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# The Effects of Dog-Assisted Therapy on the Lonely Elderly: What Role Does Previous Dog Ownership Play?

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Today, it is projected that around 15-20% of elderly who are not suffering from illness are depressed. This places them as the population with the highest rate of depression in the United States (Miu & Chan, 2011). Loneliness is commonly associated with depression, an important emotion to manage before it leads to more severe issues such as suicide. One way to improve feelings of loneliness is through the use of animal-assisted therapy (AAT) or pet ownership. We propose an experimental study which predicts that elderly who have owned dogs in the past will gain more benefits from AAT than elderly who have not owned dogs.

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The relationship between humans and animals has existed throughout history. Before modern technology, animals provided support for everyday tasks such as transportation and labor; they were seen as tools to offer assistance with physical jobs (Chu, Liu, Sun & Lin, 2009). Humans took care of animals' needs as well by providing them with food, shelter, and healthcare. This facilitated reproduction of the animals and promoted their lifespan; they no longer had to fend for themselves in the wilderness (Chardonens, 2009). As modern technology progressed, people often considered domestic animals to simply be companions. However, in different programs today, animals are being increasingly used as psychological tools that professionals can use in the assistance of helping others.

Pet ownership alone can be a great support system. People who own pets have the potential to be healthier than those who do not (Brodie & Biley, 1999; Siegel, 1990). Siegel (1990) even found that elderly experiencing stressful times in life reported fewer doctor

visits if they had a pet. Pet ownership may also contribute to the social lives of those who are lonely. In 2009, Zimolag and Krupa found that people with mental illness who owned pets were more connected with others in their community. A prevalent bond forms between the owner and the pet which can be extremely similar to human relationships (McNicholas, Gilbey, Rennie, Ahmedzai, Dono, & Ormerod, 2005).

Animal-assisted therapy (AAT) is the active involvement of a trained animal to facilitate the treatment process for patients. The goal of AAT is to assist progress towards goals created in a therapy setting through the collaboration of patients and an animal (Barker & Dawson, 1998). AAT is related to improvement of well-being in various patients such as those with mental illness or substance abuse (Jaspersen, 2010; Halm, 2008). Children, adults, and elderly with various health issues have been shown to benefit from receiving AAT (Chu et al., 2009; Berget & Braastad, 2011; Moretti, De Ronchi, Bernabei, Marchetti, Ferrari, Forlani et al., 2011; Solomon, 2010).

A variety of animals have been used for AAT. Edwards and Beck (2002) found that introducing Alzheimer's patients to fish aquariums had a positive influence on their food intake. Alzheimer's disease is associated with weight loss, which makes it common for malnutrition to develop in those with the disease. Nutritional supplementation becomes important and is

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often used to maintain a healthy lifestyle. The use of aquariums placed near dining areas is successful in helping to engage patients during meals, therefore increasing food intake. Farm animals have also been used as tools for AAT. Patients with mental illness who participated in a program which involved caring for various animals and doing daily chores around a farm had an increase in positive behaviors (Chardonens, 2009). Exposing the patients to a work environment is also a benefit because it may encourage them to develop a better work ethic (Berget & Braastad, 2011).

The most common animal used for AAT is dogs. In a mental health setting, receiving AAT provides increased emotional well-being. Chu et al. (2009) reported that well trained therapy dogs have multiple benefits in individual interactions with schizophrenic patients. In this study, schizophrenic participants filled out a questionnaire both before and after AAT treatment; results indicate that self-esteem, psychiatric, and emotional symptoms improved more than for a control group with no AAT. Similar research has found that schizophrenic patients express temporary improvements in psychiatric symptoms including delusions and hallucinations (Villalta-Gil, Roca, Gonzalez, Domenec, Cuca, Escanilla, et al., 2009).

Increased social functioning is also evident through the use of AAT. In an experimental study involving autistic children, researchers concluded that patients had more incidence of positive behavior for longer periods of time in the presence of a therapy dog (Silva, Correia, Lima, Magalhães & de Sousa, 2011). Similarly, a study on inmates suggests that dog therapy assists in creating social skills, coping skills, and self-awareness (Jasperson, 2010). Each week, inmates involved in a mental health group would try to teach the therapy dog new tricks. Acting as a facilitator, the dog helped them realize that learning new things can be difficult and it taught them to become more patient with themselves in similar situations. Likewise, Friesen (2010) investigated social skills of children in a school environment. It may be difficult for young children to be social in a new environment; therefore, the presence of an animal can make them more comfortable. AAT allowed the children to feel safe to express their feelings without being judged as occurs in human relationships. Also, because dogs are so eager for social interaction, it may provide inspiration for children to be more social (Friesen, 2010; Silva et al., 2011; Solomon, 2010; Tsai, Freidmann, & Thomas, 2010).

Lack of social interaction inevitably leads to loneliness, which may eventually lead to depression. Substance abusers and the elderly are two groups prone to experiencing loneliness. It is especially hard to feel comfortable in a group setting for substance abusers because the disease of addiction is a lonely one. There is a lot of guilt and shame associated with addiction (Wesley, Minatrea, and Watson, 2009). Substance abuse patients in group therapy were more comfortable when a therapy dog

was involved. The dogs had no specific method to which they should interact with the patients; simply the presence of them allowed the patients to feel comfortable (Wesley et al., 2009). Likewise, studies on the elderly indicate that even owning a pet can provide them with a companion simply to keep them from feeling lonely when they are suffering from an illness (Moretti et al., 2011; Edwards & Beck, 2002; Banks & Banks, 2002).

Research suggests that animals can have an impact on physical health. In an individual setting, animal interactions can reduce patient's blood pressure (Tsai et al., 2010). For many children, hospitals can be a stressful environment due to lack of insight of what is going on. In one study, during their stay at a hospital, children received animal-assisted therapy while in their room (Tsai et al., 2010). The patients had to complete a puzzle with the researcher for a 6 to 10 minute period. Following this, a trained dog was brought into the room for the same amount of time. Blood pressure and heart rate were measured every two minutes for each condition. Results indicated that AAT calms hospitalized children and therefore lowers their blood pressure. Another study also showed that in group settings as well, the presence of an animal may provide a calming effect which may reduce blood pressure, breathing, and pulse rate (Wesley et al., 2009).

Though AAT can benefit all age groups, the elderly are often studied. They are subject to depression due to many changing factors in their lives. Many elderly live on their own but there are also others that are unable to care for themselves and have to be moved to nursing homes. Death of a loved one or spouse is also common in old age. All of these things may contribute to depression and loneliness. Today, it is projected that around 15-20% of elderly who are not suffering from illness are depressed (Miu & Chan, 2011). Decline in ability to function is also a key factor leading to depression. It is difficult to go from independence to relying on a caretaker for everyday needs.

Although the findings from past research offer a lot of information related to AAT, there are still factors that can be researched. There is a positive correlation between owning a pet and supporting the idea of pet therapy (Banks & Banks, 2002). What has not been tested is whether or not previous pet ownership moderates the effect of AAT. Do those who have not had pets benefit the same from it? The aim of the current study is to investigate previous dog ownership versus non-previous dog ownership of healthy elderly living alone to examine whether previous dog ownership enhances the benefit from AAT. Previous dog ownership would include those who have owned a dog for at least five years and non-dog ownership would include those who have never owned a dog. We hypothesize that those who have owned dogs in the past will gain more benefits from AAT than those who have not owned dogs.

## PROPOSED METHOD

### *Study Design*

We will conduct an experimental study which will evaluate a dog-assisted therapy program. The use of a program evaluation will allow us to best determine the effectiveness of dog-assisted therapy.

### *Participants*

We plan to study the elderly between the ages of 70 and 85 years old. We will attempt to recruit an equal number of males and females. All participants are required to be in good health, living at home alone, and able to care for themselves. We will post an advertisement in newspapers and magazines around the country in order to recruit participants from all over the United States and those who choose to participate will be randomly selected. Random selection will allow us to look at a diverse population of those living alone. Some people may have lived alone for longer than others, some may have a close network of friends and family, and some may only have distant relatives or no support system at all.

### *Measures*

We will first collect demographic information from participants such as sex, age, and race. The Pet History Questionnaire (DPHQ) will be administered before treatment in order to establish the participant's relationship to pets in the past. It will give us information on how long they have had a pet and what type of animal it was (Banks & Banks, 2002). This will help us to separate the participants into each of the conditions.

The UCLA Loneliness Scale Version 3 (UCLA-LS) will be administered both before and after treatment (Russell, 1996). This scale is designed to establish a baseline for loneliness. After treatment, they will take it again to determine whether or not dog-assisted therapy improved their feelings of loneliness. The Quality of Life Assessment (WHOQOL-BREF) will also be administered both before and after treatment (World Health Organization, 1993). This scale consists of questions which are used to rate quality of life and health. After treatment; they will take the questionnaire to determine whether or not dog-assisted therapy improved their perception of quality of life. The Helping Alliance Questionnaire (HAQ-II) will be administered after treatment. This scale is designed to give us an idea of how effective the participants felt the dog-assisted therapy was (Luborsky, Barber, Siqueland, Johnson, Najavits, Frank, et al., 1996). The Satisfaction with Treatment Questionnaire (STQ) will allow participants to evaluate the program after it is complete (Larsen, Atkinson, Hargreaves & Nguyen, 1979).

### *Procedure*

There will be an experimental group which will receive dog-assisted therapy and a control group which will receive cognitive behavioral therapy. From the completion of the Pet History Questionnaire, pet ownership will be determined. Random assignment will be used to place participants in each condition. The purpose is to measure how pet ownership moderates the effects of dog-assisted therapy. All dogs will be trained therapy Labradors between the ages of five to ten years old.

For two months, participants chosen for dog-assisted therapy will receive it five times a week for two hours each day. The time that therapy will take place will be determined by the participant since they will be required to be at home during this time. A trained therapist will be present for each session in order to care for the dog and provide therapy when needed. Each participant will see the same dog and the same therapist every time. The main emphasis of each session will be focused on the interaction between the participant and the dog. For the first hour, the participant will have a therapy session with both therapist and dog. For the remaining hour, the therapist will still be present but mainly just as an observer and the dog will be with the participant as they go about their daily routine at home. The participants chosen for traditional therapy will have the same guidelines but with a therapist only. In the session, the first hour will be a direct therapy session and the second hour will be more flexible depending on what the client wants to do.

Once the two months is up, participants will fill out both the UCLA-LS and the WHOQOL-BREF again. Those who receive dog-assisted therapy will also fill out the HAQ-II and the STQ in order to see how they felt about receiving animal-assisted therapy.

## CONCLUDING REMARKS

### *Significance*

This design will allow us to experimentally test the benefits of dog-assisted therapy. We will compare traditional therapy to dog-assisted therapy while looking at pet ownership as a moderating variable. We believe that participants in the dog-assisted therapy group who have owned a dog will be the most satisfied with therapy. It is predicted that participants will have a more positive outlook on their lives and develop a sense of companionship which will decrease their levels of loneliness. It is possible that in the future suicide rates may decrease in the elderly because of this study. Elderly who attend therapy may be more encouraged to own a dog. If research supports the idea of pet ownership, it is likely that healthcare providers may recommend pet ownership especially to those who are lonely. AAT can change the

outlook of traditional therapy. If the results support our hypothesis, this study may lead to the encouragement of developing more programs involving animal-assisted therapy.

*Limitations*

One ethical concern is that those who receive a large benefit from animal-assisted therapy may feel even lonelier after the experiment is completed. Perhaps the experiment should attempt to wean participants off therapy by lessening the number and length of visits toward the end. It is a possibility that they can buy a dog; however, some people may not be able to care for one on their own or afford to do so. This is why the development of AAT programs is significant. It will give elderly a chance to develop a relationship with a dog if they cannot own a pet of their own.

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