

The benefits of companion animals for children with autism

Alison Reynolds examines the literature which supports the benefits of both assistance animals and animal-assisted interventions for autistic children.

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Assistance dogs have been successfully placed to benefit blind, deaf and disabled people since the 1930s with the founding of Guide Dogs for the Blind. Placement of assistance dogs with paediatric populations is a much more recent venture. Two member organisations of Assistance Dogs UK – AD(UK) are now providing assistance dogs to benefit families with children with autism. Support Dogs placed their first Autism Assistance Dog in 2007, with Dogs for the Disabled launching their Autism Project in 2008.

Both projects aim to improve the quality of life for families living with autistic children by placing a trained assistance dog within the family. The benefits that the assistance dogs bring to the families include: increasing the child's and family's independence, social acceptance and accessibility; enhancing the safety of the autistic child both within the home and out in the community and helping the child to

develop socially and interact more positively with their family and other people.

Trained assistance dogs are physically attached both to the autistic child and to the child's parent by means of a special lead and belt. By being attached to the dog, the child is prevented from "bolting" when they become stressed or anxious – a common behavioural response in autistic children and a serious safety issue. Due to the autistic child's limited verbal communication abilities, the parent is responsible for directing the behaviour of the dog.

This issue of research focus examines the literature which supports the benefits of both assistance animals and animal-assisted interventions – including animal-assisted therapies (AAT) and animal-assisted activities (AAA) for autistic children. It is a complex area of investigation and differs from adult-assistance dog partnerships in that both

child and adult are attached to the dog and the dog, whilst matched with the child, receives its instruction and training from the adult caregiver/parent (Burrows *et al.* 2008). Investigating animal-assisted interventions for children with autism is limited by the low verbal ability of autistic children, thereby making it more difficult to directly assess the effects.

About autism

Autistic Spectrum Disorder (ASD) is a developmental disability characterised by impaired social functioning and communication skills (Burrows *et al.* 2008). Autistic disorder, Rett's, childhood disintegrative disorder, Asperger's and other non-categorised PDD are all types of pervasive developmental disorders (PDD). Autism occurs on a spectrum and there are differences in gender prevalence, age of onset and the degree of deficit, but generally, autistic children display the following characteristics: social withdrawal and disinterest in the social environment; a lack of social skills; behavioural outbursts, and stereotypical behaviours such as hand flapping (Martin and Farnum, 2002). "Bolting" behaviour is a common occurrence in autistic children and threatens their physical safety (Burrows *et al.* 2008).

There are huge stresses placed on the families of children with autism, including: social isolation and rejection; lack of family cohesion; an increased care burden and with it, increased financial responsibility and difficulties accessing appropriate health and social care benefits and assistance (Burrows *et al.* 2008).

Benefits of companion animals

Interaction with or ownership of companion animals has been shown to benefit a wide range of recipients, including older people and children, and ill or disabled people, and to have a wide range of benefits, including socio-emotional, psychological, physical, and physiological (Morrison, 2007). Healthcare professionals are increasingly recognising the potential for utilising animals in therapeutic settings and interactions for treating a range of issues from loneliness to more complex disorders, for example autism (Mallon, 1992; O'Haire, 2009). In fact, as early as 1964, Levinson recognised the potential value of animals in treating autistic children.

Assistance animals

Burrows *et al.* (2008) investigated through participant observation and structured parent interviews, the benefits of autism assistance dogs for 10 autistic children and their families over a 12-month period. They found that the primary function of an assistance dog for a child

with autism is increased safety, both in the home and in community settings (Burrows *et al.* 2008). The dog is trained to resist and respond to the child's attempts to bolt, both physically (by being attached to the child and parent by means of a lead and belt system) and behaviourally (by sitting down when the child attempts to flee). This "safety function" also extended to the home environment even when the dogs were not "working" and alleviated parental stress associated with keeping the child safe within the home (Burrows *et al.* 2008).

It has also been noted by many authors that assistance animals provide other wider therapeutic benefits to both the child and family, in particular acting as a transitional object, facilitating more positive social interactions with others in a variety of ways (Davis *et al.* 2004). For example, assisting with activities of daily living (ADL); making daily routines and outings possible and more pleasurable for the entire family (Davis *et al.* 2004; Burrows *et al.* 2008); and decreasing anxiety and behavioural outbursts (Martin and Farnum, 2002).

As Burrows *et al.* (2008) highlight, research investigating the benefits of assistance animals for autistic children and their families has largely concentrated on the short term effects. Longer term effects and effects on the entire family system are less well known. Davis *et al.* (2004) also suggest that whilst the benefits of assistance dogs to children may be the same as they are with adults, less research has focused on the general viability, risks or disadvantages of placing assistance dogs with the paediatric population. They used structured interviews with 17 families with a child recipient under 18 years of age, who had "graduated" with an assistance dog from a single provider over a five-year period. The greatest suggested risks or burdens of placing assistance dogs with children were those of canine behaviour problems, difficulties of bonding between child and dog and the problem of long periods of separation of child and dog during the day, when the child may be at school.

Animal-assisted interventions (AAA and AAT)

Redefer and Goodman (1989) suggest that due to the poor recovery or improvement rates for many types of interventions, there is a need for innovative approaches to therapy for autistic children. They suggest that companion animals 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. Animals provide spontaneous behavioural responses which are simple and easy for children to interpret.



Above: Interaction with dogs and other companion animals has been shown to benefit a wide range of recipients, including older people and children

Above: Animals can positively affect our socio-emotional, psychological, physical, and physiological health



In its role as an assistance dog, the animal acts as a “transitional” object, facilitating interactions between the child and other people. The same function is also suggested by several authors to be an important reason why types of animal-assisted interventions, namely animal-assisted therapies (AAT) and animal-assisted activities (AAA) have also shown promise for autistic children (Farnum and Martin, 2002), particularly facilitating communication between therapist and child.

Farnum and Martin (2002) undertook a study of the interactions of children with PDD (including autism), when in the presence of a therapist with a dog, compared to a therapist with a non-social toy (a ball) and a therapist with a stuffed dog. Each child had a total of 45 sessions of 15-minutes duration with the therapist held three times a week and their responses were video-taped and then analysed under two categories: behavioural and verbal. Overall, the results suggested that sessions involving a therapy dog increased meaningful, focused discussions between child and therapist; however, some of the authors’ interpretations about the children’s behavioural responses could arguably have been adapted to “fit” the desired outcome. For example, an increase in hand-flapping in the dog exposure sessions was interpreted here as a mode of expressing excitement and exhilaration, whereas hand-flapping is generally portrayed in the wider literature as a negative behaviour, indicative of distress.

In addition, the ability of a dog to shift the focus of attention has been suggested to be important both in assistance animal partnerships and in animal-assisted interventions for autistic children (Davis *et al.* 2004; Burrows *et al.* 2008). From the parents’ perspective, integrating an assistance dog into the family as a pet reduces the focus on the child’s disability; for the child, they learn compliance with parental requests and to modify their own behaviours (Burrows *et al.* 2008); for therapists, the child’s focus on the animal enables the therapist to direct and modify the child’s behaviour in a non-threatening way (Redefer and Goodman, 1989) and in social settings, the perception of the autistic child’s behaviours to the general public is positively altered, due to the presence of an assistance dog (Davis *et al.* 2004).

Future challenges in research

Studies which examine the effectiveness of animal-assisted interventions or assistance animal placement for children with autism suffer the same criticisms as other studies in the human-animal bond field; a lack of scientific rigour, particularly in terms of research design; small sample sizes and self-selected bias; and difficulties with the validity of the instruments of data collection

(Martin and Farnum, 2002; Davis *et al.* 2004). Redefer and Goodman (1989), although highlighting the short term benefits of sessions where children interacted with an animal, noted an erosion of effect, even as soon as one month post-therapy. They suggest that the animal’s therapeutic function may be to “prime” the autistic child’s affect and response and recognise that it is not the mere presence of an animal alone which achieves change, but that it allows the therapist to modify and direct the child’s behaviour and responses. Although this highlights another area where research is lacking – that of the long term effects – it must be remembered that the utilisation of animals for children with autism is relatively new and elements are undiscovered, for example, the effects of illness, retirement or death of an assistance dog (Davis *et al.* 2004). There are also a number of challenges unique to this area. For example, the “triad” of interaction between the autistic child, the parent and the animal, requires that research effort needs to concentrate on the effects of assistance dogs and animal-assisted interventions in this population within the wider context of the family (Burrows *et al.* 2008). In addition, because children with autism are often non-verbal or poor communicators, researchers are often unable to ask them directly about the effects (Burrows *et al.* 2008) and must infer benefits and risks through observation, or interviews of others, for example parents and therapists.

In an interesting paper, Simpson (2005) addressed issues related to selecting and utilising effective interventions for children with autism, across a range of activity types. The author highlighted the danger of selecting interventions

which claim or demonstrate significant improvements in outcome for children with autistic spectrum disorder (ASD) whilst lacking in scientific validity. The paper suggested three basic questions which could be asked to assess the suitability of various interventions: 1) What is the efficacy and what are the anticipated outcomes? 2) What are the potential risks associated with the practice? and 3) What is the best way to evaluate a method or approach? The author evaluated 33 commonly used interventions and graded them into one of four categories: scientifically based; promising practice; practice with limited supporting information; and not recommended. He only evaluated one paper within the field of animal-assisted therapy and that was the controversial area of dolphin-assisted therapy for children with autism – it was graded as practice with limited supporting information by which he meant “those that lacked objective and convincing supporting evidence, but had undecided, possible, or potential utility and efficacy” (Simpson 2005, p145).

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Above, right & below: Six-year-old Ollie Rock was partnered with a specially trained assistance dog from Dogs for the Disabled, as part of their project supporting families with an autistic child



Above: The utilisation of animals for children with autism is relatively new – more research is needed