Establishing Early Literacy Habits in a Profit-Driven Digital World

Jenny S. Radesky, MD

Books are remarkable objects. They carry children into imaginary spaces and offer parents a familiar script to settle children down at night. Books challenge readers’ minds to stretch their attention span, pause and contemplate, and take others’ perspectives. Early book sharing is promoted by the American Academy of Pediatrics because of its clear impact on reading scores, which predict high school graduation rates.1

Since the introduction of television, early childhood experts have wondered whether time spent in pleasurable but “minds-off” screen experiences displaces reading. Studies using time use diaries and surveys offered conflicting evidence2,3 but suggested that educational television was linked to reading. Studies using time and high advertising load.5 By algorithmically predicting what children might click on next, platforms are able to extend viewing time and make billions in profits.6

However, the digital ecosystem has changed dramatically in the past two decades. Children can find their favorite programs on demand in any room of the house or moment of boredom. Myriad digital products marketed to children provide engaging interactivity but often have low educational value and high advertising load.5 By algorithmically predicting what children might click on next, platforms are able to extend viewing time and make billions in profits.6

With this engagement-promoting digital ecosystem in mind, updated research evidence about children’s reading and media habits is needed, particularly in developmentally sensitive windows when such habits are established. In this issue of Pediatrics, McArthur et al7 present findings from a large birth cohort in which reading and screen use were assessed at 24, 36, and 60 months of age. The children were born in 2008–2010, so they likely had access to smartphones and tablets.

With three waves of data, the authors were able to statistically control for between-child confounders (eg, family stress) and isolate within-child variation in screen use and reading over time. They found that more screen use at 24 months of age predicted less shared book reading at 36 months of age ($\beta = -0.08$), which in turn predicted higher screen use at 60 months of age ($\beta = -0.11$).

These results suggest that toddlerhood may be a key window in which children establish preferences for media over reading as a daily activity, which sets the stage for more screen use around kindergarten entry. Daily toddler habits (eg, sleep and feeding) are influenced by the intense emotionality and self-directed behavior that can dominate this period.8 Therefore, it is possible that toddler demands for media and parents’ related low self-efficacy in establishing daily reading routines may drive this association.

Like many large cohort studies, in this study, McArthur et al7 only assessed one dimension of media use: time. Now that media are engineered to engage young viewers through persuasive enhancements, more longitudinal research is needed that interrogates children’s reactions to mobile and interactive design: Are devices coming to bed and meals with them or being grabbed in the moment to calm a tantrum?9 When young children

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engage with apps and videos, do they go on “autopilot” and expect to follow a frictionless feed, and how does that influence their more friction-full daily interactions with people and learning? Do they take a “minds-on” orientation to screen media, as they would a book? As the US government debates potentially increasing funding for children and media research (ie, Children and Media Research Advancement Act), these types of questions, and implications for the corporate responsibility of the companies designing children’s digital ecosystems, should be prioritized.

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