The Efficacy of Animal Assisted Therapy in a Residential Setting for People with Autism

A Summary Paper

Presented to

The Faculty of the Adler Graduate School

In Partial Fulfillment of the Requirements for

The Degree of Master of Arts in

Adlerian Counseling and Psychotherapy

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April 2012
Abstract
Animal-Assisted Therapy (AAT) is a goal-directed intervention in which an animal meeting specific criteria is an integral part of the treatment process. Animal Assisted Therapy is a unique approach to the field of mental health including a secondary therapist that is a living animal but not human. Moreover, studies in the medical field show that Animal Assisted Therapy lowers blood pressure and increases longevity to elderly people. Autism is a group of developmental brain disorders with a wide range of symptoms, skills and levels of impairment that generally fall into these categories: social impairment, communication difficulties and repetitive behaviors. Animal Assisted Therapy’s unique approach reaches into these challenge areas and provides a safe and empowering experience for learning and growth. This project discusses how Animal Assisted Therapy proves to be an effective treatment for a person diagnosed with Autism. Furthermore, it explores a new innovative residential program combining traditional group home procedures with Animal Assisted Therapies for people with Autism.
My desire to study Animal Assisted Therapy began years before I decided to go into counseling and enroll at the Adler Graduate School. Since childhood, I had always known that I wanted to have a career that somehow involved animals. Since needles and blood left me queasy, I knew working in a veterinarian office was not an option. I struggled to find the “right” career path; none of the “obvious” careers involving animals appealed to me. Needless to say I graduated with my Bachelor’s degree in sociology and found a job in a social service agency. I was inspired and energized by working with people going through difficulties. This is when I came across a magazine article about Animal Assisted Therapy. The light bulbs went off and bells rang. This was it! I remember having tears in my eyes when reading the amazing stories of how animals were helping people overcome emotional barriers.

Alongside my fervent quest to learn about AAT, I happened to watch a TV special about a woman named, Temple Grandin. An adult with Autism who got her PhD and revolutionized the structure of cattle farms to make them more humane. Temple explained that because of her autism, she was able to see similarly to the way the cows did and understand the stress and discomfort they felt within the facility’s structure. A thought came to my mind; I bet animals would be a powerful therapeutic tool in working with kids and adults with autism. And so the journey began.

I chose the experiential option for my Master’s Project in order to have the opportunity to share information not only about a therapeutic technique that I am passionate about but to begin the process of developing a program that would better my community. My hope is that Animal Assisted Therapy becomes a sought after treatment for not only Autism but also other mental and physical health problems. Educating, Sharing and Doing are the ways in which I can help AAT
become well known. Secondly, more research is needed to provide evidence of the benefits of AAT.

I chose to have three experiential exercises in my presentation so that my audience would leave with not only information about the project but also an experience of their own. The presentation began with asking for a volunteer to give me an Early Recollection that specifically had to do with an animal. Through this process, the volunteer and audience were given the opportunity to see how early interactions with animals play a role in our life with not just animals but also people; parents, siblings, teachers etc. This process also encouraged the audience members to start thinking about the ways in which animals have impacted their own lives. To continue this experiential piece, I had the audience break out into groups and discuss questions such as: Have animals had a positive effect on your life? Negative? Tell your group a story of your own or someone else’s that has to do with an animal. The purpose of this exercise was for people to reflect on their personal experience of animals, share it with others and for everyone to see the various ways animals influence us. Lastly, I had the same small groups break out again for a sensory exercise. Each group was given a different item that were then rotated so each group had a chance to interact with all three items along with questions to answer with the group. These questions included; How does your body respond to the item? Is it relaxed or anxious? Do any triggers come up? The purpose of this exercise was for the audience to gain insight and awareness into how they react to specific sensory stimuli. Moreover, this exercise offers an example of a common symptom that a person with Autism may have called Hyper or Hypo Sensory Processing Disorder. This sensory impairment is a key challenge area that Animal Assisted Therapy proves to be effective in reducing this problem.
The Efficacy of Animal Assisted Therapy in a Residential Setting for People with Autism

Animal Assisted Therapy is on its way to becoming known as an effective treatment for both physical illness as well as mental illness. Studies show that it helps lower blood pressure, increase life span in elderly persons, lowers anxiety and helps to relieve loneliness (Morrison, 2007). Animal Assisted Therapy is defined as a goal directed treatment using an animal that meets specific criteria and is an integral part of the therapeutic process (Pet Partners, 2012). It is used in various settings such as hospitals, hospices, nursing homes, veterans’ hospitals, children’s hospitals, treatment centers, psychiatric hospitals, and prisons. Animal Assisted Therapy is an effective treatment for people diagnosed with an Autism Spectrum Disorder (Foden, 2011). Autism Spectrum Disorder is a group of developmental brain disorders that generally fall into three categories of: social impairment, communication problems, and repetitive behaviors (Autism Speaks, 2012). Animal Assisted Therapy addresses each of these areas head on with various techniques using the animal as a co-therapist and therapeutic tool.

Furthermore, figuring out housing for an adult child with Autism can be a challenging and complex process (Rudy, 2009). There can be issues with funding, quality of staff and appropriate treatment options. This project discusses the opportunity for a new residential program; an Animal Assisted Therapy Based Group Home for adults diagnosed with Autism. A thorough exploration of Animal Assisted Therapy and Autism Spectrum Disorder lays the foundation to illustrate this ideal marriage of treatment with a disorder. Following this we will look at specifics of this much needed program including screening procedures, funding sources and risk factors.
Understanding Animal Assisted Therapy

**Animal Assisted Therapy**

Pet Partners defines Animal Assisted Therapy (AAT) 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" (Pet Partners, 2012). Simply, animals are part of the therapy process for both mental and physical health.

**Animal Assisted Activities and Service Animals**

It is important to point out that Animal Assisted Therapy is different than Animal Assisted Activities and Service Animals. Animal Assisted Activities are defined as an activity that “provides opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life. Animal Assisted Activities are delivered in a variety of environments by specially trained professionals, paraprofessionals, and/or volunteers, in association with animals that meet specific criteria” (Pet Partners, 2012). Service Animals are legally defined and are specifically trained to meet the needs of their owners who have a disability. Some of these needs include persons who are blind or deaf. Specifically, dogs are naturally skilled at sensing when a person is about to have a seizure or if their insulin is high or low and therefore can alert their owner through pre-determined communicative behaviors. Service Animals are first trained by professionals and then paired with applicants wanting a service animal. Once these animals reach a certain age, they may retire from being a service
animal. When this happens, the person with a disability is consequently paired up with a new animal.

**History of Animal Assisted Therapy**

The History of Animal Assisted Therapy dates back to 1790 when a place called the York Retreat in England encouraged their mentally ill patients to walk through the hospital’s garden and interact with and care for small domestic animals. In 1867, the Bethel Institution in Germany used animal interactions with epileptic patients. Animals became an integral part of the treatment for epilepsy and are still used therapeutically today (Behling, 2011).

Animal Assisted Therapy began to expand into the US in 1919 when St. Elizabeth’s Hospital in Washington D.C. incorporated animals into the treatment of their psychiatric patients. Following in the 1940’s, the Pawling Air Force Convalescent Hospital began to encourage their veterans to visit animals at the center’s farm and eventually developed a program involving dogs and, interestingly, amphibians and reptiles in 1942 (Fine, 2010).

At the same time, during World War II, a corporal in the Philippines was recovering in the army hospital when his friend brought in his Yorkshire Terrier to cheer him up. This dog named Smoky was such a hit with the other wounded soldiers that the Commanding Officer, Dr. Mayo, of the Mayo Clinic in Minnesota, began taking Smoky on his rounds. Smoky worked as a therapy dog for 12 years during and after the war (Fine, 2010).

**Current use of Animal Assisted Therapy**

In current times, the most well known use of an animal incorporated into Psychotherapy is known as Equine Assisted Therapy which is specific to using horses. A ranch called Acres for Life in Minnesota defines Equine Assisted Therapy as; “Equine Assisted Therapy is a practical modality incorporating a licensed therapist, equine specialist and horses that have proven to have
a profound impact on individuals, youth, families and groups. It addresses a variety of mental
health needs including chemical dependency, depression, grief and loss, eating disorders,
anxiety, communication issues, attention deficit disorders, ASD, emotional behavioral issues,
and relationship challenges” (Acres for Life, 2011)

There are, of course, many other types of animals used for Animal Assisted Therapy.
The governing agencies who certify animals to be “assistants” provide the framework for which
types or species of animals are allowed to be certified for this service. Our local humane
societies in the Minneapolis and St. Paul areas provide certification testing. This process is
governed by an organization called Pet Partners, formally known as Delta Society. As
previously mentioned, Pet Partners recognizes specific animals to be certified as therapy animals
and therefore only these certain types of animals can be certified through Pet Partners. Some of
the animals that can be certified through Pet Partners are; dogs, llamas, horses, cats, rabbits and
guinea pigs. These animals must meet specific criteria and also pass a test to become certified
for AAT. Understandably the following are requirements for certification screening; the
animal’s temperament, any bite history is not allowed and the animal must not get easily startled
by loud noises or sudden movements. There are various other organizations around the country
that also certify therapy animals and some of these allow additional species to be certified other
than what Pet Partners allows, such as dolphins (Dolphin, 2012).

It is important to note that some people use their pets in their practice or volunteer at
nursing homes or hospitals without going through any certification process. This should be
discouraged for the safety of clients/patients and also the animals. Owners are liable for any
injuries that may occur and having a certified pet helps to ensure the safety of all living creatures.
Effects of Animal Assisted Therapy

Animal Assisted Therapy (AAT) and Animal Assisted Activities (AAA) have been studied in the both fields of medical health and mental health. There has been more research focused towards AAA in settings such as nursing homes, hospitals including children’s and veteran hospitals. The positive effects that animals have for a person’s health include lowered blood pressure, decrease in feelings of loneliness and increasing smiles in patients which in turn release endorphins in the brain to help increase positive emotional feelings. In a study where animals were brought to visit terminally ill patients, “results show that contact with animals lessened feelings of anxiety and despair and helped (participants) move more easily through the stages of death” (Muschel, 1984). Physical and Mental Illness understandably coincide with stress and overwhelm. Because of the calming effect that animals have on people, using them therapeutically has the greatest benefits in the sensitive areas of mental and physical illness.

The research on Animal Assisted Therapy geared towards mental health is growing and the results are significant. There are a variety of settings that AAT is used such as; prisons, psychiatric hospitals, treatment centers, and private therapy offices. In a study on elderly schizophrenic patients, the effects of Animal Assisted Therapy were evaluated over a period of 12 months. Sessions were conducted for 4 hours every week and were focused on mobility, interpersonal contact, communication and activities of daily living (ADL’s). Results stated that, “Animal Assisted Therapy proved a successful tool for enhancing socialization, activities of daily living (ADL’s) and general well-being” (Barak, 2001, pp. 1). In another study, Animal Assisted Therapy was evaluated for helping improve communication skills with chronic schizophrenic patients. Results showed there were positive outcomes from using Animal Assisted Therapy stating, “…patients improved in the usage of space during communication,
while partial improvement in other domains of nonverbal communication was also observed” (Kovacs, 2006, pp. 1).

**Autism**

**The Diagnosis of Autism**

The Diagnostic and Statistical Manual-IV-Text Revision (DSM-IV-TR) criteria for someone with autism must meet two of the following criteria in social integration impairments: impairments in multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction; a failure to develop peer relationships appropriate to developmental level; a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people; lack of social or emotional reciprocity. Persons diagnosed with autism must meet one of the following criteria in area of communication; delay in spoken language; in persons with adequate speech there is impairment in the ability to initiate or sustain conversations with others; repetitive use of language; lack of varied and spontaneous make-believe play. Individuals with autism must also meet at least one the following area of repetitive behaviors; preoccupation with one or more stereotyped and restricted patterns that is abnormal; inflexible adherence to non-functional routines; repetitive motor mannerisms (flapping); persistent preoccupation with parts of objects.

The Interactive Autism Network (IAN) defines autism a complex neurobiological disorder that typically lasts throughout a person's lifetime (Interactive Autism Network, 2012). Autism impairs a person's ability to communicate and relate to others. It is also associated with rigid routines and repetitive behaviors, such as obsessively arranging objects or following very specific routines. There are many various traits that are common to a person with Autism. Yet, the severity of symptoms and the presence of symptoms vary from individual to individual. A
line from a play called, Autistic License, states, “Persons with Autism are as different to one another as apples to oranges. No apples to nuts.” (Autistic License) The three main challenge areas of the autism spectrum are; social impairment, communication difficulties, and repetitive behaviors and they can all be targeted through using Animal Assisted Therapy. The Association for Science in Autism Treatment includes Animal Therapies as an effective treatment method. Moreover, Animal Assisted Therapy has been found to be effective in treating socialization and communication impairments. A study on prison inmates evaluated the effects of Human Animal Interactions in various problem areas, one of which was social skills. This study states that, “inmates in the present research anecdotally reported increased social interaction with both inmates and staff interested in interacting with dogs” (Fournier, 2007, pp. 100). Other treatments listed are; Applied Behavioral Analysis, Sensory Integrative Therapy, Art Therapy and Biofeedback.

**Adults with autism**

Throughout this project, I came across a plethora of information about children with autism. Most autism websites focus on the diagnosis of young children and early interventions. This is indeed important but I found myself wondering about where do these kids go when they are adults? Currently, a lot of young adults with autism stay at home with their parents and may attend a school for adults after they graduate from high school. Some other options are residential facilities. Included in these residential homes is a variety of options; Group Homes, Shared Housing, Assisted Living, Farmstead Living, Community Living, or Supervised Housing.
Group Homes

Group Homes Defined

In article that discusses the various types of residential homes for a person with Autism, a Group Home is defined as: “Group Homes: Provides residential services in more typical homes in the community setting. Ownership of the house usually lies with the provider agency, as do staffing decisions. Most have fewer than 6-8 consumers living in one residence and in most states, there is a recent trend where developmental disabilities service systems will not provide funding support for group homes who house more than, three-four consumers” (Beall, 2010, pp. 1). Group Homes provide needed independent living skills to adults with disabilities yet they do not treat the problem behaviors that a person with autism may have such as self-calming skills, communication deficits and repetitive behaviors.

Furthermore, in the same article a farmstead is defined as, “Farmstead Program: A residential model set within the context of a working farm. While isolated by nature farmstead programs endeavor to meet the complex needs of adults with ASD and other developmental disabilities through the development of individually designed instructional programs focused on farm living. Vocational training is generally limited to farm-related work (e.g., horticulture, greenhouse management, woodworking, animal care, landscaping, etc.) although other opportunities may be available in nearby communities. Residents work along with staff at tasks relevant to the care and maintenance of the grounds and the farm. There is often little in the way of community integration or community based-instruction and life skill instruction is generally provided relevant only to those skills associated with life within the farmstead community” (Beall, 2010, pp. 1). As stated in this definition, the problem with a farmstead program is it’s
accessibility to the community. A person living on a farmstead would not learn the necessary skills to interact within a community and therefore continue to have these deficits.

Animal Assisted Based Group Home

The Program

Among the options for housing for an adult with autism, there are positive aspects to each, especially depending on the individuals needs. A Group Home combined with Animal Assisted Therapeutic techniques would join the strongest elements in residential living with the positive effects of a farmstead community to create a revolutionary program needed for this population. This program would house three or four residents with 2 or 3 certified therapy animals. The home would employ 24 hour staff that is trained in working with people with ASD. Staff would also go through a screening process to verify their commitment to not only the residents but the resident animals as well. All staff would be trained, if not previously, in Animal Assisted Therapeutic Techniques/Interventions. Some of these interventions would be; sensory integration therapy through petting the animal, communication skills training through focusing on the animal as the topic of conversation, self-calming skills training through walking, petting, or hugging the animal, self-care skills training through care of the animal by feeding, washing, walking, and brushing the animal. Residents would have daily interactions with the animal and would be termed as their owner.

Residents would need to meet the DSM-V criteria for Autism Spectrum Disorder in order to be eligible for the program. All residents must sign a waiver stating they understand the risk that animals may pose. Residents should not have severe fears and/or phobias of the animals in the home. If a resident has an allergy to an animal, they must sign a second waiver that they have allergies and agree to living with animals. Overall, the program will be thoroughly
explained to the residents, caregivers and staff to ensure that people make the utmost informed decision.

**Conclusion**

Animals have been used for many years in indigenous cultures as messengers from gods and ancestors to help heal the wounded. Our society has yet to fully embrace the wisdom that animals have to share in order to help us humans heal. Fortunately Animal Assisted Therapy is becoming more recognized as a unique and effective therapeutic tool for various mental health issues. Its ability to treat clients who may not benefit from conventional talk therapy is imperative so that people have other options. Among these clients are people on the Autism Spectrum. This population is growing exponentially and is in need of programs for adults with an autism diagnosis.

Unfortunately, there is a lack of empirically supported research to back up AAT and therefore it is necessary to continue with credible studies. As this research continues, my hope is that Animal Assisted Therapy becomes an integral treatment for both children and adults with autism that is recognized by insurance companies as the recommended treatment. This project is an attempt to highlight the benefits of this understated therapeutic approach and teach people about the various ways animals can be of use in the field of not only mental health but also physical health. Secondly, because of the lack of resources for residential options for adults with options, this project offers a new innovative program to minimize the current problems in group homes and to expand the options for families looking for a safe and nurturing home for their loved one.
References


Annotated Bibliography

This article discusses the objectives and results of a study about an Autistic child with severe relational problems and the effects of using Animal Assisted Therapy techniques to improve integration with his classmates. The study was ongoing for over four years and continued to show positive results for the child. There were two dogs used for the therapy; a Dachshund and a Samoyed. With having one or both dogs present, the child was able to sit at the table with his classmates, wait his turn and increased the length of time he could sit at the classroom table.

This article reports the findings of a survey about how Psychiatric Service Dogs would serve as an adjunct therapy to other psychiatric services. The article covers a brief history of Psychiatric Service Dogs and further description of what a service animal is. The results are in different tables showing specific tasks that a dog would be trained in that would target specific symptoms of a disorder. For example, repetitive behaviors in someone with Obsessive Compulsive Disorder would be interrupted by a service dog specifically trained for that person. The study was based on a paper survey given to volunteers from the Psychiatric Service Dog Listserv.

This article discusses the prevalence of loneliness among elderly people and homosexuals in particular and whether a therapy pet would help alleviate this loneliness. The article also discusses how elderly homosexuals are often ostracized by family and friends causing loneliness and lack of intimate human contact.

This article discusses a study of 70 hospitalized children and the efficacy of using animal assisted therapy. Results showed that both parents and children reported elevated moods I
displays of positive affect. They also reported that children’s heart rates improved stating that pet therapy provides additional support for hospitalized children.


The article presents a program using animal assisted therapy as a therapeutic tool as well as an indicator for mental illness. The article discusses the link between child abuse and animal abuse as they look at how their participants interact with the animals and how they treat the animals.


This study examined the positive effects that Animal-Assisted Therapy interventions have on anxiety in Psychiatric patients. A brief history of the use of Animal-Assisted Therapy in the field of mental health is discussed. Furthermore, results show that in the group using AAT there is a decrease in anxiety for patients with various psychiatric diagnoses compared to a decrease in anxiety for only mood disorders for the groups doing a routine therapy session.


This article is about a research study on a group of cognitively intact elderly patients in Italy. There were 144 participants divided into three groups: one group got a canary, one a plant and the other got nothing. The results show that the groups with the canaries had the greatest benefits in two areas: increase in quality of life and decrease in depressive symptoms.


This article discusses the various benefits that equine-assisted therapy can have on a person with a psychiatric illness. Five adults with longstanding psychiatric disabilities were recruited for a ten-week program where they rode horses; learning to ride and become friends with their horse. The effects of the program were studied through a semi structured interview and then analyzed. Results showed many positive effects including an increase in self-esteem and psychosocial gains were made.


This article discusses the results of a study on prison inmates and the positive effects that animal-human interactions have on the inmate’s behavior and social skills. The two groups that were studied were one: a group of inmates accepted into the Human-Animal Interaction Program and two: inmates who were on the wait list for the program. Results showed positive effects in each area of criminal behavior infractions, social skills and
treatment of the community. Limitations were noted such as the participant’s interactions with animals before the study was conducted.


This article takes a look into each of the areas named in the title; Animal Assisted Therapy, Prolonged Exposure Therapy, survivors of sexual abuse and PTSD. It then presents a collaboration of the two therapies and effects of that combination for the issues related to sexual trauma and PTSD. The presentation includes a drafted treatment plan outlining structured sessions and homework for the client. Limitations of the program are addressed as well as future goals for this type of therapy.


In this article the history of Animal-Assisted Therapy starts the discussion on how Animal Assisted Therapy has been used in the mental health field. It further discussed the various research studies that have been done using AAT as a treatment for a particular mental illness such as depression in college students and emotional behavioral issues in young adolescent boys. The author goes into her own reflection of how Animal-Assisted Therapy has touched her life personally and professionally.


This article discusses a study done on 90 patients with psychiatric disorders. The study examined the effects of interventions involving animals, plants, gardens and the landscape. The areas of change focused on self-efficacy, coping ability and quality of life while the disorders present in the patients were schizophrenia, affective disorders, anxiety, and personality disorders. Results showed an increase in self-efficacy as well as an increase in coping ability. However there was no change in the quality of life.


This article examines a research study describing an Equine-Assisted Therapy program and its effects on areas such as psychological distress, less burdened by guilt and resent and more self-supportive. The article looks at the different ways to use a horse therapeutically and metaphorically. Moreover, it gives a detailed curriculum in the appendix displaying the unique techniques that can be used in Equine-Assisted Experiences.


This article describes a specific case study of a young woman struggling with an eating
disorder. Equine-Assisted Therapy interventions are used as the primary treatment with the help of a psychotherapist and horse handler. The article gives detail about the client’s process and progress through the treatment.

Nilson, R. (2004) Equine-Facilitated Psychotherapy. *Perspectives in Psychiatric Care 40*(2)  This article is a letter to the editor of a journal sharing their personal experience with horses and how they have helped them through difficult times. The author works in the Animal Science Department at a University and describes how she has witnessed the benefits of human-animal interactions.

Turner, W. (2007) The Experiences of Offenders in a Prison Canine Program. *Federal Probation* 71(1) 38-43  This article discusses a canine training program implemented into treatment for prison inmates. The inmates are taught how to train dogs to become service animals with the help of professional trainers. The article states that the purpose of the study is to record the benefits of these training programs that exist within prisons through the United States. Results were positive particularly showing strong improvements in the inmates’ self esteem.

Deprekel, M. (2002) Metaphors in Mental Health. Retrieved on April 20, 2009 from [http://www.mnlinc.org/metaphors.html](http://www.mnlinc.org/metaphors.html)  This article discusses the metaphors in Animal-Assisted Therapy and how they can be applied to a client’s real-life world. The author is a Psychologist in Minnesota who uses Animal-Assisted Therapy including the use of horses. She describes in the article a case about a young boy’s resistance to therapy with a horse and how that translates into his own life’s problems.