

Baby DVDs, videos may hinder, not help, infants' language development

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Despite marketing claims, parents who want to give their infants a boost in learning language probably should limit the amount of time they expose their children to DVDs and videos such as "Baby Einstein" and "Brainy Baby."

Rather than helping babies, the over-use of such productions actually may slow down infants eight to 16 months of age when it comes to acquiring vocabulary, according to a new study by researchers at the University of Washington and Seattle Children's Hospital Research Institute.

The scientists found that for every hour per day spent watching baby DVDs and videos, infants understood an average of six to eight fewer words than infants who did not watch them. Baby DVDs and videos had no positive or negative effect on the vocabularies on toddlers 17 to 24 months of age. The study was published today in the *Journal of Pediatrics*.

"The most important fact to come from this study is there is no clear evidence of a benefit coming from baby DVDs and videos and there is some suggestion of harm," said Frederick Zimmerman, lead author of the study and a UW associate professor of health services. "The bottom line is the more a child watches baby DVDs and videos the bigger the effect. The amount of viewing does matter."

Co-authors of the study are Dr. Dimitri Christakis, a pediatrics researcher at Seattle Children's Hospital Research Institute and a UW professor of pediatrics, and Andrew Meltzoff, co-director of the UW's Institute for Learning and Brain Sciences.

The paper is part of a larger project looking at the trajectory of media viewing in the first two years of life and examining the content of what is being watched and its effects on young children. A paper published last spring by the same researchers showed that by 3 months of age 40 percent of infants are regular viewers of television, DVDs or videos and by the age of 2 this number jumps to 90 percent.

For both papers, the researchers conducted random telephone interviews with more than 1,000 families in Minnesota and Washington with a child born in the previous two years. Television, DVD and video viewing were divided into four categories: baby DVDs and videos; educational TV programs, DVDs and videos such as "Sesame Street," "Arthur" and "Blue's Clues"; children's non-educational television shows and movies such as "Sponge Bob Square Pants," "Bob the Builder" and "Toy Story," and adult television such as "The Simpsons," "Oprah," and sports programming.

The researchers found no positive or negative effects on infants of either age group from viewing educational and non-educational media or adult television programs.

"The results surprised us, but they make sense. There are only a fixed number of hours that young babies are awake and alert. If the 'alert time' is spent in front of DVDs and TV instead of with people speaking in 'parentese' -- that melodic speech we use with little ones -- the babies are not getting the same linguistic experience," said Meltzoff, who is the Job and Gertrud Tamaki endowed chair in psychology at the UW.

"Parents and caretakers are the baby's first and best teachers. They instinctively adjust their speech, eye gaze and social signals to support language acquisition. Watching attention-getting DVDs and TV may not be an even swap for warm social human interaction at this very young age. Old kids may be different, but the youngest babies seem to learn language best from people," Meltzoff said.

"In my clinical practice, I am frequently asked by parents what the value of these products is," said Christakis. "The evidence is mounting that they are of no value and may in fact be harmful. Given what we now know, I believe the onus is on the manufacturers to prove their claims that watching these programs can positively impact children's cognitive development."

As part of the telephone interviews, which took about 45 minutes to complete, a standard inventory for measuring infant language development was used. Parents of the 8 to 16 month olds were asked how many of a list of about 90 words their child understood. Typical words on this list included choo choo, mommy and nose. Parents of the 17 to 24 month olds were asked how many words on a similar list they had heard their child use. Typical words from this list were truck, cookie and balloon.

Parents also were asked about how often they read books or told stories to their children. Daily reading and storytelling were associated with slight increases in language skills, not a surprising finding since both activities foster language development, Zimmerman said.

The researchers believe the content of baby DVDs and videos is different from the other types of programming because it tends to have little dialogue, short scenes, disconnected pictures and shows linguistically indescribable images such as a lava lamp. By contrast, children's educational programs, which make up the largest viewing category at this age, are, crafted and tested to meet developmental needs of preschool children.

"We don't know for sure that baby DVDs and videos are harmful, but the best policy is safety first. Parents should limit their exposure as much as possible," said Zimmerman. "Over the course of childhood, children spend more time watching TV than they do in school. So parents need to spend as much time monitoring TV and other media viewing as they do in monitoring their children's school activities."

The researchers believe more research is required, particularly to examine the long-term effects of baby DVDs and videos on children's cognitive development.

Zimmerman and Christakis are the authors of the book "The Elephant in the Living Room: Make Television Work for Your Kids" and Meltzoff is co-author of "The Scientist in the Crib: What Early Learning Tells Us about the Mind."

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