



## Efficacy of Pediatric Office-Based Interventions to Support Literacy Development

Research shows that when pediatricians promote literacy according to the Reach Out and Read (ROR) model, there is a significant effect on parental behavior, beliefs, and attitudes towards reading aloud, as well as improvements in the language scores of young children receiving the intervention.

The following studies have been published in peer-reviewed, scientific journals:

STUDY	N *	MAIN FINDINGS
Needlman 1991 <sup>1</sup> Boston, MA	79	Among parents in a primary care waiting room, those who had been given books and guidance were four times more likely to report reading aloud or doing it in the last 24 hours.
High 1998 <sup>2</sup> Providence, RI	151	Comparing parents in clinic before ROR was instituted, versus after, there was approximately four times increase in literacy orientation (reading aloud as a favorite activity, or as a regular bedtime activity, or reading aloud more than 3x/week) in the "after" group.
Golova 1998 <sup>3</sup> Providence, RI	135	In this study, families were randomly chosen to receive books and guidance, or usual care. After 10 weeks, parents were surveyed. There was a ten times increase in parents reading aloud 3 nights/week, and large, statistically-significant increases in "favorite activity" and other measures.
High 2000 <sup>4</sup> Providence, RI	205	A group of parents randomly chosen to get ROR guidance and books had significantly higher literacy orientation (as defined above), compared to a control group that got usual care. Among children 18 months and older, there were also significant increases in language scores using a modified standard language assessment, both for speaking and understanding. Language development is crucial for successful reading acquisition.
Sanders 2000 <sup>5</sup> Palo Alto, CA	122	Among Spanish speaking, immigrant families, those who had been exposed to ROR reported a doubling in the rate of frequent book sharing, defined as reading aloud 3 or more days per week.
Jones 2000 <sup>6</sup> Louisville	352	Parents given books and guidance were twice as likely to report reading aloud as a favorite activity, and rated the pediatrician as significantly more "helpful" than did a comparison group of parents.
Mendelsohn 2001 <sup>7</sup> NYC	122	One urban clinic had ROR for three years; another which was similar in all other respects, did not have ROR in place. Reading aloud by parents, and children's book ownership were significantly higher in the ROR clinic. What's more, scores on standardized vocabulary test were significantly higher in the ROR clinic — 8.6 points higher for receptive language (understanding words) and 4.3 points higher for expressive (picture naming), both large, meaningful effects.
Sharif 2002 <sup>8</sup> NYC	200	Comparison between two similar clinics in the South Bronx, one with ROR for 3 years, one with ROR for 3 months; otherwise, very similar. Receptive vocabulary (One-Word Picture Vocabulary Tests) was higher (average 81.5 versus 74.3) at the ROR site; parents scored higher on the STIQ reading section (more frequent reading aloud, more book ownership) and on the Literacy Orientation questions (book as favorite activity, and bedtime activity).
Silverstein 2002 <sup>9</sup> Seattle, WA	180	This study sought to determine ROR's effectiveness among non-English speaking families in a Seattle pediatrics clinic, with patient families of East African and Southeast Asian origin. Using a pre-/post-design, the study showed improved self-reports of home reading attitudes and practices among both English and non-English speaking families given English language books as part of ROR.
Weitzman 2004 <sup>10</sup> New Haven, CT	137	Families with children 18-30 months were studied with waiting room interviews and home visits to determine the effect of ROR on a Child Home Literacy Index and on the HOME measure of the home environment; after adjusting for multiple confounders, ROR was found to contribute positively to a child's home literacy environment; more frequent ROR encounters had a greater impact.
Needlman 2005 <sup>11</sup> Cleveland, OH	1647	In a national sample of parents of children age 6-72 months, implementation of ROR programs was associated with increased parental support for reading aloud. The study provides multi-site evidence, from 19 clinical sites in 10 states, of the effectiveness of a primary care intervention strategy to promote reading aloud to young children.

\*N= number of subjects enrolled

(over, for references)

## References Cited:

1. Needlman, R., et al., Clinic-based intervention to promote literacy. *American Journal of Diseases of Children*, 1991. 145: p. 881-884.
2. High, P., et al., Evaluation of a clinic-based program to promote book sharing and bedtime routines among low-income urban families with young children. *Archives of Pediatrics and Adolescent Medicine*, 1998. 152: p. 459-465.
3. Golova, N., et al., Literacy promotion for Hispanic families in a primary care setting: a randomized, controlled trial. *Pediatrics*, 1999. 103: p. 993-997.
4. High, P., et al., Literacy promotion in primary care pediatrics: can we make a difference? *Pediatrics*, 2000. 104: p. 927-34.
5. Sanders, L.M., et al., Prescribing books for immigrant children. *Archives of Pediatrics and Adolescent Medicine*, 2000. 154: p. 771-777.
6. Jones, V.F., et al., The value of book distribution in a clinic-based literacy intervention program. *Clinical Pediatrics (Phila)*, 2000. 39: p. 535-541.
7. Mendelsohn, A., et al., The impact of a clinic-based literacy intervention on language development in inner-city preschool children. *Pediatrics*, 2001. 107: p. 130-134.
8. Sharif, I., S. Reiber, and P.O. Ozuah, Exposure to Reach Out and Read and vocabulary outcomes in inner city preschoolers. *Journal of the National Medical Association*, 2002. 94: p. 171-177
9. Silverstein, M., et al. An English-language clinic-based literacy program is effective for a multilingual population. *Pediatrics*, 2002. 109 e76.
10. Weitzman, C.C., et al., More Evidence for Reach Out and Read: A Home-Based Study. *Pediatrics*, 2004. 113: p. 1248 - 1253.
11. Needlman, R., et al., Effectiveness of a Primary Care Intervention to Support Reading Aloud: A Multicenter Evaluation. *Ambulatory Pediatrics*, 2005. 5:209-215.

**For more information, contact the Reach Out and Read National Center by phone at 617-455-0600, email at [info@reachoutandread.org](mailto:info@reachoutandread.org), or by writing to us at 56 Roland Street, Suite 100D, Boston, MA 02129.**

**Visit our web site: [www.reachoutandread.org](http://www.reachoutandread.org)**