

Impacts of a Parent-Implemented Language Intervention on Children's Language Development Within Home Visiting

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Abstract

The purpose of this study was to conduct a pilot randomized controlled trial to evaluate the efficacy of the Promoting Communication Tools for Advancing Language in Kids (PC TALK) intervention for enhancing the language development of young children birth to age 3 served within different home visiting programs (Part C Early Intervention, Early Head Start, and Parents as Teachers).

The Institute for Healthcare Improvement (IHI) model was used to support project implementation. The aim of the project was to document how the PC TALK intervention supported by the IHI model including local planning teams with home visitors, professional learning sessions, monthly implementation support calls, and using results to inform practice and measure progress of children's development, would enhance use of the intervention.

Using a two-level hierarchical linear model to estimate the impact of the intervention, results provided promising evidence for the use of the PC TALK intervention as an effective model for increasing language learning-interactions between parents and their young children with and at risk for disabilities.

Method

- The PC TALK intervention used in this study is a set of research-based strategies derived from milieu and responsive teaching techniques for use by parents and/or child care providers with infants and toddlers across daily routines (Walker & Bigelow, 2012).
- To support implementation of PC TALK, the Institute for Healthcare Improvement Breakthrough Series Collaborative Program Improvement Model (IHI, 2003).
- The study was conducted within three home visiting models; Part C Early Intervention, Early Head Start, and Parents as Teachers serving families of children with identified disabilities and children at risk for developmental delays.
- Participants included 23 home visitors and 59 children between 18 and 30 months of age (Mean=22 months) randomized into treatment (PC TALK and IHI) and a Business-As-Usual (BAU) control condition.
- Corresponding progress and outcome measures along with a measure of implementation fidelity were used to provide information about implementation and outcomes. Measures included the *Preschool Language Scale-5* (PLS; Zimmerman et al., 2011); *Early Communication Indicator* (ECI; Greenwood et al., 2010); and the *Promoting Communication Observation System* (PC-Obs; Walker et al., 2015).

Promoting Communication Strategies



Results

- Parents in the treatment group who received PC TALK along with the IHI implementation support used significantly more PC TALK strategies with their children after the intervention was introduced ($t = 5.60$; $p < .001$).
- Children in the treatment group scored higher on the PLS-5 than children in the control group although results did not reach statistical significance.
- Children with disabilities in the PC TALK treatment group demonstrated more growth as measured by both the ECI and PLS-5 than children in the BAU control group.
- Home visitors reported high satisfaction with the intervention, and that the intervention helped them to provide more intentional use of the strategies with parents.
- Parents reported that they found the strategies easy to implement and use on a daily basis.
- The intervention was successfully implemented across three different types of home visiting programming (Part C Early Intervention, Early Head Start, and Parents as Teachers).

Discussion and Implications

- Findings from this pilot RCT provide expand on research demonstrating that parent-implemented language interventions can be effective for improving language outcomes in infants and young children across different home visiting models.
- This study adds to the literature for an understudied group – children birth to age 3 with disabilities or at risk for developmental delays.
- Future studies are needed to document intervention findings with larger samples of infants and young children and to understand factors that influence the effectiveness of language interventions with very young children and their families.

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