

## Interventions for children on the autism spectrum, and their application in the Australian community (Summary 1 of 2: Narrative review)

### Background

There are many interventions available for children on the autism spectrum. Learning about and navigating these interventions can be challenging for families, clinical practitioners, and educators.

Autism CRC has completed a report, entitled ***Interventions for children on the autism spectrum: A synthesis of research evidence***. The report includes two reviews:

- narrative review, to provide an overview of interventions for children on the autism spectrum and their use in Australia
- umbrella review, to understand and summarise the evidence base for interventions for children on the autism spectrum.

The review was commissioned by the National Disability Insurance Agency and completed by Autism CRC through the work of a team that included researchers with a diverse range of professional backgrounds.

This community summary provides a brief overview of the narrative review, which explored the interventions for children on the autism spectrum and their use in Australia. A separate summary provides a brief overview of the umbrella review, which outlines the evidence base for interventions.

You can find the full report, and the summary of the umbrella review, at

[autismcrc.com.au/interventions-evidence](http://autismcrc.com.au/interventions-evidence)

### What is intervention?

Many different words are used to describe non-pharmacological interventions for children on the autism spectrum, such as therapy, treatment, approach, and program. These interventions are typically a collection of techniques that are applied to support a child's development and promote wellbeing and community participation.

Interventions aim to advance the human rights of a child. Interventions for children on the autism spectrum are most often designed and used with the aim to help children develop new skills and/or reduce behaviours that are perceived to act as barriers to their learning and participation in home and community activities.

### What principles are important for interventions for children on the autism spectrum?

Individuals on the autism spectrum vary widely in their profiles of strengths, support needs, and behavioural characteristics. Children and families also vary in their preferences and priorities. There is no 'one size fits all' approach to intervention during childhood, and there is no one intervention that improves all developmental outcomes for all children.

There are several core principles that are important to the delivery of all interventions, which are described in Table 1 on page 3.

### Key terms

**Narrative review:** A critical review of information on a topic of interest, drawing on a variety of relevant sources.

**Umbrella review.** A scientific review that uses systematic techniques to provide a comprehensive review of all previously published systematic reviews (including meta-analyses) on a focused topic.

**Non-pharmacological interventions:** Interventions that do not involve the use of medications.

### What are the different types of interventions for children on the autism spectrum?

There are a variety of intervention practices that have been designed for children on the autism spectrum. There is not a universally accepted way to summarise these interventions, but categorising them in the ways described in Table 2 (on page 3) may be helpful. These categories reflect the different reasons why the interventions are supposed to be effective. There is overlap between these categories, so they should not be thought of as being completely separate.

### What do the interventions target?

Interventions have been developed to target a range of child and family outcomes, including core autism characteristics (e.g., social-communication skills, restricted interests), related skills and development (e.g., language, cognition, daily living skills), education and participation (e.g., school readiness, community participation), and family wellbeing (e.g., caregiver skills and social-emotional wellbeing).

Some intervention practices are designed to target one aspect of child development or family wellbeing, whereas others target multiple areas at once. Accordingly, intervention practices may be delivered in isolation, or in combination, depending on the support needs and preferences of the individual child and family.

### Who delivers interventions in Australia?

Children on the autism spectrum and their families may benefit from the expertise of a range of clinical

practitioners spanning health, education and medical disciplines. Training to deliver intervention practices typically involves the completion of a professional qualification (e.g., a relevant university degree) and professional registration.

Some intervention practices can be delivered by a range of professional disciplines, while others can only be delivered by certain professional disciplines. Some intervention practices can only be delivered following additional training. Figure 1 provides a broad overview of this training. More specific information is available from the organisations that provide direct governance of the clinical competencies and intervention practices of these professionals.

### Why is this information important to the community?

There are many interventions available for children on the autism spectrum in Australia. It is important that families have access to this information, which can inform them about the variety of intervention practices available, the ways in which they are delivered, and the expectations regarding the competencies and governance of the people providing them.

The information provided about interventions can help to ensure families and those that seek to support them can make informed choices. Interventions should be selected on an individual basis within an evidence-based practice framework that combines the best available research evidence, with evidence from clinical practice, as well as child and family preferences and priorities.

## Find out more

Contact the project team on 07 3377 0600 or [info@autismcrc.com.au](mailto:info@autismcrc.com.au)

Download the full report and additional resources at [autismcrc.com.au/interventions-evidence](https://autismcrc.com.au/interventions-evidence)

### Full reference of report:

Whitehouse, A., Varcin, K., Waddington, H., Sulek, R., Bent, C., Ashburner, J., Eapen, V., Goodall, E., Hudry, K., Roberts, J., Silove, N., Trembath, D. Interventions for children on the autism spectrum: A synthesis of research evidence. Autism CRC, Brisbane, 2020

**Table 1.** Core principles that are important to interventions for children on the autism spectrum

Core principle	Description
<b>Holistic assessment</b>	An initial assessment of an individual's strengths, challenges, goals, and preferences is critical to developing intervention targets that are meaningful to the child and family.
<b>Individual and family-centred</b>	The person on the autism spectrum, and their family members, are the individuals receiving clinical services, and are to be considered equal partners with clinical practitioners.
<b>Lifespan perspective</b>	The types of interventions and supports that are most appropriate will change across the life-course, as children move from early childhood settings into school, and ultimately adult life.
<b>Evidence-based</b>	Intervention is most effective and safe when it is based on the best available research evidence, combined with evidence from clinical practice and the preferences and priorities of fully informed children (to the extent possible) and families.

**Table 2.** Overview of intervention categories

Category	Proposed primary reason that the intervention may help support development of children on the autism spectrum
<b>Behavioural interventions</b>	Children learn new skills, mainly based on the outcomes of their behaviours as they interact with other people and the environment.
<b>Developmental interventions</b>	Children learn new skills through developmentally-appropriate interactions with other people and the environment.
<b>Naturalistic developmental behavioural interventions</b>	Children learn new skills through developmentally-appropriate interactions with other people during play and daily routines, including the outcomes of their behaviour.
<b>Sensory-based</b>	Learning can be enhanced by changing how children process sensory stimuli.
<b>Technology-based</b>	Technology use may complement the behavioural characteristics of children, thus supporting learning and participation.
<b>Animal-assisted</b>	Human-animal interactions may be particularly motivating and provide a context for learning and improved wellbeing.
<b>Cognitive behaviour therapy</b>	People can learn to identify and replace unhelpful thoughts, and their associated behaviours, leading to positive effects on emotions and behaviour.
<b>TEACCH</b>	Children learn new skills most effectively when learning tasks and environments are adapted to their learning characteristics.
<b>Other</b>	There are a variety of other interventions that do not align directly with the features of the other specific categories.

Figure 1. Professional training pathways typically required to deliver interventions for children on the autism spectrum in Australia.

