

The Role and Benefits of Autism Service Dogs

November 03, 2011

By: [Organization for Autism Research](#)

Tags: [autism service dogs](#)

Dr. Thomas Zane is a professor of education and director of the Applied Behavior Analysis Online Program at the Van Loan Graduate School of Endicott College. He is a licensed psychologist in New York and Massachusetts. Dr. Zane has published in various journals and books, presented at regional, national, and international conferences, and been an invited lecturer in Ireland and the Republic of China. His research interests include teacher training, staff development, and evidenced-based practice in autism. As part of his duties at Endicott College, he offers a BCBA certificate program through distance learning.

Animals have long been used to provide unique services for individuals who need specialized assistance in some way. For example, Seeing Eye dogs are trained to provide assistance to persons with visual impairments to negotiate the physical environment. In addition to providing such basic services as security and protection, animals have been used to provide emotional and psychological comfort and support to people (e.g., Hall & Malpus, 2000). In fact, it has been experimentally shown that social interactions can increase simply by being in the presence of a dog (McNicholas & Collis, 2000).

The increasing incidence of autism spectrum disorders has resulted in an increase in therapies designed to treat this condition. A recent development has been the training of dogs to specialize in working with persons with autism spectrum disorders. Proponents of “autism dogs” assert that these dogs can support the unique challenges of persons on the spectrum. This article reviews the current knowledge and research in this area.

How “Autism Dogs” Are Used

Trained to assist a person with autism, an “autism dog” is usually connected physically to the person with ropes or other forms of tethers. There are two primary objectives for such dogs.

First and foremost, they are considered “service” dogs. According to National Service Dogs (2011), the mission of these animals is to increase the safety of the person with autism. For example, such a dog may lower the likelihood of the person bolting or crossing a busy street, because it is physically connected to the person with autism (Autism Service Dogs, 2011). The dogs are trained to follow commands from parents, stop at doorways, and resist the child moving away by using its weight to slow or stop the child (e.g., Burrows, Adams, & Millman, 2008a; Burrows, Adams, & Spiers, 2008b).

Dogs also have been known to alert parents of potentially dangerous situations at night (e.g., child waking up unhappy or getting out of bed and walking around). This can result in not only

the person with autism remaining safe from harm, but also parents and other family members being calmer, happier, and more relaxed knowing that the safety issue is less of a concern. One difference between autism service dogs and other service dogs is that typically, service dogs are trained to bond primarily with the person whom the dog will be helping. However, autism service dogs are trained to primarily bond with and take instructions from the parent(s), but trained to work with the person with autism (Burrows, et al., 2008a).

Some proponents assert that such dogs do more than enhance physical safety. Some (e.g., Autism Service Dogs of America, 2011) argue that the dogs provide a “calming presence” that “can minimize and often eliminate emotional outbursts.” Some advocates believe that such dogs can provide “.... a focus through which the child can interact with other children. This helps increase the opportunity for the child to develop social and language skills.” Burrows, et al. (2008a) believe that dogs can positively influence children with autism in the areas of arousal and sensory stimulation, improving concerns in these areas. In addition, dogs can function as a “transitional object,” allowing the child with autism to first bond with the dog, an easier creature with which to do so, and this may eventually increase bonding with humans.

Obtaining a Service Dog

To obtain a dog, parents must apply to one of the organizations that supply these animals (e.g., 4 Paws for Ability; Autism Service Dogs of America; National Service Dogs). The cost is approximately \$20,000. There appears to be no exclusionary criteria for either the diagnosis of autism (autism, Asperger Syndrome, PDD – NOS) or the age. Four Paws for Ability (<http://www.4pawsforability.org>) specifically states that age or severity of disability does not exclude one from getting a dog. On the website for the Autism Service Dogs for America (<http://autismservicedogs.com>), the application does not focus much on the functioning level of the target child. Several questions are asked about the type of problem and the behaviors exhibited by the person who will receive the dog (e.g., oversensitivity to sound, self-injurious behavior, lack of social reciprocity). No statement can be found as to exclusionary criteria.

To train a dog to perform such service functions, there is an intense and lengthy period of instruction. Once selected, a trainer and family work together to habituate the dog to the family and child with autism, train the parents on the commands that will be given to the dog, and assimilate the dog into the family routine.

The popularity of the supports these dogs provide appears to be increasing. Several of the agencies claim to have a waiting list. For example, National Service Dogs is constructing a new facility for training and education, and eventually will be able to place 40 dogs annually and will be able to expand outside Canada. Since 1996, this one organization has placed over 170 dogs.

Evidence of Effectiveness

As with many strategies and treatments when it comes to autism therapy, one must ask whether or not there is evidence of effectiveness of autism dogs providing the services advocates claim they provide. The literature describes two primary positive outcomes:

- Enhanced physical safety and security

- Enhanced social, learning, and emotional improvements

When reviewing the literature for research on the effect of autism dogs, there are many testimonials, some case studies, and only a few actual studies incorporating anything resembling a form of research design. Most of the research done on this topic consists of qualitative research, involving interviewing as the means for collecting data. Thus, the quality and validity of the information collected on ascertaining the effects of the autism dogs must be viewed cautiously.

Nevertheless, most of the outcome studies support the notion that these dogs do provide increased physical safety and security. For example, Burrows and Adams (2005) and Burrows, Adams, and Millman (2008) reported that parents consistently claimed that the dogs prevented children from bolting and running away. Parents relaxed more during bedtime knowing that the dog would alert them should the child with autism leave the bed or exhibit some other potentially dangerous behavior. Because of the dog's ability to physically prevent the child with autism from behaving in a dangerous way, parents felt more in control and calmer. Most of the dogs accepted the jackets in which they were placed and followed commands well. Parents reported immediate satisfaction and reduction in concerns about safety issues.

The research is less convincing when attempting to definitively ascertain whether the presence of the autism dog results in the learning of new skills, the improvement of emotional status, increased socialization, and fewer behavioral concerns. Some parents noticed new skill development. For example, after being with their dogs for a period of time, some children began regulating walking pace and developing improved motor skills and control. Burrows, et al. (2008a) found that some of their participants began learning dog-care tasks (e.g., feeding the dog by taking lid off food container; putting food in bowl; putting bowl on floor; commanding dog to eat).

Additionally, motor skills improved in some children who learned to pet the dog. The authors also found that, according to parents, the children exhibited decreased anxiety, were calmer, and engaged in fewer tantrums and other disruptive behaviors. Some parents even reported improved bedtime routines, and that the children "just seemed happier."

Using a more sophisticated design, Farnum and Martin (2002) investigated the impact of such dogs on the mood and social abilities of children with autism. The researchers systematically varied three different conditions consisting of a simple toy, stuffed dog, and real dog. They found that the participants demonstrated greater positive mood and "focus" on the environment when in the presence of the autism dog. However, this study has not been replicated and there are some methodological issues that limit the validity and generalization of the conclusions.

Effects on the Dogs

Interestingly, Burrows, et al. (2008b) also studied the impact of several variables on the dogs themselves. The authors conducted a series of interviews with members of 11 families who used dogs for their persons with autism. Parents were interviewed at three different time periods – when they were receiving training with their new dog, and every third month for 6 months.

The authors reported that generally speaking, the dogs were loved and bonded well with all members of the family. But the dogs were placed under significant stress, given the peculiarities of being with a child with autism. For example, some dogs could not sleep for long periods of time, if a child with autism went without sleep. Some dogs spent long hours in their jackets and inhibited urination and defecation if accompanying the child to school. Some children engaged in aggression towards the dogs, causing dogs to startle and move away from the child. The authors reported that some dogs eventually learned the cues that the child might suddenly display inappropriate behavior, or learned to discriminate between cries of needing something and cries that would signal aggression or tantrum.

The authors also discussed their results in terms of the impact of the dogs on social interactions. Generally speaking, dogs bonded primarily with one or both parents, and to a lesser extent, the child with autism (also supported by Burrows, et al. 2008a). Only four of the children with autism showed interest in the dog, defined as petting or initiating any sort of social approach. Dogs preferred interactions with parents and followed their commands. Generally, the child with autism provided less attention and social contact with the dog than did other family members.

Conclusions

Autism service dogs seem to provide a measure of safety to a child with autism. When tethered to a child, such dogs can prevent or minimize the child getting injured or lost. Such dogs also seem to be able to provide monitoring during the evening allowing parents to be more confident that their child will remain safe and that the dog would warn the parents should a need arise.

The evidence is less compelling when considering whether the autism dogs themselves are the reason for increased learning in the areas of motor, emotion, social, or adaptive behavior areas. They do not have any special capacity or “sense” of a special emotional connection with persons with autism. Rather, dogs can be the medium in which the child practices skills, such as learning to feed the dog. However, the reason for learning is most likely the repeated practice instead of any special characteristic of the animal.

In addition, the other areas of improvement noted in these qualitative studies – such as the children being happier, engaging more in positive social interactions, and displaying reduced number of tantrums – cannot be confidently believed, due to the data collection methodology and lack of reliability and validity of those data.

Autism dogs seem to have a role to play for the physical security and safety of children with autism. And that reason alone may be powerful enough to consider using one if it can be financially afforded. The impact of the dog on learning and other behavior remains to be determined in a more rigorous manner, and until that time, the use of autism dogs should be limited to enhancing safety of the child.

References

Autism Service Dogs (2011). Retrieved October 18, 2011.
<http://autismservicedogsofamerica.com/>

Burrows, K. E., & Adams, C. L. (2005). Evaluating the benefits of service dogs for children with autism spectrum disorders. Retrieved on October 21, 2001
at www.cnaf.net/documents/NationalServiceDogsStudy.pdf

Burrows, K. E., Adams, C. L., & Millman, S. T. (2008a). Factors affecting behavior and welfare of service dogs for children with autism spectrum disorder. *Journal of Applied Animal Welfare Science*, 11, 42-62.

Burrows, K. E., Adams, C. L., & Spiers, J. (2008b). Sentinels of safety: Service dogs ensure safety and enhance freedom and well-being for families with autistic children. *Qualitative Health Research*, 18(12), 1642-1649.

Hall, P. L., & Malpus, Z. (2000). Pets as therapy: Effects on social interaction in long-stay psychiatry. *British Journal of Nursing*, 9(21), 2220-2225.

McNicholas, J. & Collis, G. M. (2000). Dogs as catalysts for social interactions: Robustness of the effect. *British Journal of Psychology*, 91, 61-70.