



Association for
Behaviour Analysis Australia
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**Submission to the Joint Standing Committee of the
National Disability Insurance Scheme (NDIS)**

**Re: Provision of services under the NDIS Early Childhood
Early Intervention Approach**

www.auaba.com.au

A. Introduction

The Joint Standing Committee of the NDIS has requested submissions regarding the provision of services under the NDIS Early Childhood Early Intervention (ECEI) Approach. The purpose of this submission is to address the following questions posed by the committee:

1. The service needs of NDIS participants receiving support under the ECEI pathway;
2. The adequacy of funding for services under the ECEI pathway;
3. The costs associated with ECEI services, including costs in relation to initial diagnosis and testing for potential ECEI participants;
4. The evidence of the effectiveness of the ECEI Approach;
5. The robustness of the data required to identify and deliver services to participants under the ECEI

B. The Authors of this Submission

The **Association for Behaviour Analysis Australia** (ABA Australia; see <https://auaba.com.au>) is a public company limited by guarantee (ACN: 165099392). It was established in 2012, has a formal constitution (see <https://auaba.com.au/wp-content/uploads/2017/04/ABAA-ConstitutionAug2013.pdf>), and is one of two affiliated chapters of the Association for Behavior Analysis International (ABAI), the other being the Australian Association for Cognitive Behaviour Therapy (AACBT). Its membership is open to all individuals interested or actively engaged in teaching, research, or application of the principles of applied behaviour analysis (ABA). To be eligible for membership, a person must apply to ABA Australia by submitting a completed application form, pay the annual membership fee, and meet the criteria for either professional, student or affiliate membership.

ABA Australia is presently comprised of 89 members who pay an average annual membership fee of \$65.00. The majority of members are professionals who either teach behaviour analysis at an Australian university or practice ABA while serving people with pervasive developmental disorders such as Autism Spectrum Disorder (ASD).

The primary function of ABA Australia is to support the development and advancement of the field of behaviour analysis in Australia. Thus, it is dedicated to promoting the theoretical, experimental, and applied analysis of behaviour across a broad range of applications within Australia.

C. Responses to Items in the Terms of Reference

What are the service needs of participants receiving support under ECEI?

The most recent survey of the **prevalence of ASD** was reported by the Centers for Disease Control (USA) on March 27, 2014. That report was that 1 in 68 children in the USA has a formal diagnosis of ASD. There is no reason to believe that the prevalence is any lower in Australia. In fact, recent media reports have stated that between 25 and 30% of NDIS participants have an ASD. Therefore, it is critical that families are linked to safe and effective ASD treatment quickly under ECEI.

However, in our experience, ECEI has not done enough to link families of young children with ASD to evidence-based early intervention. In Australia, a poorly defined eclectic approach to ASD treatment is promoted. Early Childhood Intervention Australia, the lead organization that has influenced the ECEI approach adopted by the National Disability Insurance Agency (NDIA), promotes an inclusive, strengths-based approach with a priority placed solely on training key individuals around the child. While this approach has some merits, we are concerned that it ignores important research findings regarding effective treatment for young children with ASD.

What does the research tell us about what works for young children with autism?

Virtually all interventions for ASD that are classified by authorities as established are based on the scientific discipline of **Applied Behaviour Analysis**. ABA is a well-developed discipline among the helping professions, with a mature body of scientific knowledge, established standards for evidence-based practice, distinct methods of service, recognized experience and educational requirements for practice, identified sources of requisite education in universities, and an international professional regulatory authority (i.e., the Behavior Analyst Certification Board – see <http://www.bacb.com/index.php?page=2>). The practice of ABA involves the design, implementation, and evaluation of environmental modifications (aka *teaching procedures*) to produce socially significant and demonstrable improvements in human behaviour (see <http://www.bacb.com/index.php?page=100772>).

ABA therapy has repeatedly been demonstrated to be effective for children, adolescents, and young adults with ASD and related conditions. Over the past 75 years, a large body of literature has shown the successful use of ABA-based procedures to reduce problem behaviour and increase appropriate skills for individuals of all ages with intellectual disabilities (ID), ASD, and related disorders. Several review articles and meta-analyses have been published summarising this large body of literature from 1946 to 2001 (e.g.,

Granpeesheh, Tarbox, & Dixon, 2009; Larrison, 2012; Larsson, 2013; Peters-Scheffer, Didden, Korzilius, & Sturmey, 2011). In addition to systematic research reviews and meta-analyses, over 2,000 replicated single system studies have been published along with dozens of group design studies, randomised clinical trials, social validity studies, and cost-benefit analyses. The large body of literature reviewed in these studies provides empirical evidence indicating that procedures developed using ABA-based principles are effective at assessing and treating a variety of socially important behaviours shown by individuals with a variety of diagnoses and of all ages (early childhood through adulthood).

Early Intensive Behavioural Intervention (EIBI) is the procedural technology that draws upon ABA research and integrates research findings into the learning and behaviour of children with developmental disabilities (including ASD). EIBI is “... *characterized by the active engagement of the child for many hours per week (usually 20+) in a planned educational intervention delivered primarily in direct 1:1 child–adult instruction, with specific goals derived from assessment results, manualized/operationalized instructional procedures, and a data collection system to facilitate progress and outcome measurement*” (Hepburn, 2013). EIBI is an evidence-based, comprehensive intervention for ASD that has been shown to be associated with the *most dramatic improvements* in prognosis for children with ASD (Eldevik, Hastings, Hughes, Jahr, Eikeseth, & Cross, 2009; Lovaas 1987; Peters- Scheffer, Didden, Korzilius, & Sturmey, 2011). The goal of EIBI is to change a child’s learning trajectory so that the child’s rate of learning approaches that of a typically developing peer.

Who has endorsed ABA and EIBI?

Independent reviews commissioned by government and charitable organisations consistently agree that ABA-based treatments for ASD are effective, and that the extensive body of research meets high standards of scientific evidence. A behaviour analytic approach to the treatment of the skill deficits so pronounced in children with ASD (namely, EIBI) is considered the standard of care in North America and increasingly in the United Kingdom and European countries. In fact, the state legislatures of 46 states of the USA (plus District of Columbia; US Virgin Islands) have mandated private insurance companies and other employee benefit plans to cover the costs of EIBI for the children with ASD of participants. A brief history of the endorsements for ABA treatment is as follows: As early as 1997, the California Department of Education and Developmental Services recognised that: *In areas such as social engagement, language, coping, and reduction of difficult behaviors... Applied behavioral analysis is usually needed to assist a child to gain skills and reduce negative or undesirable behaviors (p.10)*. In 1999, the U.S. Surgeon General endorsed ABA-based interventions: *Thirty years of research demonstrated the efficacy of applied behavioral methods in reducing inappropriate behavior and in increasing communication, learning, and appropriate social behavior*

(p.164). In 2011, the New York State Department of Health recommended: *That principles of applied behavior analysis (ABA) and behavior intervention strategies be included as important elements in any intervention program for young children with autism (p.33)*. In 2012, the Federal U.S. Office of Personnel Management responsible for all federal government employees concluded that ABA-based interventions should be covered not only for educational but also for medical reasons: *Based on ample scientific and empirical evidence, ABA therapy qualifies as a medical treatment, rather than purely educational (Bahsoun, 2012, p.1)*

In Canada, ABA-based interventions are supported, for example by the Ontario Department of Education Policy/Program Memorandum (PPM-140, 2007). This policy ... *Support(s) incorporation of ABA methods into school boards' practices ... The use of ABA instructional approaches may also be effective for students with other special education needs (p.1)*

In Australia, ABA-based interventions have also been formally endorsed and recommended to governmental authorities. In 2011, a review of the published literature concerned with the treatment of ASD was commissioned by the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) within the Australian federal government. A report of that review was published by Prior, Roberts, Rodger, and Williams (2011) and was titled *A Review of Research to Identify the Most Effective Models of Practice in Early Intervention for Children with Autism Spectrum Disorders*. These researchers adopted the same criteria for scientific evidence that were adopted by the National Autism Center (USA) and reported in their National Standards Report (2009). In both reports, ABA was the *only* intervention to be classified as based on established research evidence. In the Prior et al. report, ABA was recommended as the only treatment approach that should be eligible for funding from government grants. Prior et al. state that ...

The findings of the current literature review support the findings of previous reviews. Behaviourally based interventions, and specifically those that are intensive (often referred to as applied behavioural analysis (ABA) or early intensive behavioural intervention (EIBI), continue to indicate some positive outcomes for some children in a range of areas including cognitive skills, communication, and adaptive behaviour.

In recognition of the Prior et al. (2011) report, the federal government's Department of Social Services drafted policy around the Helping Children with Autism (HCWA) grant where ABA/EIBI was recognised as a treatment and the Behavior Analyst Certification Board was recognised as the appropriate professional regulatory authority. In addition, the [Raising Children Network \(http://raisingchildren.net.au/articles/applied_behaviour_analysis_th.html\)](http://raisingchildren.net.au/articles/applied_behaviour_analysis_th.html) gives ABA a firm rating of *established*, noting that research consistently shows positive effects.

Following in the footsteps of the Department of Social Services, the NDIA commissioned a similar review in 2015. Roberts (2015) reported the results of that review. The report described various critical elements of effective interventions aimed at treating the behavioural deficits and excesses of children with ASD, and the author's list of elements are essentially the defining features of a transparent, effective and comprehensive EIBI programme delivered by appropriately trained and qualified behaviour analysts.

Why does intensity of intervention matter?

Treatment dosage, which is often referenced in the treatment literature as "intensity," will vary with each client and should reflect the goals of treatment, specific client needs, and response to treatment. Treatment dosage should be considered in terms of intensity, and intensity is typically measured in terms of the number of hours per week of direct treatment. Intensity sometimes determines whether the treatment falls into the category of either Focused or Comprehensive. Focused interventions generally ranges from 5-20 hours per week of direct treatment (plus direct and indirect supervision and caregiver training) and where a specific skill is being taught (e.g., toilet training) or a specific problem behaviour (e.g., self-injurious head hitting) is addressed. In contrast, comprehensive interventions often involves an intensity level of 20-40 hours of 1:1 direct treatment (skills training) to the client per week, not including caregiver training, supervision, and other needed services. However, very young children may start with a few hours of intensive teaching per day with the goal of increasing the number of hours per week of this teaching as their ability to tolerate and participate permits. Treatment hours should be subsequently increased or decreased based on the client's response to treatment and current needs.

Research has consistently shown that positive effects can be achieved when ABA treatment is delivered via comprehensive, individualised and intensive intervention programs of 20+ hours per week. The attached reference list, *Early Intensive Applied Behavior Analytic Intervention for Autism* (Green, 2008), describes the strongest scientific evidence (including recent comprehensive reviews the research) to support the efficacy of comprehensive ABA interventions for children with ASD (and related conditions) between the ages of 0 and 6 years. Comprehensive, individualized and intensive intervention programs such as EIBI are important for such young children with ASD for several reasons:

1. The second year of life is a dynamic period of brain growth, during which increases in brain volume and atypical neural connectivity associated with ASD first emerge. However, this is also a time of substantial neural plasticity which may allow for rapid skill acquisition and prompt alteration of the child's developmental trajectory such that they reach age- appropriate developmental milestones sooner.

2. A proportion of children with ASD reportedly regress in their second year of life. However, intensive intervention during this period may counter the symptoms of regression and ultimately prevent ASD-related impairments before they fully manifest.
3. Statistics show that between 25-50% of children who receive early intensive behavioural intervention will transition into mainstream school by Kindergarten. Many other children will need significantly less support as they age.
4. Group design research and randomized controlled clinical trials suggest that behavioural programs that are implemented as early as possible in a child's life, and in an intensive manner, can produce significant improvements in cognitive, adaptive, and social-communicative functioning in young children with ASD.

(It is important to note that people with ASD of all ages benefit from intensive teaching based on the principles of ABA; it is simply that offering this treatment earlier in a child's life produces the best possible outcomes.)

Although the required number of hours of intervention may seem high, this is based on current research findings regarding the intensity required to produce good outcomes. Time spent away from teaching sessions also often has unwanted effects (such as the child learning maladaptive interactions with peers) and their skill development might not accelerate sufficient to prevent their falling further behind typical developmental milestones. By delaying treatment, and/or providing inadequate treatment intensity, children with ASD will likely be more dependent on intensive, costly services across their life span. **We contest that the cost of effective, intensive, early intervention should be compared to the long-term cost of not intervening, the latter of which likely be considerably more expensive for families and governments alike.** More importantly, spending money on EIBI for 20+ hours per week constitutes an investment in a child's – and his/her family's – life and should be considered analogous to the cost of chemotherapy medicines for children with life-threatening cancers.

What are the core components of EIBI?

There are currently over 400 marketed interventions for autism, the vast majority of which lack scientific support. For this reason, it is critical that ECEI Access Partners and other NDIA representatives are trained to identify the core components of ABA and EIBI. These components include:

1. A comprehensive developmental assessment that pinpoints the child's strengths and skill deficits at intake and informs the selection of treatment goals

2. Ongoing communication with parents to ensure that skills targeted as part of treatment are functional, important, and relevant to the child and the family
3. Emphasis on breaking skills down into small teachable components to make learning a new skill easier for the child
4. Gradual building of functional life skills to promote improved health and independence
5. Collection and analysis of skill acquisition data and behaviour reduction data to inform clinical decision-making and ensure progress toward goals
6. Functional assessment of problem behaviour to identify, prior to any treatment, the reasons *why* problem behaviour is occurring
7. Behaviour intervention plans that clearly relate treatment strategies to behavioural function
8. Use of various principles of learning (and behaviour maintenance) that have been researched in peer-reviewed scientific journals
9. Development of teaching procedures and behaviour intervention plans that can be implemented frequently and consistently across people and settings
10. Direct support and training for parents and team members
11. Implementation of all components of treatment, and supervision of that implementation, by appropriately qualified professionals (e.g., RBTs, BCaBAs & BCBAAs – see below)

(See the *Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers* for more information: <https://bacb.com/asd-practice-guidelines/>)

Who is qualified to design and supervise EIBI?

The Board Certified Behaviour Analyst (BCBA) is a graduate-level certification in behaviour analysis. Professionals who are certified at the BCBA level have a Master's degree in Psychology or Education (with a focus on ABA), 1500 hours of supervised experience, and have passed an examination administered by the BACB. They are independent practitioners who provide behaviour-analytic services. In addition, BCBAAs supervise the work of Board Certified Assistant Behaviour Analysts (BCaBAs), Registered Behaviour Technicians (RBTs; aka behaviour therapists), and others who implement behaviour-analytic interventions. *'ABA is a specialized behavioral health treatment approach and*

most graduate or postgraduate training programs in psychology, counseling, social work, or other areas of clinical practice do not provide in-depth training in this discipline. Thus, an understanding of the credentialing process of Behavior Analysts by the Behavior Analyst Certification Board® (BACB®; www.bacb.com) can assist health plans and their subscribers in identifying those providers who meet the basic competencies to practice ABA. The formal training of professionals certified by the BACB is similar to that of other medical and behavioral health professionals. That is, they are initially trained within academia and then begin working in a supervised clinical setting with clients. As they gradually demonstrate the competencies necessary to manage complex clinical problems across a variety of clients and medical environments, they become independent practitioners. In summary, Behavior Analysts undergo a rigorous course of training and education, including an “internship” period in which they work under the direct supervision of an experienced Behavior Analyst.’ Board Certified Behaviour Analysts adhere to the BACB Professional and Ethical Code of Conduct, which can be found here: <https://bacb.com/ethics/>

(See the [Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers](https://bacb.com/asd-practice-guidelines/) for more information: <https://bacb.com/asd-practice-guidelines/>)

Who delivers EIBI?

A BCBA’s clinical, supervisory and case management activities are often supported by other staff such as behaviour therapists (RBTs) working within the scope of their training, practice, and competence. There are several reasons why this tiered model of support is favoured:

1. Tiered service models that rely on the use of BCBA’s and behaviour technicians have been the primary mechanism for achieving many of the significant improvements in cognitive, language, social, behavioural, and adaptive domains that have been documented in the peer-reviewed literature
2. This tiered model of support enables more cost-effective levels of service delivery for the duration of treatment
3. This model permits sufficient expertise to be delivered to each child at the level needed to reach treatment goals. This is critical as the level of supervision required may shift rapidly in response to client progress or need
4. This model can also help with treatment delivery to families in rural and underserved areas, as well as children and families who have complex needs

What role do parents play in an EIBI?

The current ECEI approach places a priority on training parents to deliver therapeutic supports to their children. Parent involvement is integral to any EIBI program. However, it is important to make the distinction between ‘therapy’ and ‘parenting’ when delivering evidence-based early intervention. Parent involvement is integral to the success of any program, but general parenting occurs outside of the context of intensive teaching sessions. Therapy should include the following components:

1. A carefully constructed and detailed treatment plan that includes an individualised teaching procedure for each therapy goal/objective describing (a) the evidence-based teaching tactic, (b) operational definition of a correct response (i.e., criteria to deliver reinforcement), (c) operational definition of an incorrect response (i.e., criteria to withhold reinforcement and conduct an error correction procedure), (d) a description of prompting and prompt-fading strategies, and (e) criteria for mastery for each phase of teaching.
2. Clearly defined goals that describe some amount of a specific performance from the child, and that can be failed by the service provider.
3. A treatment protocol that is implemented repeatedly, consistently, and frequently across settings and teaching staff until criteria for discharge are met.
4. A focus on teaching small units of behaviour (i.e., prerequisite skills) which build toward larger functional life skills.
5. A social and learning environment which minimises problem behaviour and maximises the rate that new skills are learned.
6. Ongoing and frequent direct assessment (data collection) of the child’s performances and adjustments to teaching protocols (or behaviour management strategies) based on data analysis.
7. The implementation of the treatment plan and protocol by teaching staff who are operating within the scope of their training and competence.
8. Frequent direct supervision of teaching staff by a qualified program supervisor or allied health professional, who is operating within the scope of his/her training and competence.

The idea that most if not all intensive teaching will be delivered directly by parents under ECEI is problematic for several reasons. First, most research demonstrating positive results of ABA therapy has been conducted by trained teaching staff with clinical

supervision from experts in ABA. Bibby et al. (2002) evaluated progress and outcomes for children with autism receiving parent-managed behavioural interventions. The authors analysed IQ-test data from 22 children and adaptive behaviour scores from 21 children across an average of 31.6 months of treatment. At the conclusion of the study, mean IQ scores for 22 children did not change significantly, maintaining around the borderline of mild/moderate mental retardation. At a mean of 20.8 months into treatment, progress was assessed over a period of 12 months for a larger group of children ($N = 60$). No significant improvement in standard or ratio scores in the areas of intellectual functioning, adaptive functioning, or language was found. Overall, research to date suggests that although parent-managed programmes may bring about gains in language, adaptive, and intellectual functioning, they may not be as large as in programmes delivered by skilled teachers (e.g., RBTs). At this stage, the parent-managed model of EIBI has not proved sufficient to bring about these benefits in most cases.

Second, parents may find it challenging to deliver the majority of hours of intensive teaching for financial reasons (e.g., both parents must work), emotional reasons (e.g., one or both parents have a disability or mental health condition that precludes their full participation), or familial reasons (e.g., other children in the home require attention). It is important that each member of the intervention team, *including parents*, work within their scope of training, practice and competence.

There is also appears to be a misconception amongst ECEI Access Partners that parents do not participate at all in EIBI programs (in which 20 hours per week of intensive teaching is delivered by trained staff). Within an EIBI program, parents receive initial and ongoing training in the science and practical application of applied behaviour analysis so that they can assist their child *during all hours of the day outside of the time the child spends with a trained technician*. Providing parents with training in the science of ABA allows parents to think analytically about their child's behaviour and solve problems when new challenges arise or when the child is having difficulty learning (or generalizing) a new skill. Providing parents with training in the practical application allows parents to read and understand the teaching procedures and data collection systems designed by their program supervisor, identify and use reinforcement effectively, use prompting and prompt fading to teach new skills, and implement behaviour interventions designed to reduce behaviours of concern.

Does EIBI represent value for the money?

The NDIS legislation specifically states that *'the support represents value for money in that the costs of the support are reasonable, relative to both the benefits achieved and the cost of alternative support.'* For individuals with ASD and a co-morbid intellectual disability, the lifetime cost society is thought to be in excess of \$1 million. However, the quality of life cost to families is much greater. For example, families of a child with ASD frequently

must pay higher than average childcare costs, and one parent is often forced to forsake employment (or reduce their working hours) due to providing care for the child with ASD. In addition, It is estimated that only 15% of adults with ASD are engaged in meaningful employment, suggesting that many adults with autism are not earning an income to contribute toward their cost of living.

Cost benefit analyses of ABA therapy repeatedly determine that the cost savings substantially exceeds the early treatment cost for children with ASD (Buescher, Cidav, Knapp, & Mandell, 2014; Jacobson, Mulick, & Green, 1998). Buescher et al. calculate that the cost of supporting an individual with ASD and intellectual disability during his/her lifespan is \$2.4 million in the United States and £1.5 million (US \$2.2 million) in the United Kingdom. They estimate that the cost of supporting an individual with an ASD without intellectual disability is \$1.4 million in the United States and £0.92 million (US \$1.4 million) in the United Kingdom. The largest cost components for children are special education services and parental productivity loss. During adulthood, residential care or supportive living accommodation and individual productivity loss contributed the highest costs. However, as described by Jacobson et al. (1998) and others, these costs can be substantially mitigated by providing children with ASD and related conditions access to scientifically-supported education and treatment beginning as soon as a diagnosis is suspected or confirmed; namely, EIBI

Synergies Economic Consulting carried out a cost benefit analysis of providing EIBI to children with ASD (www.synergies.com.au). The authors designed three groups to capture the population of children with ASD. The three groups were described as follows:

Group 1 – children with severe intellectual impairment – likely to be nonverbal and suffer from significant behavioural issues and anxieties (estimated to account for approximately 20% of the children that would receive early intervention);

Group 2 – children with mild to moderate intellectual impairment – likely to experience difficulties with language and communication, particularly in social settings (estimated to account for approximately 60% of the children that would receive early intervention); and

Group 3 – children with High Functioning Autism – while not suffering from intellectual disabilities, individuals in this group can experience difficulties in other areas that can adversely impact long-term outcomes in key areas (estimated to account for approximately 20% of the children that would receive early intervention).

The authors applied a cost-benefit analysis to each group, and determined that, with intensive, evidence-based treatment, the average total economic benefit per child exceeded \$1 million.

Jacobson, Mulick, and Green (1998) also developed a cost–benefit analysis model of intensive ABA therapy based on the range of outcomes reported by previous group studies. The authors applied representative costs from Pennsylvania, including costs for educational and adult developmental disability services, in a cost-benefit model, assuming average participation in EIBI for three years between the age of 2 years and school entry. Information on the proportion of individuals accounted for by each group, ABS data on the number of live births in Pennsylvania per annum, and autism prevalence data was applied to these estimates to determine the total economic benefit for a cohort of children with ASD in (a) regular education without supports, (b) some in special education (partial effects), and (c) some in intensive special education (minimal effects). At varying rates of effectiveness, the model proposed by Jacobson et al. estimates that cost savings as a result of participating in EIBI range from US\$187,000 to US\$203,000 per child for ages 3-22 years, and from US\$656,000 to US\$1,082,000 per child for ages 3-55 years. In this study, the authors assumed that there would be differences in initial costs of US\$33,000 and US\$50,000 per year for EIBI, but found that these differences had a modest impact on cost-benefit balance. The cost of EIBI was greatly outweighed by estimated savings.

D. Summary

Larsson (2013) states: *Applied Behavior Analysis and Early Intensive Behavioral Intervention for Autism are quite possibly the best examples of evidence-based behavioral health care. Impartial independent review panels consistently agree that ABA and EIBI treatments for autism are effective, and that the extensive body of research meets high standards of scientific evidence. These reviews also report that ABA and EIBI significantly improves the net health outcome in Autism in substantial and far-ranging ways. What is striking about the independent reviews of EIBI and ABA for autism is that the more careful the scrutiny, the more emphatic are the conclusions. For example, the New York, the Maine, and the US AHRQ commissions embarked upon year-long independent reviews of the scientific support of ALL possible interventions for autism. Each panel stringently applied scientific standards of proof to all interventions and found that ABA-based therapies alone, of all possible treatments for children with autism, had been proven effective.*

Today, ABA/EIBI is widely recognised as a safe and effective treatment for ASD and related developmental disabilities. To ensure that all young children with ASD have access to effective and safe intervention, we must do the following:

1. We must ensure that access partners appointed by the NDIA understand the core features of ASD interventions that are classified as established based on current research findings. Access partners and other early childhood professionals must also

understand the core features of ASD interventions that are unestablished, and have an ethical responsibility to protect families and children affected by ASD from fad and ineffective, controversial, or potentially dangerous interventions.

2. Access partners appointed by the NDIA should also recognize the core features of ABA and EIBI. ABA is a specialized behavioural health treatment approach, a procedural technology that is more than just a bag of tricks and techniques. Most graduate programs in psychology, education, or allied health at Australian universities do not provide training in this discipline. We must ensure that behaviourally based interventions, such as EIBI, are supervised by credentialed behaviour analysts.
3. Behaviour analysts should be invited to work on interdisciplinary teams and/or sit on committees with other professionals who provide services to people with ASD and their families, and be invited to provide input to the ECEI framework.
4. ECEI Access Partners and NDIA representatives should also be aware of the practice guidelines for healthcare funders and managers published by the BACB®, which can be found here: http://bacb.com/wp-content/uploads/2015/07/ABA_Guidelines_for_ASD.pdf
5. Finally, government officials and elected representatives must ensure that they spend public monies smarter. Cost benefit analyses have allowed us to substantiate evidence of effective interventions. We know that best outcomes can be achieved when a diagnosis of ASD is provided early (before age 3 years), when intervention begins as soon as a diagnosis is confirmed, when intervention is intensive (20+ hours per week), and when intervention is focused on teaching new adaptive life skills. Government administrators must provide the funding necessary to allow families from all socio-economic and cultural backgrounds to access EIBI in order that their children can live the fullest and most productive lives possible.

E. Key supporting documentation

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