

The Use of Animals as a Therapy for Autism

A review of the disease and how the use of animals, specifically horses, may improve the well-being of those affected

Tag Words: animal-assisted therapy; autism; therapeutic riding; horses; service dogs.

Authors: Cassie Messina with Julie M. Fagan, Ph.D.

Summary

According to the Center for Disease Control, autism affects about 1 in 110 children in the United States. There is no cure for autism, however, there is a wide array of methods used to cope and manage it. The use of animals, in particular horses and dogs, can provide both a physical and mental benefit to the autistic individual. Animal-assisted therapy is increasingly being used by people in medical fields. The use of animals seems to reduce the appearance of some of the typical behaviors associated with autism; primarily difficulty with social interactions and physical detriments. Horses and dogs seem to be able to enrich the lives of people affected by autism. To personally address the use of animals with autistic individuals I gave a few young autistic children the opportunity to ride and learn on my personal horses. During their time with the horses the children learned to groom a horse, learned things about caring for the horses, and learned some of the basic essentials of riding. The children all seemed to benefit from the experience. They were always excited to get to the barn and ride, and as noted by their parents, teachers, and therapists, seemed to show improvement in their daily lives.

Video Link: <http://youtu.be/7y8UYWXFmCA>

Autism

Autism is one of the Autism Spectral Disorders (ASD). An ASD, being a spectral disorder affects different people in different ways. Autism is a developmental disorder that usually is first noticed by the time a child is two or three. The signs of autism center around three primary areas;

social interactions, language, and behavior. The signs of autism are unique to every individual. However, some common markers include poor eye contact, inability to maintain or initiate a conversation, repetition of phrases or motions, and hypersensitivity to name a few. There are three main types of ASD's. Autistic disorder, which is the focus of the project, is characterized by language delays, social inhibitions, unusual behaviors, and sometimes intellectual delays. Asperger Syndrome presents itself similarly to Autism, with milder effects. There is not usually language or intellectual disabilities. Lastly, there is Pervasive Development disorder which is basically an umbrella term for those who have some characteristics of autism or Asperger's but not all.

<http://www.cdc.gov/ncbddd/autism/index.html>

<http://www.mayoclinic.com/health/autism/DS00348>

Animal-Assisted Activities

Animals have been an integral part of human life for as long as life has existed. They have been used for food, transportation, assistance, and more recently as proven therapy. The use of animals for therapy has developed significantly over the years. There are several terms used in regards to the types of therapy as defined by the Delta Society. First, Animal-Assisted Activities, (AAA) provide "opportunities for motivational, educational, and/or recreational benefits to enhance the quality of life." (Arkow. P.) These types of services can be provided by many different types of people including those providing educational services, those in the medical field or training to be in the medical field, and trained volunteers. A second type of therapy is Animal-Assisted Therapy, (AAT). AAT is more goal directed and is typically delivered by a trained professional in a medical field or some type of counselor. This type of therapy is usually regimented through a treatment program provided by the person administering it. Lastly, the society recognizes the Human- Animal Support Services which function to "enhance and encourage the responsible and human interrelationship of people, animals, and nature." (Arkow. P.) There are many different types of animals involved in any of these types of therapies. Horses, dogs, and cats are among the commonly used animals.

The Use of Horses

Horses in particular possess certain characteristics that make them a valuable tool. Therapeutic riding is the inclusion of riding skills into a therapy session. The concept fully emerged when Liz Hartel won a silver medal competing at the 1952 Olympic Games. Hartel had contracted polio and as a result had lost her physical independence. By 1960 the concept had spread to the United States and Canada. When working with the autistic person in such an environment, the goals are physical, mental, and emotionally driven. The horse can provide outlets to all of these areas. Physically, riding improves posture, balance, strength, and control of the muscles. The horse is an interactive therapy. The repetitive motions of the different gaits and movements allow the

rider to direct their own motions. Mentally and emotionally the horse allows a bond to be formed. In terms of autism and the use of horses, horses and autistic people think on parallel levels. The horse through evolution has developed a very associative way of thinking. Naturally, these responses are fear based. The horse that shies away from a sudden movement is doing so as a defense mechanism. This response will be repeated. Similarly, for autistic people the main emotion is fear. Autistic people are motivated by novel situations, loud noises, and sudden movements.

<http://frances-simmons.suite101.com/horseback-riding-therapy-for-the-disabled-a371358>

<http://www.grandin.com/references/thinking.animals.html>

Equine- Assisted Therapy

PATH International is an association that focuses on the use of equines for physical and mental therapy. It was founded in 1969 as the North American Riding for the Handicapped Association. (NAHRA) To be more correct and reflect their mission NAHRA changed their name to the Professional Association of Therapeutic Horsemanship International. (PATH Intl.) They have broadened their membership base internationally as well as abolished the term handicapped. The association certifies instructors and accredits facilities. These facilities and individuals then offer a wide range of services in accordance with their certification. The programs span a wide range of challenges ranging from physical disabilities to substance abuse.

There are several steps to becoming an accredited instructor. There are three levels of instructors within the program; registered, advanced, and master. In addition to riding PATH offers accreditation in the specialty disciplines of driving and vaulting. Both of these activities are not riding, but still use the power of the horse as a therapy. It is suggested that anyone interested in becoming an instructor goes to a PATH International Center and volunteers working with disabled people. From there the applicant has two options. The first option is to attend an approved training course which educates through classroom learning and hands on experience. The second option for becoming an instructor involves several steps. All of the steps involved include educating the potential instructor to PATH International standards, safety standards, and the basic elements of teaching and working with horses. Once the person has received their first level registered instructor status they can move to the advanced and master levels. The progression to the advanced level is noted by the instructor's proficiency in riding, teaching progressive lessons, and understanding the various disabilities they can encounter. The Master instructor possesses all of the skills required for the previous levels in addition to having many hours of experience, excellent interpersonal skills, effective teaching methods, and overall has the ability to act as a role model for PATH International's mission. There are similar certification standards to become a certified PATH International driving or vaulting instructor. To become a PATH International Accredited Center, the center must be evaluated by a trained volunteer who will decide if the center meets all the standards and denotes excellence in the field.

To become involved with one of the accredited centers or member centers, the PATH International website; pathintl.org, provides a search command which lists all the centers in the area searched. Each site lists the different activities and disabilities that they provide and serve. Some of the different activities included are:

- Grooming and tacking- the process of cleaning the horse and preparing it for a ride
- Therapeutic riding, vaulting, and driving
- Ground work- working with and maneuvering the horse on the ground
- Equine Facilitated Psychotherapy/ Equine Facilitated Learning- Experiential techniques involving growth, interaction, and development.
- Hippotherapy- using the horse as an unconscious process to help retrain malfunctioning muscles. BOOK
- Competition- Special or Paralympics
- Veterans Programs- Such as Horses for Heroes which is designed to rehabilitate returning service men and women

<http://www.pathintl.org/>

Equine Therapy Sessions

There is a wide variety of activities that can be offered that will assist the autistic person through the use of the horse. The physical benefits are the most clear. First, some of the children are able to groom and work ground skills whereas others are better suited for riding. For the children able to groom they benefit from the physical stimulation of the use of the different brushes and understanding of the horses' body parts. Continuing on they learn to lead their mount and mount the horse. Another portion of great physical benefit is the muscle coordination from mounting and actually riding. While the children are riding they can do several exercises that work their leg muscles, arm muscles, and core. An example of the use of leg muscles is the act of learning to post. Posting is the act of rising and falling in the saddle in stride with the horse's foot falls. Though this is typically done at the trot, the children start doing it at the walk to build their calf and upper thigh muscles as well as coordinating with the horse. Another exercise is putting the rider into the two point position. This position involves stretching of the lower leg, a slight lifting out of the saddle, and a slight closing of the hip angle. The child will work to hold this position. Other exercises include "air punches" where the child punches the air in front of them in rhythm with the horse's footfalls, or arm circles in which the horse moves along the child circles their arms outstretched. Also, once the children have developed a sense of security, an exercise called "around the world" where the children rotates around in the saddle while on the horses back is another possibility. Most of these exercises are started with the horse standing still and once the child has gained confidence and is mostly free of reservations they can progress. The actual movements of the horse also soothe the child and often help them to relax their own muscles. Once this happens the children seem to be able to coordinate and focus in a way they never have before. The actual act of riding itself involves a great deal of focus, balance, and planning. The

children can practice, with or without the assistance of side walkers as necessary, navigating the horse through obstacles, around arenas, or on trail rides. The children are forced to use muscle strength to guide the horse, they would need to plan ahead how to get to the obstacles, as well as in the example of a trail ride, balance themselves over varied terrain.

There are activities that can be done to benefit the person mentally and emotionally. In a person who has difficulty focusing and communicating, the horse is a communication tool. The child will learn certain verbal commands, which are reiterated in their lessons. The children, just as the horses, associate the words hoe, walk, trot, and back with the movement they perceive. There are stories told by parents' of autistic children that state that the child uttered their first words on a horse. Another way riding is beneficial mentally is through the use of the environment that has so many stimuli. The movement of the horse, the action of a barn, the arena area, or a trail in the woods are just some of the stimuli the children may encounter. The instructor can use tools in the arena such as colored signs used to give the child somewhere to direct the horse or to give them something to do at each color. In addition to colors there are props in the arena such as poles or bridges to navigate over and things like barrels and cones to steer around.

Research on the Use of Horses as Therapy Tools

Though there are many people and places supporting the use of horses as therapy tools for autism, there is not a lot of research behind it. One experiment conducted by Margaret Bass Ph.D., had a sample of 34 autistic children and randomly separated them into two groups. The experimental group participated in therapeutic riding once a week for twelve weeks while the control group did not. During the study the children participated in learning basic riding skills, grooming, mounted games, as well as learning some horse anatomy in relation to their own body. At the conclusion of the twelve weeks the parents' of the children studied filled out two questionnaires. One addressed the severity of the child's autistic symptoms and the other addressed social functioning and sensory processing. The results showed very positive things for the experimental group. The results showed "a sustained level of directed attention and focus that is usually not seen in children with autism spectrum disorders." It "also found to exhibit significantly greater sensory seeking, sensory sensitivity, social motivation, and physical activity than the control group." However, the study did not show great positive benefits in the areas of "fine motor/perceptual, social cognition, and social awareness." Bass did address the fact that the activities the children participated in during the study were not directed at sensory stimulation, fine motor skills or perception.

To address the fact that there is minimal research on the topic means more studies like this would need to be carried out. There would be a need for larger experimental group sizes and an understanding of the person's background; i.e. medications, original severity of symptoms. The study should also be carried out in different time intervals to see how long the duration of the effects from the benefits can be noted for. Each of the weaknesses of the autistic person should

be studied such as focus, attention, coordination, muscle strength, and social interaction just to name a few.

<http://psychiatryonline.org.proxy.libraries.rutgers.edu/newsarticle.aspx?articleid=113004>
<http://www.springerlink.com/content/dg17581727047118/fulltext.pdf>

The Use of Dogs with Autistic Patients

The first autism service dog was used in 1997 in Canada. This dog and his child were just the start of something that would continue to grow and gain popularity. This dog was trained by National Service Dog, a group whose mission is to “enrich the quality of life and enhance the independence of children and families living with autism and special needs by providing them with specially trained Labrador and Golden Retrievers.” There is seemingly more research that has been done in regards to the use of dogs for people with autism. The dog is a much more accessible animal than the horse and because of this is more feasible for many families who want to incorporate animals into their daily lives. Dogs used for autistic people go one step farther than a horse can. Similarly to horses, the dog can provide a bond and fill a social gap and be physically motivating for the person. However, dogs can also be trained as “safety” dogs. These dogs are service dogs, taught to respond and be able to locate their owner in times of need. This is incredibly helpful in terms of the autistic person who has tendencies to run off or wander. Such dogs are specially trained to respond to the child’s emotions and to the command of the parent. For example in situations where the child is likely to bolt, the leashed dog has been trained to listen to the parent and as a result will resist moving forward. These dogs also act in part as therapy dogs, and are able to offer more being that they are around the child all the time rather than just during a short therapy session.

<http://www.nsd.on.ca/history.php>

Service dogs

To allow these dogs who assist autistic people access to all areas the autistic person travels legislation had to be passed. Prior to March 2011, the use of these dogs had been debated in certain areas. At that time the use of dogs was covered under the Americans with Disabilities Act which was passed in 1991. This act permitted the use of service animals in public. However, in the definition of a service dog reference is made to the dog being of assistance to the handler’s disability. In most situations, the autistic person is not truly the handler. Most of those dogs are trained to listen to the parent or another person, thus having dogs for autistic children was challenged. In March of 2011 the wording of the definition of a service dog was changed from “handler” to “individual”, making the act clearer and more applicable to autistic people using service dogs.

The edited version of the current regulations are as follows; "Service animal means any dog that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability.

Other species of animals, whether wild or domestic, trained or untrained, are not service animals for the purposes of this definition. The work or tasks performed by a service animal must be directly related to the **individual's disability**. Examples of work or tasks include, but are not limited to, assisting individuals who are blind or have low vision with navigation and other tasks, alerting individuals who are deaf or hard of hearing to the presence of people or sounds, providing non-violent protection or rescue work, pulling a wheelchair, assisting an individual during a seizure, alerting individuals to the presence of allergens, retrieving items such as medicine or the telephone, providing physical support and assistance with balance and stability to individuals with mobility disabilities, and helping persons with psychiatric and neurological disabilities by **preventing or interrupting impulsive or destructive behaviors.**” These changes certainly seem to accurately reflect the need for accommodations for autistic people and service dogs. This, however, does not include therapy dogs, which are just there for emotional support.

<http://www.dogstardaily.com/blogs/ada-service-dog-changes-effective-ides-march>

<http://www.servicedogcentral.org/content/changes>

Training of the Dogs

Dogs selected as potential candidates to be an autism service dog must demonstrate some valuable characteristics. Most of the dogs selected are German Shepherds, Labs, Golden Retrievers, and mixes of those breeds. Those dogs are usually very even tempered, quick to learn, and reliable. Other desirable characteristics include that the dog is relatively young and healthy. Autism Service Dogs of America requires that the sire and dam of the dog have American Kennel Club pedigree certification, Hip Dysplasia Certification, Elbow Dysplasia Certification, a heart exam, and eye exam before they will consider a dog.

Families who wish to acquire an autism service dog have two options. The first option is to get a dog from an organization. There are quite a few organizations in the United States that provide these dogs. The dogs can cost anywhere from \$10,000 to \$14,000 on average, and some organizations base cost off of financial ability. Most of these associations are 501 C organizations; therefore the money they take for these dogs has to be considered a donation. The training that goes into an autism service dog is different from the training that goes into any other type of service dog. For example, an organization in Connecticut; known as the North Star Foundation, specializes in training and pairing dogs for autistic children. Their training begins when the dog is still a puppy in order to facilitate the best bond possible and cater to that specific child. The family of the autistic person is vital in the development of the dog's training as they, with the support of the people from North Star, are responsible for the training of the dog to the child's specific needs. In other organizations, where cost for the dog is usually significantly higher, the dogs are given to the applicant at about two years of age. At this point the dog has been fully trained. In situations like this the applicants are usually asked to raise a specific amount of money for the dog. Once they have raised all the funds required they are put on a list.

When a suitable dog is found the families will then engage in introductions and one on one training with the dog. The training is usually done in multiple steps. The dog itself will undergo 3-6 months of individual training. Some of the training is basic commands while other things may be more specified to the child who the dog will be raised for. After the dog has completed its training the applicant typically goes out to where the dog is with one a parent and undergoes a few days of training. The parent who attends is the dog's primary handler. After this the dog and child have had their training session the dog is brought back to the home. At this point most of the organizations who train the dogs offer different forms of follow up training; some even come into the homes and work with the dog and child in their new environments.

The second option is to train a dog themselves. Due to the legislation in reference to service dogs, these dogs do not have to be licensed or certified in any way. They just have to be able to perform specified tasks to assist the person with the disability. Therefore, this is a valid option for families who cannot afford to get a dog from a non-profit organization or who do not want to be on the waiting list for one.

<http://autismservicedogsofamerica.com/>
<http://www.northstardogs.com/autism.shtml>

Overview of the Benefits of the Use of Dogs

Service dogs, or even therapy dogs, may offer many benefits to an autistic person. In many situations outside of the home autistic children can be a challenge to the parent. In a crowded shopping situation any child can easily get lost, but a child who is predisposed to wander or a child who cannot communicate is at greater risk. With the use of a service dog, these children gain greater independence. The dogs are attached to them, and in many cases, are trained to not listen to the child but to the parent and even furthermore are trained to alert the parent if the child is about to be in danger. Another benefit of the use of the dog is increased social interactions. Children who have difficulty initiating conversation now have something to talk about. On the other hand, people who perceive autistic people as strange also find the dog to be an interesting topic and could also initiate conversation. The dog acts as a link to allow the children something to communicate about, and while doing so decreases their anxiety. Overall, many children who use autism service dogs seem to feel less stress, which in turn reduces other issues such as trouble sleeping as well as disruptive behavior. In certain cases, these service dogs are taught how to handle the child's disruptive behavior by using their nose or paw to "touch" the child when they are having a tantrum. The service dogs take a great deal of pressure off the parent.

<http://www.4pawsforability.org/autismdogs.html>

Research

As previously stated, there have been significantly more studies done on the effect of the use of dogs with autistic people. Here I will provide an overview of some of the results of such studies.

In one study it was decided that the most important function of the dog was increased safety and security for the child at home and in the public. The dogs acted in ways that contained the child and to act as an alert for the parents. This takes significant strain off the parents. The study also discussed how parents tend to have to employ greater security measures such as additional locks to ensure that their child is safe. In these situations the dog acts as an additional security, sleeping in the child's room. Parents stated that because of the dog they were able to get better sleep knowing that the dog would alert them in the case of an emergency. Another benefit noted by the study was increased physical and motor skills. The dogs set the pace for the children and helped them regulate their walking. Having a dog also forced them to learn to do things in order to take care of the dog such as feeding, playing, and communicating for cues. In terms of interactions, the children who were able to use the dogs had greater interaction with society and the dog eased communications between those depicted as disabled and the general public. Lastly, the parents of the study "reported decreased anxiety, increased calmness, reduction in the number of meltdowns or tantrums, dissipated/defused anger, and more manageable bedtime routines."

In another study done in Canada, the dogs quantifiably reduced the stress levels of the autistic individual using them. For the study, the researchers' measured the cortisol levels of the children before, during, and after working with the dog. They found that the levels dropped nearly 50% when the child was handling the dog. The researchers believed that their findings supported the idea that the use of a service dog for an autistic individual supported more positive behaviors.

<http://intentblog.com/independence-unleashed-how-service-dogs-can-help-autism/>
<http://www.ncbi.nlm.nih.gov/pubmed/20189722>
<http://qhr.sagepub.com.proxy.libraries.rutgers.edu/content/18/12/1642.full.pdf+html>

Challenges of using Dogs

There are also some difficulties in using service dogs as defined. These dogs are working a significant amount of time. Often times they assist the child through all their daily activities as well as sleep with them. These animals almost work nonstop. A study done revealed that the dogs needs needed to be closely attended to. If the dog was constantly dealing with the physical stress of being "on call" all day, having to handle the child's reactions; which at times could be, though unintentional, mistreatment of the dog, impacts on the dogs ability to perform and behave could be effected.

Another study discussed the potential of increased stress and responsibility on the parent due to the dog. Possible issues included when the dog was going into new places parents often had to explain or argue that the dog was indeed allowed to come in with the child. Other issues included the flip side of the dog being a positive social interaction for the child. When the child was out with the dog, the dog would gain the family more attention; sometimes too much where it would take a significant amount of time to explain the purpose of the dog, the benefits, and what autism

is about. In more general terms the dog was an increased responsibility of the parent due to the feeding, grooming, exercise, extra packing, and extra time needed to travel with the dog.

<http://cnaf.net/documents/NationalServiceDogsStudy.pdf>

http://www.iancommunity.org/cs/articles/asds_and_animal_assisted_therapies

References

The Centers for Disease Control and Prevention. Updated 11-14-11. Autism Spectral Disorders. Accessed 10-12-11. <http://www.cdc.gov/ncbddd/autism/index.html>

Mayo Clinic. 5-27-10. Autism. Accessed 10-12-11.
<http://www.mayoclinic.com/health/autism/DS00348>

Arkow. P. (2004) *Animal-Assisted Therapy and Activities: A Study, Resource Guide and Bibliography for the Use of Companion Animals in Selected Therapies*. P. 10.

Simmons. F. 5-16-11. Horseback Riding: Therapy for the Disabled. Accessed 10-15-11.
<http://frances-simmons.suite101.com/horseback-riding-therapy-for-the-disabled-a371358>

Grandin Ph.D. T. 11-97. Thinking the Way Animals Do. Accessed 10-15-11.
http://www.grandin.com/references/thinking_animals.html

Path International. 2011. Accessed 10-9-11. <http://www.pathintl.org/>

Bass. M; Duchowny C; Llabre M. 9-2009. The effect of therapeutic horseback riding on social functioning in children with autism. *Journal of Autism & Developmental Disorders*. Retrieved 11-1-11. <http://web.ebscohost.com.proxy.libraries.rutgers.edu/ehost/detail?sid=3ed4ce52-20d4-45d5b2df144fe41b9e0d%40sessionmgr10&vid=1&hid=21&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=c8h&AN=201037364>.

Arehart-Treichel. J. 11-20-09. Children With Various Illnesses Benefit From Horsing Around. *American Psychiatric Association*. Volume 44. Retrieved 11-1-11.
<http://psychiatryonline.org.proxy.libraries.rutgers.edu/newsarticle.aspx?articleid=113004>

National Service Dogs. 2008. History. Accessed 11-15-11. <http://www.nsd.on.ca/history.php>

Friedman. R. 3-7-11. ADA Service Dog Changes Effective on Ides of March. Accessed. 11-15-11. <http://www.dogstardaily.com/blogs/ada-service-dog-changes-effective-ides-march>

Service Dog Central. 7-23-10. How was the definition of "service animal" changed July 23, 2010?. Accessed 11-15-11. <http://www.servicedogcentral.org/content/changes>

Autism Service Dogs of America. 2010. Accessed 11-15-11.
<http://autismservicedogsofamerica.com/>

North Star Foundation. Accessed 11-15-11. <http://www.northstardogs.com/autism.shtml>

4 Paws For Ability. 2011. Autism Service Dogs. Accessed 11-15-11.
<http://www.4pawsforability.org/autismdogs.html>

Intentblog. 11-30-10. Independence Unleashed: How Service Dogs Can Help with Autism. Accessed 11-14-11. <http://intentblog.com/independence-unleashed-how-service-dogs-can-help-autism/>.

Viau R, Arsenault-Lapierre G, Fecteau S, Champagne N, Walker CD, Lupien S. 9-10. Effect of service dogs on salivary cortisol secretion in autistic children. *Psychoneuroendocrinology*. Retrieved 11-14-11. <http://www.ncbi.nlm.nih.gov/pubmed/20189722>.

Burrows. K. Adams. C. Spiers. J. 2008. Sentinels of Safety: Service Dogs Ensure Safety and Enhance Freedom and Well-Being for Families. Retrieved 11-14-11.
<http://qhr.sagepub.com.proxy.libraries.rutgers.edu/content/18/12/1642.full.pdf+html>

Burrows. K. Adams. C. 2005. Service Dogs for Children with Autism Spectrum Disorder: Benefits, Challenges and Welfare Implications. Retrieved 11-14-11.
<http://cnaf.net/documents/NationalServiceDogsStudy.pdf>

Anderson PhD. C. Foden. T. 1-21-11. Dogs, Horses, and ASD: What Are Animal-Assisted Therapies?. Accessed 11-14-11.
http://www.iancommunity.org/cs/articles/asds_and_animal_assisted_therapies

Service Project- Riding Lessons for the Autistic Individual

My service project was geared towards helping two young children both affected by autism in varying degrees through the use of my personal animals. My plan was to offer riding lessons to the girls which focused on things that could potentially improve their symptoms of autism. I met the two children through a relative who is a teacher in a local school. This woman had spoken to the parents of these two girls and discovered that they were interested in horseback riding lessons for their children but one of the larger local PATH centers was unable to accommodate them at this time. So in early September both girls started with an introduction to the horses and have been lessoning ever since. Both children are affected by autism in varying degrees and different ways.

Case Study # 1

Age: 9

Symptoms: Some trouble initiating conversation, uncomfortable around loud noises, nervous habits and fear of animals.

Activity Log:

Week 1:

At our first meeting the goal was to introduce child 1 to the horse. Basic grooming skills were taught. She was introduced to the different types of brushes and how to use them. After the grooming, we taught her how to tack up a horse and then brought her out into the pen with the horse and taught her how to get on. The first ride was very simple, just enabling her to get used to the motions to learn how we react around the horse. You could definitely see at first she had some reservations to the horse.

Week 2:

Child 1 greatly looked forward to our second session. At school she had been telling everyone about “her horse.” As soon as she arrived she easily recalled what she had done previously. She quickly picked up on the pattern of catching the horse, grooming, tacking, riding, and then grooming again once we were done. We further expanded on the riding time this week and started to talk about proper posture and worked on some exercises to help keep a rider straight in the saddle. During this session I also included my black Labrador. Due to child 1’s fear of dogs, we kept the dog leashed at the opposite end of the barn. Child 1 always kept her eye on the dog while performing the task at hand but was comfortable with her as long as she was leashed.

Week 3:

This week we took child 1 on her first trail ride. The dog was not present this week; however on the trail ride we encountered other dogs. Child 1 seemed to take some comfort knowing she was on the horse and that the dogs were contained elsewhere, but their barking irritated her. On the trail ride child 1 worked to institute some of the things she had learned in the previous sessions about proper posture. She was constantly thinking about keeping her shoulder’s straight and sitting tall. When we encountered the dogs she was slightly distracted. Child 1 was accompanied by another young child on the trail ride who she initiated conversation with several times. All of their conversation was focused around their horses.

Week 4:

This riding session was again in the ring. We introduced independent steering. Child 1 was given 2-4 obstacles to navigate around in a pattern. After learning how to steer child 1 navigated the horse over poles and around cones. In addition to steering we worked on some stopping and backing. Coming to a halt requires the child to completely relax but to maintain her proper posture. Backing is just a simple repetitive motion done with the hands and a quiet seat. The dog

was present during the time spent grooming and tacking. At the end of the session child 1 attempted to pet her, as long as the dog was being held and child 1 did not have to pet near her head.

Week 5:

As usual she was in charge of grooming the horse. During this week we furthered child 1's ability to steer and also introduced the "jog" during this session. Child 1 seemed to really enjoy the rhythm of the new gait and had very good posture. We incorporated walking, jogging, turning, stopping, and backing into a pattern that child 1 rode through.

Week 6:

This week the dog was not present but child 1 asked when I was going to bring her next. Whether this is out of fear or anticipation I was not sure. During our lesson we did some exercises that will help improve child 1's posture and rhythm. The first exercise we did was leg lifts where the trunk of the body acts to support and pull up the legs from the hips while in the saddle. Then we did some arm circles; the horse would walk along and child 1 would hold her arms out to her sides, rotating them in small circles at a similar speed to the horse's walk. Lastly, we introduced the concept of posting. While child 1 has learned to jog, in the future we will ask her to extend the trot, and to post to it. Posting is just the rise and fall of the rider in sequence with the horse's diagonal gait. Child 1 took to this quickly, finding her place, being soft, and really challenging herself not to use her hands to pull herself from the saddle.

Week 7:

This week the dog was present and child 1 had a really hard time with it. When she arrived she was reluctant to get out of the car even though the dog was restrained and away from an area where she could reach child 1. Child 1 was reasonable and agreed to come into the barn once the dog was taken out of sight. We groomed and tacked as usual, however once in the saddle child 1 started looking for the dog again. Eventually child 1 focused on the horse and practiced steering. I had her create her own pattern to carry out where she had to show a few of the different skills she had learned. She carried this out nicely. Once she got off of the horse, she was hesitant to leave the ring in fear of the dog again. Upon leaving, a friend took the dog and led her up to the car where child 1 requested to take pictures of the dog.

Evaluation: Child 1 seems to have started to try to overcome her fears. She actively tries to be less afraid of things, and though she is hesitant about the horse she works really hard to overcome it. She loves riding so much and her mother uses it as a tool to motivate her to do other things.

Case Study # 2

Age: 7

Symptoms: Poor muscle tone, difficulty performing certain physical tasks, little conversation skills.

Activity Log:

Week 1:

This week served as an introduction similarly to child 1's. Due to her age, child 2 was not responsible for grooming the horse but we did allow her to hold a brush and give it a try. The focus of the session was to put child 2 on top of the horse and see what she thought. Her mother suggested she may have some reservations but this was quite the contrary. Prior to getting in the saddle child 2 was very unfocused. Once in the saddle child 2, though still repeating random phrases, was at some level clearly tuned in to what was going on. As she was led around the ring we introduced the terms hoe, walk, and clicked to motivate the horse to move on. We assisted child 2 to sit in the proper position by putting her there, a position which she was able to maintain. At the end of the session child 2 attempted to mimic some of the phrases we were using.

Week 2:

Also like child 1, child 2 was very excited to get to the barn and get on the horse. Once on we repeated everything from the previous week. Child 2 seemed to maintain her posture very good on her own. We introduced posting to child 2 during this session to try and get her to focus. At the halt we explained what we wanted her to do by assisting her in making the motions. We would then ask the horse to walk and then halt and child 2 would rise from the saddle several times in an effort to give me a "high five". We concluded this session by having child 2 stretch to touch her toes and the horse's head and tail.

Week 3:

This week we did our stretching exercises again followed by some posting. Then we started to introduce child 2 to the concept of steering. She takes little interest in being in self-control but when prompted will try to move the horse.

Week 4:

During this session child 2 was incredibly motivated and appeared to really enjoy her time spent on the horse. She is getting much more able to do certain exercises on her own and recognizes the patterns of things we do within our rides. We worked on her asking the horse to back and she made an association with the word back and the movement of her hands asking the horse to go back. We also practiced longer stretches of posting while at the walk and halt. We also began doing more with the sitting trot and having her work to balance herself with no hands. While we were sit trotting I had child 2 keep her hands in her pockets or on the back of the saddle.

Evaluation: Child 2's physical therapist noted an increased ability to perform physical tasks such as riding a bike up an incline and jumping with both feet onto a platform. Prior to her riding lessons she did not have the muscle tone to do so.

Letter to the Editor – Submitted to a local group that supports children with special needs and spreads awareness to their cause. (Crewsvoice.org)

The Use of Animals as an Autism Therapy

According to the CDC, 1 in 110 children are diagnosed with autism each year. Parents of children with autism need to understand that they are not alone. There are many things that are available to benefit the autistic person and their family. One thing of particular interest to me is the use of animals, specifically horses as a therapy. I have worked with children who are affected by autism in multiple ways; and whether it is a factor of speech or physical proportion that affects them, the horse gives these children an ability they have never had. The horse becomes the highlight of the child's week, they look forward to something that engages and challenges them. For the children who struggle with communication, their smile as they ride around says it all. Horses enable the child (or adult) to create a bond that they may have never been able to before. The children benefit physically as well; the child who has poor muscle tone sits as straight as a ruler on top of a horse. Not only is it physically beneficial but mentally and emotionally as the children gain confidence. Another animal that has been explored for use by

autistic children is the dog. Dogs also enable the child to develop a bond and possibly understand communication in ways they have not been able to before. Lastly, the dog acts as a safety for autistic children who have tendencies to wander. The use of animals as a therapy for people affected by autism is something that needs further attention. To the parents, explore all your possibilities for helping your child at an early age!