



COCHRANE CORNER

Parent-mediated early intervention for young children with autism spectrum disorders (ASD)[†]

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[†]This review is an abridged version of a Cochrane review previously published in the Cochrane Database of Systematic Reviews, 2013, Apr 30, Issue 4: CD009774 (see www.cochranelibrary.com for information). Cochrane reviews are regularly updated as new evidence emerges and in response to feedback, and the Cochrane Database of Systematic Reviews should be consulted for the most recent version of the review.

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See commentary on pp. 147–150, this issue.

Background

Young children with autism spectrum disorders (ASD) have impairments in the areas of communication and social interaction and often display repetitive or non-compliant behaviour. This early pattern of difficulties is a challenge for parents. Therefore, approaches that help parents develop strategies for interaction and management of behaviour are an obvious route for early intervention in ASD. This review updates a Cochrane review first published in 2002 but is based on a new protocol.

Objectives

To assess the effectiveness of parent-mediated early interventions in terms of the benefits for both children with ASD and their parents and to explore some potential moderators of treatment effect.

Search methods

We searched a range of psychological, educational and biomedical databases, including CENTRAL, MEDLINE, Embase, PsycINFO and ERIC, in August 2012. As this is an update of a previous review, we limited the search to the period following the original searches in 2002. Bibliographies and reference lists of key articles were searched, field experts were contacted and key journals were handsearched.

Selection criteria

We included only randomised controlled trials of early intervention for children with ASD. The interventions in the experimental condition were mediated by parents; the control conditions included no treatment, treatment as usual, waiting list, alternative child-centred intervention not mediated by parents, or alternative parent-mediated intervention of hypothesised lesser effect than the experimental condition.

Data collection and analysis

Two review authors (H.M. and I.P.O.) independently screened articles identified in the search and decided which articles should be retrieved in full. For each included study, two review authors (I.P.O. and E.H.) extracted and recorded data, using a piloted data collection form. Two review authors (I.P.O. and H.M.) assessed the risk of bias in each study. We performed data synthesis and analysis using The Cochrane Collaboration's Review Manager 5.1 software.

Main results

The review includes 17 studies from six countries (USA, UK, Australia, Canada, Thailand and China), which recruited 919 children with ASD. Not all 17 studies could be compared directly or combined in meta-analyses because of differences in the theoretical basis underpinning interventions, the duration and intensity of interventions, and the outcome measurement tools used. Data from subsets of 10 studies that evaluated interventions to enhance parent interaction style and thereby facilitate children's communication were included in meta-analyses. The largest meta-analysis combined data from 316 participants in six studies and the smallest combined data from 55 participants in two studies. Findings from the remaining seven studies were reported narratively.

High risk of bias was evident in the studies in relation to allocation concealment and incomplete outcome data; 'blinding' of participants was not possible. Overall, we did not find statistical evidence of gains from parent-mediated approaches in most of the primary outcomes assessed (most aspects of language and communication – whether directly assessed or reported; frequency of child initiations in observed parent–child interaction; child adaptive behaviour; parents' stress), with findings largely inconclusive and inconsistent across studies. However, the evidence for positive change in patterns of parent–child interaction was strong and statistically significant (shared attention: standardised mean difference (s.m.d) 0.41; 95% confidence interval (CI) 0.14 to 0.68, $P < 0.05$; parent synchrony: s.m.d 0.90; 95% CI 0.56 to 1.23, $P < 0.05$). Furthermore, there is some evidence suggestive of improvement in child language comprehension, reported by parents (vocabulary comprehension: mean difference (m.d) 36.26; 95% CI 1.31 to 71.20, $P < 0.05$). In addition, there was evidence suggesting a reduction in the severity of children's autism characteristics (s.m.d -0.30 , 95% CI -0.52 to -0.08 , $P < 0.05$). However, this evidence of change in children's skills and difficulties as a consequence of parent-mediated intervention is uncertain, with small effect sizes and wide CIs, and the conclusions are likely to change with future publication of high-quality RCTs.

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