Summary: Investigating the benefits of assistance dogs or pet dogs for people with autism

We have done a systematic review of published research to determine the benefits of **assistance dogs** or **pet dogs** for people with autism.

We produced 2 reports from the review:

Report 1: Benefits of assistance dogs or pet dogs for people on the autism spectrum: A systematic review and meta-analysis.

Report 2: Lived experiences of assistance dogs for people with autism and their families: A systematic review and meta-aggregation of qualitative studies.

This is a **combined summary** of the reports.

Dogs and people with disability

Dogs play many roles in the lives of people with disability:

Pet dogs offer company and may help with routines and social engagement.

Visitation dogs belong to volunteers who train them to give comfort and affection to people. This can happen in places like hospitals, schools and aged care facilities.

Therapy dogs are similar to visitation dogs in their training. But allied health professionals use them to support structured intervention to reach goals.

Assistance dogs have been trained by an [accredited assistance animal provider (external)](#). They help a person with a disability do things they wouldn't be able to because of their disability.

Assistance dogs need a high level of obedience to reliably support a person when they are out in the community. For example, getting public transport, going to a café, or shopping for food.

To qualify as an [assistance animal (external)](#) under the NDIS, assistance dogs must do at least 3 tasks a person cannot do because of their disability. These tasks will depend on the person's specific disability, may happen with or without command, and are things we wouldn't normally expect a dog to do.

Examples of assistance animals include the following:

- Dog guides
- Medical alert animals
- Hearing assistance animals
- Mobility assistance animals
- Psychiatric assistance animals
- Assistance animals for developmental disorders

For the NDIS to fund an assistance animal as a disability support, it needs to meet:

- [NDIS definition of an assistance animal (external)](#)
- [NDIS funding criteria (external)](#) in line with the NDIS Act, 2013.

Funded supports should be based on evidence and improve participant outcomes. They should also be value for money, which means less cost but of similar help to other suitable supports.

Why we did this research

In 2019, La Trobe University looked at the effectiveness of animal interventions for people with disability. [The review (external)](#) included therapy animals and visitation animals. The result was that assistance animals could be beneficial.

As there was no specific focus on assistance dogs for people with autism, we wanted to better understand this for 2 reasons:

- To determine if assistance dogs provided benefits for people with autism.
- Whether assistance dogs differ from the benefits of having a pet dog.

Our approach

We did a systematic review and analyses of quantitative (numbers and statistics) and qualitative (words and meanings) research.

A **systematic review** means collecting evidence from studies on the same topic.

The first study summarised the quantitative evidence from the systematic review. This showed the extent of possible benefits, called the effect size, of assistance dogs. We used meta-analysis to do this.

Meta-analysis is a statistical method that combines results from studies to find a common estimate of effect. It also looks at how effects vary across settings and from other factors.

The second study summarised the qualitative findings from the systematic review and conducted meta-aggregation of existing research.

Meta-aggregation combines qualitative evidence and then makes suggestions for policy and practice. This study summarised the lived experiences of people with autism and their families who have assistance dogs.

What we did

We searched 4 academic databases for studies on the topic. We screened a total of 2016 articles and included studies that did the following:

- Looked at the efficacy or association of an assistance dog or pet dog on outcomes in people with autism at any age.
- Reported experiences of people with autism as well as their family and carers who have assistance dogs.

We identified 12 quantitative studies for the meta-analysis and 8 studies reported in 10 articles to be included in the qualitative analysis.

What we found

Results of the quantitative meta-analysis (Report 1):

- Assistance dogs only have small to moderate effects on measures of autism including:
    - Difficulty with social communication.
    - Repetitive or sensory behaviours.
    - Adaptive functioning such as the skills and abilities for daily tasks.

- o Family outcomes such as parental stress or burden.
- We can't be confident in the results as there were few studies of low quality.
- Evidence from the only randomised controlled trial found that parents of children with autism who had an assistance dog for 9 months had decreased parenting stress compared to a waitlist control group.
- There were also small to moderate effects of pet dogs on measures of autism, child mental health, and family outcomes.
- This means the research showed that the benefits of assistance dogs may not exceed those of pet dogs.

Results of the qualitative meta-aggregation Report 2

The synthesis of the 8 studies produced 3 combined findings:

- Parents described similar benefits for assistance dogs and pet dogs. This included:
  - o Helping the child socially,
  - o Supporting the child's emotional regulation,
  - o Decreasing parental stress.
- Many parents were not prepared for the reality of owning an assistance dog because of:
  - o The time, energy and dedication to look after the dog's wellbeing,
  - o The difficulties in forming a bond between the child and the assistance dog.
- Many parents were denied access to public places with an assistance dog because there is a lack of awareness in the community about autism and the role of assistance dogs.

Limitations of the research

- Systematic reviews, meta-analyses and meta-aggregations are limited by the methods and available research. Individual experiences can differ to what we found.
- We found few studies and they were mostly low quality with high risk of bias. This has the potential to lead to incorrect conclusions.

Read more about all the limitations in the main reports.

What this research tells us

- There is limited evidence that assistance dogs offer unique benefits for people with autism when compared with pet dogs.
- The benefits on autism-related outcomes were smaller than reported previously for supports like animal-assisted therapy and behaviour interventions. These other supports also have a stronger evidence base.
- While the results showed that assistance dogs may benefit people with autism, they must be looked at in the context of these factors:
  - The poor quality of evidence in the research area.
  - The poor quality of reporting across studies. We don't know if the assistance dogs in the studies would meet the NDIS definition of an assistance animal.
  - The effects of assistance dogs compared to other supports for people with autism.

Future research directions

We may need more studies to compare the effects of assistance dogs to other supports for people with autism across key outcomes.

These may include comparisons of assistance dogs to therapy, visitation or companion animals, traditional or innovative supports like robots, or combinations of different supports.

With further research, we could also see if assistance dogs reduce the need for more complex supports. This includes over longer time periods.

More information

- Read the NDIS Assistance animals operational guideline (external)
- Read the NDIS Would we fund it? Assistance Animals (external)
- To find out more about this research, email our team at research@ndis.gov.au.

A note on language

We know that people prefer different terms to describe autism. For consistency, we have used person-first language ('people with autism') throughout our reports.