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Animal Assisted THERAPY FOR CHILDREN WITH AUTISM

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Abstract

The inclusion of animals in therapeutic activities, known as animal-assisted therapy, can be used as a treatment practice for people with autism spectrum disorder (ASD). Reported outcomes included improvements in multiple areas of functioning, such as the physical, social, emotional, and/or cognitive functioning of the child, as well as providing educational and motivational effectiveness for children with autism. Animal assisted therapy, in this case dog assisted therapy, involves a dog with specific characteristics becoming part of a child's therapy. Three cases are narrated on the effect of dog assisted therapy on children with autism. This leads to the conclusion that animal assisted therapy helps children with autism learn to trust, de-stress, care for another living creature, step out of their comfort zones to try something new, and communicate.

Keywords : Animal assisted therapy, autism, behavior, speech and communication, social interaction, tactile sensory

Introduction

The diagnosis of autism spectrum disorder (ASD) has steadily increased in recent years, with estimates indicating that one in every 68 children is on the spectrum (Centers for Disease Control and Prevention, 2014). According to the (American Psychiatric Association, 2015), characteristics of autism spectrum disorder fall into three categories; (i) communication problems – including difficulty using or understanding language. Some children with autism focus their attention and conversation on a few topic areas, some frequently repeat phrases and some have very limited speech; (ii) difficulty relating to people, things and events – including trouble making friends and interacting with people, difficulty reading facial expressions and not making eye contact; and (iii) repetitive body movements or behaviors – such as hand flapping or repeating sounds or phrases. Perhaps because of this, there are a multitude of interventions which have demonstrated empirical evidence of success for children with autism. Autism strongly affects the ability to establish social interactions. However, there is some suggestion that people with autism establish close social relationships with nonverbal communication and intentionally acting animals (such as dogs). Animal assisted intervention is an alternative intervention that has developed into a diverse field with practitioners in occupational, speech, behavioral, and cognitive therapies, treating individuals with a range of medical issues and developmental disabilities (Silva, Correia, Lima, Magalha˜es & De Sousa, 2011; Solomon, 2010). According to the (Dallas Counseling and Treatment Centre, 2016), animal assisted therapy has been shown to help children who have experienced abuse or neglect, patients undergoing chemotherapy or other difficult medical treatments, and veterans and their families who are struggling to cope with the effects of wartime military service. Animal assisted therapy is characterized by the inclusion of a certified therapy dog in the process of achieving an intervention objective formulated from the

therapeutic milieu (Pavlides, 2008). Anecdotal reports position animal assisted therapy as a promising adjunct to treatment work with many different populations, including individuals diagnosed with autism spectrum disorder. Reported outcomes included improvements in multiple areas of functioning, such as the physical, social, emotional, and/or cognitive functioning of the child, as well as provide educational and motivational effectiveness for children with autism. Besides, animal assisted therapy research literature have reported findings that suggest it as a calming, engaging approach that improves health conditions and offers unique benefits for encouraging social development.

Effectiveness of Animal Assisted Therapy

Research conducted by Martin and Farnum (2002) exposed ten children with autism spectrum disorders to three different therapy conditions: (a) a therapy dog, (b) a stuffed dog, and (c) a ball. All three conditions were videotaped and designed with a specifically formatted protocol. Results from this study documented that, during the presence of the therapy dog, child laughter increased when their attention was focused on the dog. In addition, the child was more likely to stay engaged and attentive to the dog than the other two conditions. They were more likely to talk to the therapy dog than to the stuffed dog or the ball, and they even initiated numerous conversations and exchanges with the therapy dog. The children also engaged the therapist in discussions about the therapy dog compared to the other two objects. (Prothmann, Ettrich & Prothmann, 2009) examined the preference for people, dog (certified therapy dog) and objects (e.g., toys) by children with autism. In this study, 14 children with autism (3 females, 11 males; mean age=11.4 years) participated. The children interacted most frequently and for longest with the dog, followed by the person and then the objects. The researchers found that animals, specifically dogs, communicate their intentions in a way more readily understandable to people with autism. (Bass, Duchowny & Llabre, 2009) evaluated the effects of therapeutic horseback riding on social functioning in children with autism. They hypothesized that participants in the experimental condition (n=19), compared to those on the wait-list control (n=15), demonstrated significant improvement in social functioning following a 12-week horseback riding intervention. Children with autism exposed to therapeutic horseback riding exhibited greater sensory seeking, social motivation, and less inattention, distractibility, and sedentary behaviors. The results provide evidence that therapeutic horseback riding may be a viable animal assisted therapy option for children with autism. (Solomon, 2010) conducted two case studies of children with autism interacting with a therapy or service dog. The studies examined service and therapy dogs' mediating social engagement of children with autism in relationships, interactions, and activities. It illustrated how dogs support children's communication, their experience of emotional connection with others, and their participation in everyday life.

(Krskova, Talarovicova & Olexova, 2010) attempted to determine if even a small, less sociable animal than a dog, that is, a guinea pig, might have a beneficial effect. They assessed the frequency of social contact in nine children with autism (four girls and five boys, ranging in age from 6-13). However, they did not employ any control for the effect of order of conditions on the outcome. The researchers compared the control condition (in the presence of an unfamiliar person) first, followed by the experimental condition (in the presence of a guinea pig). As expected, they found that there was a significant increase in the frequency of social contact during the experimental condition. A (Silva, Correia, Lima, Magalha˜es & De

Sousa, 2011) study aimed at providing additional quantitative evidence on the potential of dogs to positively modulate the behavior of children with autism. A 12-year-old boy diagnosed with autism spectrum disorder was exposed to the following treatment conditions: (1) one-to-one structured activities with a therapist assisted by a certified therapy dog, and (2) one-to-one structured activities with the same therapist alone (as a control). The behavior of the child was continuously video-recorded during both treatment conditions for further analysis and comparison. The result showed that in the presence of the dog, the child exhibited more frequent and longer durations of positive behaviors (such as smiling and positive physical contacti) as well as less frequent and shorter durations of negative behaviors (such as aggressive manifestations). These findings are in accordance with previous experimental work and provide additional support for the assertion that dogs can prime children with autism for therapy.

There is much use of animal assisted therapy in schools with disabled students. Research has demonstrated marked physiological, physical, social, and emotional benefits of therapy-dog assisted interventions for children with disabilities (Bibek, Cavalier, Manley, & Obrusnikova, 2012). In their study of four children with autism spectrum disorder at a health club using therapy dogs, parents and instructors of the four children believed their child was more focused in the presence of the therapy dog team, and enjoyed having the team with them during the sessions. (Ward, Whalon, Rusnak, Wendell & Paschall, 2013) investigated the association between therapeutic riding and the social communication and sensory processing skills of 21 elementary students with autism, attending the therapy session as part of a school group. An interrupted treatment design was employed to determine whether children were able to maintain treatment effects following the removal of therapeutic riding. Teacher ratings indicated that participating children with autism significantly increased their social interaction, improved their sensory processing, and decreased the severity of symptoms associated with autism spectrum disorders following the therapeutic riding. Gains were not maintained consistently after two 6-week breaks from the therapeutic riding, but were recovered once therapeutic riding was reinstated. (O'Haire, McKenzie, McCune & Slaughter, 2013) implemented and evaluated a classroom-based Animal Assisted Activities program on social functioning in children with autism spectrum disorder. The study was conducted in 41 classrooms in 15 schools in Brisbane, Australia. Sixty-four children (ranging in age from 5-12) diagnosed with autism spectrum disorder participated in the study. The program consisted of 8 weeks of animal exposure in the school classroom with additional 16-20 minute animal-interaction sessions. Significant improvements were identified by the teacher and parents in social functioning, including increased social approach behaviors and social skills, and decreased social withdrawal behaviors. Over a half of the parents also reported that participants demonstrated an increased interest in attending school during the program. Results demonstrate the feasibility and potential efficacy of a new classroom-based Animal Assisted Activities model, which may provide a relatively simple and cost-effective means of helping educators and families to improve the social functioning of children with autism.

(Carlisle, 2014) surveyed 70 families who had children with autism between the ages of 8 and 18. The children were patients at the MU Thompson Center for Autism and Neurodevelopmental Disorders. Almost 70 percent of the families who participated had dogs, and the rest had cats. The data revealed that children with any kind of pet in the home reported being more likely to engage in behaviors such as introducing

themselves, asking for information or responding to other people's questions. Children owning dogs had greater mean scores for social skills, using the Social Skills Improvement System Rating Scale. Carlisle also found that children with autism were more strongly bonded to smaller dogs, and parents reported strong attachments between their children and other pets, such as rabbits or cats, which serves as evidence that other types of pets could benefit children with autism as well. Though parents may assume having dogs are best to help their children, Carlisle's data showed greater social skills for children with autism who live in homes with any type of pet.

Benefit of Animal Assisted Therapy for Children with Autism

Many parents are surprised to see the connection between their child with autism and animals. Being around or having structured contact with animals can be a great addition to the treatment of children with autism. There are many reports from both parents and clinicians that animal assisted therapy can offer both physical and emotional benefits to children with autism. There are several roles an animal may play in the life of a person who is ill or living with a disability, from brightening their day, to protecting them from harm. It has also often been suggested that a variety of animals, from horses to dogs to dolphins, can provide actual therapy for children with autism. For children with autism, dogs can be far more than just best friends. They can be therapists, comforters, mood stabilizers, and conversation starters. Some of the benefits of animal-assisted therapy include:

(a) Offer physical, emotional and psychological benefits

There have long been claims that interacting with or caring for animals can be more than enriching, and can actually improve the physical, emotional or psychological condition of a person who is disabled or ill. There have been studies claiming animal-human encounters can lessen perception of physical pain, and have a beneficial effect on physiological factors like blood pressure or heart rate, psychological factors like anxiety or depression, and social-psychological factors like loneliness.

While animals can sense human emotions including excitement, joy or sadness, people with autism may not be able to sense these emotions in others. However, contact and interaction with an animal can help them to understand emotions and that they can be transmitted to others. Dogs have the potential to react to the various moods shown by humans, adjust to the situation, have prolonged periods of playfulness, and are able to maintain this behaviour for a long time. A new study by the University of Montreal has shown that when children with autism spend time with specially trained service dogs, their stress levels were reduced. (Viau, Arsenault-Lapierre, Fecteau, Champagne, Walker & Lupien, 2010) tested the levels of cortisol, a stress hormone, in the saliva of 42 children with autism before, during, and after interaction with the dogs. Tests showed that the levels of cortisol in these children dropped when they received and spent time with the dogs, but increased when the dogs were taken away. For children with autism, parents reported decreased anxiety, increased calmness, reduction in the number of meltdowns or tantrums, dissipated/ defused anger, and more manageable bedtime routines after the animal assisted therapy. The blood pressure of children with autism also lowered when experiencing an animal treatment. Furthermore, symptoms such as insomnia and headache can be eased with this treatment.

(b) Improve social interaction

Animal assisted therapy provides a conduit of social interaction to children with autism. It increases the desire and ability of children with autism to connect socially with others. In one early

report on animal-assisted therapy with 12 children with autism, the researchers noted a "highly significant increase in pro-social behavior with a parallel decrease in self-absorption with the introduction of a friendly dog (Redefer & Goodman, 1989). The children showed fewer autistic behaviors (e.g., hand-posturing, humming and clicking noises, spinning objects, repetitive jumping, roaming) and more socially appropriate ones (e.g., joining the therapist in simple games, initiating activities by giving the therapist balloons to blow up, balls to throw, reaching up for hugs, and frequently imitating the therapist's actions).

Children with autism exhibited a more playful mood, were more focused, and were more aware of their social environments when in the presence of a therapy dog. The children performed more hand-flapping when in the presence of the dog, but the researchers believed this was because they were excited. They also laughed more and longer in the presence of the dog (Martin & Farnum, 2002).

(c) Stimulate a sense of touch

Animal assisted therapy is able to lessen sensory sensitivity of children with autism. Research found that children with autism exposed to therapeutic horseback riding exhibited greater sensory seeking, social motivation, and less inattention, distractibility and sedentary behaviors (Bass, Duchowny, & Llabre, 2009).

Therapy dogs can be extremely effective in interventions as they offer a powerful multi-sensory stimulus that counteracts the low sensory and affective arousal levels associated with autism (Redefer & Goodman, 1989).

(d) Play a role as protector

Children with autism might display unpredictable and volatile behavior that places them in considerable physical danger and creates stress for the family. Parents whose child had a service dog, reported being significantly less fearful for their child's safety, especially around bolting and wandering (Burgoyne, Dowling, Fitzgerald, Connolly, Browne & Perry, 2014). For example, a service dog can keep a child with autism from walking away from his home or wandering into a busy road. First of all, they often served as guardians, keeping the child safe and preventing them from wandering. Many children with autism are prone to wander from safe spaces, whether at home or school, sometimes with tragic results. Parents whose children are prone to wander often become continually vigilant and exhausted. Attached to the affected child by a leash and belt system, and responding to commands from a parent or other adult handler, the dogs made sure the child did not leave a safe area. If the child tried, the dogs would use their weight to resist, giving caregivers a chance to intervene (Burgoyne, Dowling, Fitzgerald, Connolly, Browne & Perry, 2014).

(e) Develop self-help skills

Canadian researchers noted that some children with autism gained certain skills through their interaction with the dog, like learning to match their pace to the dog's while out walking, to throw a ball, or to pet the dog with the correct amount of pressure (Foden & Anderson, 2015).

Children with autism also learn basic self-help skills through practice with the therapy dog such as scooping food and pouring water into dishes, and helping to groom the dog.

(f) Promote speech and communication skills

At Maryville College, Tennessee, Schratter developed an ongoing community-based research partnership with Wilderwood Service Dogs to study the effects of using specially trained dogs for children with autism (Puotinen, 2011). According to Schratter, the dogs elicit positive social interactions in public, helping children with autism to successfully interact with others. The dogs' presence may reduce physiological arousal, while providing clear and consistent nonverbal

communication cues that children with autism can interpret, thus increasing their adaptive skills. The data suggests that the innovative use of specially trained service dogs may be an important tool for helping the social and language behaviors of children with autism.

Therapy dogs have an apparent ability to facilitate communication and interaction between patients and their therapists, and may hold a unique aptitude to mediate interactions in otherwise awkward or uncomfortable therapeutic environments. One study found that children with autism engaged in significantly greater use of language, as well as social interaction, in their occupational therapy sessions that incorporated animals, compared to standard occupational therapy (Sams, Fortney & Willenbring, 2006). (Baról, 2007) did a 15-week study to see if animal therapy could help improve the social skills of a child with autism. She paired a five year old autistic child with an Australian cattle dog. This child had several social disabilities. He became frustrated with his lack of ability to be understood, and would throw tantrums and cover his ears. He did not know how to play with others. The boy was more self-assured, took on new activities with curiosity, became more aware of his surroundings and the needs of people, after meeting the dog and building a bond with him. Halfway through the research project, Zachary spoke his first sentence.

(g) Encourage motivation and participation

Animals have the ability to inspire and motivate people to engage and participate in constructive activities that they would otherwise not have (Chandler, 2005). As a result, animal assisted therapy is reported to serve as a major source of motivation for client participation in therapy.

When children with autism interact with a therapy dog, the children's motivation increases, which leads to increased involvement. Because the dog offers unconditional love and is non-judgmental, the children are more motivated to participate. For those children developing their gross motor and fine motor skills, a well-trained dog can serve as a great motivator, such as playing fetch, brushing the dog, feeding the dog and brushing the dog's teeth.

(h) Promote companionship

The companionship of animals can help reduce any lonely feelings in children with autism, promoting a base of healthy character development, including personality traits such as being respectful, trusting, contributing, committed, self-confident, and responsible (Evans, 2008). Building a dynamic personal relationship between child and dog will serve as a basis for future relationships too.

Objectives

The objectives of this research was to determine if, based on the available literature, animal assisted therapy has potential as an effective therapy, to improve speech and communication; to generate greater levels of social interaction; to regulate the tactile senses; and to reduce behaviour problems for children with autism.

Methods

Study Design

Participants

This case study was conducted at a free service centre for children with autism in Penang, Malaysia. Three children with autism aged 6 (Child A), 12 (Child B) and 16 (Child C) were selected to participate in the animal assisted program. All children were diagnosed with autism spectrum disorder. All three were also selected based on the following criteria: (i) first time participating in the program, (ii) never interacted with a dog before, (iii) poor focus and concentration, (iv) poor understanding of basic emotions, (v) hypersensitive to furry texture, and (vi) unaware of people and environment.

Upon selection, a meeting with the parents of the children was conducted where they were briefed on the purpose, commitment and requirements of the program. All of the parents then signed a full parental consent to allow their children to participate in three sessions with the therapy dog.

Procedure

Three sessions were carried out by the Dr Dog facilitator and two teachers. In the first session, the dogs were divided into different stations such as petting and feeding the dog, grooming it, and also walking the dog. Children were assigned to go to the first station, followed by other stations when they were ready. During the second session, the three stations were set up again. The children were free to choose which station they preferred to go to. During the third session, the children were free to choose any dogs that they wished to play with. At this session, the children also had a chance to play simple games with the dog (e.g. throw and catch ball) and watching the dog do simple tricks. Each session takes about an hour with teachers and parents observing the child's behavior and responses from time to time. A video recording was made for each session for later analysis of behavior and response.

Animal Assisted Therapy

In this study, the dog trainers brought in 5-8 different breeds of dogs such as golden retrievers, pugs, toy poodles, maltese and other well-trained dogs. Most of the dogs were small in size. These therapy dogs, from the trainer called "Dr Dog", were selected because of their excellent temperament, good health, good manners and basic obedience skills. Some are trained to perform tricks.

Results

Child A

Child A was a 6 year old girl who was hyperactive, restless, and constantly displayed temper tantrums and destructive behaviour by biting, pinching, grabbing, beating, and knocking her head. She had self-talk and self-singing when she was not occupied. She had no awareness of surroundings, always spaced off, unaware of danger, and was not compliant. Speech and communication wise, she could only express her needs in simple words, exhibited echolalia, did not initiate communication with others, and was unable to understand questions. She had very poor social skills and no eye contact. She did not have proper play skills and preferred to play alone. She was also hypersensitive to tactile stimuli.

Table 1: Analysis of Child A's Behaviour, Speech and Communication, Tactile Sensation, Social Interaction over Three Sessions

	1st Session	2nd Session	3srd Session
Behaviour	- Had crying tantrum, shouted and tried to run away from the dog - Hid herself behind her mother - Restless and refused to sit still - Had self-talk during the session	- Still cried but reduced in restless behaviour - Shouted when the dog walked near her during the parade - Would look at the dogs from a distance - Reduced in self-talk - Refused to comply when mother or teacher asked her to go near or pet the dog	- Started to show interest in the dogs - Took initiative to sit nearer to the dog - Reduced in crying tantrum - Started to smile when she looked at one specific white dog
Speech & Communication	- Very limited speech. Refused to speak - Babbled and made meaningless sounds - Rejected the dog by pushing her mother	- Said "dog" and "scared" in Mandarin - Said "I don't want" when asked to go near to the dog or pet the dog	- Said "fur" in Mandarin when she touched the dog's tail - Reduced saying "I don't want" and went near the dog - Started to call the dog's name "bear bear" when petting it - Looked at her mother and asked mother to look at the dog
Social Interaction	- Didn't interact with the dog but was aware of surroundings - Sat on her mother's lap and refused to look at the dogs - When other dogs came near to her, she ran away	- Aware of the dogs but did not interact with them - Observed the dogs' actions from a distance but didn't take initiative to pet or play with them - Improved in her eye contact towards the dog (held eye contact longer with the dog)	- Sat nearer to the specific white furry dog - Smiled when the dog played simple tricks - She maintained eye contact when playing with the dog

	1st Session	2nd Session	3srd Session
Tactile Sensation	- Afraid to touch the dog - Teacher held her hand to touch but she was scared - She pushed away the teacher's and mother's hand when they tried to guide her to pet the dog	- Touched the tail of the dog from behind a few times - Teacher guided her to give the correct amount of pressure when petting the dog - When the dog's head turn to her, she tried to run away	- Smelt the dog after touching it - Tried to hug the dog a few times before the session ended - Still scared when the dog's head turned to her but made attempts to touch its tail and body

Child B

Child B was a 12 year old boy who was very passive, unable to understand potentially dangerous situations, laughed for no apparent reason, and needed routine. He lacked awareness of people and surroundings, always spaced off and had short attention span. Speech and communication wise, his speech was delayed and could only express his needs in simple words, but not in short sentences. He had echolalia and did not understand questions. He had very poor social skills and poor eye contact. He had poor pretend/ creative play and preferred to play alone. He was

Table 2: Analysis of Child B's Behavior, Speech and Communication, Tactile Sensation, Social Interaction over Three Sessions

	1st Session	2nd Session	3srd Session
Behaviour	- Often spaced off - Laughed and giggled for no reason - Had self-talk during the session	- Reduced laughing and giggling. Looked at the dog for a longer period	- Started to show more interest in the dogs - Laughed when he looked at the dogs
Speech & Communication	- Made meaningless sounds	- Said "dog" - Still made meaningless sounds but comparatively less	- Said "I don't want" when the dog came near to him - His mother guided him to call the dog's name when petting
Social Interaction	- Didn't interact with the dog - Showed no interest to the dogs walking round him	- He shouted and tried to run away when the dog came near him	- Went near the dog that he preferred - Smiled when he watched the dog play simple tricks

	1st Session	2nd Session	3srd Session
		- Started to be aware of the dogs but did not interact with them - Observed the dogs' actions from a distance but did not take initiative to pet or play with them - Improved his eye contact with the dog	
Tactile Sensation	- No initiative to touch the dog that sat beside him	- No initiative to touch the dog that sat beside him - Afraid to touch the dog and mother had to hold his hand to touch the dog's body - Teacher had to remind him to pet the dog with correct pressure	- Teacher and mother had to hold his hand to try to feed the dog - Showed fear when the dog's head turned to him but did not run away

Child C

Child C was a 16 years old boy who was very passive, resistant to change in the environment, had self-hurt behaviour (e.g. throw himself on the floor, hit his head, push and turn over the table) when he was angry, or frustrated. He could not perceive potentially dangerous situations, had self-talk, and stuck to routine. He spaced off often. Speech and communication wise, his speech was delayed - often used short, incomplete sentences, could only express his needs in simple trained questions, one way interaction, and unable to understand questions being asked. He had very poor social skills and poor eye contact. He did not have pretend/ creative play too. He also did not have the concept of personal boundaries and emotions.

Table 3: Analysis of Child C's Behaviour, Speech and Communication, Tactile Sensation, Social Interaction over Three Sessions

	1st Session	2nd Session	3srd Session
Behaviour	- Angry when his mother encouraged him to pet the dog - Shouted and tried to sit far away from the dog - Had self-talk during the session	- Started to smile when looking at the dog - Reduced anxiety and anger - Reduced self-talk during the session	- No aggressive behaviour throughout the session - Laughed when he looked at the dogs parade
Speech & Communication	- Kept saying "I don't want" and "no" to his mother - Pushed away his mother's hand as rejection	- Able to remember the dogs' names	- Said "good job" and give "hi 5" to his sister after petting the dog - Able to remember the dogs that he interacted with
Social Interaction	- Didn't interact much with the dog - Aware of dogs walking around him but didn't initiate play with them	- When the dog came near to him, he just turned his body to a different direction to avoid it but did not run away - Started to interact with all the dogs by touching their bodies when the dogs sat - Observed the dog's actions from a close distance but did not take initiative to pet or play with it - Improved his eye contact with the dog, stayed focused on the dog's actions	- Sat near to the dog and allowed a dog to sit beside him - Kissed the dog spontaneously when taking a photograph - Happy when the dog played simple tricks - Volunteered to arrange the props for the dog to perform simple tricks - Clapped hands when watching the dog's performance - Able to walk the dog within the compound at the end of the session

	1st Session	2nd Session	3srd Session
Tactile Sensation	- Only touched the dog's body when asked to - Refused to feed the dog with his hand - Tried to run away when the dog turned to him	- Showed improvement in willingness to touch the dog, from tail to body - Tried to feed the dog with his hand	- Took initiative to touch every dog that passed by in front of him - Touched the dog's tail, body and head - At the end of the session, he was able to hug some dogs on his own

In summary, during the sessions, three children's laughter increased and their attention was focused on the dog's actions, movements and simple tricks. They were able to maintain eye contact with the dog for a longer period during the last session. During the sessions, their inappropriate behaviours gradually reduced and they showed improvement in social interaction when playing with the dogs. These children started to display different kinds of emotions and responses after interacting with the dogs, from fear to acceptance, to happiness. Their facial expressions and body language showed their interest in the dogs and they enjoyed having the team of dogs.

Implications and Recommendations

Professionals are starting to recognize the positive impact this interaction can have on individuals with various conditions, both physiological and psychological. Animal assisted therapy is becoming more popular as a supportive therapeutic tool and it has the ability to be a crucial component in individuals with special needs. More sessions are required to explore the potential of such therapy with people with special needs and how these people are affected by the therapy. In order to implement more animal assisted therapy for people with special needs, professionals in the field must be willing to consider the use of animals in their practice and facilities. Training for working professionals or organizations in the use of animals as an approach, is needed. With animals, especially dogs, the handlers must be trained to communicate effectively with the children and the animal. Professionals who choose to implement animal assisted therapy must take on the responsibility of not only being attuned to their client's needs, feelings and emotions, but also to that of the animal's.

Conclusions

The findings provide evidence that animal assisted therapy may be a viable therapy option for children with autism. Interacting with animals can be beneficial to children with disabilities. These children sometimes have difficulty connecting with others but the dog provides them with a link of interest and communication. Children with autism are usually dependent upon others for many things in their lives. An animal is a friend that can help. They can be the one giving care. This gives them a sense of accomplishment, which will help them to be adventurous.

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