

Smartphone, tablet overuse among toddlers may stunt development



They're called "smart" devices, but overloading toddlers with smartphones and other mobile technology could hold back their development.

So say researchers with Boston University's School of Medicine in a new commentary in the journal *Pediatrics*.

"Use of mobile media to occupy young children during daily routines such as errands, car rides and eating out is becoming a common behavioural regulation tool: what the industry terms a 'shut-up toy,'" the paper says.

Its authors argue that too much interactive digital entertainment in the toddler years could impede toddlers' self-control and problem-solving skills.

"If these devices become the predominant method to calm and distract young children, will they be able to develop their own internal mechanisms of self-regulation?" lead author Jenny Radesky asks in the report, which recommends more in-person interaction between young children and their parents or peers.

More than six in 10 children U.S. under the age of 12 now have their own mobile device, according to a 2014 Ipsos Kids & Family Center of Excellence report.

A 2013 Common Sense Media report also found that U.S. children below the age of eight spend an average of two hours a day in front of a screen.

In Canada, nearly one in four children ages nine and 10 has his or her own cellphone, a 2014 MediaSmarts study of 5,400 children found.

Value of 'unstructured play'

Although the Boston University team acknowledges that educational apps on smartphones and tablets may facilitate some academic skills for children 30 months or older, toddlers younger than two years are known to learn best via hands-on exploration of their physical world.

The value of "unstructured play" for cognitive development can't be overstated, said Rachel Langford, director of the School of Early Childhood Studies at Ryerson University in Toronto.

"These are opportunities for them to explore and experiment, engage with materials in their environment, and through that engagement, they begin physical development and development that enhances their understanding of concepts — scientific concepts, literacy concepts," Langford said.

Intellectual development aside, there's also an important social and emotional component.

"When children play with other children in dramatic play, they have to resolve conflicts, work out who takes the lead in storytelling and get that social interaction," she said.

The Boston researchers advised parents to vet new games and apps to assess whether their children are learning anything.

If electronic devices are a must in a household, they said, parents should be encouraged to use the interactive media together with their kids.

Portable devices open interactive possibilities

Toddlers overusing mobile tech may stunt development Much has been studied about how television can negatively affect children's language and social skills, but school systems have embraced handheld, WiFi-enabled gadgets because they offer an interactive media experience.

"This was something never possible with television. Television was broadcast, so everybody had to participate in the same space," said Jason Nolan, a Ryerson early childhood education professor studying how technology can support real-world learning.

"Handheld devices give a lot more flexibility for how and when people interact with each other."

Nolan, who is himself autistic, grew up with technology as a way to support his social development. He believes digital media tools can support educators, particularly when it comes to helping people with developmental challenges.

"Some children may, at one time, prefer to be alone with a [mobile device], and we shouldn't be forcing sociality on them," he said.

Creative apps allowing children to share their own songs or electronic artwork could also be helpful for their cognitive development.

Where Nolan sees problems arise is when a touchscreen becomes a babysitter.

"When children are in the real world, they're dealing with smell, touch, sometimes taste, as well as the eyes, ears and fingers," he said. "The more tools we give a child to learn with, the better they're going to learn, and the best tools are the ones they're born with — their bodies."

An iPad or educational app could be a good way to extend that learning, he said, but it should by no means replace it.

"Children will learn more physics by throwing Play-Doh around than ever by interacting with an iPad," he said. "I'd take Play-Doh over an iPad any day."