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The Effects of Training Puppies on Schizophrenic Patients Living in Assisted Living Facilities

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Animal Assisted Therapy (AAT) is a type of therapy which has a safe, comfortable and non-threatening environment for clients since the 18th century (Coetzee, Beukes, & Lynch, 2013; Chu, Liu, Sun, & Lin, 2009). Past research indicates that animal assisted therapy has been extremely beneficial for multiple populations such as: children and adolescents who have been sexually abused (Kemp, Signal, Botros, Taylor, & Prentice, 2014), substance abuse inpatients (Coetzee, Beukes, & Lynch, 2013), children with autism spectrum disorders (ASD) (Berry, Borgi, Francia, Alleva, & Cirulli 2013), the elderly (Moretti et al., 2011), and individuals with psychiatric disabilities, including schizophrenia (Bizub, Joy, & Davidson, 2003). Past research regarding the effects of AAT on schizophrenic patients presented several limitations; the exposure to the therapeutic animals was limited and a follow up assessment was not conducted. This study will examine if schizophrenic individuals who live in an assisted living facility exhibit an improved quality of life after an AAT program which allows these individuals to train service puppies. The World Health Organization Quality of Life Assessment BREF will be distributed prior to and following an 18 month puppy training program. This 18 month program will involve schizophrenic participants training puppies to be given to a child with a disability. Once the 18 month program is completed, it is hypothesized that schizophrenics who train a puppy will indicate an increased quality of life.

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Animal-assisted therapy (AAT) is a form of therapy which promotes social interaction, as well as improvements in human social, emotional, physical and/or cognitive functioning, creates an environment where the client can disclose and experience empathy, trust, sensitivity, and comfort (Coetzee, Beukes, & Lynch, 2013; Pet Partners, 2012). Pet/animal assisted therapy has been traced back to the 18th century, with records indicating that in 1919, pets accompanied psychiatric patients in a Washington D.C hospital (Chu, Liu, Sun, & Lin, 2009). When therapy sessions are accompanied by the presence of an animal, the client enters a non-threatening, safe and

trusting environment where self-disclosure of personal emotions and experiences becomes easier for the client (Coetzee, Beukes, & Lynch, 2013).

AAT programs have included domestic, as well as exotic animals. Coetzee, Beukes, and Lynch (2013) conducted a study which involved animal assisted therapy with lions, wild dogs, tigers, mongoose, cheetahs, and ostriches for substance abuse inpatients in South Africa. However, most animal assisted therapy sessions include horses or dogs. Equine therapy is a form of therapy which involves horses as a means to provide meaningful experiences in order to promote emotional growth (Equine Psychotherapy, 2008). According to Kemp, Signal, Botros, Taylor, and Prentice (2014), equine therapy has been successful, partially due to the client's sense of empowerment after

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learning how to control, and interact with these larger animals. A service dog is trained to do work, care for, or perform tasks for people with physical or mental conditions which may inhibit major life activities/functions such as: caring for one's self, learning, walking, performing manual tasks, speaking, breathing, seeing, and working (Americans with Disabilities Act, 1990). By incorporating animals such as dogs and horses into therapy sessions, many groups of people can experience the animals' multitude of benefits.

While horses and dogs have been regarded as therapeutic animals, Coetzee, Beukes, and Lynch (2013) studied a more exotic AAT program. These researchers studied how an AAT program involving lions, cheetahs, tigers, giraffes, wild-dogs, and other exotic animals in South Africa affected substance abuse patients. Participants indicated that AAT enhanced their self awareness while forming positive experiences which contributed to a more successful treatment program. Surprisingly, after interacting with these exotic mammals, participants also reported an increased state of self-awareness, and personal identification of emotions, and were able to discuss their thoughts, emotions, motivations, and conflicts.

Research has been indicated that equine therapy has displayed positive effects on individuals with psychiatric disabilities. After experiencing therapeutic horseback riding, participants stated that they were able to conquer their fears, feel more positively, have a better sense of self-worth, and a greater sense of empathy (Bizub, Joy, & Davidson, (2003). This study is rare due to the six month follow up that was conducted. The follow-up indicated that patients still felt a heightened sense of self-esteem, increased social interactions, greater insight, an enhanced self-efficacy, levels of happiness, and even an increased desire to exercise.

A more recent study has been conducted which identified that children and adolescents who have been sexually abused also have experienced the benefits of equine therapy. Thirty adults and children participated in weekly 90 minute equine facilitated therapy sessions for 10 weeks. Participants were assessed before, during, and after the 10 week program. During the equine facilitated therapy sessions, participants learned basic horsemanship skills; each activity was designed to acknowledge various issues such as: body language, trust, self-perception, body language, boundaries, attitude, and

communication. After participating in the equine therapy sessions, children and adolescents displayed a significant reduction in symptoms such as: anxiety, trauma, undesirable behaviors, and depression (Kemp, Signal, Botros, Taylor, & Prentice, 2014).

While AAT programs involving horses and exotic animals have been examined, AAT programs involving therapy dogs are much more common. According to Moretti et al., (2011) elderly patients with a wide range of mental illnesses responded positively to animal assisted therapy. Researchers exposed the elderly participants to one 90 minute session with a therapy dog for six weeks and noticed various positive effects. Specifically, patients with dementia experienced cognitive function improvements, as well as enhancements in motivational and emotional aspects. Participants also reported an increased self-perceived quality of life after animal assisted therapy, as well as a decrease in depressive symptoms. Patients indicated that the experience was interesting and enjoyable and would recommend animal assisted therapy to other elderly people.

More recently, Berry, Borgi, Francia, Alleva, and Cirulli (2013) reviewed literature which examined the effects of therapy dogs on children with Autism Spectrum Disorder (ASD). After interacting with therapy dogs, children with ASD exhibited: a decrease in problematic behaviors, isolation and aggressiveness, while motor function increased as well as improvements to their daily routine, social interaction and an increased use of language. By introducing a friendly therapy dog into a therapy session, children with ASD also showed an increase in verbal and nonverbal social behaviors. These beneficial effects of AAT were also present in a one month follow up; however, the benefits were not plentiful as the initial findings (Berry, et al., 2013).

Dogs are even the focus of programs for prison inmates as well. The Indiana Canine Assistant and Adolescent Network (ICAN) places service and trains service animals in correctional facilities (Turner, 2007). Through this program dogs are trained to assist individuals with various daily living activities and once these dogs graduate from the program, they are given to children with physical disabilities. Six offenders participated in this study and were interviewed to assess the inmates experiences and thoughts of the dog-training program. As a result of their participation in the program, the offenders patience, social

skills, parenting skills, desire to help others, and self-esteem, were all positively affected. Due to the nature of the ICAAN program, participants gained a deeper sense of responsibility and reported having more patience which could improve the relationships with their children. Also, participants achieved an improved self-esteem after being trusted to train the dogs for children with physical disabilities. This program could serve as a model for future treatment programs due to the multiple beneficial parties; the population which trains the dogs, and those who receive a dog. From these studies, it is evident that animal assisted therapy has benefited many populations; which makes this alternative form of therapy something to consider for the future and with more populations of people with physical or mental conditions.

According to the American Psychiatric Association (2013) “schizophrenia is characterized by delusions, hallucinations, disorganized speech and behavior, and other symptoms that cause social or occupational dysfunction which have been present for six months and include at least one month of active symptoms”. Additional symptoms of schizophrenia include: incoherence, catatonic or grossly disorganized behavior, loss of emotion, motivation and/or speech (Cold Spring Harbor Laboratory, 2000). According to Iwahashi, Waga and Ohta (2007) “schizophrenia is a disorder in which an unfavorable outcome is associated with emotional withdrawal and a deficit in social functioning”. Currently, electroconvulsive therapy (ECT) is used to treat chronic schizophrenia, psychosis with catatonia, and acute exacerbations characterized by hallucinations, delusions, disorganized thoughts and behaviors. Researchers indicate that ECT is a more effective form of treatment when used with antipsychotic medications, compared to both treatments individually. However, clinicians indicate that ECT combined with antipsychotic medications exhibits primarily short term results (Keuneman, Weerasundera, & Castle, 2002).

Many schizophrenic individuals are highly stigmatized which can lead to social isolation, difficulty obtaining housing and employment, reduced access to medical care, depression, and even a decreased quality of life (Park, Bennet, Couture, & Blanchard, 2013). Internalized stigmatization is the process by which mentally ill individuals direct negative stereotypes towards them. The internalized stigma of schizophrenic individuals is still associated with beliefs regarding pessimistic performance, expectation of failure and

limited resources. Perhaps self-stigma is the reason why people with mental illnesses consider themselves to be alienated and socially withdrawn from those around them (Park, Bennett, Couture, & Blanchard, 2013). According to Bizub, Joy, and Davidson, (2003) the greatest challenge to rehabilitation is self-stigmatization and discrimination from others. A form of non-biased treatment could be utilized for these individuals, and this treatment can be animal assisted therapy.

Research has been conducted to examine how equine therapy affects individuals diagnosed with schizophrenia. Corring, Lundberg, and Rudnik (2013) conducted a study which focused on the effects of equine therapy and Assertive Community Treatment (ACT) patients diagnosed with schizophrenia or schizoaffective disorder. These patients participated in 10 weekly one and a half hour horseback riding sessions. Participants of this study indicated that equine therapy, and horseback riding in particular increased their self-esteem and confidence, this allowed a bonding relationship with the horse to develop, enhanced their enjoyment, and according to the staff, encouraged the patients to discover their learning potential. Researchers of this study also indicate that equine therapy may be a useful treatment for schizophrenic patients due to the horse creating a sense of enjoyment, which is rare for these patients (Corring, Lundberg, & Rudnik, 2013).

Research has also examined how individuals diagnosed with schizophrenia benefited from the presence of therapy dogs. Villalta-Gil, Roca, Gonzalez, Domènec, Cuca, Escanilla, and Haro (2009) examined the effects that two weekly 45 minute sessions with a therapy dog had on schizophrenic inpatients. Results determined that chronic schizophrenic patients who were exposed to the therapy dog showed an improvement regarding social contact, negative symptoms, perceived quality of life, and positive symptoms. Another study indicated that after weekly 50 minute sessions with a therapy dog, schizophrenic patients living in social institutions exhibited a significant improvement regarding the patients leisure, domestic activities, eating, transportation, health, leisure, grooming, and money management (Kovács, Kis, Rózsa, & Rózsa, 2004).

Additionally, a study conducted by Chu, Liu, Sun and Lin (2009) aimed to evaluate the effects of animal-assisted therapy on the self-esteem, control over activities of daily living, and other psycho-physiological aspects in diagnosed

schizophrenics. Participants were involved in an eight week program which included activities such as: getting acquainted with the therapy dogs, walking the dogs, carry and play with the dogs, as well as playing catch with two therapy dogs. After the eight week program, schizophrenic patients in a psychiatric institution in Taiwan demonstrated an improvement regarding their emotional and psychiatric symptoms, their self-esteem, and self-determination. However, these results were only temporary, indicating that a more permanent program should be utilized.

Past research indicates that substance abuse inpatients (Coetzee, Beukes, & Lynch, 2013), the elderly (Moretti et al., 2011), children with ASD (Berry et al., 2013), children and adolescents who have been sexually abused (Kemp et al., 2014), and individuals with psychiatric disabilities, including schizophrenia (Bizub, Joy, & Davidson, 2003) have experienced positive benefits from animal assisted therapy. Past research also indicates that an effective long term treatment for schizophrenia is currently unknown. The combination of electroconvulsive therapy and antipsychotic medications appear to exhibit short term results in an attempt to alleviate the symptoms of schizophrenia (Keuneman, Weerasundera, & Castle, 2002). It is also well documented that individuals diagnosed with schizophrenia face self-stigma, a process in which one directs negative stereotypes towards themselves (Park, Bennett, Couture, & Blanchard, 2013).

In order to prevent further self-stigma and discrimination against schizophrenic individuals, this study will examine the effectiveness of an intensive AAT program, much like the ICAAN program for convicted offenders, on schizophrenic inpatients. Animal assisted therapy has multiple benefits for a variety of different populations, one of which are individuals diagnosed with schizophrenia. Past research involving animal assisted therapy and schizophrenia consisted of extremely brief weekly exposure to therapeutic animals, as well as limited follow up results. This program will be modeled after the ICAAN program, which is in place at a correctional facility in Indiana. ICAAN allows offenders to train dogs that will eventually be given to children with disabilities to assist with daily living activities (Turner, 2007). Rather than offenders in a correctional facility, schizophrenic inpatients will train these dogs to assist children with physical

disabilities to assist with the patients daily activities.

PROPOSED METHOD

Study Design

This is a quasi-experiment which will examine the effects of animal assisted therapy (AAT) on schizophrenic patients living in assisted living facilities.

Participants

Approximately 200 participants will be conveniently selected to participate in this study. Participants of this study reside in independent living facilities in the United States, specifically for mentally ill individuals. From Facility A, 100 schizophrenic individuals will be selected to be in the experimental group; and from Facility B, 100 schizophrenic individuals will be placed in the control group. In order to participate in the study, the participant must have been diagnosed with schizophrenia for more than five years. Every participant will still receive their prescribed treatment, regardless of group placement. Demographic information of the participants will be collected by the assessment completed at the beginning of the study. If a participant is allergic or fearful of dogs, or has a history of animal abuse, they will not be selected to participate.

Materials

Participants will complete the World Health Organization Quality of Life Assessment BREF (see Appendix A). The WHOQOL-BREF consists of 26 items, which measures physical and psychological health, social relationships, and environment. This assessment will be completed at the beginning of the study, as well as after the 18 month puppy training program has been completed.

Procedure

Patients at Facility A will be given the opportunity to train a puppy that will eventually become a service dog. A service dog is trained to work or perform tasks such as guiding people who are blind, pulling a wheelchair, alerting the deaf, protecting and alerting someone who is having seizures (Americans with Disabilities Act, 2010).



Participants of the experimental group will train these service puppies with the help of a mentor, as well as continue with their prescribed treatment. Participants will be with the puppy 24 hours a day seven days a week, while a trainer is present for three hours a day from Monday to Friday. Patients in Facility B will not train a puppy and continue to receive their prescribed treatment. As the participants experience and bond with their puppy begin to form, the presence of the mentor will decrease to a weekly conference. Once the participants have trained their puppies for an 18 month period, the puppies that successfully graduate the training program will be given to child with a disability. The participants' quality of life will be measured prior to the 18 month program, as well as after the program. Upon completion of the WHOQOL-BREF, the results will be examined to compare any possible improvements in the quality of life between the two facilities.

CONCLUDING REMARKS

Limitations

This research proposal presents several limitations. One limitation of this proposal involves the lack of randomization due to the design of data collection. Since this study is quasi-experimental, and the participants will only be conveniently selected from assisted living facilities, there is nothing random about the assignment of participants. Another potential limitation is a limited number of assisted living facilities. Assisted living facilities for schizophrenic individuals are few in number which limits the number of possible facilities to be selected for this study. One final limitation is the possible complications due to the schizophrenic symptoms that participants may encounter. If a participant begins to have problems with their prescribed treatment or experiences any other problem, that could lead to the participant dropping out of the experiment. A participant may also drop out due to having to be hospitalized to become stabilized on their individual treatments. If a participant was to be hospitalized for a couple days, they would be able to return to the study. However, if the participant was hospitalized for a period of three or more weeks, they would then have to drop out of the study due to missing too many days/weeks of training.

Significance

AAT is a remarkable form of therapy in which multiple populations have experienced the benefits. This study expands on research conducted in the past regarding how schizophrenic patients have benefitted from AAT. Participants of this study will spend 18 months training the service puppies. The participants who train the dog will gain a significant increase in exposure and interaction with these animals which could result in long term benefits. A primary component of this study involves giving back to society through these service puppies. By training these puppies, the schizophrenic patients are given a sense of purpose and potentially experience an improved quality of life, and children with disabilities gain a service puppy.

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Appendix A

Agency	Program	Date Completed

For each box, put an **X** in the circle that applies to you.

Gender <input type="radio"/> Male <input type="radio"/> Female	Age <input type="radio"/> 20 and under <input type="radio"/> 21-24 <input type="radio"/> 25-34 <input type="radio"/> 35-54 <input type="radio"/> 55-64 <input type="radio"/> 65 and older	Primary reason for receiving services <input type="radio"/> Emotional/Mental Health <input type="radio"/> Alcohol or Drugs <input type="radio"/> Both <input type="radio"/> Emotional/Mental Health and Alcohol or Drugs
Race <input type="radio"/> White <input type="radio"/> Black/ African American <input type="radio"/> American Indian/Alaskan <input type="radio"/> Native Hawaiian/ Pacific Islander <input type="radio"/> Asian <input type="radio"/> Mixed <input type="radio"/> Other	Ethnicity <input type="radio"/> Puerto Rican <input type="radio"/> Mexican <input type="radio"/> Other Hispanic or Latino <input type="radio"/> Not Hispanic	Length of Service <input type="radio"/> Less than 1 year <input type="radio"/> 12 months to 2 years <input type="radio"/> 2 years to 5 years <input type="radio"/> More than 5 years

Please read each question, assess your feelings, and circle the number on the scale that gives the best answer for you for each question.

1. How would you rate your quality of life?

(Please circle the number)				
Very poor	Poor	Neither poor nor good	Good	Very Good
1	2	3	4	5

2. How satisfied

(Please circle the number)				
Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
1	2	3	4	5

(Please circle the number)

Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied

are you with your health?

The following questions ask about **how much** you have experienced certain things in the last two weeks.

(Please circle the number)				
Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5
3. To what extent do you feel that physical pain prevents you from doing what you need to do?				
4. How much do you need any medical treatment to function in your daily life?				
5. How much do you enjoy life?				
6. To what extent do you feel your life to be meaningful?				



		<i>(Please circle the number)</i>				
		Not at all	Slightly	A Moderate amount	Very much	Extremely
7.	How well are you able to concentrate?	1	2	3	4	5
8.	How safe do you feel in your daily life?	1	2	3	4	5
9.	How healthy is your physical environment?	1	2	3	4	5

		<i>(Please circle the number)</i>				
		Not at all	A little	Moderately	Mostly	Completely
13.	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14.	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

		<i>(Please circle the number)</i>				
		Not at all	A little	Moderately	Mostly	Completely
10.	Do you have enough energy for everyday life?	1	2	3	4	5
11.	Are you able to accept your bodily appearance?	1	2	3	4	5
12.	Have you enough money to meet your needs?	1	2	3	4	5

		<i>(Please circle the number)</i>				
		Very poor	Poor	Neither poor nor well	Well	Very well
15.	How well are you able to get around?	1	2	3	4	5



The following questions ask you to say how **good** or **satisfied** you have felt about various aspects of your life over the last two weeks.

		<i>(Please circle the number)</i>				
		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16.	How satisfied are you with your sleep?	1	2	3	4	5
17.	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18.	How satisfied are you with your capacity for work?	1	2	3	4	5
19.	How satisfied are you with your abilities?	1	2	3	4	5
20.	How satisfied are you with your personal relationships?	1	2	3	4	5
21.	How satisfied are you with your sex life?	1	2	3	4	5

		<i>(Please circle the number)</i>				
		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
22.	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23.	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24.	How satisfied are you with your access to health services?	1	2	3	4	5
25.	How satisfied are you with your mode of transportation?	1	2	3	4	5



The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

		<i>(Please circle the number)</i>				
		Never	Seldom	Quite often	Very often	Always
26.	How often do you have negative feelings, such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Did someone help you to fill out this form? *(Please circle Yes or No)*

Yes	No
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THANK YOU FOR YOUR HELP