. After a discussion of court involvement, the interviewer will try to elicit material around the subject's family background, school history, medical issues, and peer relationships.

Interview Procedure for Experimental Group Participants

Experimental group 1. During the interview with the participants who are assigned to the experimental group where interaction with a dog is used in adjunct to the standard interview, the dog will sit between the participant and the therapist. On the therapist's desk, there will be available a set of grooming supplies, dog biscuits, a bowl of water and a small leash. The first 8-10 minutes of the interview will focus on the dog, which will be introduced, brushed, trained, and discussed. The interviewer will open the hour by introducing the dog to the participant and ask the participant if he would like to give the dog some water because it seemed thirsty, involving the participant in a project of getting the dog to drink.

Keeping the focus on the dog, the interviewer will then suggest that the participant brush the dog. The interviewer should hold the dog between herself and the participant while the participant leans over the dog to brush. Both the interviewer and the participant will be bent over the dog, thus making eye contact optional. As the participant brushes the dog, the interviewer can begin a discussion about the dog, for example, asking the participant what sort of dog he thinks it might be. The interviewer could then reflect out loud that the participant seems to really know a lot about dogs, leading into the question of whether the participant has ever owned a dog or any other

pet. If the participant has, the interviewer will express interest in the subject's account, asking questions such as:

*How did you get your dog?

*Who picked him out?

*What did your dog look like?

*What was your dog's name?

*How old were you when you had your dog?

*Where did you live when you had your dog?

*Did your dog do tricks?

*What kinds of qualities did your dog have? (i.e. smart, funny, peppy, etc.)

*What kinds of activities did you do with your dog?

*How did the other people in your family get along with your dog?

*How did you feel about your dog?

*How did your dog feel about you?

The interviewer will combine these questions with comments supporting the participant's pride in owning and caring for the dog. If the participant reports owning more than one dog, the interviewer will ask about all dogs the participant owned. If the participant owned other pets, which are not dogs, these pets can serve as the focus of the conversation.

It is possible that, during the participant's description of his dog, the participant will reveal that the dog had died. If the participant seems ready to talk about the loss of his dog, the interviewer may help him do so. However, if the participant seems reluctant

to discuss the topic, the interviewer should acknowledge that the loss of the dog is hard to talk about and change the subject.

After the participant discusses the dogs and/or pets in his life while brushing the dog, the interviewer will change the pace of the session and suggest that the participant see if the dog would do any tricks. Training will begin with getting the dog to sit. The interviewer will give the participant some dog biscuits for rewarding the dog. At the point of success, the interviewer will comment that the participant seems to really have a way with dogs.

The end of the training session will signal an open period of the participant relating to the dog. Becoming less directive, the interviewer should take the participant's lead. This might include participants continuing to want to train the dog while choosing more difficult tricks; others may want to play with the dog or to simply hold it or have it sit beside him. If, at any time during the interview, the participant asks the interviewer specific questions about the dog, the interviewer will answer them in an open and straightforward manner.

After approximately twenty minutes, the interviewer will suggest that the participant brush the dog a bit more. While they lean over the dog, the interviewer will ask more formal diagnostic inquiry—asking about the participant's presenting problems and also elicit material around the subject's family background. Although the dog is seemingly no longer the focus of the session, it will continue to be instrumental during the rest of the hour. The interviewer and participant can continue to brush the dog and if during the session, the participant provides material that feels too threatening, the

interviewer can re-introduce the more active role of the dog—encouraging him to feed, train, or hold the dog. It is hoped that following these activities, the participant might choose to return to the material that he had found so difficult.

The presence of the dog and pet-related topics will serve as a kind of conceptual framework for the entire session. When the participant refers to particular people and events in his life, the interviewer will connect them to the opening material that the participant present earlier. However, it is possible that participant has no experience with being a pet owner. Should this be the case, the therapist should inquire about any experience the participant has had with pets and continue with the structured activities using that familiarity. If it happens that a participant has no experience with pets, the therapist should continue to use the structured activities with the dog but conduct the inquiry aspect of the session in a manner consistent with standard procedure.

Experimental group 2. Participants in this group will participate in a standard initial interview, much like that of the control group. Similar issues will be addressed such as the development of rapport with the participant in addition to gathering information about the participant's presenting problem, which might include a discussion about the subject's current court charges. However, this group will differ from the control group in that it will have the additional presence of a dog. The dog will not be actively integrated into the therapy session, but will rather act as a companion to the interviewer. The dog will be available to the participant should he be inclined to pet it or talk to it over the course of the session, but will otherwise remain absent from the standard therapeutic procedure. Should the participant ask the interviewer about the dog

during the course of the session, the interviewer should answer the questions but redirect the participant back to the issue at hand.

Analysis

Chi Square analysis will be performed on the results from the six-item Participant Self Reports. The Chi Square statistic is used to test whether observed frequencies differ significantly from expected frequencies.

Data from the content analysis of the interviews will be examined by Analysis of Variance (ANOVA). ANOVA is a statistical method that compares two or more group means to see if any differences between the means are statistically significant.

Hypothesis

It is believed that the presence of a dog in initial psychotherapy sessions with adolescents will help decrease resistance, allowing for participants to relax, enjoy self-disclosure, and to participate, cooperatively, in the therapeutic process. It is additionally believed that the more directive and structured the interactions with the dog, the greater the effects of relaxation, enjoyment, and willingness to participate will be.

CHAPTER IV

RESULTS

John Steinbeck (1937) could have easily had my series of ill-fated efforts in mind, as they relate to this particular research study, when he famously wrote "The best-laid plans of mice and men often go awry" in his classic novel, *Of Mice and Men.* While each individual endeavor was made with the best of intentions, this chapter will summarize the chain of events and various impediments that ultimately resulted in the proposed study not being completed as previously outlined.

Access to Suitable Subjects

Participant Sample Size

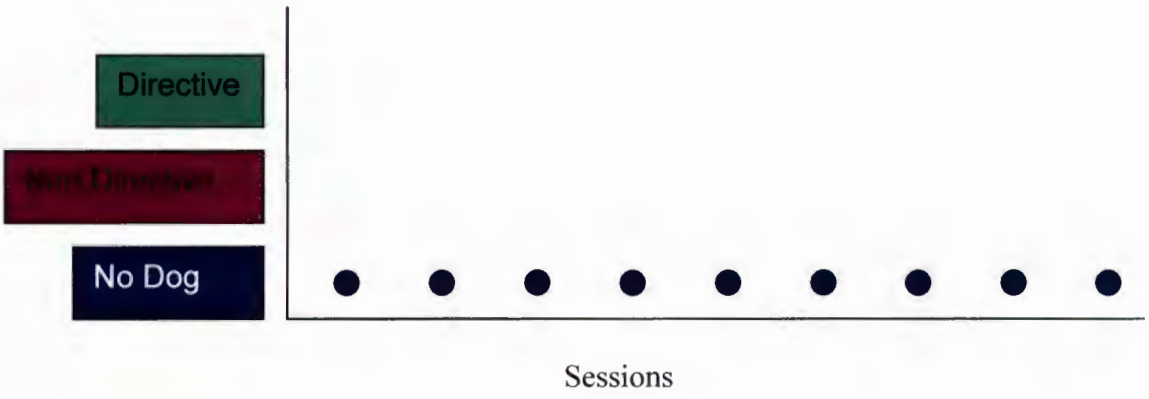
Initially, the goal was to involve a total of 30 male adolescents who had recently been admitted into a residential treatment program and who had not yet participated in the initial interview. While this methodology was approved by all members of the thesis committee upon defense, when time came to verify locality and obtain approval from local residential facilities, the barriers were revealed with very little delay. Only a handful of facilities existed within a reasonable distance from the primary location of both the researcher and actively participating faculty members. With that said, all facilities were hesitant to support an autonomous study where the subjects involved were underage youth. Additionally, there was concern expressed amongst each facility that historically they had not experienced the turnover in residents that would indicate 30 newly admitted patients within my projected timeframe. It was soon determined that the

amount of "red tape" necessary to break through would not allow for an efficient use of the examiner's time with no guarantee for clearance in the end.

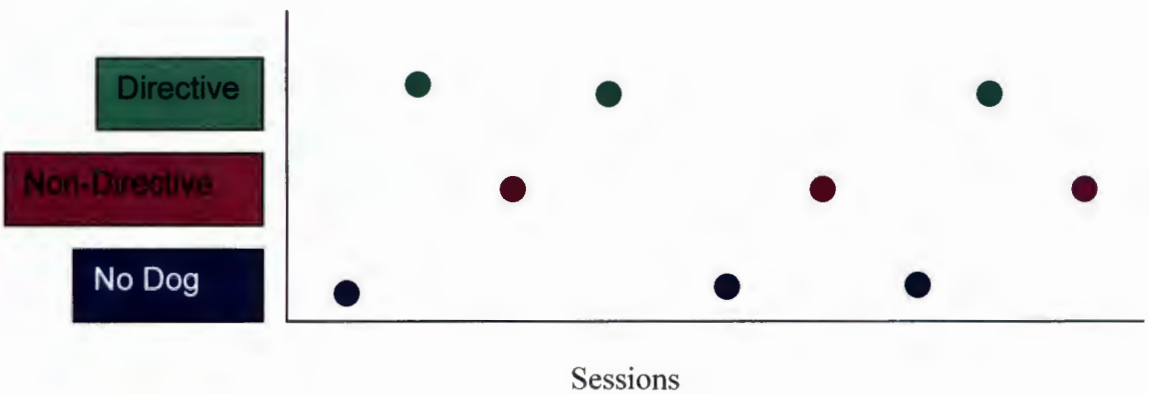
It was at this time that the focus of the study shifted from residential programs serving the adolescent population to instead taking a closer look at out-patient, private practices located within close proximity to the university. Through faculty networking, a connection was made with a therapist who recently opened her own private practice in the community. The concept of a newly established practice was appealing in that it could potentially allow for a large number of clientele who were unfamiliar with the therapist and had no previous experience or biases—a detail critical in effectively testing the proposed hypotheses. When presented with the suggestion to work together collaboratively, the therapist was eager to join forces and obtained the foundational skills required for successfully engaging her dog in the various roles for each experimental group. Wheels in motion, all that was needed was the deluge of new adolescent clients that were bound to come. And then they didn't. Months passed with not a single client fulfilling the requirements in terms of age and unfamiliarity. Suddenly, 30 participants seemed to be a devastating sample size.

It was time to regroup. In an effort to create a more manageable study, committee members suggested the methodology be altered to instead follow a modified single-subject experimental design using three participants similar to that found in Figure 1.

Participant 1: Control



Participant 2: Scatter



(figure continues)

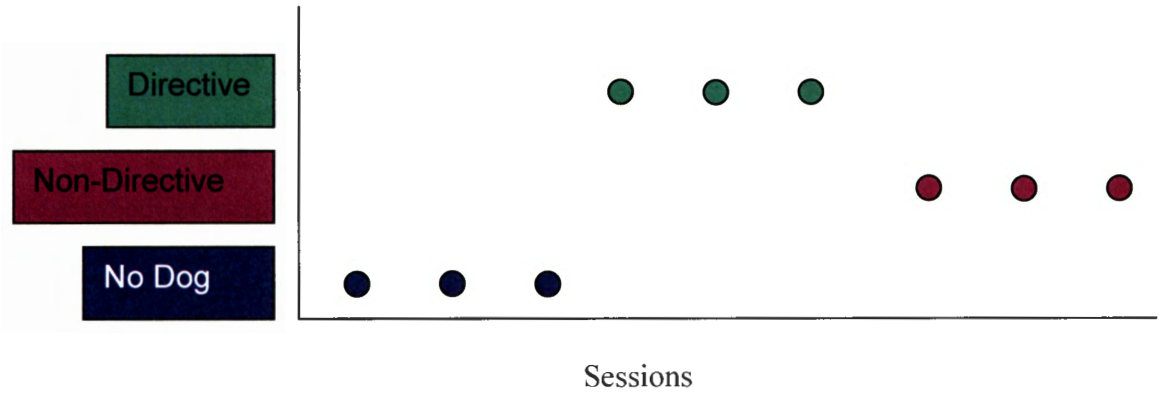


Figure 1. Proposed Single-Subject Experimental Design

Identical measures were recommended with an emphasis placed on exploring results with a qualitative lens versus pure statistical analysis. It was promising; it was a solution achieved after weeks of consultation with multiple university faculty members. Surely three qualified participants would make themselves available. Regrettably, they did not. Both methodologies were equally proposed when submitting formal requests to potential subsequent partnerships in hopes of securing adequate participation.

Program Willingness and Attitude

My journey in locating a program or facility that could satisfy my seemingly ever-restrictive sample prerequisites included three additional hopefuls—each with their own distinct reaction towards and opinions about the proposed study. The third hopeful in a growing inventory of possibilities was discovered through networking and actively advertising the uniqueness and potential benefits of my study with family, friends, and

perhaps a few unsuspecting strangers in an unnamed elevator. Good news travels fast and in time I was able to connect with a nurse practitioner specializing in the field of Child & Adolescent Psychiatry at a children's hospital who demonstrated enthusiasm in my research during an informal chat with my mother. Initially leery of teaming with a program out-of-state, I was delighted to learn that within the department, there existed two psychotherapists that specialized in Animal-Assisted Therapy. Pointed in the direction of the Child & Adolescent Psychiatry Departmental Research committee, where my proposal would be reviewed, I submitted all relevant documentation with an air of assurance and relief. Confidence bolstered, I waited for a response.

Months later, I received a personal email from one of the psychotherapists indicating that she regretted to inform me that they presently had two studies underway and simply did not have the capability of taking on an additional research project. The disappointment on both ends was sincere and genuine; the only positive outcome being a renewed sense of community interest and value in the questions I was eagerly attempting to answer.

The drawing board, it was empty. Desperately trying to discover some previously untapped opportunity not yet thought of, I revisited my original target population—adolescents experiencing behavioral difficulties within the mainstream environment. Over a conversation with my adviser, one focused on removing minutiae collected over nearly two year's time, the genesis of an idea formed. It was time to go back to school, literally. Blank Alternative High School is a substitutive educational setting designed to instruct students in danger of failing and/or dropping out of school for various reasons.

True, these students were not "residents," nor were there any intake interviews necessary before settling in. However, what Blank Alternative did have was a concentrated number of adolescents with social-emotional concerns severe enough to negatively impact academic and societal functioning. It was the proverbial jackpot when considering the utilization of unconventional techniques to engage and connect with adolescents in need.

Yet another request for research-motivated access was presented, this time to the Blank Community School District. Waiting was becoming a common theme in the submissions process as it was months before receiving a letter of determination from the school district. In the letter was a matter-of-fact explanation that, while original and appealing at face value, the research I proposed did not align with the current climate and concentration of the district's educational research and focal academic interest. Inferentially, it was a polite rejection of the worst kind—a candid admission that social-emotional research is failed to be recognized as an integral component of overall learning when compared to those core skill sets of literacy and math, sovereign soldiers in the world of academic advancement.

Mobility within a Committee

To suppose that man is a stationary being would be imprudent. Like any changing of the guards, so too does the university atmosphere change with time and with it, the knowledge that each individual brings or takes with them. Inevitable as it is, adjustments within a committee, both personally and professionally, can have devastating effects on an intended outcome. This is never truer than when communication encounters a breakdown.

Changes in Faculty

It was a blessing to have three committee members so enthusiastically endorse my research from the initial onset. Over time, it was natural for the excitement to wane in the event of so many rebuffs and false starts. Following the distressing rejection from the Blank Community School District, one committee member offered her assistance to act as counselor in the initial interview portion of the study with students attending the university-affiliated lab school where she had connections. It was a warmly received suggestion and I went to task to obtain the necessary clearances. Several emails, a meeting, and one much-appreciated handshake with the school principal and I had finally found myself a partner in research.

But to solicit a full-time professor to perform hours worth of data collection by means of one-on-one taped interviews proved to be less prolific than could be imagined. Blame is to be had nowhere but on the unavoidable duties and variations in class schedules, office hours, and consultative obligations for current students. Efficient and effective communication became a rarity and time continued to lapse by with little accomplished, except for the joyful retirement of my second committee member.

Meanwhile, even greater movement was on the horizon. Now years into the process, it was discovered that my thesis adviser had taken a position at another university out of state. No forewarning was provided and the shock of losing my adviser was met with feelings of what, betrayal? I was effectively without two-thirds of the committee who had steadfastly encouraged me to pursue a zealous inquiry years prior.

Despite this, I quickly resigned myself to quiet acceptance for few other options presented themselves.

Changes in the Investigator

During a majority of these years, I had been employed as a practicing clinician within the field of school psychology. With the transformation from student to professional, it can easily be said that interactions amongst committee members significantly decreased. Career obligations often trumped what had once been available hours of devotion, while those communications and frequent contacts that had previously seemed so vital soon became an afterthought to meetings and endless paperwork. No longer was I surrounded by that unmistakable and infectious electricity that only exists in places of great thought and progressive ideas. Academia was gone. Instead was the steady churn of daily life within the concrete walls of a public school and little accessibility for or interest in anything but the status quo or agency-promoted initiatives.

I could feel myself become less inspired with each denial and dismissive point of view that was encountered. What I had so ardently believed in and aspired for was slowly deteriorating and had developed into a disappointment that wordlessly, yet relentlessly, gnawed away at my conviction. Even now, describing the chronology of obstacles and thematic barriers this particular research suffered through, I cannot help but simultaneously feel relief in fulfilling those requirements and commitments I made as a student while also feeling a sense of guilt and disenchantment in my inability to execute something that was once so meaningful. Only through the conception of an entirely new committee have I begun to reflect upon my journey and reconsider my frustrations with a

fresh regard—one that has the potential elucidate the implications of relying too heavily on evidenced-based interventions and that offers guidance for future students with ambitious research proposals.

Summary

Resulting from a series of unforeseen barricades and frustrations, the proposed research in which it was believed that the presence of a dog in initial psychotherapy sessions with adolescents would help decrease resistance, allowing for participants to relax, enjoy self-disclosure, and to participate, cooperatively, in the therapeutic process could not be completed as intended. The same can also be said for the hypothesis that a more directive and structured the interaction with the dog, the greater the effects of relaxation, enjoyment, and willingness to participate will be.

CHAPTER V

DISCUSSION

This chapter begins with a summary of the findings of the present study, or more accurately, the lack thereof. With great regret, the eagerly anticipated effects of how the presence of a dog impacts initial therapy sessions within the adolescent population could not be established statistically due to circumstances referred to in the preceding chapter. In its place, a review and exploration of the unintended insights and revelations gained through deeper analysis will be examined and discussed.

Insufficiency of Empirical Data

The moment an adolescent walks through the door seeking help, the challenge begins to design a treatment program that promotes a constructive and trusting relationship while inspiring motivation for continued therapy. As previously reported, it has been suggested that while adolescents are the largest consumers of psychiatric care, only one third of those adolescents participate in ongoing therapy (Peacock, 1984). The remainder abandon treatment following initial intake. With this in mind, many clinicians share in a sense of urgency with regards to engaging adolescents early within the therapeutic process. Many agree that therapy sessions that are stimulating and interesting are critical in successfully working with the adolescent population. Capturing an adolescent's attention and soliciting his/her cooperation creates a therapy session that is both tolerable to the adolescent and exciting in its unexpectedness. Unfortunately, few therapists possess specific techniques to enliven the therapeutic process. The incorporation of an animal as an adjunct to the therapy session offers that element of

surprise necessary in the beginning stages of treatment. However, the fact that little research has been directed specifically on the adolescent population is a reflection of the absence of empirical research within the field of Animal-Assisted Therapy as a whole (Peacock, 1984).

A review of past literature offers several explanations why rigorous scientific study of Animal-Assisted Therapy has been severely limited. With its conceptualization found within a book based on descriptive case examples, AAT offered a promising example of animal participation in a clinical setting (Peacock, 1984). Paradoxically, as enthusiasm for the field has grown, interest in the use of AAT within clinical sessions appears to be on the decline. In theory, this could be attributed to a lack of evidence-based research. According to Peacock (1984), the man credited with giving birth to AAT, Boris Levinson, is reported to have made the comment that AAT has been "a stepchild in terms of research interest, financial support, and prestige" (p.50). Researchers have faced serious barriers in exploring AAT as intensively as they might wish. Only recently has empirical research become customary for evaluation of animals in the overall improvement within the various populations, including: the elderly, the imprisoned, the very young, and those receiving medical or psychological treatment.

In my review of applicable research, few parallel studies have been conducted to investigate the effectiveness within the adolescent population—especially within the context of psychotherapy. Often, what little research that does exist is overshadowed by the exaggerations and embellishments of AAT enthusiasts. Because AAT and related topics are only beginning to adopt a sense of legitimacy as a viable form of psychological

treatment and study, the impulse to prematurely assume causal relationships in patient success is cautioned against.

> Observations about PET (Pet Facilitated Therapy) have been made by skilled and careful therapists, but they have not yet been confirmed by the kind of controlled experiments that test the value of more conventional therapeutic agents. Instead, PFT had become the darling of the mass media...PFT advocates can sound uncomfortably like fanatical exponents of macrobiotic diets or apricot-pit therapy or similar fads (Beck & Katcher, 1983, p. 163).

Much of this vigilance in hastily claiming causality can be attributed to an abundance of anecdotal case studies and too few well-designed, experiential studies. Upon closer examination of previously cited literature, a wealth of observational data and subjective personal encounters have been introduced, and yet, only a handful of exploratory studies relating directly to AAT either in an educational or clinical setting have referenced statistical results. Of these, only two were not marred by flaws in design.

The most universal defect in current AAT research is the dearth of large sample sizes. In order to declare generality of any given hypothesis, it is necessary to retain a large enough sample size so that an investigator can confidently declare statistical significance. Unfortunately, large enough sample sizes were found in only two quantitative studies where sample populations included 813 students (Ascione, 1992) and 50 children (Katcher & Wilkins, 2000). Analysis of remaining studies presented much smaller sample sizes of 2, 3, 7, 10, and 14 (Bell, 2003; Hanselman, 2002; Heimlich, 2001; Kogen, et al, 1999; F. Martin & Farnum, 2002). While information advantageous to the advancement of AAT as a useful tool could be deduced, small case studies such as these do not allow for generalization across populations. Interest piqued, I took into consideration each study's possible motive behind such small sample sizes and

1984). Furthermore, studies were reviewed where no baseline information was acquired among participants; and so, subsequent post-test data scores were obtained in vain as they had no measures to be compared with which to compare (Ascione, 1992). If research in the field of AAT is ever going to get beyond clinical impressions, emphasis must be placed on more organized and systematically valued research.

The Value of Evidenced-Based Interventions

Evidence-based interventions (EBIs) are treatments that have been proven effective through outcome evaluations. As such, EBIs are treatments that are likely to be effective in changing target behavior if implemented with integrity. Among education researchers, the EBI movement has recently gained great momentum, especially with current developments in the fields of psychology, medicine, education, and prevention science. As policy and economic issues have entered into the dialogue, the EBI movement has attracted increasing interest among researchers, practitioners, and policy-makers in disseminating and using research-based interventions in practice. Yet using EBIs in practice has raised a new set of challenges.

With the federal adoption of Response to Intervention (RTI) as both a strategy for intervening early within general education and as a component in the process by which students may be identified to receive special education and related services, EBIs are more critical than ever (Fuchs & Fuchs, 2006). Evidenced-based interventions are a cornerstone of instruction within an RTI process. Within an RTI process, instructional strategies and interventions are based on what research has shown to be effective with

students. Using evidence-based practices ensures better results for students (Fuchs & Fuchs, 2006).

No Child Left Behind (NCLB) is a federal initiative adopted in 2001 designed to improve student achievement and change the culture of our public school system (U.S. Department of Education, 2002). The act embodies four key principles: stronger accountability for results; greater flexibility for states, school districts and schools in the use of federal funds; more choices for parents of children from disadvantaged backgrounds; and an emphasis on teaching methods that have been demonstrated to work. The Act also places an increased emphasis on reading, especially for young children, enhancing the quality of our nation's teachers, and ensuring that all children in America's schools learn English. NCLB is designed to help all students meet high academic standards by requiring that states create annual assessments that measure what children know and can do in reading and math. These tests, based on state standards, allow for the tracking of academic performance in every school in the nation. Districts and schools that do not make sufficient yearly progress toward state proficiency goals for their students are targeted for assistance. If insufficient progress continues, each is then subject to corrective action and ultimately restructuring (U.S. Department of Education, 2002). With the threat of unsolicited reform and possible loss of funding, districts have categorically espoused EBIs in the areas of literacy and math in an effort to achieve and/or maintain adequate yearly progress (Lytle, 2006).

NCLB requires that interventions used to improve educational performance are based on scientific research (U.S. Department of Education, 2002). The definition

offered in NCLB permits both quantitative and qualitative evidence without specifying the types of questions that each approach best answers (Detrich, 2006). In this context, state and district agencies are most often concerned with evidence that establishes a causal relation between an intervention and a class of social or academic behaviors. Behavior analysis research has often been criticized for limited generalizability because of the small number of participants in a research study. Generally, the developed standards for validating an intervention as evidence-based have relegated single participant designs to a lower quality of evidence (Detrich, 2006). This is problematic because in some areas of educational and clinical research nearly all of the evidence is based on these designs. The field of AAT suffers from an analogous dilemma—is the effectiveness of AAT as a technique in academic and therapeutic interventions evidenced based? Based on various protocols available for defining the "gold standard" in EBIs, it is possible to conclude that perhaps AAT does not meet the necessary criteria. There are no reasonable arguments against the value of systematically infusing research evidence into clinical practices. However, are we missing something?

Susan Rappolt (2003) outlines four critical limitations in allowing clinical practice to be dictated solely on evidence-based practice. The shortage of credible research evidence and the organizational barriers to research utilization are two limitations to evidence-based practice that are common across the health professions. The neglect of qualitative research as evidence is perhaps most pertinent to client-centered practices such as psychotherapy with the final limitation being the lack of comprehensive models describing how to integrate client and research evidence with professional expertise. As

logical as this theory would seem, as of yet, very little empirical evidence exists to demonstrate that the construct of evidence-based practice actually works. This is dangerous in that the inherent within the campaign of evidence-based practice is the perception that high-quality exploratory evidence is available to address each clinical question and proposed hypothesis. Policymakers, administrators, and stakeholders may interpret the failure to base one's practice on the results of a randomized controlled trial as clinical incompetence or lack of diligence (Rappolt, 2003).

It was this particular inference, made by an urban school district, that AAT does not meet the criteria as an evidence based-intervention, nor does it obviously address the targeted proficiencies of literacy and mathematics, that prevented continued research of AAT from theory to practice. Despite a lack of strong quantitative empirical support, what AAT does have is a surplus of qualitative evidence in its defense. Consequently, continued failure to develop systematic methods to apply the results of qualitative research in clinical decision making remains a large roadblock in the implementation of social-emotional interventions intended for small populations of students. A wealth of teaching and intervention strategies are being untapped as a result of federal guidelines and districts' anxiety over surrendering their decision-making capabilities should competencies not be realized across all demographics. By more fully appreciating the significance of professional expertise and recognizing the fundamental limitations to evidence-based practices, it is hoped that psychotherapists may be inspired to become more insightful about their clinical practices, educators may wish to contemplate novel

approaches in presenting the curriculum, and policymakers might reexamine their funding mechanisms.

Suggestions for Future Students

"Follow your passion" is easily the worst advice you could ever get or give. The reason is this: everyone is passionate about something. Think about all of the things you have been passionate about in your life—things you love to do, things you dream of doing. Those don't always translate into a research study that goes as planned and finishes with the intended products. Don't follow your passion; instead, follow your effort.

This means, think realistically about your resources prior to diving head-first into an extensive, quantitative research design. Once you factor in your time, collaborative efforts, available funding, accessibility of participants, and public attitude, you may find that pool you just jumped into is much shallower than you first realized. That being said, you will indisputably spend a great deal of time and energy on whatever topic you choose. Make sure to choose a theoretical subject that you won't mind spending many sleepless nights in the company of.

Like all relationships, you and your research will be challenged with the five stages of courtship as described by Susan Campbell (1980). Stages are not necessarily linear in process and movement can occur between all phases; but be prepared to experience each stage in the typical journey of a committed relationship and all that it will entail. Stage 1: Romance and Infatuation. According to Campbell (1980), all relationships begin with this stage. This stage is characterized by its dream-like qualities,

fantasies, hopes for the future, and the asking of "what if" (Campbell, 1980). Everything is wonderful, beautiful, fun, and exciting. Your research is new and the possibilities for enlightening the world are endless. Details are obscure and specifics are not discussed. Surely this lovely idea could only have excellent outcomes.

Stage 2: Power Struggle. You will eventually feel the need for some freedom (Campbell, 1980). Perhaps dedicating all your free time to literature reviews and methodology isn't meeting all of your social needs. Maybe a collaborator never returns your calls, like a bad boyfriend. You seem to have nothing in common anymore and everything you attempt to propose is insulted or mistaken. Believe me; there will come a day when you hate your research and doubt every invested moment. There is a pulling away from each other, a need for space, a chance to breathe...all of which is quite normal. See this as a positive, an opportunity to journey together, to learn how to reason fairly with logic rather than raw emotion.

Stage 3: The Stable Stage. By now, you are aware of your limitations and the limitations of your research topic. It is finally clear you are not going to reshape your partner (Campbell, 1980). Clear boundaries are determined. There may be is a sense of loss and a certain sadness as you realize your dreams aren't reality—that your research may not be the next great concept in world of academia. The power struggle was hard and has weathered you (Campbell, 1980). You might even be considering a breakup. At this time, you will either learn mutual respect in your limitations or choose to go your separate ways and find a new topic of study.

Stage 4: Commitment Stage. Should you choose persevere with your investigation, in this stage you are wide awake, making clear choices about yourself and your research. You see clearly who you are and want you want while accepting what your research is able to provide for you. The statement can now be made to your research and your thesis committee, "I choose to love you knowing all I know, good and bad."

Stage 5: Acceptance Stage. Research suggests less than 5 percent of relationships make it to this final stage of completion (Campbell, 1980). Don't panic; your committee will require you to reach this stage. By now, there is a great deal of warmth, mutual respect, and balance between you and your research with little resentment. In retrospection, you will determine that the journey you have taken with your research afforded you insight beyond your initial analysis. You have learned things about yourself that would have otherwise been left unfamiliar to you. You have defended your thesis, flaws and all.

Implications for Future Research

Despite promising results of many AAT programs, full acceptance into the therapeutic mainstream has been impeded by the lack of quantitative data assessing its effectiveness. Due to a number of aforementioned confounding factors, it is often difficult to make generalizations regarding the efficacy of AAT on the cognitive and behavioral outcomes of children and adolescents. While challenging, future research should try and utilize subject participation where no other special services are being provided (such as IEP, Title I, individual counseling). In order to suggest causality, AAT

should be provided in exclusion of all other potential services so that it is possible to control for other influences that might contribute to subject progress.

In this vein, greater efforts should be made to increase study sample size with subjects encompassing all demographical populations. This includes sex, race, socio-economic status, age and possible life experiences. The transference of generalizability across populations promotes itself when it comes to establishing AAT as an evidence-based practice and this can best be achieved by well-designed quantitative experimentation.

Additionally, an emphasis on more longitudinal research is recommended within the field of AAT. Of the current studies available, it is not known if the changes were long-term. Further studies that investigate AAT with child and adolescent populations are needed to more fully understand the effects of this type of intervention and the long-term effects.

Conclusions

If current trends are any indication, animal-assisted intervention programs are likely to continue to proliferate in the absence of convincing efficacy data, though not as publicly accepted or desired. The field appears to be driven forward by the ardent faith of its numerous practitioners who believe that these interventions work, and are happy to grasp at any evidence, however weak, to support their own convictions. In this respect, the development of AAT resembles the early careers of many other now-respected treatments for disorders of child and adolescent mental health. If AAT is going to succeed in moving away from the fringes of clinical practice and into the mainstream, it

will need to follow a path similar to those treatments that have been validated through large numbers of high-quality, clinical trials. In the absence of such research, the scientific, educational, and political communities will continue to assume little or no long-term beneficial impact of these interventions.

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APPENDIX A.1

PARENTAL PERMISSION

University of Northern Iowa
PARENTAL PERMISSION

The Role of Animal-Assisted Therapy in Initial Psychotherapy Sessions with Adolescents

Investigator: Erin Stromberg, School Psychology Graduate Student

You are invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to participate in this project. The following information is provided to help you make an informed decision whether or not to participate.

Purpose: This experiment will explore how practitioners might utilize pets to engage and diagnose adolescent patients during the critical first interview. The focus will be that of the using the pets, deliberately and consistently, as co-therapist within the therapy hour. It is hoped that these efforts will lay a foundation for an understanding of the pet-adolescent bond in treatment. Given the need for novel and stimulating approaches with adolescents, the area of pet-facilitated therapy with this population is a potentially fruitful field, deserving serious inquiry.

This research seeks to answer the following question: 1) Will the presence of a dog in the consulting room help a subject to relax, to enjoy self-disclosure, and to participate cooperatively in the process of psychotherapy?

Procedure: In this exploratory study, a sample of 30 newly admitted male residents at Lutheran Services of Iowa—Bremwood Campus will be randomly assigned to one of two experimental groups or a control group. Experimental subjects will be divided into one of two experimental groups: One experimental group will participate in a 45 minute interview conducted by the interviewer, with her pet present. The pet dog will be actively and consistently used as an aid to treatment. The second experimental group will also participate in a 45 minute interview conducted by the interviewer with her dog present. However, unlike the first experimental group, no interaction between the subject and the dog will take place. The dog will only be used for its presence in the room. The control group will be engage in a 45 minute interview with the interviewer alone.

The interview will be videotaped and transcribed. Only a subject's case number will be used in the transcript of the interview and any identifying information will be removed. Following transcription, all videotapes will be destroyed. You may withdraw from the

study at any time or decide not to participate at all by contacting the person in charge of the study. Your participation is voluntary. A decision not to participate will lead to no negative consequences for you.

The results of this study may be published. The published results will not include participant's name or any other information that would personally identify you in any way.

Risks: Risks to participation are similar to those naturally experienced in the initial interview. Because of the nature of the intake interview process, participants may be asked to discuss topics that may be troubling or uncomfortable. However, the interviewer will be a qualified therapist and will be trained to handle these situations in the most non-threatening way. Should it be determined that the study is causing too much discomfort for the participant, the interviewer will have the right to terminate the experiment for the well-being of the participant.

Benefits: There are no direct benefits to the participant from participating in this study. The benefits will be indirect. Potentially, this study may assist current and future therapists and school psychologists to better understand the role and benefit of Animal-Assisted Therapies in the mental health of adolescents.

Right to Refuse or Withdraw: Your child's participation in this research is completely voluntary. He is free to withdraw from participation at any time during the study or choose not to participate at all. Your decision not to participate will not result in penalty or loss of benefits to which you are entitled.

Questions: If you have questions about the study you may contact Erin Stromberg at 920-470-5423 or (if appropriate) the project investigator's faculty adviser Kimberly Knesting at the Department of Educational Psychology & Foundations, University of Northern Iowa 319-273-3840. You can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 319-273-6148, for answers to questions about rights of research participants and the participant review process."

I am fully aware of the nature and extent of my participation in the project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement and that I am 18 years of age or older.

_____ _____

(Signature of parent/legal guardian) (Date)

_____

(Printed name of parent/legal guardian)

_____

(Printed name of child participant)

_____ _____

(Signature of investigator) (Date)

_____ _____

(Signature of instructor/adviser) (Date)

APPENDIX A.2

INFORMED ASSENT FOR OLDER CHILDREN
APPROXIMATELY 11-17 YEARS OLD

University of Northern Iowa
Human Participants Review
Informed Assent
For older child approximately 11-17 years old

Project Title: The Role of Animal-Assisted Therapy in Initial Psychotherapy Sessions with Adolescents

Name of Principal Investigator(s): Erin Stromberg

I, _____, have been told that one of my parents/guardians has given his/her permission for me to participate in a project about how practitioners might utilize pets to engage and diagnose adolescent patients during the critical first interview. I understand that my participation is voluntary. I have been told that I can stop participating in this project at any time. If I choose to stop or decide that I don't want to participate in this project at all, nothing bad will happen to me. My treatment/care (include as appropriate) will not be affected in any way.

_____ _____
Name Date

APPENDIX B

INTERVIEW QUESTIONNAIRE

ID #: _____
Date of Interview _____

Interview Questionnaire

Please circle the sentences that best tell how you felt about the interview:

1. During the interview, the interviewer and I:
   1 hit it off real bad
   2 hit it off pretty bad
   3 hit it off fair
   4 hit it off pretty well
   5 hit it off real well

2. During the interview, I:
   1 didn't like the interviewer at all
   2 didn't like the interviewer much
   3 thought the interviewer was okay
   4 liked the interviewer pretty much
   5 liked the interviewer a lot

3. During the interview, the interviewer:
   1 didn't like me at all
   2 didn't like me much
   3 thought I was okay
   4 liked me pretty much
   5 liked me a lot

4. During the interview, I felt:
   1 really nervous
   2 sort of nervous
   3 just bored
   4 pretty relaxed
   5 very relaxed

5. When the interviewer asked me questions, I:
   1 really didn't want to tell her anything about myself
   2 didn't want to tell her much about myself
   3 didn't care one way or the other about telling her about myself
   4 sort of liked telling her things about myself
   5 really enjoyed telling her things about myself

6. By the end of the interview, I thought the interviewer:
   1 knew nothing about me
   2 knew just a little about me
   3 knew a fair amount about me
   4 knew a lot about me
   5 knew a whole lot about me

APPENDIX C

INTERVIEW CONTENT ANALYSIS CHART

ID #:_____

Interview Content Analysis Chart

Variable 1: Resistant Statements

		Total
1. # of statements expressing direct resistance		
2. # of statements expressing indirect resistance		
3. # of resistant silences		
4. # of direct requests to terminate interview		
5. # of indirect requests to terminate interview		

Variable 2: Provision of Affective Statements
# of Times Subject Expressed Feelings of:

		Total
1. Anger		
2. Boredom		
3. Depression		
4. Excitement		
5. Fear		
6. Frustration		
7. Gratitude		
8. Guilt		
9. Hatred		
10. Happiness		

11. Hope		
12. Loneliness		
13. Loss		
14. Love		
15. Sadness		

Variable 3: Provision of Historical Significance Material
# of Times Subject Talked About:

		Total
1. Family Members		
2. Peers		
3. Significant Losses		
4. Medical Problems		
5. Physical/Sexual Abuse		

APPENDIX D

CONTENT ANALYSIS OF INTERVIEWS: RATER'S GLOSSARY

Content Analysis of Interviews: Rater's Glossary

I. Variable: Resistance

A. Direct Resistance. Direct resistance is a straightforward refusal to provide the requested information.

Examples: "I don't want to tell you."
"I don't talk about my problems."

B. Indirect Resistance. Indirect resistance is "hedging," or the provision of a response that really doesn't answer the interviewer's question.

Examples: "I don't know."
"Maybe."
"Sometimes yes, sometimes no."
"Not really."

A "hedge," such as "I don't know," followed by a response that does supply the requested information is not counted as indirect response.

Example: "I don't know. I guess I was five."

In the above example, the "I don't know" is taken at face value, and is not counted as indirect resistance.

C. Resistant Silence. A resistant silence is a silence which indicates that the subject is choosing not to provide a response to the interviewer's active probe.

Example: I: "What was that like?"
S: (Silence)

A silence followed by a response that answers the interviewer's question is not counted as a resistant silence.

Example: I: "What was that like?"
S: (Silence) "Terrible."

In the above example, the silence is interpreted as a genuine pause, and is not counted as resistant silence.

D. Direct Request to Terminate Interview. A direct request to terminate the interview is a statement which indicates, quite forcefully, that the subject wants to end the interview.

Examples: "Can we stop now?"
"Can I leave now?"

E. Indirect Request to Terminate the Interview. An indirect request to terminate the interview is a question or statement that suggests, by inference, that the subject wants to end the interview.

Examples: "Is it almost lunch time?"
"How many more questions do you have?"

II. Variable: Provision of Affective Statements

An affective statement is a statement made by the subject about how he feels. This statement can be about how he felt in the past or how he feels now. The subject must label and express the feeling himself. An inference by the interviewer does not as an affective statement.

Example: I: "So how did that feel?"
S: (Silence)
I: "Pretty awful, I bet."
S: "Yeah."

In the above example, because the subject did not state the feeling himself, his response to the interviewer does not count as an affective statement.

Affective statements should be categorized as follows:

Feeling	Examples
Anger	"I was mad." "(it) got to me." "(it) got it my face."
Boredom	"I was bored." "It was boring."
Depression	"I was down." "I was bummed out." "I didn't care anymore." "I felt bad." "I was disappointed."
Excitement	"I look forward to." "I can't wait."

	"I tripped."
Fear	"I was afraid." "I was scared." "I was nervous." "I was worried."
Frustration	"I was confused." "I was fed up." "I couldn't stand it." "I was stuck."
Gratitude	"I'm thankful." "I'm glad that..."
Guilt	"I feel guilty." "I felt sorry." "I regret..." "I wish I hadn't."
Hatred	"I hate." "I don't like." "I dislike." "I can't stand."
Happiness	"I was happy." "I had fun." "I was glad."
Hope	"I hope." "I want." "I wish."
Loneliness	"I was lonely." "I was homesick." "I need (person)."
Loss	"I miss."
Love	"I love." "I like." "I felt close." "I trust."
Sadness	"I was sad." "It made me sad." "I cried." "I was hurt."

III. Variable: Provision of Historical Material

A. Family Members. *Tabulate mention of all family members. The family as a unit counts as "1" in the count. Family members include:

Mother
Father
Stepmother
Stepfather
Sisters
Brothers
Step Siblings
Grandmothers
Grandfathers
Aunts
Uncles
Cousins
Foster Parents
Foster Siblings
Own Child

B. Peers. *Peers are the same-age companions chosen b the subject. Fellow residents as Bremwood are not chosen and hence are not counted as peers. Count a "gang" or "group" as "1" in the count. Peers include:

Own-age friends
Girlfriends

C. Significant Losses. Significant losses and loss experiences are losses of animals, people, and things, and mentioned by the subject. Losses include:

Death
Divorce
Placement outside of the home
Moving
Break-up with a girlfriend

D. Medical Problems. Medical problems relate to the subject, only. These include:

Sickness
Accidents

E. Physical/Sexual Abuse. These incidents relate to the subject as recipient of physical or sexual abuse by adults. Such abuse includes:

Incest
Other sexual advances by adults
Being beaten by adults
Being hit by an adult

*Important note on tabulating "family members" and "peers": When tabulating mention of family members and peers, each pronoun counts as "1." Each pronoun is seen as a choice the subject makes to introduce the person again.

Example	# References to Family Member or Peer
"My mother works and she gets mad when I steal."	2
"I met my girlfriend on the beach and we go out all the time with my friends."	3