

Research Snapshot



Investigating the effectiveness of parent-implemented shared book reading intervention for preschoolers with ASD.

What you need to know (background):

Children with autism are at increased risk of ongoing language and literacy difficulties. Research investigating the emerging literacy skills of preschoolers with ASD has shown particular difficulties with meaning-related skills such as vocabulary, story retelling and comprehension. Early intervention is important in developing these precursor literacy skills which have a significant impact on reading ability in future years.

There has been limited research into the effectiveness of shared book reading as an intervention for children on the spectrum. Previous systematic reviews have shown significant improvements in children's expressive language skills with a recent meta-analysis by Dowdall (2019) reporting a significant effect for caregiver book-reading competence.

What is this research about?

This study investigated the effectiveness of a shared book reading (SBR) intervention for preschoolers on the autism spectrum. Importantly, this study used the parents as the agents for intervention. Shared book reading intervention involves:

- 1) Encouraging the child to talk about pictures using open-ended questions.
- 2) Using indirect language stimulation techniques.
- 3) Being responsive to the child's cues as appropriate to the child's developing abilities.

This study set out to answer the following research questions;

1. Do parents who participate in an 8-week SBR intervention program show an increase in their use of book-related vocabulary and explicit teaching of story structure compared to a waitlist control group?
2. Do children whose parents participate in an 8-week SBR intervention show an increase in the number of utterances and the number of different words they use during a SBR session compared to peers in the control group.

What did the researchers do?

This study used a block randomised control study design. The participants (parents & children) were recruited from ASD early intervention, private speech and ABA services. Eligibility criteria included 1) diagnosis of ASD, 2) child younger than 6 years with 3) no formal schooling, 4) ability to attend to a book for approximately 5 minutes, 5) engagement in regular book reading, 6) no current attendance in other book-reading programs. 24 parents met eligibility with 23 then being randomly assigned to the intervention (12) or control (waitlist) group (11). 7 parents withdrew over time.

3 measures were used at preintervention, immediately post and 8 weeks post intervention.

- 1) a home literacy questionnaire,
- 2) a measure of non-verbal ability
- 3) a measure of receptive vocabulary

Parents also videotaped themselves during shared book reading. Transcripts were coded for parent and child behaviours that aligned with the research questions.

Intervention involved coaching by a speech pathologist to help parents develop strategies to promote vocabulary, understand story structure and to have fun while reading.

What did the researchers find?

- Reading duration – statistically significant difference between intervention group mean (443.11 secs) and control group mean (178.14 secs) immediately post intervention. Significant increase in reading duration between pre and post for intervention group.
- Parent behaviours – statistically significant difference between intervention and control group for both use of book language and explicit teaching of story structure linked to increased reading duration. When controlled for increased reading time, there was no significant difference in the group means, however more than half of the parents in the intervention group showed individually significant increases.
- Child behaviours – child utterances and number of different words both increased in the intervention group compared to the control. When controlled for reading duration, there was no significant difference between pre and post within and between groups.

Repeated measures taken 8 weeks post intervention found that reading duration was maintained and there was a significant increase in child utterances.

How can you use this research?

This study is particularly relevant for therapists and early educators working with families with young children with ASD, in particular where the focus of intervention is on engagement, language and literacy. The results of this study indicate that parent-implemented shared book reading intervention has a positive effect for children with

ASD, in particular for increasing number of utterances and range of words used. This study adds to the limited body of knowledge in this area. It demonstrates that coaching in shared book reading techniques resulted in changes in book reading behaviour in parents and that this type of intervention can be reliably implemented by parents.

Where to from here:

- Further information on the benefits of shared book reading – Dowdall et al (2019). Shared picture book reading interventions for child language development: A systematic review and meta-analysis. *Child Development* 91: e383 – e399.
- Tips from a Speech Pathologist on how to encourage shared book reading with young children on Hanen website. Link [here](#).

About the researchers:

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'In the spirit of reconciliation PRECI acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today. '