

What do we know about the different interventions for children on the spectrum and their families?

Introduction

Choosing an appropriate and effective intervention for a child on the autism spectrum can be very difficult for families and professionals. This is because there are many and varied interventions and treatments available for autism, some of which are aggressively marketed and many of which have not been scientifically evaluated or have been determined to have little or no worth.

All individuals on the spectrum have different patterns of strengths and difficulties and therefore no single intervention is likely to be effective for all. It is important to evaluate interventions to provide families and referring professionals with the information they need to make informed choices for the child. Research about the different interventions falls into two groups:

- Research that evaluates specific programs – evidence of this nature allows us to evaluate outcomes for a particular approach/program/intervention (sometimes known as Type 1 evidence)
- Research that identifies the characteristics/underlying causes of autism and tells us about the strengths and challenges experienced by individuals on the spectrum, which can give information about what types of intervention are likely to be useful (sometimes known as Type 2 evidence). For example, research showing that individuals on the spectrum have strong visual skills has informed the extensive use of visual support strategies for people on the spectrum.

For most specific programs, further research (Type 1) is required to find out which children are most likely to benefit and to determine to what extent a specific program makes a difference to a child's everyday skills and functioning.

Most children receiving intervention in Australia will access an eclectic program that includes elements of specific programs as well as interventions based on Type 2 evidence, such as visual supports. It is important that all interventions (Type 1 and 2) for children on the spectrum meet the criteria for good practice which reflect the evidence base for autism intervention (see fact sheets 1 & 3 for more information).

What interventions are available for autism?

The range of interventions that are marketed to parents of children on the spectrum is very wide and includes biologically based treatments and learning based interventions.

Biologically based interventions

Medication

Medication can sometimes have a role in the treatment of targeted symptoms that impair the quality of life and progress of an individual on the spectrum. Symptoms most responsive to medication include hyperactivity, impulsivity, aggression, anxiety, self-injurious and obsessive/compulsive behaviours. It is important to note, however, that no biological treatment has yet been demonstrated to change the core characteristics of autism. In addition, there is insufficient research evidence to assess long-term effectiveness and potential side effects of

most medications prescribed for individuals on the spectrum. A child's paediatrician is likely to be the best source of information regarding medications that may, or may not, suit an individual.

Complementary and alternative medicines (CAMS)

While the causes of autism are thought to be largely genetic, there are still many unknown factors about what else might contribute to the development of autism. Because of these unknowns, there has been a proliferation of hypotheses about possible causes and treatments. Complementary and Alternative Medicines (CAMS) are often sought in the hope that they will treat an underlying cause of autism, rather than the observable symptoms. The range of CAMS treatments is very wide and includes (but is not limited to):

- Vitamin supplements
- Restricted diets
- Clay baths/chelation
- Anti-fungal medications
- Hormones

While research is continuing, there is currently no scientific evidence to support any of the CAMS in popular use in Australia. See the other Positive Partnerships facts sheets for more details or visit www.raisingchildren.com.au/autism for more information.

Learning-based interventions

Learning based interventions for autism fall along a continuum, ranging from developmental interventions that are child focused and relationship based, through to behaviourally based interventions that are adult directed and skill based programs.

Behaviourally based interventions involve breaking tasks down into very small steps and teaching these steps using operant learning techniques. These programs are often known as Applied Behaviour Analysis (ABA) and use discrete trial teaching in order to help children learn a range of skills. ABA programs are generally highly adult directed and are often provided as intensive (more than 30 hours per week) individual programs. ABA programs have been extensively researched and some positive outcomes have been achieved for some children. More research is required to determine who the program is most effective for and what level of intensity is required to achieve best outcomes.

Developmentally based interventions are those which primarily focus on developing positive meaningful relationships in more naturalistic and play based settings. Aims may include promoting attention and relating and interacting with others. Examples of developmentally based interventions include Relationship Development Intervention, DIR/Floortime and the Hanen More Than Words program. Generally, there has been less rigorous research regarding developmentally based interventions, although recent research suggests that good quality developmentally based intervention that is delivered at an appropriate intensity can have positive outcomes for children on the spectrum. Further research is required to determine the effectiveness of individual programs, but the core components of many of the programs, including social, communication, cognitive and parenting, have been well researched and outcomes indicate positive results.

The information about these different types of interventions is drawn from:

Roberts, J. M. A., & Prior, M. (2006). A review of the research to identify the most effective models of practice in early intervention of children with autism spectrum disorders. Australian Government Department of Health and Ageing, Australia.

Prior, M., Roberts, J. M.A., Rodger, S., Williams, K. & Sutherland, R. (2011). A review of the research to identify the most effective models of practice in early intervention of children with autism spectrum disorders. Australian Government Department of Families, Housing, Community Services and Indigenous Affairs, Australia.

The Cochrane Collaboration: www.cochrane.org/search/site/autism

The National Autism Center National Standards Project: www.nationalautismcenter.org/national-standards-project/results-reports/

Raising Children Network:

http://raisingchildren.net.au/children_with_autism/children_with_autism_landing.html

Research Autism: www.researchautism.net

Summary

The range of interventions offered for children on the spectrum is very wide. At this point, there is very limited evidence for biologically based interventions, but research indicates that high intensity interventions that address a child's and their family's individual needs provide the strongest outcomes.

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