Developing Concerns: Does Screen Time Affect Child Development

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Part of the anticipatory guidance that we provide to families with young children is to minimize screen time. This advice seems to employ common sense but has not had much of a research base to explain the harm that screen time may cause to young children. A recent prospective study from Japan provides strong support for the screen time limitation. In this study (Takahashi et al JAMA Ped 2023:177 (10) 1039-1046) 7097 mother-infant pairs were followed from birth and questioned about the child's screen use at 1 year of age. Parents were asked the following: "On a typical day, how many hours do you allow your children to watch TV, DVDs, video games, internet games (including mobile phones and tablets), etc? Parents were given the choice of less than 1 hour daily, 1 to less than 2 hours daily, 2 to less than 4 hours daily, or more than 4 hours daily. Child development was "measured" using the Ages and Stages-3 parent questionnaire at both 2 and 4 years of age.
What did they find?

The differences in the prevalence of developmental delay was striking. At 2 years of age, 3.5 % of children exposed to less than 1 hour a day of screen time (at 1 year of age) had delays in communication, and 4% were delayed at 4 years of age. In contrast, 14.8% of children exposed to 4 or more hours per day (at one year of age) were delayed in communication at 2 years of age, and 8.6% at 4 years of age.
The findings were similar for problem-solving, a measure of nonverbal cognitive ability. At 2 years of age, 3.4 % of children exposed to less than 1 hour a day of screen time (at 1 year of age) had delays in problem-solving, and 3.8% were delayed at 4 years of age. In contrast, 10% of children exposed to 4 or more hours per day (at one year of age) were delayed in problem-solving at 2 years of age, and 7.2% at 4 years of age.

Why is this important?

In this cohort study including 7097 mother-child pairs, a dose-response association was observed between greater screen time at age 1 year and developmental delays in communication and problem-solving at ages 2 and 4 years.
This is important information to relate to parents in our anticipatory guidance, since all parents want their children to thrive.

Less than 1 hour of screen time per day at one year of age did not appear to affect development, but more may be harmful. Of course this study was based upon a parent report, and did not include subsequent screen time after a year of age as a variable.

Let me know if you need further information, and please join our CAC1 AAP Committee on Development and Behavior.



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