What are the effects of Early Intensive Applied Behaviour Analysis on young children with autism?

Designed by Nifty Fox Creative, 2020

1. Research Questions



Early intensive Applied Behaviour Analysis (ABA)-based interventions

are designed to support young (pre-school) autistic children's learning and development.



These types of interventions are **usually delivered on a one-to-one basis, for at least 20 hours per week** over a period of 1-2 years.

They are not routinely available across the UK.



Although several reviews have looked at the effects of early intensive ABA-based interventions on autistic young children, **none has tried to collect detailed data from the individual participants included in the original research studies.**



Our researchers were funded to conduct an **independent review** of the data to assess the **effects of these interventions,** and to determine whether they **represent good value for money.**

2. Findings

Are they beneficial?



The results suggest that early intensive ABA-based interventions might **lead to some changes in children's cognitive ability (IQ) and everyday life skills** at two year follow-up, compared with standard treatments.

However, all the studies had problems with the way they were designed. It is therefore difficult to be certain about these results. Also, none of the studies assessed outcomes that have been described as most important to autistic people.

Very few of the studies followed children beyond two years, so it is **impossible to know about long-term effects** into adolescence or adult life.

Do they represent value for money?



The lack of information on how early interventions might impact on the lives of autistic children **make it difficult to determine whether they provide value for money.**

However, analyses based on the best currently available information suggest that **these interventions do not represent good value for money** when compared to current standard treatments, and so do not justify the additional costs of implementing them.

However, there is **a lot of uncertainty around this finding,** and better information about how the interventions impact on the lives of autistic children in the long-term, including the types of school they attend, may lead us to make different conclusions.

3. Recommendations

Future studies **should focus on evaluations of all early interventions (not only early ABA-based interventions)** to help us understand what types of intervention are most useful and suitable for autistic children of different ages and abilities, and their families.

Researchers need to work with the autism community to:









(i) use **relevant and reliable outcomes** when comparing and contrasting different therapies; (ii) make sure **best current** research practice is followed; (iii) assess potential benefits, adverse effects and costs of interventions; (iv) build in opportunities for **longer term follow up.**

Rodgers M, Marshall D, Simmonds M, Le Couteur A, Biswas M, Wright K, et al. Interventions based on early intensive applied behaviour analysis for autistic children: a systematic review and cost-effectiveness analysis. Health Technol Assess 2020;24(XX). DOI: 10.3310/hta24XXX. This infographic presents independent research funded by the National Institute for Health Research (NIHR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.





