

# The Importance of Early Intensive Behavioural Intervention in Autism Spectrum Disorder

Anna Rita Marchi\*

Psychologist, Freelance Cagliari, Cagliari, Italy

## Abstract

The increasing prevalence of autism has amplified the need for evidence of behavioural treatments to lessen the impact of the symptoms in the functioning of children with this syndrome. Currently there are no cures or psycho-pharmacological therapies that act on all the symptoms of the disorder. The goal of the research is the systematic review of the evidence for the effectiveness of early intensive behavioral (EIBI) to increase the functional behaviors and skills of children with ASD. The term "autism spectrum disorder" (ASD) is the clinical nomenclature commonly used to define these disorders throughout life affect the brain and behavior of individuals who are affected. The results of this review are consistent with most of the studies meta-analysis of EIBI, which show positive effects in favor of EIBI for IQ and adaptive behavior. The authors' conclusions: There is some evidence to show that EIBI is an effective treatment for children diagnosed with ASD. The evidence indicates increases in the areas of IQ, adaptive behavior, socialization, communication, and daily living skills, with major gains made in IQ and socialization. As a summary of the main results was shown that EIBI improves adaptive behavior, cognitive ability (IQ), expressive, receptive language, communicational skills every day, every day social competence and daily living skills. Every parent of an autistic child from the time of diagnosis, hoping that their child can through appropriate care, get one day to be able to lead a normal life. Howling in 2005, says that 20 to 25 percent of people with Autistic Disorder reaches a certain level of independence and individual work.

**Keywords:** Autism; EIBI; Spectrum disorder; Cognitive behavioral intervention

## Introduction

The increasing prevalence of autism has amplified the need for evidence of behavioral treatments to lessen the impact of the symptoms in the functioning of children with this syndrome. Currently there are no cures or psycho-pharmacological therapies that act on all the symptoms of the disorder. The goal of the research is the systematic review of the evidence for the effectiveness of early intensive behavioral (EIBI) to increase the functional behaviors and skills of children with ASD. The term "autism spectrum disorder" (ASD) is the clinical nomenclature commonly used to define these disorders throughout life affect the brain and behavior of individuals who are affected. Individuals with ASD are different in their presentation of symptoms; for example, some individuals avoid social contact, while others are overly social and intrusive. They have also numerous differences in the level of cognitive functioning (for example, a serious mental to an intelligence much higher than average) and their ability to function in real-life situations (for example, live in a highly structured environment to life independent with a spouse and children). International ASD prevalence estimates suggest that affects 1% of the child population, making it more common than childhood cancer or juvenile diabetes. The origins of EIBI are linked to the University of California at Los Angeles in the model project for young autistics (called the Lovaas model).

## Material and Method

EIBI is a highly structured teaching approach for children with ASD (usually less than five years), which is rooted in the principles of applied behavior analysis (ABA). The basic elements of the EIBI concern: (a) a specific procedure training program referred to as discrete trial training, (b) the use of a 1:1 adult-child in the early stages of treatment, and (c) implementation is at home or school with settings for a range of 20 to 40 hours per week of all one to four years of a child's life [1,2].

Typically, EIBI is implemented under the supervision of qualified personnel in the procedures that ABA systematically follow a treatment manual [3,4] indicating the scope and sequence of activities that will be introduced and taught. It began with teaching one by one, a highly structured setting (clinical or home) for 25 hours a week. Education has systematically transferred in a natural environment (classroom, school) to promote generalization and maintenance. Moreover, EIBI faces deficits of ASD fundamental; individual educational programs are developed based on current behavioral repertoires of the child (social and communication skills), and a functional approach is used to address the difficult behaviors that interfere with learning. Moreover, EIBI generally includes a member of the family so that parents implement, manage, or assist in treatment planning and delivery. Intervention strategies implemented specific programs EIBI include a variety of techniques such as modeling, the use of planning and self-management. The objectives of the review are aimed to systematically analysis the evidence for the effectiveness of EIBI in increasing functional behaviors and skills for children with ASD. The research participants were children with Autistic Disorder, Asperger's Disorder, Pervasive Development otherwise specified, or Atypical Autism who are younger than six years at the beginning of treatment. Participants were not excluded on the basis of IQ or the presence of co-morbidities.

\*Corresponding author: Anna Rita Marchi, Psychologist, Freelance Cagliari, Cagliari, Italy, Tel: 00393274507564; E-mail: [belledda@gmail.com](mailto:belledda@gmail.com)

Received April 16, 2015; Accepted July 29, 2015; Published August 03, 2015

Citation: Marchi AR (2015) The Importance of Early Intensive Behavioural Intervention in Autism Spectrum Disorder. J Psychiatry 18: 317 doi: [10.4172/2378-5756.1000317](https://doi.org/10.4172/2378-5756.1000317)

Copyright: © 2015 Marchi AR. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

## Results

Studies that using this intervention have shown a reduction in the severity of symptoms, as well as large gains in IQ, adaptive behavior and language for many participants, although not all. The results were: primary outcomes of which, adaptive behavior, psychopathology (severity of symptoms), deterioration of a primary measure (deterioration); secondary outcomes that relate Intelligence, Communication and Language Skills, Social skills and the quality of life (both for children with ASD and their accuditori). The results were measured using standardized assessments, qualitative data (for example, the validity social), rating scale parent and/or teacher and observation of the behavior. It has independently assessed the risk of bias using the Cochrane Collaboration tool for assessing risk of bias. As a summary of the main results, it has been shown that EIBI improves adaptive behavior, cognitive ability (IQ), expressive, receptive language, communicational skills every day, social competence and daily living skills. The results of this review are consistent with most of the studies meta-analysis of EIBI which show positive effects in favor of EIBI for IQ and adaptive behavior. The authors' conclusions: there is some evidence to show that EIBI is an effective treatment for children diagnosed with ASD. The evidence indicates increases in the areas of IQ, adaptive behavior, socialization, communication, and daily living skills, with major gains made in IQ and socialization.

## Discussion

EIBI is a specific form of behavioral intervention, called "Early Intensive Behavioral Intervention" (EIBI), is one of the more established treatments for autism (ASD). The main problem is that the quality of the evidence to support the use of EIBI is quite limited, there are evidences from a handful of studies that have not optimum design. Only one study has used an RCT design and all of the studies there were small sample sizes.

We strongly recommend that decisions about the use of EIBI for children with ASD are made case by case. It is important that providers of EIBI are aware of the limited quality of the evidence and current use, clinical decision-making guidelines, such as the search of the family input and previous clinical experience, when recommendations to clients on the use EIBI. The review conducted by the authors reaches growing evidence base that EIBI is an effective treatment for children with ASD [5]. However, the quality of the evidence is troubling. Future studies should use RCT designs and sample sizes should be larger, when possible. It is also recommended that scientists intervention examining the effectiveness of EIBI establish guidelines for the minimum number of hours per week the children must receive EIBI, and a set of outcome measures that can be used by all researchers. In addition, researchers should more clearly delineate the active ingredients of EIBI under study and describe the educational practices or behavior of the participants in the control group, as well as the degree to which such practices must overlap with the treatment group [6-10].

## Limitations

Some variables may affect the results of the child-treated (for example, parent, doctor, teacher), the intensity and duration of the treatment (dosage); hours supervision of staff, and the settings of intervention [11-15]. Many families of children receiving treatment, including EIBI, also seek additional services to address residual symptoms of ASD, such as speech therapy, occupational therapy, music therapy, interventions based on the group [16-23].

It is clear that some of these variables may moderate the effects of treatment. Practice guidelines typically recommend the following treatment components to be included in the program: a) address the basic deficit of autism (social and communication, restricted interests, skills games, imitation); b) give instructions to the organization structure of the setting; c) have a close relationship student-teacher; d) program the generalization and maintenance; e) promote family involvement; f) implement a functional approach to change behavior and monitor progress over time.

## Conclusion

The results of this review are consistent with most of the studies meta-analysis of EIBI which show positive effects in favor of EIBI for IQ and adaptive behavior. The authors' conclusions: There is some evidence to show that EIBI is an effective treatment for children diagnosed with ASD. The evidence indicates increases in the areas of IQ, adaptive behavior, socialization, communication, and daily living skills, with major gains made in IQ and socialization [24-32].

As a summary of the main results was shown that EIBI improves adaptive behavior, cognitive ability (IQ), expressive, receptive language, communicational skills everyday, everyday social competence and daily living skills. Every parent of an autistic child from the time of diagnosis, hoping that their child can through appropriate care, get one day to be able to lead a normal life. Howling in 2005, says that 20 to 25 percent of people with Autistic Disorder reaches a certain level of independence and individual work [33-37].

## References

1. Eikeseth S (2002) Intensive behavioral treatment at school for 4- to 7-year old children with autism. *Behav Modification* 26.
2. Smith (1997) Intensive behavioural treatment for pre-schoolers with severe mental retardation and PDD. *Am J Ment Retard* 102.
3. Lovaas I (1981) Teaching developmentally delayed children. Pro-Ed.
4. Luiselli (2000) Home based behavioural intervention for young children with autism/PDD. *Autism* 4.
5. Maurice C, Green G, Luce S (1996) Behavioral intervention for young children with autism, Pro-Ed.
6. Mc Eachin J (1993) Long term outcome for children with autism who received early intensive behavioral treatment. *Am J Ment Retard* 97.
7. Lovaas I (1987) Behavioral treatment and normal educational and intellectual functioning in young autistic children. *J Consulting and Clinical Psychology* 55.
8. American Psychiatric Association (2001) Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision (DSM-IV-TR).
9. Atkinson, Hilgard (2011) Introduction to Psychology. Piccin publisher.
10. Baron-Cohen S (2000) The amygdala theory of autism. *Neurosci Behav Rev* 24.
11. Baron-Cohen S (2008) Autism and Asperger Syndrome. Oxford University Press.
12. Bettelheim B (1967) The Empty Fortress: Infantile Autism and the Birth of the Self. The Free Press New York.
13. Bibby P (2002) Progress and outcomes for children with autism receiving parent-managed intensive interventions. *Developmental Disabilities* 23.
14. Birnbrauer, Leach (1993) The Murdoch intervention programme after 2 years. *Behaviour Vhange* 10.
15. Bondy A, Frost L (1994) The Picture-Exchange Communication System. *Focus on Autistic Behavior* 9: 1-19.
16. Buxbaum Joseph D, Patrick R Hof (2013) The Neuroscience of Autism Spectrum Disorders. Academic Press.
17. Dodd S (2005) Understanding Autism. Elsevier Australia.

18. Foxx R (1986) Tecniche base del metodo comportamentale. Edizioni Erickson.
19. Frith U (2003) Autism: Explaining the Enigma. Cambridge, MA: Blackwell Pub.
20. Hadwin J, Howlin P, Baron-Cohen S (2008) Teaching children with autism to mindread: a handbook. Wiley.
21. Harris S (1991) Changes in cognitive and language functioning of preschool children with autism. Jn J Autism Develop Disord 21.
22. Howlin P (1993) Behavioural techniques to reduce self injurious behaviour in children with autism. Acta Paedopsychiatrica 56.
23. Keenan M, Kerr K, Dillenburger K (2000) Parents' education as autism therapists. Appl Behav Analysis in context, Jessica Kingsley Publishers.
24. Lord C, Corsello C (2004) Diagnostic instruments in autism spectrum disorders. (Wolkmar F, Klin A, Paul R, Cohen D, EDS), Handbook of Autism And Pervasive Developmental Disorders, Wiley, New York.
25. Lovaas I (2002) Teaching Individuals with development delays. Pro-Ed.
26. Lovaas I (1973) Some generalization and follow up measures on autistic children in behavior therapy. J Appl Behav Anal 1.
27. Lynch S (2000) Intensive behavioural intervention with a 7 year old girl with autism. Autism 2.
28. Pennington e coll (1991) Executive function deficits in high-functioning autistic individuals: Relationship to Theory of Min. J Child Psychology and Psychiatry 32: 1081-1105.
29. Richman S (2001) Raising a child with autism: a guide to applied behaviour Analysis for parents. Jessica Kingsley Publishers.
30. Schreibman L (2000) Intensive behavioural/psychoeducational treatments for autism: research needs and future directions. J Autism and Developmental Disorders 30.
31. Sheinkopf, Siegel (1998) Home based behavioural treatment of young children with autism. J Autism and Developmental Disorders 28.
32. Sigman M, e coll (1993) Parental Perception of emoziona expressiveness in children with autism. J Consulting and Clinical Psychol 61: 475-84.
33. Surian L (2002) Autismo, Indagini sullo sviluppo mentale. Laterza.
34. Surian L (2005) L'Autismo, Il Mulino.
35. Wimmer H, Perner J (1983) Bxeliefs about beliefs: representation and contraining function of wrong beliefs in young children's understanding of deception. Cognition 13: 103-128.
36. Wing L (2000) I bambini autistici. Una guida per i genitori, Armando Editore.
37. Wing L, Attwood A (1987) "Syndromes of Autism and Atypical Development". D.J. Cohen & A. M. Donnelland (Eds), Handbook of Autism and Pervasive Developmental Disorders (pp. 3-19), N.Y., Wiley.

Citation: Marchi AR (2015) The Importance of Early Intensive Behavioural Intervention in Autism Spectrum Disorder. J Psychiatry 18: 317 doi: 10.4172/2378-5756.1000317

### Submit your next manuscript and get advantages of OMICS Group submissions

#### Unique features:

- User friendly/feasible website-translation of your paper to 50 world's leading languages
- Audio Version of published paper
- Digital articles to share and explore

#### Special features:

- 400 Open Access Journals
- 30,000 editorial team
- 21 days rapid review process
- Quality and quick editorial, review and publication processing
- Indexing at PubMed (partial), Scopus, EBSCO, Index Copernicus and Google Scholar etc
- Sharing Option: Social Networking Enabled
- Authors, Reviewers and Editors rewarded with online Scientific Credits
- Better discount for your subsequent articles

Submit your manuscript at: <http://www.editorialmanager.com/psychiatry/>