



NSW Speech Pathology Evidence Based Practice Interest Group

Critically Appraised Paper (CAP)

CLINICAL BOTTOM LINE:

Parent mediated therapy targeting joint attention can lead to positive gains in young children with Autism, in responding to joint attention bids and in coordinated joint attention behaviours. These gains may not be maintained over time, at follow up for these children. Further research is needed on larger samples of families, in naturalistic training contexts, and in investigating how to improve the long term effects of parent training programs.

Clinical Question [patient/problem, intervention, (comparison), outcome]:

In Children with Autism, does joint attention (JA) intervention improve social communication skills?

Citation:

Rocha M. L., Schreibman L., & Stahmer A. C. (2007) Effectiveness of Training Parents to Teach Joint Attention in Children with Autism. *Journal of Early Intervention*, Vol. 29, No. 2, 154 - 172

Design/Method:

- A single subject, multiple baseline design across 3 participant pairs
- Data collected at baseline, intervention, post intervention and at 3mths follow up
- Varying baseline durations, 2, 4, and 6 weeks
- Treatment subjects compared to 2 comparison groups – developmental and chronological
- Set in 2 identical playrooms in clinic for 3x/week sessions lasting 1hr 15mins, and weekly 10 min generalisation probes collected at home
- Children screened for participation using BSID and Macarthur CDI and unstructured joint attention assessment

Participants:

- 3 child parent pairs recruited from university based research project waiting list (2 boys and 1 girl)
- All 3 children had independent diagnosis of Autism, no medical contraindications, between 2; 2 – 3; 6 years, > 12mths non verbal mental age, response to < 60% joint attention bids, parents < 95% on stress index
- 2 x comparison groups - 4 developmentally matched peers, 6 chronological matched peers

Experimental Group:

- 3 child parent pairs, 2 boys and 1 girl.
- Post baseline, training involved discrete trial training and pivotal response training (child choice and motivating toys). Parents received teaching on techniques and type of joint attention. Teaching included modelling by trainer, then parents implemented and trainer coached. Parents told to implement at home and other environments. Training occurred in 5 phases: 1) Guiding child's hand to object, 2) tapping object, 3) showing object, 4) following a point, 5) following another's gaze. Progressed through phases on the basis of response on 80% of opportunities for 2/3 consecutive sessions
- All children min. of 17hrs of intervention over 6 weeks
- Data collected on; coordinated joint attention, joint attention initiations, joint attention responding
- Weekly probes of 10 mins of home generalization

Control Group:

- 2 x comparison groups - 4 developmentally matched peers (1 – 2 years of age) (from university human subjects pool), 6 chronological matched peers (2 – 4 years of age) (from a previous study)

Results:

- Effective in increasing the occurrence of 5 types of joint attention bids in all parent participants
- All parent participants initiated more joint attention bids during training than in baseline
- All children responded with increase of response through training to the 5 types of JA bids
- Greatest responsiveness to joint attention bids seen towards the end of intervention
- At f/up 2/3 children responded to more bids, the other child responded slightly less than at baseline
- After intervention, 2 children responded to JA initiations slightly above chronological comparison group & maintained at f/up
- Coordinated joint attention increased for all children particularly in the last phase of training
- High program satisfaction scores from parents in the experimental group

Comments – Strengths/weaknesses of paper

- Strengths: attempting to document effects of training parents of children with autism to target joint attention; included a follow up to measure progress; included comparison to typical developmental and age matched peers; considered the importance of generalisation and measured this
- Weakness: Measures for the fidelity of implementation by the therapist conducting the parent training, was not available
- Small sample size of only 3 child/parent pairs therefore query application to families from different ethnic and socio-economic contexts; training occurred in a highly structured research setting with a highly trained therapist, therefore results may have been different if training had taken place in a community setting or the home; design did not allow for investigation of mechanism responsible for increases in JA

Level of Evidence (NH&MRC): Level III**Appraised By**Clinical Group: Autism EBP group**Date:** 10/11/2011

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