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## **Animal-Assisted Therapy: Mental, Physical, and Emotional Benefits Provided through Occupational Therapy**

Madeline C. Greene

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**NORTHERN ILLINOIS UNIVERSITY**

**Animal-Assisted Therapy:  
Mental, Physical, and Emotional Benefits Provided through  
Occupational Therapy**

**A Thesis Submitted to the**

**University Honors Program**

**In Partial Fulfillment of the**

**Requirements of the Baccalaureate Degree**

**With Upper Division Honors**

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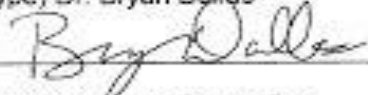
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Student Name (print or type) Madeline Greene

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Animal-Assisted Therapy:  
Mental, Physical, and Emotional Benefits  
Provided through Occupational Therapy



Madeline Greene  
Northern Illinois University

Animal-Assisted Therapy:

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Madeline Greene

Northern Illinois University

### Abstract

The idea of animal-assisted therapy seems like it may be a new alternative of therapy, but in reality it dates back to ancient Egypt and dogs were considered sacred and used as a healing power (Fine, 2000). AAT is commonly used in Occupational Therapy where benefits can be identified physically, mentally, and emotionally. Using existing accredited research the benefits of the three health pillars will be analyzed to investigate whether or not AAT within Occupational therapy is beneficial to patients. AAT is not biased, any race, disability, and culture is able to use this form of alternative therapy (Winkle, 2012). It is important to note that an animal has a strong ability to understand our behaviors as well, which in return is able to create a trusting therapeutic relationship (Fine, 2000). Specifically dogs have such great skills in communication with humans because they have a predisposed ability to read our faces for important information, reassurance, and guidance (Fine, 2000). AAT is able to fulfill needs that money and economical resources cannot.

## Animal-Assisted Therapy: Mental, Physical, and Emotional Benefits Provided through Occupational Therapy

Animal-assisted therapy (AAT) is a hidden gem in the therapy world. Although most people believe that it is a fairly new advancement in the medical field, it actually dates back to ancient Egypt where dogs were given as offerings and their saliva was used as a healing treatment for the ill (Fine, 2000). This alternative form of therapy is one in which any type of animal is used with the conjunction of evidence-based practice to help an individual with a disability gain independence and benefit through the mind, body and spirit (Ashcraft, 2010). The American Humane Association (AHA) defines animal-assisted therapy as a goal-directed intervention where an animal is used as an integral part of the therapy process for people with disabilities. AAT is delivered commonly by an Occupational therapist or a Physical therapist who has knowledge on providing therapy between an animal and a human (Weintraub, Mamtani, Micozzi, 2008). Many children relate to animals as their peers, which helps in therapy because it facilitates learning, socialization skills, and communication skills (Kurtz, 2008). Children are also able to read an animal's body language and understand the animal's feelings which helps children with disabilities especially autism spectrum disorder (ASD) be able to transition feeling empathy towards an animal to other humans (Kurtz, 2008).

### **Limitations of Animal-Assisted Therapy through Occupational Therapy**

In a perfect world there would be no limitations to using AAT, but because there are added ethical principles of integrating an animal into therapy sessions there are limitations that go along with it. Patients with asthma and allergies are not well suited for AAT because there are health risks involved for the patient and would therefore decrease the benefits of having a



therapy animal (Kurtz, 2008). Certain aggressive behaviors a patient exhibits that could cause injury or illness to the therapy animal, therapist or patient is not an ideal situation for AAT (Kurtz, 2008). Any therapy animal needs to go through special training, health screenings, and licensing in order to become certified to work in therapy sessions with people who have disabilities, therefore this significantly decreases the amount of therapy animals that are available, but this all needs to be done to ensure the best care for patients (Kurtz, 2008).

### **Purpose of the Review**

The purpose of the review is to provide a review of literature that has researched the benefits provided through AAT and promote awareness to the alternative therapy and educate people on how it can help patients with disabilities mentally, physically, and emotionally. There are many people who have negative attitudes towards people with disabilities and the therapies that help them. Although animals have helped humans in different ways since ancient Egypt, it is still not a common form of therapy used. AAT is regarded as being a therapy that is not respected and some people even believe it to be foolish (Fine, 2000). Due to the fact that AAT is not a mainstream therapy leads people to not know a lot about the details involved and how the animals are used during therapy to provide care for patients, which provides uneducated assumptions. In order to narrow down the research to more accurately review the literature the following research questions helped provide guidance. The questions included:

1. Does the use of Animal-Assisted therapy within the practice of Occupational therapy provide physical, mental, and emotional benefits for people with disabilities?
2. What techniques are used in AAT?

An important part of AAT is incorporation of different kinds of animals (dogs, cats, horses, miniature ponies, Guinea pigs, and birds etc.) being able to be used as therapy animals so in

order to emphasize the varying role a specific animal was not focused on during the review. The ideal type of animal to use in AAT depends on the individual's disorder, what types of animals are available, and the preference on the individual receiving AAT (Vincent, Kropp, Byrne, 2014). Along with the varying types of animals that can be used in therapy there are also a different number of healthcare professionals that can be certified in AAT, but for the purpose of this literature review OTs will be the primary focus.

### **Methodology**

A literature review was conducted. With the formation of research questions the following keywords were used to search: Occupational Therapy, Animal-Assisted therapy, animals, hippotherapy, and disabilities. The main research engine was provided through the Founder's Memorial Library of Northern Illinois University. Using the CINAHL database and American Journal of Occupational Therapy the keywords were used to find case studies, journals, books, and articles. Searches of the resources were done January through March of 2015. Several resources were discarded due to the research being done outside of the United States (with the exception of a study done on American soldiers during the Iraq war). In order to increase the amount of search results from CINAHL the following keywords were added: benefits, pet therapy, and service animals.

### **Results**

A total of eleven sources were used for the results provided in this literature review. The following sources have produced results within the mental, physical, and emotional pillars of health. In Birmingham, Alabama Hand-in-Paw is a nonprofit AAT program that enlists the help of OT's in three different types of programs These programs may benefit clients mentally, physical, and emotionally. The first program is called Petscription and it focuses on clients who

are receiving rehabilitation, social support, medical, and psychiatric care. Animal-assisted activities (AAA) are provided to help distract clients from their pain. Patients also improve on dynamic standing balance in a rehabilitation setting, and increase children's hemiparetic upper extremity during constant-induced movement therapy, and motivate pediatrics to participate in therapy sessions (Ashcraft, 2010). Petscription is also available to promote social interaction for elderly patients in a center for psychiatric care. The Sit, Stay, Read program helps children who have learning disabilities gain confidence in a learning environment. Children are able to read to a therapy animal which creates a nonjudgmental atmosphere. The benefits seen were children excited and happy to read with a boost in their confidence which then led them reading out loud to family members and other classmates (Ashcraft, 2010). Lastly, the Pawsitive living program uses animals to decrease violence, and teaches youth skills to be able to successfully thrive in the community (Ashcraft, 2010). Animals are brought to various group homes, community centers, homeless shelters, and Autism centers. Pawsitive living found that the presence of the therapy animals seems to allow people to better express and understand their emotions as well as others' emotions.

Using AAT is gaining in popularity because dogs are able to decrease agitation and frustration while increasing patience during Occupational therapy sessions (Winkle & Jackson, 2012). Occupational therapists have recorded benefits of global functioning, walking distance in elderly, use of language, social skills, and motor skill performance (Winkle & Jackson, 2012). A dog will be used during a therapy session to promote proprioception by having a patient balance on a balance board while gathering dog treats off of the floor. Another activity used to help motor skills is running a dog through an agility course during an OT session. Cognitive skills are enhanced by having patients go shopping and then cooking homemade dog cookies with the

therapy animal. Another form of AAT is hippotherapy and OTs incorporate horses to help patients gain physical skills to become more independent. Hippos from the greek word meaning horse. Hippotherapy is performed on the horse under instruction from a health professional one of which would be an OT. The goals of hippotherapy are reaching physical, psychological, cognitive, behavioral, and functional improvements goals set by the OT and the patient/family (Chang, Kwon, Lee, Kim 2012). A study involving hippotherapy evaluated the effects of eight weeks of hippotherapy in preschool- and school-aged children with spastic bilateral Cerebral palsy. The results showed that the scores of Gross Motor Function Classification System (GMFCS) and the Pediatric Balance Scale (PBS) had increased after hippotherapy sessions were completed (Chang et al., 2012). If an individual is looking for a smaller sized therapy animal there is also the option of using a service dog in certain cases.

An ethnographic approach was used to conduct a study of OTs recommending service dogs as an alternative therapy for the patient with a disability. Ethnographic approaches means using an entire culture to gain qualitative research. Mary Michelle Camp (2001) took five individuals with different disabilities that included; cerebral palsy, lupus, muscular dystrophy, rheumatoid arthritis and spina bifida, and C-1 SCI. Two of the participants were female and three were male from 32-52 years old. The participants were interviewed at several different dates and were asked a series of questions regarding their service dogs. Along with interviews there were also observations done during the study. All five participants seemed to have similar themes that they gave as a result of owning a service dog. The first common theme was how they used their dogs as an adaptive strategy. The participants all had physical deficits that they were living with and they found that the dogs were able to help them adapt to a more efficient lifestyle by having the dogs pick things up off the floor that they had dropped, opening up doors, bracing to get up,

retrieving items for them so that they could conserve some of their energy for other needed tasks. According to Megan; one of the participants “He is worth his weight in gold just for picking things up that I drop” (Camp, 2001, p. 512). Many people without a disability do not realize how much energy would be expelled for someone who has a disability when they drop something and are trying to retrieve it. Megan who has rheumatoid arthritis would routinely have her dog bring her medicine to her because her hands would be inflamed from her arthritis and her hands would be too unstable to get it herself. The second common theme found was increased participation. In the study done by Camp (2001) Brian who was a participant in a wheelchair for the study was able to continue to play sports because his service dog would pull him in his wheelchair. Before his service dog he found himself not hanging out with his friends due to the fact that he could not play the sports with them anymore. Megan said that because of her service dog she is able to go to the mall and shop for a longer period of time because she does not get easily tired like she did before. Brian who is another participant reported that his service dog gave him more confidence and security to go out in public and do more activities. Brian would have to wait for someone walking by to open a door for him and now he can just do it on his own with his service dog. Mental and emotional benefits emerged as a third common theme from owning a service dog. All five participants said that due to their ownership of their service dog they found that they were able to have independence, companionship, increased self-esteem, security, skill development and most importantly fun. Jason said, “Without a doubt, people don’t have a clue about the amount of rewards you are going to get out of a dog” (Camp, 2001, p. 513). Almost all of the participants all said the same thing, that their service dog was considered family to them. Camp (2001) found that the participants continuously talked about their relationship and companionship from their dogs more than the tasks that their dogs could do for them. Jason said

that his dog provided the two most important benefits that he could receive from his dog and that was nonjudgmental love and acceptance. Jason was surprised by how much personal skill development he gained from his service dog. For example he said prior to the service dog he was very angry about his disability and it therefore made him a very intolerable person in general. He said that he gained a lot of personal development from his dog because when he got him he was still young and learning things which required a lot of praise in order to reinforce the positive outcome of the dog's performance. Being able to train his dog new things and be positive and rewarding helped shape his attitude towards his relationships in life and school presentations. Seena was a very shy person before her service dog and after owning a service dog and knowing her rights that allowed her to go into any building with that dog she was able to become more confident and outgoing. The only thing participants wanted to make sure people were aware of about having a service dog was the responsibility of providing veterinarian care, and daily maintenance of their dogs and that even though organizations usually donate the service dog they do not continue to give maintenance donations. Camp (2001) reiterates the fact that OTs are one of the leading health care providers that give recommendations for using therapy dogs based on individual patients' needs.

The problem with people who have disabilities using assistive technology is that they do not continue to use them after a period of time, however people that own service dogs continue to use them and have therapeutic benefits. They gain not only independence but a strong relationship with their service dog. In a study done by Zapf in 1988, 74.4% of 43 OTs who assessed their patients' assistive technology needs only 27% of the OTs had mentioned using a service dog to help with activities of daily living and helping the patient adapt mentally to their

disability. Service dogs have been shown to benefit individuals with disabilities in a variety of ways that have been shown through the study done by Mary Michelle Camp.

Sigmund Freud was a founding father of AAT. He often had his chow chow dog named Jofi in his office while he did his psychotherapy sessions. Freud found it to be comforting for himself to have the dog in the room, but what he did not know was that Jofi would end up being a key therapy technique for his patients because he found that his patients were calm when they were normally resistant and violent towards therapy (Fine, 2000). Children ages 7-17 years old were found to have less fear of being hospitalized after the visit of a therapy dog that they were able to interact with and groom (González-Ramírez, Ortiz-Jiménez & Landero-Hernández, 2013). Patients also were found to have cardiovascular benefits as well.

A healthy human heart not only depends on diet and exercise, but it has also been found to depend on social and emotional health of an individual (Fine, 2000). AAT has been found to help improve cardiovascular health (González-Ramírez, Ortiz-Jiménez & Landero-Hernández, 2013). Neuro-chemistry has a big impact on physical elements of the body. It seems fitting that the three pillars all relate to each other in some way or another and in return is why AAT is able to provide benefits for a wholesome therapy technique.

In a study done by Fike and Dougherty (2012) for the collective experience with AAT in Iraq; the therapy dogs were able to assist with comforts from home for the service members through playing fetch and socializing with the dog. Service members found this to be a relaxing and enjoyable time that reminded them of home and made the days in service seem more tolerable for them. The therapy dogs were also able to bring stress levels down throughout the camp, which in return helped the mental state of service members. Dogs were able to provide assistance to service members while adapting to their new lifestyle. Many soldiers were new to

the war zone life and received some shock for the first couple of months and because the dogs were there with the OT they were able to work together as a team to make the transition easier by having the emotional support of the therapy dogs and the adapting skills that the OT was able to provide to the soldiers. The teamwork of an OT and a therapy dog are not only able to help soldiers while they are at war, but they are also able to go to the opposite spectrum of patients and help children in a school setting.

A case study done at Hanson Park school of a boy named Dennis who receives OT and PT at his school would soon be transitioning to high school where he would need to walk longer lengths to class, use a locker, and complete a more difficult school setting. The OT brought in a therapy dog to help him reach his goals of improving his balance and endurance (Soto, 2008). The therapy would last an hour long every other week and although this does not seem like much AAT was added on to Dennis' additional therapies he was receiving, but Dennis' mood during therapy sessions with Ceili were reported to be more positive. The therapy dog named Ceili helped Dennis gain endurance and balance and in addition was able to help him with fine motor skills by manipulating fasteners on different collars for Ceili. The fine motor therapy gave him more independence on opening his own locker and other fine motor skill related activities in school (Soto, 2008). Not only did therapists see a difference physically in Dennis while at school and home, but they also saw his confidence, self-esteem, and motor planning increase from having the AAT merged into his therapy sessions (Soto, 2008).

### **Discussion**

Within the literature review a total of eleven studies were discussed that each successfully provided patients with benefits from AAT. From ancient Egypt to the current there



is evidence that AAT can be a positive form of alternative therapy for OTs to use within their professional practice. Mentally AAT increases confidence, self-esteem, independence, and awareness of others; feelings. Therapy animals have helped people physically with fine motor skills, endurance, cardiovascular health, balance, and skills to needed to care for an animal. One of the main benefits that AAT provides for patients is the overall emotional state of going to therapy sessions and living with a disability. Sigmund Freud found that having an animal with patients during therapy has increased attendance and therefore allows the individual to receive more treatments. The presence of a therapy animal is beneficial because the patients are in a calmer state, and ultimately a positive mood which was discovered by Sigmund Freud when he would bring his dog to work with him (Fine, 2000). An emotionally balanced individual is able to benefit from therapy more than if they are depressed, raged, or nervous about going to therapy. Although *The Handbook on Animal-Assisted Therapy* is dated to the year 2000 and is older than anticipated in terms of a literature review the information used from the book is still current today and has not changed (Fine, 2000). The book was used because it covers so many different aspects of AAT and answers many questions about the alternative therapy that other resources failed to do. The benefits provided through the studies regarding mental and emotional improvements in patients cannot be measured accurately it is all based on patient feedback and observations of therapists and therefore should be considered on a theoretical basis when reading the literature review. The review of the studies has concluded that there are recorded and observed benefits to AAT. It is important to understand that although there are only some benefits listed that not all people can experience the same benefits and may see different results. Every person is different and there are many different types of disabilities that an individuals can have along with comorbidity of diagnoses. To further research I would recommend gathering

experience from OTs who are certified in AAT. The knowledge that they would be able to provide would enhance the literature review. With the current literature review I have done I have concluded that AAT has a positive impact on the physical, mental, and emotional benefits for individuals with disabilities.

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