Australian Advisory Board on Autism Spectrum Disorders

Education and Autism Spectrum Disorders in Australia

The provision of appropriate educational services for school-age students with Autism Spectrum Disorders in Australia

Position Paper

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Overview

The Australian Advisory Board on Autism Spectrum Disorders calls for educational services for school-aged Australian children and adolescents with an Autism Spectrum Disorder (ASD) that are governed by the following principles:

1. *Every child and adolescent with an ASD should have access to an educational service appropriate to his her/needs*

2. *All government and non-government educational sectors should provide educational services that cater to the needs of children and adolescents with an ASD*

3. Educational services must be responsive to all children and adolescents across the autism spectrum

4. There should be a range of educational services for children and adolescents with an ASD

5. Educational services must address the students' needs in communication, social skills, learning, sensory issues and behaviour and include family involvement

6. Increased provision of teacher education and training to improve the capacity of educational services to provide for students with an ASD

7. Educational services are based on sound evidence and quality indicators

8. Following an application for service, enrolments should proceed in a timely manner to ensure students with ASD access appropriate educational services as soon as possible.

Principle 1: *Every child and adolescent with an ASD has access to an educational service appropriate to his her/needs*

Due to challenges with their communication and social competencies and unique learning styles, every child and adolescent with an Autism Spectrum Disorder (ASD) should have access to an appropriate educational service appropriate to his her/needs. All individuals with an ASD are identified with impairments in social interaction, communication and a tendency for inflexible patterns of thinking and behaviour (Volkmar & Klin, 2005). Individuals with ASDs may possess relative strengths in visual-spatial processing, rote memory and attention to detail, and yet experience difficulties with flexible thinking, planning and organisation.

As a result of these impairments and unique learning styles, students with an ASD experience significant challenges in education and community environments. Many struggle to cope or fail in the education system. Evidence suggests that they are

significantly more likely than their typically developing peers to be suspended or excluded (Barnard et al., 2000), targets of bullying (van Roekel, Scholte & Didden, 2010), to suffer depression and anxiety (Kim, Szatmari, Bryson & Wilson, 2000) and to under-perform academically relative to their level of intelligence (Ashburner, Ziviani & Rodger, 2010). They are often misunderstood by educators, peers and the wider community. A recent survey of families of children with an ASD in mainstream schools by Whitaker (2007) found that many families were concerned by the lack of understanding of the implications of their child's diagnosis among the school staff, particularly in children at the higher functioning end of the autism spectrum.

Levels of funding support and educational service provision vary greatly from state to state. Currently, many students with an ASD in Australia are not receiving the appropriate educational supports and services they require to meet their diverse learning needs.

In some states, students on the autism spectrum with a diagnosis of Asperger's disorder and/or high-functioning autism (HFA) are not eligible for disability funding support for specific services from education and community sectors. It is critical that this inequity in funding support be addressed to ensure equal access for all students with an ASD to appropriate educational services in Australia.

Research indicates a prevalence rate for ASDs of 6 per 1000 (Fombonne, 2005; Wray & Williams, 2007). In the Australian study based on these prevalence rates, the core finding was that there is an estimated 10,625 children aged between 6 and 12 years with an ASD in Australia. A very recent research study conducted in the U.K. suggests that this figure may be even higher with a prevalence of 1:100 (Baron-Cohen et al., 2009). As a result of these high prevalence rates, the majority of Australian mainstream and special schools have students enrolled with an ASD. There is therefore an urgent need for education providers to ensure adequate availability and equality of access to appropriate education provisions for all students with an ASD.

Principle 2: *All government and non-government educational sectors must provide education services which cater to the needs of children and adolescents with ASDs*

Mounting evidence suggests the importance and the critical role of support and specialised intervention for children with an ASD and their families (Volkmar et al, 2005). Due to the learning, social and communication characteristics, the disorders present a significant challenge to individuals with ASDs. Given the increased rates of identification it is crucial that educational sectors are able to provide services that cater to the specialised needs of these students.

Educational service provision must also be in accordance with the Disability Discrimination Amendment Act 2005 Act and the subsequent Disability Standards for Education 2005. Schools must take reasonable steps to ensure that a student with a disability can access the same or comparable opportunities and choices provided by the school 'on the same basis' as those offered to a student without a disability. It is the responsibility of education providers and schools to ensure any necessary 'adjustments' to ensure that the student is able to enrol and participate in courses and access support services.

The failure of many students with an ASD in schools today is a directly related to the failure of education providers to ensure the necessary 'adjustments' are in-place and the implementation of the Disability Standards for Education, 2005.
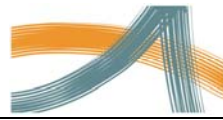
It is also important that parental choice of schools should be available for students with an ASD just as it is for other students. The range of choices of schools and provisions available to parents of a child with an ASD should be equal to the choices available to parents of students without a disability. Accordingly funding mechanisms across the government and non-government sectors should support such availability of choice and student need. Currently in Australia, there are a number of inequalities in funding and distribution to support disabilities across states and across government and non-government schools. Students with a disability in independent schools receive significantly less government funding for their educational support needs than those educated in government schools. Funding should be based upon the level of funding required to allow students with a disability, in this case an ASD, to achieve their educational goals irrespective of the educational jurisdiction.

Principle 3: *Educational services must be responsive to the needs of <u>all</u> children and adolescents across the autism spectrum*

Autism is a life long neurological disability. The criteria for a diagnosis of an ASD are based on a triad of impairments in social interaction, communication and a lack of flexibility in thinking and behaviour. There is a spectrum of autistic disorders which includes: Autistic Disorder, Asperger Syndrome, Retts Syndrome, Childhood Disintegrative Disorder, Pervasive Developmental Disorders Not Otherwise Specified (PDD-NOS), also known as Atypical Autism. Some people with Autistic Disorder who are functioning in the typical intellectual range may also be described as having High Functioning Autism (HFA).

Due to their social, communication and learning support needs, all children on the autism spectrum will benefit from specialised educational support and intervention regardless of their educational placement (Jones, 2002; Department of Education & Science: Ireland, 2006). Research has found that even among very able children (Aspergers and high-functioning), outcomes in adolescence and adulthood are varied and much lower than would be expected for the child's level of intellectual functioning (Tsatsanis, 2003; Howlin, 2005).

Accordingly, educational services should be responsive to all students identified with an ASD and based upon their identified educational need. A continuum of services should be available across the age range; a number of jurisdictions have services, but these are not uniformly available across the age range or encompass the entire autism spectrum.

Principle 4: *There should be a range of educational services for children and adolescents with an ASD*

An expanding body of genetic research is revealing the complexity of ASDs, which suggests that there may be many subtle differences also within the spectrum (Rutter, 2005; Happe, Ronald & Plomin, 2006). There is wide range of presentation and some individuals have additional disabilities or conditions (Reitzel & Szatmari, 2003). Although the core characteristics of ASD may be shared, these characteristics will be manifested in different ways in each individual with an ASD. These differences highlight the importance of utilizing autism-specific teaching approaches that are tailored to the unique and changing needs of individual students.

It is important that services meet the individual and changing needs of students at all stages of their education. A 'one size fits all approach' cannot address the wide range of individual needs at all times. A specialised comprehensive multi-faceted approach is
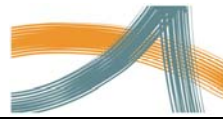
required to support the educational needs of students with an ASD. A flexible approach to service provision should involve a continuum of special education services. This continuum should include autism-specific special school placement, small support or satellite classes staffed by ASD-specialist teachers in mainstream schools, ASD-specific itinerant teacher services to support students who are included in mainstream classes (Jones, 2002; Batten et al., 2006) and full mainstream school placement.

Regardless of the type of educational placement or setting, the focus of all education for students with an ASD should be the acquisition of skills to facilitate transition and integration into more inclusive education and community environments. Autism-specific special school placement is considered to be an important educational provision that provides an initial stepping-stone to facilitate future successful integration and inclusion of students with an ASD in mainstream school settings. Funding should be provided in such a way as to encourage the development of a range of appropriate models within an educational system.

Principle 5: *Educational services must address the students' needs in communication, social skills, learning, sensory issues and behaviour and include family involvement*

Educating students with an ASD requires an understanding of the unique cognitive, social, communication, sensory and behavioural deficits that characterise autism.   The need for autism-specific curricula has been identified as a critical component of intervention (National Research Council, 2001; Iovannone et al., 2003; Arick et al., 2005).

Educational services should therefore address the core impairments of ASDs; social competencies, communication skills and learning style. Converging evidence has also confirmed the presence of elevated levels of atypical sensory responding in children with ASDs (Baranek, Parham & Bodfish, 2005).

Problem behaviours and evidence of increased levels of anxiety in children with ASDs (Janzen, 2003; Chalfont, Rapee & Carroll, 2006) often stem from their daily challenges in socio-emotional relating, communication and learning. Positive behaviour support should be underpinned by assessment and interventions that focus on skills development and replacement behaviours rather than simply attempting to eliminate particular problem behaviours (Powers, 2005).

As families are the most stable and influential people in the child's environment, collaboration between parents and educators is considered an essential part of educational intervention (Iovannone et al, 2003; Simpson et al., 2003).

Educational programs and services that are inclusive of autism-specific curricula will support students to maximise their learning potential and adaptive functioning and to also develop the independence needed for participation in the wider community.

In the provision of autism-specific curricula, education providers should also consider established evidenced based behavioural and educational treatment approaches that have demonstrated positive outcomes for students with an ASD (National Standards Report, National Autism Centre, 2009). Established treatments or approaches range from traditional behavioural treatments to more naturalist teaching strategies and comprehensive approaches.
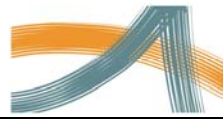
Principle 6: *Increased provision of teacher education and training to improve the capacity of educational services to provide for students with an ASD*

As outlined previously, educators in Australia must comply with the *Disability Standards for Education* (Commonwealth of Australia, 2005) and make reasonable adjustments to ensure all students can access education on the same basis, irrespective of disability status. According to the guidance notes on the disability standards for education (Commonwealth of Australia, 2006):

> *"Attitude is one of the main barriers to non-discriminatory access to education and training for people with disabilities. To counter any inherent discrimination in the provision of education and training, it is recommended that staff induction and professional development programmes include components on disability awareness and rights and on the obligations of education and training providers under the Standards." (p.51)*

Having a knowledge and understanding about ASD and the implications of ASD on a student's learning and participation needs is critical in being able to identify the 'reasonable adjustments' to successfully support students with an ASD in all Australian schools.

Professional development is the key to ensuring that all school staff has the knowledge and skills needed to deliver quality education for all students.

Positive Partnerships; supporting school aged students on the Autism Spectrum is an example of a successful Australian professional development program. Funded by the Department of Education, Employment and Workplace Relations (DEEWR), as part of the Australian Government's *Helping Children with Autism* initiative, *Positive Partnerships* has been delivered in 35 locations nationally since November 2008, with over 1250 school staff participating. The evaluation of this professional development program to date indicates that through changing the attitudes, knowledge and skills of a core body of teachers and school staff, *Positive Partnerships* has led to positive changes for students with an ASD, their families, individual staff and school communities.

Principle 7: *Educational services are based on sound evidence and quality indicators*

Students with an ASD will benefit from educational programs based on sound evidence and quality indicators. Several key indicators are associated with positive outcomes and include:

1) a range of placement and support options with student progress regularly assessed (Jones, 2002; Batten et al., 2006; Department of Education & Science in Ireland, 2006). This could include periodic assessment of the distribution of funding across special education, support units and students with disabilities in mainstream settings within the jurisdiction

2) trained and knowledgeable staff, who are adequately supported in whatever educational placement students with ASDs are enrolled (National Research Council, 2001; McGee & Morrier, 2005; Department of Education, Employment & Workplace Relations, 2007a & b)
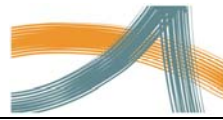
3) a supportive learning environment, including teachers, teachers assistants and peers (Sainsbury, 2000; Kunce, 2003; Kasari, 2009)

4) structured teaching and structured learning environments what support the need of students with ASD for predictability and routine (Roberts, 2006)

5) additional support to enable students navigate transitions such as changes in school settings and the changes involved in commencing and leaving school (Roberts, 2006)

6) a multi-disciplinary collaborative approach involving a team of professionals such as speech pathologists, occupational therapists and psychologists (Roberts, 2006)

7) a comprehensive learning environment that considers ecological and social factors (Roberts, 2004; Arick et al., 2005; Olley, 2005)

8) a specialised and broad-based curriculum that addresses social, communication, learning and sensory issues integrated with the regular curriculum (Sainsbury, 2000; National Research Council, 2001; Perry & Condillac, 2003; Arick et al., 2005)

9) intervention based on comprehensive assessments and tailored to individual student's strengths and needs (Howlin, 1998; National Research Council, 2001; Iovannone et al., 2003; Tsatsanis, Foley & Donehower, 2004)

10) a systematic and flexible approach to instruction (Sainsbury, 2000; Iovannone et al., 2003; Olley, 2005)

11) socio-emotional support and social skills programs both in and out of school (Iovannone et al., 2003; Arick et al., 2005; Batten et al. 2006)

12) a positive approach to behaviour support (Iovannone et al., 2003; Perry & Condillac, 2003), and

13) collaboration between professionals and parents and caregivers to determine and support child and family needs (Howlin, 1998; Simpson et al., 2003; Marcus, Kunce & Schopler, 2005).

Although there is a body of evidence that supports the adoption of the key indictors outlined above in education settings, there remains a paucity of comprehensive studies of the education of students with an ASD. To date there have been very few studies concerning students with an ASD in mainstream schools. Comprehensive research into the education of students with an ASD is therefore considered to be an urgent priority.

Principle 8: *Following an application for service, enrolments should proceed in a timely manner*

Given challenges faced by the students with an ASD in school settings and their specialised support needs, it is important that following an application for an educational service, enrolments should proceed in a timely manner. Research indicates that students with an ASD are excluded from schools at higher rates than students with other disabilities and considerably higher rates than students without disabilities (Batten et al., 2006; Humphrey, 2008). A South Australian parent survey suggests that the situation is similar

in Australia (South Australia Parent Autism Spectrum Disorders in Education Committee, 2005). Accordingly, timely enrolment in an appropriate service is essential to ensure positive learning outcomes and enhance quality of life. It is not acceptable that students be forced to wait for a service due to lengthy wait lists that result from a lack of appropriate or inadequate levels of services.

Conclusion

All students with an ASD share a unique pattern of impairment and learning characteristics that vary widely in presentation. As a result, they experience significant challenges in educational environments where few or no autism-specific provisions or curricula modifications are in place. No one single approach will be effective for all students across the autism spectrum. Therefore a range of educational programs and services are required to meet the needs of this unique population of Australian students.

It is the responsibility of both government and non-government education providers to provide appropriate educational services and supports. No child should be required to wait to access an appropriate service.

Educators should ensure that services for students with an ASD are based on sound evidence and quality indicators, and in doing so, include flexible, multi-faceted approaches that cater to the diverse needs of students on the autism spectrum. There should be a substantial increase in research that aims to explore the most effective approaches and educational practices for students with an ASD. The goals set out in the principles outlined in the education of students with an ASD will be achieved by the following:

➢ An increase in resources allocated for appropriate needs-based educational services across all educational sectors

➢ Increased collaboration between government and non-government educational sectors and across agencies

➢ Improving the capacity of educational services to respond through an increased provision of training, education and consultancy support.

References

Arick, J.R., Krug, D.A., Fullerton, A., Loos, L. & Falco, R. (2005). School-based Programs. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp.1003-1028). New Jersey: J. Wiley.

Ashburner, J., Ziviani, J. & Rodger, S. (2010) Surviving in the mainstream: Capacity of children with Autism Spectrum Disorders to perform academically and regulate their emotions and behavior at school. *Research in Autism Spectrum Disorders, 4* (1), 18-27

Baranek, G.T., Parham, L.D. & Bodfish, J.W. (2005). Sensory and motor features in autism: assessment and intervention. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp.831-861). New Jersey: J. Wiley.

Barnard, J., Prior, A., & Potter, D. (2000). *Inclusion and autism: Is it working?* London: The National Autistic Society.

Baron-Cohen, S., Scott, F.J., Allison, C., Williams, J., Bolton, P. Matthews, F.E. & Brayne, C. (2009). Prevalence of autism-spectrum conditions: UK school-based population study. *The British Journal of Psychiatry, 194*, 500-509.

Batten, A., Corbett, C., Rosenblatt, M., Withers, L. & Yuille, R. (2006). *Make school make sense. Autism and education: the reality for families today.* London. The National Autistic Society.

Chalfont, A. Rapee, R. & Carroll. (2006). Treating Anxiety disorders in Children with High Functioning Autism Spectrum Disorders: A Controlled Trial. *Journal of Autism and Developmental Disorders, 37,* 1842-1857.

Commonwealth of Australia (2006). *The disability standards for education.* Attorney-General's Department, Commonwealth of Australia.

Department of Education, Employment and Workplace Relations (2007a). *Project to Improve the Learning Outcomes of Students with Disabilities in the Early, Middle and Post Compulsory years of schooling.* Canberra: Author.

Department of Education, Employment and Workplace Relations (2007b). *Helping children with autism. www.dest.gov.au/schools/autism*

Department of Education & Science in Ireland (2006). *An evaluation of educational provision for children with autistic spectrum disorders.* Author.

Fombonne, E. (2005). Epidemiological surveys of pervasive developmental disorders. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp. 42-69). New Jersey: J. Wiley.

Happe, F., Ronald, A. & Plomin, R. (2006). Time to give up on a single explanation for autism. *Nature Neuroscience, 9*, 1218-1220.

Howlin, P. (2005). Outcomes in Autism Spectrum Disorders. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp. 201-220). New Jersey: J. Wiley.

Humphrey, N. (2008). Including pupils with autistic spectrum disorders in mainstream schools. *Support for learning, 23,* 41-47.

Iovannone, R., Dunlap, G., & Kincaid, D. (2003). *Effective educational practices* or students with Autism Spectrum Disorders. *Focus on Autism and other Developmental Disorders*, *18*, 150-168.

Janzen, J.E. (2003). *Understanding the nature of autism.* San Antonio, Texas: Harcourt Assessment inc.

Jones, G. (2002). *Educational provision for children with autism and Asperger syndrome: Meeting their needs.* London: David Fulton.

Kasari, C. (2009). Peers are key for autistic kids, researcher says. *Orange County register,* 30th January. Interview by S. Miller. www.ocregister.com/articles/autism-kids-one

Kim, J. A. Szatmari, P., Bryson, S. E., Streiner, D. L. & Wilson, (2000). The prevalence of anxiety and mood problems among children with autism and Asperger Syndrome. *Autism, 4* (2), 117-132

Kunce, L. (2003). The ideal classroom. In M. Prior (Ed.), *Learning and behaviour problems in autism* (pp. 244-268). New York: Guildford Press.

McGee, G.G. & Morrier, M.J. (2005). Preparation for autism specialists. In F.

Volkmar, R., Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp 1123-1160). New Jersey: J. Wiley.

Marcus, L.M., Kunce, L.J & Schopler, E. (2005). Working with families. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp 1055-1086). New Jersey: J. Wiley.

National Research Council (2001). *Educating children with autism.* Washington, D.C: National Academy Press.

National Autism Centre (2009). *National Standards Project.* Randolph, Massachusetts.

Olley, J.G. (2005). Curriculum and classroom structure. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp. 863-881). New Jersey: J. Wiley.

Perry, A. & Condillac R (2003). *Evidence-Based Practices for Children and Adolescents with Autism Spectrum Disorders: Review of the Literature and Practice Guide.* Children's Mental Health Ontario. Ontario.

Powers, M.D. (2005). Behavioural assessment of individuals with autism: A functional ecological approach. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp. 817-830). New Jersey: J. Wiley.

Reitzel, J. & Szatmari, P (2003). Cognitive and academic problems. In M. Prior (Ed), *Learning and behaviour problems in autism* (pp. 35 –54). New York: Guildford Press.

Roberts, J.M.A. (2004). *A Review of the Research to Identify the Most Effective Models of Best Practice in the Management of Children with Autism spectrum Disorders.* Sydney: Centre for Developmental disability Studies.

Rutter, M. (2005). Aetiology of autism: Findings and questions. *Journal of Intellectual Disability Research, 49,* 231-238.

Sainsbury, C. (2000). *Martian in the playground. Understanding the schoolchild with Asperger's syndrome.* Bristol, UK: Lucky Duck Publishing.

Shea, V. & Mesibov, G. (2005). Adolescents and adults with autism. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp. 288-311). New Jersey: J. Wiley.

Simpson, R.L., De Boer-Ott, S.R. & Smith-Myles, B. (2003). Inclusion of learners with autism spectrum disorders in general education settings. *Topics in Language Disorders, 23,* 116-133.

Smith-Myles, B.S., Adreon, D. & Stella, (2001). *Asperger syndrome and adolescence: practical solutions for school success.* Shawnee Mission, Kansas. AAPC publishing.

South Australia Parent Autism Spectrum Disorders in Education Committee, (2005). *School Satisfaction survey.* Author.

Tsatsanis, K.D. (2003). Outcome research in Asperger syndrome and autism. *Child and Adolescent Psychiatric Clinics of North America, 12,* 47-63.

Tsatsanis, K.D., Foley, C. & Donehower, C. (2004). Contemporary outcome research and programming guidelines for Asperger syndrome and high-functioning autism. *Topics in Language Disorders, 24,* 249-59.

Van Roekel, E., Scholte, R. H., Didden, R. (2010) Bullying among Adolescents with Autism Spectrum Disorders: Prevalence and Perception. *Journal of Autism and Developmental Disorders, 40* (1), 63-7

Volkmar & Klin, (2005). Issues in the classification of autism and related conditions. In F. Volkmar, R. Paul, A. Klin & D.J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd Edition, pp. 5-41). New Jersey: J. Wiley.

Whitaker, P. (2007). Provision for youngsters with autistic spectrum disorders in mainstream schools: what parents say - and what parents want. *British Journal of Special Education 34*(3), 170-178.

Wing L., & Gould J. (1979). Severe impairments of social interaction and associated abnormalities in children: Epidemiology and classification. *Journal of Autism and Developmental Disorders, 9*, 11-29.

Wray, J. & Williams, K. (2007). *The prevalence of autism in Australia: Can it be established from existing data?* Autism Advisory Board on Autism Spectrum Disorders