American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

POLICY STATEMENT

Literacy Promotion: An Essential Component of Primary Care Pediatric Practice

abstract

FREE

Reading regularly with young children stimulates optimal patterns of brain development and strengthens parent-child relationships at a critical time in child development, which, in turn, builds language, literacy, and social-emotional skills that last a lifetime. Pediatric providers have a unique opportunity to encourage parents to engage in this important and enjoyable activity with their children beginning in infancy. Research has revealed that parents listen and children learn as a result of literacy promotion by pediatricians, which provides a practical and evidence-based opportunity to support early brain development in primary care practice. The American Academy of Pediatrics (AAP) recommends that pediatric providers promote early literacy development for children beginning in infancy and continuing at least until the age of kindergarten entry by (1) advising all parents that reading aloud with young children can enhance parent-child relationships and prepare young minds to learn language and early literacy skills; (2) counseling all parents about developmentally appropriate shared-reading activities that are enjoyable for children and their parents and offer language-rich exposure to books, pictures, and the written word; (3) providing developmentally appropriate books given at health supervision visits for all high-risk, low-income young children; (4) using a robust spectrum of options to support and promote these efforts; and (5) partnering with other child advocates to influence national messaging and policies that support and promote these key early shared-reading experiences. The AAP supports federal and state funding for children's books to be provided at pediatric health supervision visits to children at high risk living at or near the poverty threshold and the integration of literacy promotion, an essential component of pediatric primary care, into pediatric resident education. This policy statement is supported by the AAP technical report "School Readiness" and supports the AAP policy statement "Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science Into Lifelong Health." *Pediatrics* 2014;134:404–409

COUNCIL ON EARLY CHILDHOOD

KEY WORDS

literacy promotion, reading aloud, early brain development, language development, child development, school readiness

ABBREVIATIONS

AAP—American Academy of Pediatrics
ROR—Reach Out and Read

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STATEMENT OF NEED

Reading aloud with young children is one of the most effective ways to expose them to enriched language and to encourage specific early literacy skills needed to promote school readiness. Indeed, early, regular parent-child reading may be an epigenetic factor associated with later reading success.[1,2] Yet, every year, more than 1 in 3 American children

start kindergarten without the language skills they need to learn to read. Reading proficiency by the third grade is the most important predictor of high school graduation and career success. Approximately two-thirds of children each year in the United States and 80% of those living below the poverty threshold fail to develop reading proficiency by the end of the third grade. Children from low-income families hear fewer words in early childhood and know fewer words by 3 years of age than do children from more advantaged families. Children from low-income families have fewer literacy resources within the home, are less likely to be read to regularly, and are more likely to experience early childhood adversity and toxic stress at an early age, all resulting in a significant learning disadvantage, even before they have access to early preschool interventions.[3–6]

The 2011–2012 National Survey of Children's Health found that 60% of American children from birth to 5 years of age from families whose incomes were 400% of the federal poverty threshold or greater were read to daily, and only 34% of children from families whose incomes were below 100% of the poverty threshold were read to daily.[7] These numbers indicate that, even in higher-income families, many children do not experience the enhanced engagement and language-rich parent-child interactions, including book handling, print exposure, and other early literacy experiences, afforded by daily shared reading. All families face issues of limited time, limited parental understanding of the key role of reading aloud, and competition for the child's interest and attention from other sources of entertainment, such as electronic media.[8] In contrast to often either passive or solitary electronic media exposure, parents reading with young children is a very personal and nurturing experience that promotes parent-child interaction, social-emotional development, and language and literacy skills during this critical period of early brain and child development.

LANGUAGE AND LITERACY DISPARITIES

Reading with children in their infancy and preschool years is associated with higher language skills at school entry and with childhood literacy acquisition.[9–11] After controlling for family education and socioeconomic status, the literacy-related qualities of a child's home are associated with language skill development.[12,13] Earlier age of initiation of reading aloud with a child has been shown to be associated with better preschool language skills and increased interest in reading.[14] Reading aloud with young children has been found to increase the richness of the vocabulary to which they are exposed as well as the complexity of syntax.[15] In addition, books and early conversations and play around books and reading stimulate increased interaction between the adult and child.[16] These interactions build nurturing relationships that are critical for the child's cognitive, language, and social-emotional development.[17]

Hart and Risley[5] identified dramatic differences in early language exposure of 1- and 2-year-olds in low-income families compared with children in higher-income families. Cognitive and linguistic differences in children from talkative versus taciturn families were impressive by 3 years of age and persisted into school age. Indeed, 60% of the variance in vocabulary in these children at 8 and 9 years of age could be explained by their exposure to language at home, before they were 3 years old. Book sharing has been shown to promote social interaction between caregiver and child and to encourage literacy development.[16,17] Children's literacy skills at school entry and in kindergarten and first grade often predict their later reading success.[18–20] Children from low socioeconomic backgrounds are significantly more likely to have reading problems, to repeat a grade, and to have learning disabilities diagnosed.[21,22] Poor reading skills in adults are associated with poor economic potential and with the perpetuation of cycles of poverty, poor health, and dependency across the life course.[23]

DATA LINKING HEALTH TO LITERACY

Health literacy is "the degree to which individuals can obtain, process, and understand basic health information and services needed to make appropriate health decisions."[24] The 2003 National Adult Assessment of Literacy estimated that 14% of US adults had below basic literacy and 22% more had only basic literacy, which results in more than 90 million adults in the United States who may lack the literacy needed to effectively negotiate the health care system.[25] Research has revealed compelling associations of diminished disease knowledge, decreased utilization of preventive services, increased hospitalization, poorer overall health status, poorer control of chronic illness, and higher mortality in adults with limited health literacy.[26–30] This interplay of health and development means that low literacy and related low health literacy in parents of young children pose a range of additional risks, with studies showing increased developmental risk for children associated with reduced reading aloud and increased health risk related to medication dosing errors and lower rates of adherence to medical regimens.[31,32]

DATA SUPPORTING OFFICE-BASED PRACTICE OF LITERACY PROMOTION AS AN EFFECTIVE INTERVENTION

There are many literacy programs that promote reading to children. Reach Out and Read (ROR) is the most widely studied and disseminated model of

literacy promotion in the child's medical home. Multiple studies in high-risk populations show that the ROR model, which includes advising parents of infants, toddlers, and preschool-aged children about the importance of reading aloud, counseling parents about specific book-related strategies, modeling, and providing developmentally appropriate books to children at health supervision visits, results in parents being more likely to read with their children regularly.[1,33–35] In addition, these children are more likely to have significantly improved language development by the age of 24 months compared with their peers who did not participate in these programs.[1] Parents participating in ROR reported a more positive attitude toward books and reading. For example, when asked to name favorite activities with their child or their child's favorite activities, parents were significantly more likely to mention looking at books and reading aloud than were parents in control groups who had not received the ROR intervention. This significant increase in parents viewing reading with young children as a favorite activity has been found in English- and Spanish-speaking parents, including recent immigrant populations.[1,35,36] One study evaluated families who spoke languages in which no books were available. These families were given English books and still showed increased positive attitudes and practices.[37]

Well-designed studies using appropriately matched comparison families or randomized controlled trials of ROR have revealed differences in children's expressive and receptive language.[1,2,36,38] In one study, there was a 6-month developmental increase in receptive language skills of children (average age, 4 years) whose families were participating in ROR, and children with more contacts with ROR had larger increases in their language skills.[2] In another study, larger vocabulary size was evident in intervention children by the time they were 18 to 25 months old.[1] ROR has also been found to contribute positively to a child's home literacy environment.[39] A multicenter study of 19 primary care sites in 10 states before and after introducing ROR showed increased parental support for reading aloud after the program was implemented.[40] In addition, a program modeled after ROR for implementation in collaboration with the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) was shown to be associated with improved school readiness.[41] A recent randomized controlled trial of enhanced intervention building on ROR showed that additional intervention during the first 6 months of life leads to increased reading activities in infancy, reduced infant electronic media exposure, and increased parent-child interactions in children from low-income, immigrant, inner-city families. This reduced media exposure was a direct result of the increase in reading activities.[42,43]

Research, in summary, shows that in populations at risk, participation in the ROR intervention is associated with markedly more positive attitudes toward reading aloud, more frequent reading aloud by parents, improved parent-child interactions, improvements in the home literacy environment, and significant increases in expressive and receptive language in early childhood.[44]

PROGRESS INTEGRATING LITERACY PROMOTION INTO PRIMARY CARE AND THE NEED FOR ADVOCACY

The ROR model has been voluntarily adopted by more than 5000 pediatric primary care sites serving children at risk and has thus been field tested widely and found to integrate effectively into primary care in a variety of settings. The model includes training in the techniques for using books to enrich and expedite primary care visits. This training is already incorporated into the majority of pediatric residency programs, so newly trained pediatricians are likely to have learned pediatric literacy promotion as part of how to deliver quality primary care, again reflecting the evidence base supporting the efficacy of the intervention. Initiatives partnering with the AAP are currently underway to increase literacy promotion and the adoption of the ROR model to serve several important groups, including American Indian, Native Hawaiian, and Alaska Native populations.[45] Another initiative, partnering with the AAP Section on Uniformed Services, is developing ways to foster literacy promotion in medical facilities serving military families. Local and national partnerships with public libraries, adult and family literacy programs, child care providers, schools, and businesses can help pediatricians connect families to more books, more skills, and more opportunities to facilitate the safe, stable, and nurturing relationships associated with long-term academic success and health.

Support and advocacy from the AAP will make it more likely that financial support can be found for pediatricians who want to follow this model. Many pediatricians believe that their patients could benefit from this intervention, but ongoing book supply is often a barrier, as are the time pressures already crowding the primary care visit. Costs in both books and time can be offset in great measure by the many ways that a book can enrich the interactions among children, parents, and pediatric providers at visits. The simple practice of incorporating a book into the health supervision visit allows for direct observation of emergent language and literacy skills and parent-child interactions around shared reading, as well as an opportunity to provide concrete guidance around language, development, and daily routines. In addition, books and

the guidance that accompanies them improve families' satisfaction with the care and advice they receive and strengthen their bond with their primary care provider and medical home.[46]

RECOMMENDATIONS FOR PEDIATRICIANS

The AAP recommends that pediatric providers promote early literacy development as an important evidence-based intervention at health supervision visits for children beginning in infancy and continuing at least until the age of school entry by engaging in the following:

1. Advising all parents that reading aloud with their young children can enrich parent-child interactions and relationships, which enhances their children's social-emotional development while building brain circuits to prepare children to learn language and early literacy skills.
2. Counseling all parents about developmentally appropriate reading activities that are enjoyable for the child and the parents and offer language-rich exposure to books and pictures and the written word.
3. Providing developmentally, culturally, and linguistically appropriate books at health supervision visits for all high-risk, low-income children and identifying mechanisms to obtain these books so that this does not become a financial burden for pediatric practices.
4. Using a robust spectrum of options to support and promote these efforts, including wall posters and parent information materials that are culturally competent and accessible to those with limited literacy skills themselves, as well as information about the locations of and services offered by their local public libraries and mechanisms for accessing books for distribution. The AAP provides a literacy toolkit (available at www2.aap.org/literacy/index.cfm) for pediatric and educational professionals and for parents to support this work.
5. Partnering with other child advocates to influence national messaging and policies that support and promote these key early shared-reading experiences.

In addition, as described in the AAP technical report "School Readiness," pediatric providers can also promote the "5 Rs" of early education:

1. Reading together as a daily fun family activity;
2. Rhyming, playing, talking, singing, and cuddling together throughout the day;
3. Routines and regular times for meals, play, and sleeping, which help children know what they can expect and what is expected from them;
4. Rewards for everyday successes, particularly for effort toward worthwhile goals such as helping, realizing that praise from those closest to a child is a very potent reward; and
5. Relationships that are reciprocal, nurturing, purposeful, and enduring, which are the foundation of a healthy early brain and child development.[3]

RECOMMENDATIONS FOR POLICY MAKERS

1. The AAP supports incorporation of literacy promotion and training related to language and literacy development into pediatric resident education. The integration of literacy promotion as a key component of primary care should be taught in resident continuity experiences and evaluated as an element of competency-based pediatric medical education.
2. The AAP supports federal and state funding for children's books to be provided at pediatric health supervision visits for children at high risk as well as the incorporation of funding for children's books in managed care and government insurance programs for children at high risk.
3. The AAP supports research on the effects of pediatric early literacy promotion on child health and educational outcomes and research on best practices for literacy promotion in the context of both pediatric practice and of residency education.

SUMMARY

Providing books at pediatric primary care visits to families at economic and social risk, together with developmentally appropriate anticipatory guidance encouraging parents to read aloud with their children, has a powerful effect on the home environment of young children. It directly affects language development, a major factor in school readiness, during the critical period of early brain development. The costs of these books, of training primary care providers, and of incorporating these strategies into the primary care visit constitute an investment in infants, toddlers, and preschool children directed at their language, literacy, social-emotional, and life course development. As Professor James Heckman argued in his keynote address at the 2007 AAP National Conference and Exhibition, programs that invest in children at the earliest ages have the highest rates of return. By initiating early support for reading aloud, modifying the home environment to be richer in print, and advising parents about enjoyable and playful book-related strategies that will increase their children's language and early literacy skills within the context of their critically important nurturing relationships with their parents and caregivers, pediatric providers can leverage their unique opportunity to influence children in the very early years of life and to create important long-term relationships with families.

All families need to hear the important message that reading aloud to their children is crucial, especially in an era in which competing entertainment imperatives, such as screen time (television, cinema, video games, and computers), may limit family interactions and live language exposures of even very young children.[47,48] Although most research has focused on literacy promotion for families of lower socioeconomic status, pediatricians should remember to educate all families about the importance of reading aloud to young children because even in affluent and educated families with plenty of books at home, many parents do not read with their children on a daily basis. Promoting literacy with parents of children beginning in infancy supports the recommendations of the AAP that children younger than 2 years not view electronic media and that older children and youth have no more than 2 hours daily of media exposure by offering parents a positive alternative for entertaining young children, for nurturing early relationships, and for developing healthy bedtime routines. The positive reinforcement of repeated developmentally appropriate encouragement in the context of the primary care visit reminds parents again and again of the importance of their "face time," interactive conversations, and their own evolving and essential relationship with their children, which is critical to setting a young child's developmental trajectory and life course.

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