ANIMAL-ASSISTED INTERVENTIONS: AN INTEGRAL PIECE OF THE COLLABORATIVE TREATMENT PLAN

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ANIMAL-ASSISTED INTERVENTIONS: AN INTEGRAL PIECE OF THE COLLABORATIVE TREATMENT PLAN

A Project

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Division of Social Work
Abstract

of

ANIMAL-ASSISTED INTERVENTIONS: AN INTEGRAL PIECE OF THE COLLABORATIVE TREATMENT PLAN

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Statement of Problem

This qualitative study was designed using a combination of research methods to explore the benefits of using animal-assisted therapy with vulnerable populations. An analysis of the literature revealed that animal-assisted therapy is a long-standing method of treatment but there is limited empirical research that can prove its effectiveness. The research that has been done shows evidence of success among children, patients with mental illness, and older adults.

Sources of Data

The findings were based on 11 semi-structured interviews with animal-assisted intervention teams.

Conclusions Reached

The findings suggest that animal assisted intervention can help increase socialization and motivation in children, improve cognition in older adults, and help regulate emotions in mental health patients. Due to a small sample size and the limits of a small demographic area this sample may not represent a complete analysis of the
current usage of animal-assisted therapy but it does present valid research to prompt
future studies on a larger scale.

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Date
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A special thank you goes to the humans and animals that help change the lives of so many people around the world on a daily basis because of their endless commitment to providing quality animal assisted interventions.
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Chapter 1

INTRODUCTION

Ten years ago, the writer observed a group of women recovering from trauma interacting with a horse. They had been victims of brutal violence, rape, and other atrocities who had difficulties in establishing trust and were constantly vigilant and easily reactive. Within minutes of meeting the horses, the women began to soften and express calmness and peace in reaction to them. This was the first exposure this writer had to Animal Assisted Intervention (AAI) as part of a group of students studying an equine therapy model and its effects on patients who were recovering from trauma. It was a remarkable experience and the writer began to look for other therapeutic uses of animals in the community.

Although dog companions are most commonly used in AAI, a broad range of animals have been included in research being done about the human-animal bond (Buttons, n.d.; Hart, 2000; Nimer & Lundahl, 2007). Fish have been found to reduce anxiety in people (Katcher, Segal, & Beck, 1984), and birds are valued for their companionship and by “talking” to their owner (Kidd & Kidd, 1998). Cats can make excellent companions in settings that need a low level of interaction. They require less effort than dogs and are “entertaining, beautiful, and offer companionship with calm interactions” (Hart, 2000, p. 93). Horses have been a commonly used animal in equine therapy, hippotherapy, and therapeutic horseback riding. It has been shown that equine therapy requires a professional therapy team and requires much effort to participate in,
but the physical experience of riding a horse in a therapeutic environment is so unique that it has continued to be in demand over the years (Beck & Katcher, 1996; Hart, 2000; Serpell, 2000). Guinea pigs and domestic rats have also been found to be used with children as they are calm, quiet, and require little care or training by their owner (Hart, 2000).

Within the social work field, there is a constant demand for treatment that can be effective to a variety of populations at different levels of service. Collaboration among professionals such as teachers, doctors, nurses, occupational therapists, physical therapists, and social workers can help achieve this goal. In our country today many treatment plans are multi-modal in their approach (Corson & Corson, 1980; Francis, 1981; Friedmann, Katcher, Lynch, & Thomas, 1980; Levinson, 1969). These multiple disciplined plans are developed by teams of professionals who work together to coordinate each of their methods into a treatment plan (Arkow, 2000). This need for an effective treatment plan embraces the concept of the “symbiosis of a relationship” where different disciplines come together to create “synergy” among treatment teams. The benefit of this “synergy” is that the whole team is greater than each of the disciplines that create it (Arkow, 2000).

AAI is a valuable form of treatment that continues to gain support in medical, social, and veterinary scientific research (Beck & Katcher, 1996; Corson, Corson, Gwynne, & Arnold, 1975; Levinson, 1969; Serpell, 2000). It can produce an improvement in psychosocial behaviors that can be difficult to treat due to the symptoms
of these disorders. There is an inherent attraction among many in people in our society that connects them instinctively and emotionally to a variety of animals. The opportunity for unconditional love, acceptance, and appreciation from a pet attracts many people. AAI can also improve physiological problems that need additional support from another method outside of traditional medicine (Friedmann et al., 1980). In social work there is a great deal of work done in psychosocial and physiological subject matter and AAI can help increasing effectiveness in these areas.

**Background of the Issue**

Animal-assisted interventions have existed for several decades and there is a small but growing knowledge base about the benefits it can bring to a variety of populations. One of the complicating factors in understanding AAI is the multiple terms or titles that reference the work being done. There are several words used to describe the use of animals in conjunction with human interaction. In the past, this was referred to as “Pet Therapy.” The term went out of favor with professionals involved with this form of therapy because there has been an increase in the variety of therapeutic environments in which animal assistance is used.

Currently, three common terms are used to describe human and animal interactions. One term is Animal-Assisted Intervention (AAI), which describes the therapeutic processes that intentionally includes or involves animals as part of the process (Fine, 2000). This is used as the descriptive term in this study, which includes two different methods of human and animal interventions. One of the methods is referred to
as Animal-Assisted Activities (AAA). The term is defined as an activity the animal can perform with a group of people. The settings for such interactions are nursing homes and schools. AAA does not have specific treatment goals and the visit is generally unstructured and spontaneous in its results (Buttons, n.d.). Another method is referred to as Animal-Assisted Therapy (AAT). Delta Society is very specific about the technical term Animal-Assisted Therapy on their main webpage (Deltasociety.org):

Animal-Assisted Therapy is a goal-directed intervention 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. (Buttons, n.d., para. 3)

AAT is very structured and is developed individually based on treatment goals. This is a method that would be used in physical therapy by a professional as part of a treatment plan. These goals can be focused on improving movement, such as assisting a patient to increase ambulatory skills by walking an animal around the building.

In social work there is a code of ethics that highlights a need for comprehensive care that meets the needs of at-risk and vulnerable populations. Although there are traditional therapies such as cognitive behavioral therapy and talk therapy that have a foundation of empirical data supporting success, there are populations that can benefit from a secondary level of treatment method. Secondary forms of treatment are often holistic in their approach and considered part of an ecological theory. Therapeutic
activities used in conjunction with primary treatment methods include art, music, gardening, health, and fitness. The addition of animal-assisted intervention in a treatment plan can enhance a patient or child’s quality of life.

**Statement of the Research Issue**

AAI is a valuable therapeutic tool being used in hospitals, schools, nursing homes, and correctional facilities (Corson & Corson, 1980; Francis, 1981; Friedmann et al., 1980; Levinson, 1969). It is important that social workers are exposed to this option as a therapeutic tool. There is a rich history and storytelling involving both animals and people, but additional quantitative studies have started to appear within the last 20 years. There is a growing interest in the benefits of this type of experiential therapy among professionals in the fields of medicine, social work, psychology, occupational therapy, and education (Arkow, 2000; Beck, 2000; Fine, 2000; Friedmann, 2000; Hart, 2000; Kidd & Kidd, 1998; Levinson, 1969; Nebbe, 2000; Serpell, 2000). Many types of treatment can be most effective when used as ancillary treatment with a variety of approaches including a client-centered experience such as AAI (Beck & Katcher, 1996; Rogers, 1980). Clients are individual and they respond to forms of treatment in different ways (Arkow, 2000). Social workers are committed to the best course of treatment for their clients, and collaborating with other disciplines can be a key factor in a client’s success.
**Purpose of Study**

The purpose of this study was to explore how AAI is being used with populations such as children needing psychosocial services, the severely mentally ill, and the elderly in long-term care facilities. These hard-to-reach patients can benefit from a multi-modal approach in treatment, and social workers can gain new insight into the advantages that can result from working in collaboration with animal therapy teams. By researching AAI and its effectiveness, this study can broaden the awareness of animal assisted intervention in a therapeutic setting. Effectiveness in AAI is often measured by pre- and post-experiment tests that evaluate behaviors, verbal skills, and variance of moods (Beck & Katcher, 1996; Corson et al., 1975). Additional functions of this study were to use research of existing literature and collected qualitative data to legitimize animal assistance as an integral piece of therapeutic treatment and to substantiate the success of AAI when used in conjunction with other treatment methods.

**Theoretical Foundation**

The use of animals as a therapeutic agents meets with the intention of the client-centered theory. The theoretical perspective that applies to the use of AAI is the person- or client-centered theory developed by Carl Rogers (1980). This theory is based on developing a relationship with a person and then creating a therapeutic style for that person to help them grow in desired interpersonal and emotional goals. There are three core conditions in person- or client-centered theory: congruence, acceptance, and empathy (Rogers, 1980; Rothery & Tutty, 2008). By including these qualities into the
therapeutic relationship, a person can grow personally in previously insufficient interpersonal conditions. This theory is also referred to as “Nondirective” therapy and is a style that reflects the client’s feelings back to them (Rogers, 1980).

The benefits of using animals in a therapeutic relationship come from congruency, acceptance, and empathy, which are the core conditions of this therapeutic method. The first step in the process in developing a relationship with a person is agreeing to work together (Rothery & Tutty, 2008). An example of Rogers’s core condition of congruence is shown in Corsons’ (1975) research during the early years. They measured success of a dog-human interaction in a hospital where the pair had been matched up based on their personalities (Beck & Katcher, 1996; Corson et al., 1975; Rogers, 1961). The Corsons felt this was an important piece of the therapeutic relationship between therapist and patient. When an animal is used to interacting with a person, there is a natural instinct that it is there to support that person emotionally and sometimes physically for a similar positive goal.

Acceptance is the second condition and it simply fits in appropriately with the therapeutic interaction with an animal. Animals can offer unconditional positive responses to a client experiencing negative circumstances even at their own fault and without hesitation (Rogers, 1961). An animal does not judge a person based on their appearance, speech, or cognitive skills. They are accepting of a person’s condition and respond in a way that acknowledges the person’s core foundation of strength and courage (Beck & Katcher, 1996; Serpell, 2000).
The third and most valuable condition in developing an effective therapeutic relationship is having empathy. Rogers’s (1961) intention in using this as a piece of his therapeutic method was to encourage the therapist to listen to the person, carefully take in the person’s feelings and perceptions and then communicate that understanding and relate it back to the person. Oftentimes a person will use an animal in this role simply by movement and expression. In a case that involves a person struggling with depression, it can often be difficult to put into words their experience. For a doctor treating a patient, they can only imagine the person’s words, but when an animal is involved it seems to intuitively know the feelings the person is experiencing (Beck & Katcher, 1996; Serpell, 2000). In regard to AAI, these conditions are important factors because therapeutic success depends on the client’s ability to form a relationship and interact with the animal on their own ability level and at their own pace of willingness.

Another important theory that can be seen in AAI is Attachment theory. AAI is a significant therapy tool that can be used with children or adults who have had trauma in their lives (Beck & Katcher, 1996; Levinson; 1969; Serpell, 2000). It has been demonstrated numerous times that clinical therapy with a pet and a client can be effective when traditional talk therapy had not been (Levinson, 1969). Levinson did most of his work around children, attachment theory, and animal involvement. With so many different theories and therapies that can apply to these populations, it is important to realize that a “clinician’s theoretical orientation will have a strong bearing on the incorporation of animals within his or her therapeutic approach” (Fine, 2000, p. 189).
Definition of Terms

Animal-assisted Activity (AAA)

Animal Assisted Activities are basically the casual “meet and greet” activities involving pets visiting with a group of people. An application would be in a long-term care facility for the elderly. There is no specific treatment goal and the visit is unstructured and spontaneous in results (Buttons, n.d.).

Animal-assisted Interventions (AAI)

Therapeutic processes that intentionally include or involve animals as part of the process. Animal-assisted interventions are still being defined both in the academic literature and in practice (Fine, 2006).

Animal-assisted Therapy (AAT)

AAT is a goal-directed intervention that includes an animal that meets specific criteria in treatment. AAT is directed and/or delivered by a health/human service professional with specialized expertise within the scope of practice of his/her profession. Key features include specified goals and objectives for each individual and measured progress (Buttons, n.d.).

Delta registered therapy teams

Delta registered therapy teams undergo a screening and training for both the human and the animals involved. The training includes learning skills needed to safely visit hospitals, nursing homes, and classrooms (Buttons, n.d.).
Delta Society
Delta society is a non-profit organization committed to bringing people and animals together to live happier lives. The society is centered in research that continues to help support the benefits of therapy, service, and companion animals (Buttons, n.d.).

Handler
The human part of an AAI team. This is typically the animal’s owner who has been trained in handling the pet in a therapeutic environment (Buttons, n.d.).

Human-animal bond
The human-animal bond is a mutually beneficial and dynamic relationship between people and animals influenced by behaviors essential to the health and well-being of both (American Veterinary Medical Association, n.d.).

Service animal
The Americans with Disabilities Act of 1990 (ADA) defines a service animal as “any guide dog, signal dog, or other animal individually trained to provide assistance to an individual with a disability” (American with Disabilities Act [ADA], 1990, para. 3). The role of the service animal is to perform some of the functions and tasks that the individual cannot perform as a result of their disability (ADA, 1990).
Therapy dogs

Therapy dogs are screened and trained to provide assistance to people they visit. They are not considered “service” dogs and do not have a government title to protect their entry to public places (Buttons, n.d.).

Therapy team

A therapy team is an animal and their handler. These two work in conjunction with skills and training they have learned (Buttons, n.d.).

Assumptions

The researcher assumed the study’s subjects would answer truthfully to the questionnaire and conversation that took place. The writer also assumed the subjects had used either AAI as a method of assisting with a therapeutic goal or provided an interactive activity (AAA) with a social service population. The writer assumed the subjects could define success in their role in providing AAI and that they understood the questions asked of them in the questionnaire.

Justification

This study is a valuable contribution to the field of social work because it provides a perspective on how AAI has developed and how it is currently being used. This study demonstrates why AAI works and how that knowledge can contribute to a social worker’s treatment plan. This combination of contributions also serves the purpose of legitimizing AAI as an integral piece of therapeutic treatment.
Limitations

The limitations to this study include the availability of the subjects during the interview process. The subjects were limited only to those registered by Delta Society, which excluded those registered by other organizations. The database Delta Society provided could be incorrect, therefore including subjects no longer registered. The subjects could have changed their mind about participating in the study or canceled the interview. The participating subjects had dogs and the study cannot be generalized to those who use other types of animals.
Chapter 2

LITERATURE REVIEW

Introduction

The literature about animal-assisted interventions reveals encouraging amounts of research that has been done to substantiate stories of success. Historical literature on AAI portrays a resourceful group of professionals dedicated to an exploratory type of treatment (Beck & Katcher, 1996; Corson et al., 1975; Levinson, 1972). Throughout the years AAI has gained momentum supported by additional research in several areas. Since then, studies have been done to evaluate the effects of AAI on children, and using animals with children has proven to be a natural application.

The research has shown that children having difficulties with socialization (Martin & Farnum, 2002), reading skills (Jalongo, Astorino, & Bomboy, 2004), or who suffer from trauma respond well to interventions with animals (Eggiman, 2006). In addition, research data reveals that patients in mental health settings also show improvement in mood stabilization (Folse, Minder, Aycock, & Santana, 1994) and independent living skills (Kovacs, Kis, Rozsa & Rozsa, 2003). There is a large amount of literature that investigates the interactions of older adults with animals. AAI has frequently reduced symptoms of depression (Beck, 1988; Le Roux & Kemp, 2009), increased cognitive functioning (Dennis & Allen as cited in Le Roux & Kemp, 2009) and improved quality of life (Sockalingam et al., 2008). Current research of the animal-
human bond is exploring AAI as a “nature therapy” model that emphasizes a holistic and multicultural approach (McCulloch, 1984).

**History of Animal-Assisted Intervention**

Animals have been used within the therapeutic community for many years, but its beginning was in the medical field over 200 years ago (Beck & Katcher, 1996; Friedmann, 2000; Levinson, 1972; Serpell, 2000). There are reports that the famous psychoanalyst Sigmund Freud depended on his dog Jo-Fi for assessing a patient’s mental state (Beck & Katcher, 1996; Eggiman, 2006; Friedmann, 2000; Levinson, 1972; Serpell, 2000). He believed that Jo-Fi could signal a patient’s level of tension by where he would lay in the room. Apparently Jo-fi would stay close to the patient if the patient was free of tension; if he lay across the room, the patient was tense. Freud thought that Jo-fi had a calming effect on his patients, in particular children. Jo-Fi also helped end the session by pawing at the door. Although this is reportedly just a rumor, it fits into the current theory of animals and their instinctual connection to people.

The first documented case of animal-assisted intervention appears in 1792 at the York Retreat in England. While using rabbits, chickens, and other farm animals, William Tuke noted that animals would “enhance the humanity of the emotionally ill” (Beck & Katcher, 1996, p. 132). The Tuke family was committed to providing a new and then revolutionary approach to treating the mentally ill in a hospital setting. A similar enterprise was founded in 1867 at a home named “Bethel” in Bielefeld, Germany. This was a home run for epileptic patients and animals were used in the daily routine (Beck &
Katcher, 1996; Brodie & Biley, 1999; Bustad, 1980; McCulloch, 1982). Birds, cats, dogs, and horses were used. It was a large operation with 5,000 patients and 5,000 staff, and they realized that using pets to help people was just common sense and accepted it as an appropriate and reasonable way of life. In 1977, when Bustad visited the house, after over 100 years in operation, no recorded observations were made on the effect the animals had made on the behavior of the patients. No quantifying studies had been done, but their observation was that animals were helpful to the patients (Beck & Katcher, 1996; Bustad, 1980; Levinson, 1969).

During the 1940s, the first recorded use of animals being used in therapy in the United States was at the Pawling Army Air Force Convalescent Hospital in Pawling, New York. This hospital received injured air force men from all over the world during WWII (Beck & Katcher, 1996; Levinson, 1969). The patients were in varying degrees of injuries and they needed a restful activity while recuperating. The patients were encouraged to work at the center’s farm among chickens, hogs, cattle, and horses. The dogs offered an outlet for recreation and then became therapeutic in value for some patients by presenting a responsibility for care and training and distracting the patient (Beck & Katcher, 1996; Levinson, 1969).

In 1960s a breakthrough came with the contribution of psychotherapist Boris Levinson when he inadvertently discovered that a dog could be used as an “accessory” in the treatment of disturbed children. Levinson found an unplanned intervention when he left his dog Jingles alone with a young boy who had been unsuccessful at previous
therapy (Levinson, 1969). The recommendation had been to hospitalize the boy who had been withdrawn and distraught. While Levinson was greeting the mother, Jingles was drawn to the boy and began to lick him. The boy became immediately interested and began to pet him and cuddled up to him. The boy then asked his mother if they could come back so he could play with the dog. At that point the therapy began with subsequent sessions in which the boy played with the dog while conversing with the doctor. “Eventually, some of the affection elicited by the dog spilled over onto me and I was consciously included in the play” (Levinson, 1969, p. 42). After the event, Levinson and the boy developed a relationship that enabled the doctor to help the boy with his problems. This experience is the catalyst to the beginning use of the term “pet therapy.” Levinson continued to refer to Jingles as his “co therapist” (Beck & Katcher, 1996; Levinson, 1969). Levinson (1969) explains:

A child who finds it most difficult to verbalize and to tell us how he feels about things and about his dreams, relationships, etc., finds his “tongue” when he has to discuss his problems with the dog. (p. 73)

Levinson was joined in his interest in animal-human relations by Samuel and Elizabeth Corson in the 1970s. A historical significance to the Corsons’ work was their scientific perspective of doing quantitative analysis research with animals. In contrast, many studies that have been done measured qualitative data based on observational findings or anecdotal stories (Beck & Katcher, 1996; Corson et al., 1975; Levinson, 1972). One of the early studies the Corsons performed was measuring the effects of
animals interacting with patients in a hospital setting. The participating patients had failed other forms of traditional therapy such as individual and group psychotherapy, drug and electroshock therapy, and occupational and recreational therapy (Beck, 1996; Corson et al., 1975). There was an improvement in “verbalizations, emotional expressiveness and there was a reduced tension level among patients which enhanced the patients social interactions and in their overall happiness” (Corson et al., 1975, p. 87).

Studies of companion animals being used in the medical field have revealed that patients recovering from coronary heart disease have had an increased rate of survival compared to those who did not interact with an animal (Friedman et al., 1980). Improvements in blood pressure can also be made among the institutionalized older adults when relating with animals.

While interacting with an animal, a person can feel needed, accepted, and loved due to the care they are giving to the animal and the positive response they receive. These feelings are considered the foundation of the human-animal bond and can help alleviate depression and increase self-esteem (Bardill & Hutchinson, 1997). Many domesticated animals have been used in the therapeutic process such as fish, birds, cats, and horses. Dogs seem to be the most natural for many people with regard to bonding. Dogs are also commonly used due to their even temperament and ability to be trained (Sockalingam et al., 2008). The even temperament is especially helpful when working with children.
Using AAI With Children

Literature regarding AAI and children is extensive and includes a wide range of therapeutic uses. Children develop at a rapid rate both physically and psychologically and a pet-person relationship can benefit them in many ways (Beck & Katcher, 1996; Blue, 1986; Levinson, 1969). Children improve in psychosocial areas that include having feelings of love, having empathy, developing comfort, and security. Sensory-motor skills can be developed by brushing an animal’s coat or teeth and by teaching new tricks (Blue, 1986). Interpersonal areas of social ability such as being responsible, nurturing others, and being confident in personal ability can be advanced with partnering with an animal. Significant foundational issues surrounding life, death, and grief can also be taught through this type of experiential therapy (Beck & Katcher, 1996; Blue, 1986; Levinson, 1969).

Research has shown that AAI is effective when working with children on the autism spectrum. One of the disorders on the autism spectrum is pervasive developmental disorder (PDD) (American Psychiatric Association [APA], 2000). Behaviors associated with PDD are lack of social skills, being socially withdrawn, being disinterested and disengaged from the social environments, and abrupt physical movements such as hand flapping (APA, 2000). A study was performed to evaluate interactions between dogs and children with negative behaviors associated with PDD. Measured areas included fine motor control, cognitive performance, cognitive verbal performance, and hand eye coordination (Martin & Farnum, 2002). The study involved
the child’s interaction with a live dog, a stuffed dog, and a “non social” toy (ball). The study showed the children had higher activity levels and an increased level of interest in their environments for longer periods of time and on a more frequent basis when in the presence of a therapist with a dog versus with the therapist alone, the ball, or stuffed dog. During these interactions with the therapist and the dog, the children had an increased ability to stay on topic and keep the conversation relating to their environment (Martin & Farnum, 2002).

Many studies and articles revealed that AAI has been used with children in hospital settings. In 2006, a study was done to explore the effectiveness of animal interactions with children in a pediatric pain management program within a hospital setting (Sobo, Eng, & Kassity-Krich, 2006). Twenty-five participants who had undergone surgery were experiencing acute postoperative pain. This descriptive study revealed results reporting that the children were distracted from their pain and had increased pleasure and happiness. A benefit to using AAI as a form of treatment was that it resulted in the decrease in the use of anxiety and pain medication. Pain management has been shown to be a large consideration on the part of doctors and parents when a child is recovering from surgery. A goal in treating pain is having a comprehensive approach with more than a pharmaceutical solution (Beck & Katcher, 1996). Reducing pain medication in children can decrease negative side effects that can be experienced. There are also studies that show a child’s pain is longer in duration if the medication is difficult to acquire in a timely manner. It has been reported in post treatment interviews
with the parents of the children that the children were able to calm down faster and become more peaceful in addition to using decreased amounts of anxiety and pain medication (Sobo et al., 2006). When a companion animal is petted, the experience can distract an individual from his/her own feelings of nervousness, anxiety, and pain. Petting the animal has been shown to decrease blood pressure (Katcher, 1981) increase relaxation and encourage a feeling of peace (Sobo et al., 2006).

Literature shows that children often use an animal as a transitional object while forming attachments (Levinson, 1972). When working with children, it is important to create an attachment, a “behavior that is a biologically-based set of actions that is initiated by both human and animal companionship” (Levinson, 1972, p. 125). An animal can be used as a transitional item to decrease the initial shock of beginning work with a therapist or beginning a new group therapeutic experience. As the children interact with the animal in different activities, they eventually include the therapist in the experience (Levinson, 1972). Over time, the relationship resulted in the children increasing verbal behaviors with the therapist. This example of using an animal as a transitional item is important as it demonstrates that AAI in conjunction with other traditional therapies can be effective (Beck & Katcher, 1996; Levinson, 1972). An important discovery in the literature was the reported increase in verbal interactions and displays of affection when animals were involved with children in a therapeutic environment as opposed to the restrained behavior displayed with adults (Beck & Katcher, 1996; Triebenbacher, 1998).
Multiple qualitative case studies show that AAI works well with children who have experienced trauma (Beck & Katcher, 1996; Eggiman 2006; Levinson, 1969; Phillips-Parshall, 2003; Reichert, 1998). The qualitative case studies are more common than quantitative data because they can provide a detailed multi-perspective view of how an animal can effectively reach a child who is the victim of trauma. A case study was done about a child named “Annie” who lived with a foster family and had a history of chronic sexual and physical abuse by her stepfather (Eggiman, 2006). She was brought in to therapy because of behavior problems such as lying, stealing, hyperactivity, sexually acting out with the family dog, masturbating, aggressive behaviors with her siblings, temper tantrums, and an inability to become calm and relaxed. Annie had symptoms of Post Traumatic Stress Disorder (PTSD) (APA, 2000) such as hyper vigilance at night, the inability to concentrate, hyperactivity, and numb feelings. Annie was matched up with a therapist and a therapy dog named “Kotter.”

The treatment goals developed for Annie were based on developing a sense of safety with the therapist, stabilizing her mood, and education on proper interactions with others (Eggiman, 2006). In addition, there were goals focused on reducing her aggressive and sexually inappropriate behavior while increasing her attention span and ability to focus and follow rules. While Annie was with Kotter, she followed the rules for petting him, her muscles were relaxed, she sat quietly on the floor with Kotter’s head in her lap, and she shared thoughts and feelings about her mother. Eventually Annie felt safe and secure enough to disclose more memories of abuse during her sessions with Kotter.
The therapy resulted in a decrease in Annie’s negative behaviors and improved her positive actions at home and at school. Annie learned that the calm feeling she felt with Kotter could help her reduce anxiety at night, which enabled her to sleep. Another treatment goal achieved was improving her ability to focus and follow rules. This ability allowed her to use these skills in completing homework assignments and following rules in her home for bedtime. Annie also made progress on her interpersonal skills while interacting with others. Her foster mother reported that Annie had gotten friendly with a family friend’s dog and she discussed how to treat the dog and informed others that hurting the dog was not allowed. Annie felt empowered by speaking up for the dog. It showed new compassion and is progress that shows many levels of trauma recovery.

Resulting behavior in this case study showed that AAI can effectively assist in managing a child’s behavior and in demonstrating a sense of calm.

Recent research has grown to explore a wide range of school settings in which children and animals interact with therapeutic success. In a school environment, there are stressors in many places as children are exposed to challenging learning situations, social interactions and, at times, physical pains. Studies have shown that responses to animals can relieve stress, decrease anxiety, and increase focus (Barker & Dawson, 1998; Beck & Katcher, 1996; Brodie & Biley, 1999; Levinson, 1969; Reichert, 1998). There is empirical evidence that measures physiological responses to having an animal in a child’s presence. These studies show a reduction in heart rate, lowered blood pressure, and other signs of reduced anxiety (Katcher, Friedmann, Beck, & Lynch, 1983). In a situation in
which a child had to undergo medical tests or read aloud at school, the presence of a calm, attentive dog was more effective at reducing stress and anxiety than having a supportive friend or adult (Friedmann, Thomas, & Eddy, 2000). School and library programs that promote reading literacy use the presence of animals to encourage reading aloud skills. The Reading Education Assistance Dogs program (R.E.A.D.) by Intermountain Therapy Animals (ITA) in Salt Lake City, Utah has had success with their program that has had pet-partner teams in schools working with teachers and reading specialists since 1999 (Bueche, 2003; Jalongo et al., 2004). Teachers typically choose a student who may be challenged and needs to build confidence in their reading skills. As the student reads to the animal for a predetermined time he/she is encouraged to meet individual goals set by their teacher. According to ITA Executive Director Kathy Klotz, the R.E.A.D. program helped students improve by at least two grade levels and some improved as many as four grade levels within a 13-month period (Bueche, 2003).

Children who struggle with peer interaction at school due to a disability may benefit from a service or companion dog. In his research, Katcher found that a child without disabilities was 10 times more likely to interact with a peer who had disabilities if the child was accompanied by a dog (Brown & Katcher, 1997). Using animals as a “social lubricant” can facilitate new communication between children and adults (Levinson, 1969). For many children with learning disabilities or who have special needs, an animal can make a positive difference in their social and educational experience at school (Jalongo et al., 2004).
Researchers seem to be in agreement with the benefits of using AAI with children in a variety of settings. The literature exhibits the benefits of using animals to offer unconditional acceptance, motivation for improved behavior, and increased educational skills. These are also positive goals that apply to patients in mental health settings.

**Using AAI in Mental Health Applications**

Many mental health rehabilitation settings are multidisciplinary and the patients require a treatment plan that includes both medical and psychiatric strategies. There are a variety of mental health populations that have been studied using AAI such as schizophrenic patients, those who have psychotic features or mood disorders, and adolescent psychiatric patients. Chronic schizophrenic patients can have difficulty with social skills, problem solving, and other living skills (APA, 2000). In an institutional setting, a patient’s adaptive functioning decreases compared to in non-institutional settings. A study was done to evaluate the effectiveness of using AAI with middle-aged schizophrenic patients who lived in an institution (Kovacs et al., 2004). It was determined that the AAI improved independent living skills such as domestic activities, health, leisure, money management, eating and grooming. The most significant changes were found in the domestic and health areas in addition to social skills (Bauman, Posner, Sachs, & Szita, 1991). The results showed AAI would enhance the adaptive functioning and decrease the non-adaptive functioning of the patients. In addition, the results illustrated that the severely impaired patients formed a strong bond with the dog and completed the entire nine-month study. Assault victims with a concurrent mood disorder
such as depression or bipolar can benefit from the supplemental use of an animal in their treatment plans as well (Sockalingam et al., 2008).

Patients who suffer with schizophrenia have difficulty communicating with others. A significant set of symptoms relating to abnormal communication patterns include erratic body movements along with the low frequency and quality of verbalizations. It has been proven that patients with schizophrenia exposed to AAI can make significant improvements in relevant verbal remarks, appropriate eye contact, and body posture (Bauman et al., 1991). AAI has been shown to reduce anxiety levels in patients with psychotic disorders at nearly twice the rate than recreation-only therapy (Barker & Dawson, 2003).

A study of depression among adult college students was done to evaluate the effectiveness of AAI and mood disorders (Folse et al., 1994). The Beck Depression Inventory was used as measurement in the self-reported study. Students in the AAI group showed significant improvement in their moods in comparison with the control group not using AAI. A study was done by examining the effects of animal-assisted intervention on adolescents hospitalized in a psychiatric treatment facility (Bardill & Hutchinson, 1997). The study had 30 participants with acute or chronic mental problems including depression, conduct disorder, adjustment/ineffective coping disorder, post-traumatic stress disorder, schizophrenia, eating disorders, bipolar disorder, and attention deficit disorder. For one month, data was collected from the patients in the form of personal notes written in daily journals about their feelings and experiences with the dog.
named Graham. In addition to personal reporting from the patients, the staff made observations of unprompted interactions with Graham. Their participation in daily activities within the milieu of the unit was also measured.

The results of the study found several descriptions that highlighted how the dog affected the harsh environment of the unit. Patients reported that their fear of the psychiatric unit was minimized, that the institution felt more “homelike,” and felt more friendly and calm (Bardill & Hutchinson, 1997). For some patients, Graham represented a protector and helped them feel safe. For others, he served as a replacement for missing relationships and emotions and they praised Graham as a friend and listener. In their personal notes, the adolescents often felt rejected by their family and society, but they felt Graham gave them someone to talk to without fearing judgment or betrayal. The patients often would be unfamiliar with positive emotions such as touching or hugging.

Graham served as an interactive learning tool expressing many social and emotional skills for the struggling teens. It was observed that the patients often physically interacted with feeling and by touching the dog in a loving way while unaware of their actions. Teaching Graham tricks and providing daily care for him gave the patients a feeling of pride in a job others could witness. This feeling may be unfamiliar in an adolescent with a troubled history and this can be a valuable experience for them to have. It was observed by staff that even the most self-centered patient upon arrival would progress to being able to identify when Graham needed care, such as food, water, or exercise.
Graham also seemed to have the role of keeping the unit safe from volatile behaviors. It was identified that he became a distracter who could divert a patient who may be upset and their temper escalating (Bardill & Hutchinson, 1997). The patients reported that Graham could take their mind off of their problem in a way the human staff could not. The patients and staff agreed Graham seemed to demonstrate a unique sensitivity to the patients on the unit. The term “sixth sense” applied to many animals seemed to help Graham find the patients who most needed him, whether it was from a medical or psychiatric problem.

The results have been evaluated and researchers seem to be in agreement that AAI has demonstrated it can be utilized with varied populations in mental health settings. A treatment plan that includes animals can include goals such as improving self-care, increasing communication skills, increasing social interactions, and reducing emotional volatility. These treatment goals are also applicable when treating older adults with negative symptoms related to dementia, Alzheimer’s, and a decline in health and quality of life.

**Using AAI With Older Populations**

A review of the literature on AAI reveals there is an overwhelming interest in using animals with older adults. There are a variety of applications in which animals can be used with older adults such as those with symptoms of Alzheimer’s, dementia, depression, loneliness, and anxiety (Cohen-Mansfield, Dakheel-Ali, & Marx, 2009; Le Roux & Kemp, 2009; Levinson, 1969; Sellers, 2005). When older adults make the
transition into a permanent long-term care facility, their quality of life changes based on their new environment and the circumstances they are in. Oftentimes the changes will result in reduced quality of life by an increase in isolation and depression (Hart, 2000). A companion animal can provide positive psychosocial health benefits that improve the quality of life and potentially extend it. Having an interaction with visiting animals on a regular basis can bring back fond memories and a feeling of comfort. Contact with an animal can also increase the opportunities for social interaction and communication with other residents (Le Roux & Kemp, 2009). A variety of study results are available that discuss animals relating to the elderly. Existing literature is largely based on anecdotal stories or case studies, but there is some empirical evidence available.

Research has been done to measure the effect AAI had on levels of depression in older adults (Beck, 1988; Le Roux & Kemp, 2009). In a long-term care facility, elderly patients suffering from depression were studied and data was collected from 15 patients before and after AAI treatment. The data was evaluated by the Beck Depression Inventory (BDI), which collects patient responses related to symptoms of depression such as hopelessness and irritability, thoughts of guilt or persecution, as well as physical symptoms such as fatigue (Beck, 1988). The AAI group interacted with the dogs by talking to, grooming, and petting the dog. The results from the study found that the AAI group had an increase in their social interactions due to conversations initiated about the dog and by pleasant feelings created from memories that surfaced in recollection of having pets during their youth (Beck, 1988; Le Roux & Kemp, 2009).
Literature demonstrates a pattern of effectiveness in AAI treatment with elderly dementia patients. A study was performed to examine the effects of AAI on the social and agitated behaviors of older adults with dementia who resided in long-term care facilities. Behaviors that are symptoms of dementia or Alzheimer’s can be very challenging for caregivers and disruptive for other patients around them (Beck & Katcher, 1996; Kawamura, Niiyama, & Niiyama, 2009). It is important to note the clinical significance of “quality of life” referred to as “a sense of satisfaction with life in terms of physical comfort, emotional well-being and interpersonal connections” (Kuhn, Ortigara, & Kasayka as cited in Sellers, 2005, p. 72). An improvement in emotional well-being and interpersonal connections can be evidence of increased social behaviors (Sellers, 2005). To improve the quality of life within the institutional environment, many diverse types of therapeutic interventions have been evaluated for their effectiveness in controlling agitated behaviors. It is important to reduce inappropriate and problem behaviors to increase the functioning of the staff and to minimize disturbing other patients or family members.

In a small nursing home, four participants were studied and their behaviors were coded into four sub-types of aggression: verbally non-aggressive (VNA), verbally aggressive (VA), physically non-aggressive (PNA), and physically aggressive (PA). Aggressive behaviors measured included cursing, repetitious mannerisms, and aggressive verbal language. Social behaviors such as the use of appropriate speech, making visual contact, and using facial expressions were also measured using a behavioral observation
A significant difference was demonstrated by an increase in social behaviors and a decrease in the number of agitated behaviors from baseline to treatment. By reducing the quantity of negative behaviors while using the supplemental treatment of AAI, a person’s quality of life can increase. Another factor impacting quality of life for elders in a nursing home is an ability to communicate and engage with staff, other patients, and their families. It is important for patients to engage in social interaction, and using animals as a focus point can be effective (Marx et al., 2010). Quality of life for elders with dementia can increase through using AAI to stimulate awareness, reduce agitation, and increase social behaviors (Sockalingam et al., 2008).

Recent research on nursing home residents with dementia demonstrates that AAI often has good treatment results because it provides a social interaction not dependent on the patient’s level of cognition (Cohen-Mansfield et al., 2009; Sellers, 2005). A benefit to this treatment is that a meaningful exchange with an animal does not require any verbal skills. A dog is adept at reading subtle body language and can respond appropriately. There is unconditional acceptance of the patient’s appearance or verbal repetition by an animal. It is necessary to use a multidisciplinary approach to improve physical, psychological, and social issues with this population. Treatment goals for the elderly using AAI/A can be to reduce isolation, depression, and anxiety and, therefore, improve cognition and quality of life (Le Roux & Kemp, 2009). These are all treatment goals that are a natural process in a lifespan. AAI is often viewed as enhancing the natural process by encouraging a human animal bond.
AAI as Nature Therapy

AAI is a holistic and natural method of treatment that can be used to assist a patient without any outside medical or cognitive interventions. There are situations when patients cannot take pharmaceutical drugs or may be unable to verbally communicate with staff. It is in such situations that social workers should consider AAI as a natural component in a treatment plan. Recent research is examining animal-assisted interventions as part of a greater nature therapy. Boris Levinson (1972) first recognized the universal value of pets as a symbol of unity between nature and a spiritual being. Recently there is an increase in interest in the human animal bond due to our society’s interest in alternative or “green” revolutionary treatment that includes nature such as plants and animals (McCulloch, 1984). Many of the reviewed therapeutic goals are considered “natural” and holistic.

AAI can be useful for meeting the needs of many cultures when considerations of their customs are made. In the Native American culture, animals are a traditional source of spiritual and therapeutic practice. In Arizona, the Pascua Yaqui tribe is attempting a new model of behavioral health services that includes art, music, and equine therapy as a supplement to traditional therapy (Clay, 2010). The equine therapy program challenges the youth of the tribe with therapeutic goals such as decision making, drug prevention, and improving other life skills while using the horse as a partner. The benefit of using the animals with the young people is to offer them western and indigenous healing traditions that can apply to multiple generations of Native Americans and improve
relationships within the tribe. Literature reveals that AAI is a promising method of therapy in a world that is looking for “green” or natural solutions to problems. Studies also explore AAI being used as a solution to the need for a treatment method that can bridge the cultural and generational gap in our society.

**Conclusion**

The history of the development of AAI demonstrates the benefits of initiating therapeutic relationships between humans and animals. A review of the literature shows there are a variety of research studies and other published case studies that signify that animal-assisted interventions have a positive effect on children, mental health patients, and older adults. Many studies and articles are also revealing the use of AAI as a natural method of delivering therapy. In addition, it has been found that using animals with a variety of cultures can strengthen not only individuals but also create community wide cohesion. With AAI’s initial roots in a variety of physiological and psychological applications, it is imperative that social workers are ready to knowledgably interact with a variety of professional disciplines and animal-assisted intervention teams when given the option of using animals in a treatment plan.
Chapter 3

METHODS

Study Design

This study was developed to broaden the awareness of the benefits of animal-assisted intervention in a therapeutic setting. Social workers can gain new insight into the advantages that result from using animal-assisted intervention in collaboration with other disciplines within a treatment team. The research conducted included 11 participants who are all registered pet partners with Delta Society. The participants had a variety of experiences working with pets and humans. This study was designed in an exploratory form with qualitative data to allow for the wide range of populations and settings in which AAI is being used. The perspectives and experiences the participants had from working with the patients and children directly give additional depth to the studies and literature that encourage AAI as a legitimate form of supplemental treatment.

Sampling Procedure

The researcher discovered that Delta Society was one of the oldest and most utilized organizations in the U.S. that provides many levels of AAI with volunteers as registered pet partners. To be included in this study, the pet partner teams had to be registered with Delta Society. To become a registered pet partner team, they must pass a set of rigorous requirements. The minimum age a pet can be upon registration is one year old. Although a Delta registered pet can be of most varieties (i.e., rat, rabbits, or parrots) the subjects in this study all involved dogs.
The researcher used a database of Delta registered pet partners teams from the Delta Society website. The only requirement to be a subject was current registration with Delta Society. Participants who did not meet this requirement were excluded from participating in this study. The researcher contacted all of the registered pet partner teams located in Sacramento, California. An email introducing the topic of the research was sent to each team. The teams interested responded with a request for further information. A snowball sampling was used to further identify participants interested in the research project. Many of the Delta registered pet partners knew others who met the qualifications and referred them to the researcher. Ten registered pet partners participated in the study. Nine were located in Sacramento County and one was in Napa County. An additional AAI team that participated was the occupational therapist at Napa State Hospital who is also a registered Delta pet partner team. The researcher has a working knowledge of both Delta Society and Napa State Hospital but no intimate connection or conflict of interest exists.

**Data Collection Procedures**

The researcher contacted interested participants by either email or phone and explained the purpose of this research and the interview process. The researcher expressed that participation was voluntary and confidential and that the interview posed no risk to them or their pet partner. Upon agreement to participate, the researcher and pet partners scheduled an interview at their home or public setting. The settings were previously screened by either the participant or the researcher to be considered a safe and
confidential location to conduct the interview. Upon meeting with the researcher, the participant read and signed the consent form (see Appendix A) before the interview began. The researcher used a questionnaire developed for this study. It featured 12 open-ended questions (see Appendix B). The interviews took approximately 45 minutes to complete. The researcher conducted face-to-face interviews with eight of the participants and conducted two telephone interviews. The pet partner attended the face-to-face interviews, which were audio recorded. Each participant was offered a $5.00 gift card to Starbucks for completing the interview.

**Instrument**

This researcher developed a questionnaire with 12 open-ended questions to identify experiences and perceptions in the participants’ work with AAI. The questionnaire was created following a thorough literature search determining previous and current research that had been done on the subject of the human-animal bond, uses of pet intervention, and animal-assisted activities. This research identified important factors such as the type of population they worked with, therapeutic goals, and measurements of success they used in their type of AAI. No other equipment, instruments, drugs, or pharmaceuticals were used in this study.

**Data Analysis Plan**

At the conclusion of the interviews, the audio recordings were transcribed verbatim. The transcripts were then separated into individual teams and grouped by the questions asked. Each grouping showed a clear response from the data. The data were
analyzed in two ways. Themes were determined from the narratives and were coded and reported in the aggregate. Key words were identified and the data was divided into five themes. These themes were then examined to determine each team’s perception of their work in animal-assisted intervention.

**Protection of Human Subjects**

Prior to the collection of data for this study, the researcher requested a review of this research proposal by the Sacramento State Committee for the Protection of Human Subjects. It was approved by the California State University, Sacramento, Division of Social Work as posing no risk to the study population. The human subjects approval number is 10-11-080. This study posed “no risk” for its participants because the participants were not subject to any physical or emotional harm when deciding to participate in the interview. Prior to the interview the subject was given the informed consent form to read and sign. The settings were previously screened by either the participant or the researcher to be considered a safe and confidential location to conduct the interview. Any identifying information was removed from the study to preserve the participant’s anonymity. All data was kept in locked cabinets in the researcher’s home and was destroyed upon completion of this study.
Chapter 4

FINDINGS

Introduction

This chapter presents findings of interviews with 11 participants who were Delta Society registered animal assistance teams in Sacramento and Napa Counties. A team consists of a handler and a pet trained and tested on specific behaviors that assist humans. In researching literature regarding animal assistance applications the majority of research on animal-assisted therapies is qualitative. One reason qualitative data is effective in exploring AAI use is that it has the ability to present the entire case study in a descriptive format that shows the therapeutic process from beginning to end. There are many features of AAI that can only be described in a narrative type of data collection. This study uses 11 personal narratives that illustrate the real-life practical use of AAI.

Participant Characteristics

The primary inclusionary criterion for this study was that participants had to be registered with Delta Society as animal-assisted Intervention (AAI) teams. Ten out of eleven handlers practiced AAI in Sacramento County and 1 out of 11 handlers practiced in Napa County. All participants in the study were Caucasian and female. The approximate age of participants was between 50 and 60 years of age.

Of the 11 handlers interviewed, six were retired from employment. Four were teachers at some time in their careers. One participant was a practicing Occupational Therapist and one was a practicing Physical Therapist. Educational levels varied: five
had a master’s level of education, five had a bachelor’s level of education, and one was unknown. Of the 11 handlers, six had worked in AAI for 0-5 years, two had worked in AAI for 6-10 years, and two handlers had worked in AAI for 11-15 years. Seven of the 11 participants had experience with more than one animal partner. One handler used two different dogs in her recent AAI team. Therefore, of the 11 teams there were 12 animal partners (all canines). Six of the 12 included a black Labrador mix, three were golden retrievers, one was a Tibetan terrier, one was a greyhound, and one was a poodle. Two of the 12 animal partners had been found at an animal shelter and six had been trained as companion animals through Canine Companion for Independence (CCI). One hundred percent of the CCI dogs (six) did not complete the entire process of becoming a certified companion animal with CCI. One participant had a Delta Society registered cat in addition to her dog. Of the 11 participants in the study only two were professionals with specialized expertise in using animals therapeutically in the sense of the terms of definition set forth by Delta Society. Nine of the 11 participants were using Animal-Assisted Activities in their work as volunteers.

**Qualitative Themes**

Each person from an AAI team was asked a series of questions regarding their experience and therapeutic use in real-life applications. The responses were then categorized into data that represented five themes. After a content analysis of the interviews, five themes emerged: 1) Primary Practical Interventions, 2) Therapeutic
Theme One: Primary Practical Interventions

The practical uses of the AAI teams emerged as the first theme. One of the most common uses of the teams was in conjunction with education. Having a pet involved in the learning process seemed to be a method of encouraging children in their reading process. Nine out of 11 participants actively used their animals in assisting children with reading in community library settings. Eight out of 11 participants worked with children to improve reading in classroom settings. Of the 11 teams interviewed, four teams worked in special education classrooms at elementary schools. Two teams visited an after school mentoring program for elementary aged children. Three of the 11 teams had experience with youth in the Sacramento County Juvenile Hall. The teams each reported a significant improvement in emotion in the boys at Juvenile Hall. Participant S shared a comment from the boys such as, “for an hour I forgot I was in jail” and “this is the happiest I have been since I got here.”

Five of the 11 participants had worked in mental health facilities with adults and one participant worked with children. Out of 11 participants, eight had worked in hospitals with three in oncology, three in cardiology, two in neurology, one in high-risk maternity, four in pediatrics, four in ICU units, and five in surgical waiting rooms. Seven teams had experience in rehabilitation facilities with patients recovering from traumatic events requiring physical, occupational, or recreational therapy. Participant P shared that
autistic children have difficulties with tactile functioning and respond well in Occupational Therapy when they pet a soft dog. One team worked with patients and families in hospice care. Seven out of 11 of the participants had experience with patients in a skilled nursing facility. Participant J shared her experience:

Being in a facility, a patient does lose a sense of the outside world, so having an animal they can connect with means a great deal. A lot of times with people with early forms of dementia it is fairly easy to get them to talk about times when they were younger and these are the stronger memories. It really got them talking about pets when they were kids or when they were a young married couple.

Seven out of those seven (100%) worked with patients suffering from Alzheimer’s or dementia on a memory care unit. Participant L recalled an AAI experience with an Alzheimer’s patient:

Millie (Dog) used to work in the Alzheimer’s unit and I remember one patient who was visiting with her and was talking about the dog he used to have while he was petting her. I didn’t really notice it right at the time but when we left his wife followed me out into the hallway and she had tears in her eyes. She said that was the first time he had come around in over five months. It really is amazing what this type of therapy can do for patients. There sometimes only a connection that can only happen with a pet.
One AAI handler and her animal partner worked as an Animal-Assisted Crisis Response team. This team provided comfort and support to victims and responders in crisis and disaster situations.

**Theme Two: Therapeutic Goals**

A second theme discovered during the data collection is the many therapeutic benefits that can result from AAI. One dominant goal in using AAI is the improvement in social interaction. Ten out of the 11 participants reported that improving social interactions was a frequent goal of their AAI. Participant E noted the social benefit to the children:

That sigma is gone because this is now Humor’s (Dog) room and not the Special Education room. Now there are so many kids coming in here that you can’t tell who is coming in to pet Humor and who is coming in for other services. That really breaks down the social barriers.

Also, there are a lot of General Education kids who are not Special Education but they hate recess because they don’t have social skills. I get to take my dog out at recess and they get to walk him and they now look forward to being able to pet the dog that they end up interacting with the others kids. Socially it is a huge connection for these children.

Behavior modification was a treatment goal specified by six out of the 11 teams that participated. Participant J pointed out how AAI can help achieve this:
The staff says that the boys have to earn the right to pet therapy by having good behavior. So they notice a few days before PT comes there is an improvement and then a few days after.

Three participants reported a therapeutic goal was to strengthen a person’s physical ability. Nine AAI handlers reported that an AAI goal was to reduce stress levels in children, adults, patients, staff, and family members. Participant J shared her thoughts about why the animals help with stress:

We are an emotional lift for the staff because of the critical nature of the unit; the staff is dealing with death and stress every day. They really appreciate the dogs coming in.

Eleven participants (100%) noted increasing cognitive functioning as a therapeutic goal for using AAI. Frequently improving a reading level was used as a cognitive goal. Participant P explained feedback from the teachers in response to an increase in literacy rates after AAI. “The reports we get back from the teachers is very positive about the increase in participation at school and the increase in reading levels as a direct result of the reading AAI program.” Participant C had many years of experience assisting children with reading goals at the library and she stated:

I wouldn’t base the overall success of the program on whether the child’s reading skills improve; I would base it on the fact that they are developing a comfort level with reading in general.
Eleven participants (100%) noted emotional regulation as a goal. Participant J explained a contact with an intelligent little girl who was interacting with her dog: “she looked up at me and said, “Before you came in, I was feeling very angry she says now I’m very happy.” Eleven out of eleven (100%) handlers reported they set a goal of increasing frequency and duration of verbal communication. A major goal of AAI is to use distraction as a coping method. Eight out of the eleven participants said their animals were able to distract the children’s or patients’ attention from challenging situations. Participant J shared:

We give patients a little touch of reality from outside the hospital setting, as well as a focus on something other than their condition. We try to provide a little company and conversation that will help pass the time for them.

**Theme Three: Emotional Applications**

The third theme that emerged was the emotional benefits people gain from animal interventions. The emotional applications reported most frequently were creating happiness and motivation. Eleven (100%) of the participants identified that creating happiness was part of their AAI experience. Older adults at a facility enjoyed visiting with the animals. Participant J commented,

It is quite amazing the reactions that we get from the senior care facilities that we went in to. The ladies get their hair done and the gentlemen get all dressed up. The look on their faces is just priceless.
AAI provided people with motivation reported by eight handlers. Participant E found this true in her classroom. She pointed out, “If I do a lesson without Humor I often get a much slower and smaller response than if I include him.” Unconditional love and acceptance were reported by six handlers. Out of 11 participants, six reported that AAI helped reinforce kindness and respect among people and animals. Participant S explained how she and Gracie worked with the child burn victims at Shriner’s hospital:

Everyone knows Gracie because she is a greyhound and very tall and skinny. Since she is so unusual I share with them that it’s okay to be different, unique, or not look like everyone else. They can relate to that. I try to sneak in something about Gracie being rescued and how she was used to make money by racing other dogs. At the Children’s home we also explain that dogs need homes and can need rescue sometimes. I try to use the dog to teach the children about different things, not just the human animal relationship.

Five of the participants reported that experiencing trust was a large factor in emotionally assisting others with their animal interventions. In Juvenile Hall, Participant J observed, “The boys have a hard time trusting others and the animal gives them unconditional loving feedback.” She also expressed her experience at Sutter Psychiatry, “Some children at Sutter have been through traumatic situations or abuse and the relationship they have with an animal is healing.” Seven participants reported that compassion and empathy were an emotional benefit to AAI. Seven participants reported that having an interaction with the animals provided them with stress relief. Six handlers
out of 11 reported that the animals taught kindness and respect to the children they worked with. Participant L described her feeling about the children’s interaction with Marcie:

I would say that their general reaction is positive and nearly every kid really enjoys their time with the dogs. I always use the terms kindness and respect. I tell the kids that they need to treat the dogs kindly and with respect or they I won’t bring them back and that really does make a difference.

Six of the 11 participants stated that trauma recovery patients responded well to animal interventions. Participant S shared her experience:

The kids at the library aren’t as interested in touching and interacting with the dog where the children at the children’s home are much more interested in the dog than us (adults) because the kids have a history of being abused by adults so they don’t want to interact with us. One little girl who loves the dogs comes in and lies down and pets Gracie’s head and reads her a book. At Shriner’s I never ask what happened to them, but sometimes they will just tell me “this is what I had done today.” Or they will say “what happened to her side?” I’ll explain that she got hurt. And they’ll say “oh no! I had this happen to me too!” These are connected together. The dog and the child are both survivors. It is a lesson in life that we will go through difficult times and can come out the other end okay.
Participant C commented:

I had one Indian woman who had been attacked by a fairly small dog as a child and she was very hesitant to participate but each time she would get a little closer and after about 3 months she was actually holding Clarabelle and she was able to overcome a significant amount of long standing fear of being bitten. Some changes are very dramatic and some are fairly mundane but nearly all are significant to the individual.

Participant J shared that AAI “works well with trauma patients, calming them and providing them with a distraction and feelings of love. If they are afraid to talk to people they may talk to the dog because he/she is non-judgmental or threatening.” She also relayed a success story of when her friend who was a physical therapist, worked with a trauma survivor:

My friend met a young man in early 20s that had been in a motorcycle accident. Overnight his world had changed and he went from being an able bodied person to being a quadriplegic. He was very angry. He didn’t want anyone to touch him or speak to him. He was just very angry at his family and generally everyone. Carol went into the room and tried talking to him and he didn’t have anything to say. She was trying to develop a plan for what they were going to do. She said do you like dogs? He said yeah. She said let me bring in my dog, so she brings in the dog and has her dog to an up on the bed. The man threw his arms around the
dog and just started sobbing (this makes me cry) she could do anything she
could do anything she
wanted with him after that. Something clicked, broke through in him.

**Theme Four: Physical Applications**

The fourth theme discovered during the interviews was the many physical
benefits that can result from AAI. Physical therapy services focus on enhancing or
restoring mobility to a patient (Easter Seals, 2011). Participant J explained that physical
therapists

use the dogs in their facility with the burn units where the patients will brush the
dog and throw the ball for them. The physical movements are painful but when
they throw the ball for the dog they forget how painful it is.

Participant P had a similar physical therapy experience:

I take Maggie (dog) into the rooms with me at work because PT can be quite
painful because we are treating range of motion and movement to injured arms
and legs. I have seen firsthand when I have Maggie in the room the patients just
seem calmer. I had one patient who had a shoulder I was rehabbing and it was
painful for him. He was grimacing and groaning and Maggie went over to his
other hand and got him to start petting her and he forgot all about the pain in his
shoulder. Last week I took her in with a new patient and when she saw Maggie
she said “if I had known there were going to be dogs here I would have scheduled
my appointment a long time ago. Maggie really makes a big difference.
Occupational therapy has a focus to develop a patient’s ability to perform activities of daily life (Easter Seals, 2011). A common goal of OT is learning to accomplish Independent Living Skills (ILS) such as personal grooming. Cassie pointed out the method she and Clarabelle use:

After both reading programs the children would get to brush and groom her up a bit. Clarabelle and the children just loved that part and it reinforced the bond. This also proved to be educational as well as the children learned about care giving and brushing genially. They also learned when not to brush the dog and how to approach dogs correctly.

Participant J shared her experience with occupational therapy and speech patients at Easter Seals:

I go to Easter seals, which is a day program where the patients are stroke or head trauma survivors and it’s a speech therapy class. We bring the dogs in and the people ask us about the dogs. We do that for 10-15 minutes and then the instructor has them stand up in front of the class and talk about their interaction with us. This encourages them to use their speech and memory skills by telling about what they learned and what they remembered.

**Theme Five: Secondary Interventions**

The fifth theme that emerged from the interviews was the secondary positive effect AAI can have on patients’ family members and hospital staff members. Five of the
11 handlers reported that families were positively affected by having the animal teams interact with them. Participant J expressed the benefit of AAI to the families:

> We also visit the surgical waiting room and visit with the waiting family members. I have found that waiting families are sometimes the most in need of the visits because often times they haven’t had time to process the condition that their loved one is facing or they have feelings of being out of control. This is especially evident when it is children waiting for a parent, but it can also be for adult children too. Having a distraction and calming of a dog really takes the edge off and helps them pass the time.

Participant C shared her experience with families and staff benefitting from her animal’s interaction:

> Often times it’s the family members who are honestly more fragile and/or emotional than the actual patient. The staff also really gets an energy and emotional boost from our visits. I believe working at a medical facility would be extremely taxing on the emotions and on the body. Being able to just sit and pet a friendly animal for a few minutes really seems to lift their spirits.

Out of 11 participants, seven reported that AAI had a significant positive impact on the staff of the school or units they visited. Participant P agreed with the consensus that the animals benefit the staff as well as the patients and their families. Participant S reported that having Gracie in the hospital seemed to soften the mood at the hospital:
When I first went in people will come around the corner and who thinks you will see a dog in a hospital? As soon as they do their faces light up, like oh my God! Because it is a serious place, you’re there for a serious reason. It breaks that tense, stressed atmosphere that surrounds the whole place. Even the adults and parents are interacting with Gracie as well and I think it gives them that amount of relaxation. The staff really loves it at the hospital. There is a constant stress on them and the staff goes into areas that we can’t, like the emergency area. So we went for the staff. So they could have something to take their mind off what was going on.

**Conclusion**

The five major themes that emerged from the study’s findings were: 1) Primary Practical Interventions, 2) Therapeutic Goals, 3) Emotional Applications, 4) Physical Applications, and 5) Secondary Interventions. The themes were expressed by 11 teams of animals and humans that provide animal-assisted intervention in multiple settings. The following chapter presents a discussion and analysis of these findings and demonstrates the need for further research in this subject.
Chapter 5

DISCUSSION

Review of the Findings

The findings suggest there is, in fact, a legitimate positive therapeutic effect produced by Animal Assisted Interventions. Of the 11 people interviewed, all of them had success in multiple environments with their pet partners. All five of the themes that emerged in the study, 1) Primary Practical Interventions, 2) Therapeutic Goals, 3) Emotional Applications, 4) Physical Applications, and 5) Secondary Interventions, provide evidence that AAI is a supplemental form of treatment that can be effective in a variety of populations.

According to the human handlers of the teams, they are receiving support and encouragement from the staff at the facilities they are visiting. Yet AAI and its therapeutic intention are not being recognized by the administrative level at many facilities. Participant S explained, “The current treatment involving animals therapeutically is still in the early stages. There is no structure that is between the staff and the volunteers with the animals.” The feedback from the participants revealed the commitment and passion the volunteer AAI teams have. Although their intentions are heroic, they seem to be limited in their ability to connect with the decision makers at the facilities. It was reported that AAI treatment often started at a facility due to an informed employee who understood AAI or an organization such as “Lend a heart” in Sacramento inquiring about a need at the facility. Participant P stated:
I think it is important to have the support of the executives/staff that are behind the program. Without that, it would be hard to be successful. In most visits I do, the animals often visit just as much with the staff as with the patients; the animals provide a stress relief. Having their support is important for success; they know the patients.

If a program at a facility is strictly coordinated by an employee with a passion for AAI, there can be a disruption in the interventions if that person were to leave or change locations. This is also true if a new supervisor, management team, or even owner of the facility changes. By encouraging collaboration among a variety of disciplines, AAI can be integrated into the facility as a permanent empirically proven form of treatment.

The research discovered there are few handlers who can offer Animal Assisted Therapy in the true therapeutic definition set forth by the Delta Society. Their definition indicates that Animal-Assisted Therapy must be “goal directed and delivered by a human service professional with specialized experience” (Buttons, n.d.).

Currently the majority of AAI treatment is being offered under the technical term Animal Assisted-Activities (AAA) because it is being provided by volunteers. Delta Society describes AAA as an activity the animal can perform with a group of people. AAA does not have specific treatment goals and the visit is generally unstructured with spontaneous results. The settings for these types of interactions are nursing homes and schools. It is encouraging to see such a motivated group of service-driven volunteers who use their time to visit facilities sometimes twice a week. They have been trained,
screened, and tested through their own organizations including Delta to be qualified to provide Animal-Assisted Activities and be guaranteed by a $1 million insurance plan in the small chance of any mishaps.

Currently the field of animal assisted interventions lacks a unified empirically supported theoretical framework that explains how and why relationships between humans and animals are potentially therapeutic (Kruger & Serpell, 2006) because many studies are hindered by aspects of poor design, such as small sample size and failure to randomize (Brodie & Biley, 1999).

**Study Limitations**

The predominant limitation to this study is the small sample size (n=11) and small geographic area that was polled. The sample size is small due to the depth of the descriptive data desired to support the research. The responses found in the data were detailed and encouraging and, therefore, supported the purpose of the study. The demographics may not be representative of the nationwide use of animals in therapeutic settings, but the data did provide a good example for students who begin to show an interest in what and how AAI works in a practical therapeutic sense.

Another limitation to the study emerged while the research was doing it. A prevalence of retired Caucasian women in their 50s to 60s were the participants. There was little to no variance in gender, age, or race/ethnicity. Although subjects were contacted in a uniform email to inquire about participation, it seems the women were a significant representation of those partnering with animals in service.
Another limitation was the limited access to observations of the AAI teams interacting with the children or patients. Observations were made in two instances. One with children in an elementary school and one at a nursing home and memory care unit. These were inspirational and provided much insight to this study. Other observations that would have been educational were visits to mental health or juvenile hall facilities. It was reported that the results in those environments were significant.

Implications for Further Research

Complex medical and psychiatric issues often require integrative, multifaceted treatment strategies. Within the social work field, there is a constant demand for treatment that can be effective with a variety of populations at different levels of service. Collaboration among professionals such as teachers, doctors, nurses, occupational therapists, physical therapists, and social workers can help achieve this goal. In California, there is an increasing demand for specialized therapies in mental health that try new treatments to assist children, adults, and older adults.

In our country today, many treatment plans are multi-modal in their approach. These integrated multi-disciplinary plans are developed by teams of professionals who work together to coordinate each of their methods into a treatment plan (Arkow, 2000). Arkow introduces the concept of the “symbiosis of a relationship” where different disciplines come together to create “synergy” among treatment teams. The benefit of this synergy is that the whole team is greater than each of the disciplines individually.
Possible future research areas include an increase in knowledge among professionals and administrators of the human-animal interaction and its application to the health, psychiatric, and social welfare of many populations. Based on the findings it is clear that this support is necessary for a successful program. Another future research area would include an increase in specific treatment plans with measurable goals in an inpatient environment. This data would provide professionals with empirical data that could apply in developing their own AAI program. Another question to consider for the future is how can more professionals become qualified to lead an AAT team that has expertise in this method? An application that would be a truly therapeutic intervention would be individual counseling or trauma recovery work. These are extremely valuable applications that continue to have very little research or education explored.

**Conclusion**

The role of social workers in a treatment team is to collaborate with other disciplines to meet the bio-psycho-social needs of our patients. Part of the National Association of Social Workers’ (NASW; 2008) *Code of Ethics* outlines the duties of a social worker, which emphasizes the need to treat the “whole” patient and find the most appropriate therapeutic environment possible. With the supplemental application of Animal-Assisted Interventions, a wide range of people from school children to mental health consumers and older adults can benefit from a holistic, noninvasive, unconditional method of treatment. Two appropriate quotes are from a list of many. “The whole school benefits from having humor here,” said Participant E about her classroom animal.
In the end, Participant P stated, “Success is not hard to measure when we have people who look forward to our visits, enjoy the interaction, and we are repeatedly asked to come back.”
APPENDICES
APPENDIX A

Informed Consent

Consent to Participate in Research

You are being asked to participate in research which will be conducted by Maureen Faiola MSW II in the Division of Social Work at California State University, Sacramento. This study will investigate the benefits of using Animal Assisted Therapy with vulnerable populations. This information is important because it may be used to develop further education about the potential use of animals in a therapeutic role.

You will be asked a series of open ended questions in reference to your work with animals in therapeutic settings. The interviews will be approximately 45 minutes long and will be tape recorded. Your recorded interview, along with interview notes will be stored in a locked cabinet in the researcher’s residence during data analysis, and destroyed in June 2011 at the end of the study period. All participant responses will be themed and coded with no identifying information; therefore assuring your confidentiality.

While participation in the study is not expected to produce negative psychological harm, should you experience discomfort, you may withdraw from the study at any time without penalty. You can also choose not to answer any specific question during the interview. Should you experience emotional discomfort you may contact the Effort at 916-325-5556 or Sacramento County Mental Health Treatment Center Crisis Line at 916-875-1000.

The benefits to participating in this study include furthering awareness of animal assisted therapy in a therapeutic setting. You will be informing a greater audience within an academic setting by extending your knowledge to this research. You will not receive any compensation for participating in this study.

You may choose to receive a summary of the results of this study for your future use. If you have any questions about this research, you may contact the researcher at faiolax5@sbcglobal.net or Susan A. Taylor, PhD, the researcher’s thesis advisor at taylorsa@csus.edu. Thank you for your participation.

_________________________________________  ______________________
Signature of Participant  Date
APPENDIX B

Qualitative Questionnaire

Name:

1. How many years have you been a certified animal therapist?

2. How did you get involved with AAT?

3. Can you describe how you use your animal as a part of your therapy?

4. What settings do you feel animal assistance works well in?

5. What do you think are valuable qualities that animals can bring to a person receiving therapy?

6. Can you describe the elements of your animal assisted therapy program?

7. What are therapeutic goals which your program focuses upon?

8. Is there a particular patient profile where AAT is most beneficial?

9. What recommendations do you have for implementing effective animal therapy programs in social service settings?
10. Can you describe a successful experience with animal therapy with a patient?

11. How do you evaluate success with your intervention?

12. What recommendations do you have for someone thinking about using AAT and working with vulnerable populations?
REFERENCES


