



Children and Screen Time What Research Says and What Parents Can Do

A friend of mine was working on a computer, and her child was saying, "Mommy, mommy, mommy," and she said, "Mhm, mhm, yes honey." And finally, he reached up, took her face and said, "I need you to listen with your whole face."¹

Over the past year, the COVID-19 pandemic has dramatically changed how we live, work and learn. Due to health and safety concerns, most children have had to attend school remotely full- or part-time, limiting the time and benefits of socializing with their peers. As a result, many parents, more than ever, are concerned about how much time their children are spending on screens.

From concerns about toddlers' use of tablets to teens being glued to their mobile phones, video games or social media apps, the amount and nature of children's "screen time" is as hot a topic as ever. 'Screen time' refers to time spent with any screen, including smart phones, tablets, television, video games, computers or wearable technology. 'Digital media' refers to content transmitted over the Internet or computer networks on all devices, unless particular ones are specified.

Research studies and news stories reflect growing concerns that childhood is being thoroughly reconfigured by the influx of digital media. In this new environment parents absorb, and often amplify, the many fearful claims that screen time is damaging their children physically and mentally. Yet parents, and society, face a troubling paradox. For alongside their worries, families also greatly enjoy the opportunities, pleasures and the conveniences of digital media in their daily lives.

Digital media and screens are now ubiquitous in the lives of children. The screen, whether it is computer, mobile, tablet or television, is a symbol of our modern age. For children in particular, the 'digital natives' who have grown up surrounded by digital information and entertainment on screens, screen time is a major part of contemporary life. Approximately 98% of US children aged 0 to 8 years live in a home with an internet-connected device and, on average, spend over 2 hours a day on screens.² According to Dr. John Hutton, a pediatrician and clinical researcher at Cincinnati Children's Hospital, in a study published in JAMA Pediatrics, found that about 90% of children are using screens by age one.³

Clearly, digital technology offers many potential benefits to children, allowing them to connect with peers or access educational resources or entertainment. At the same time, there are legitimate concerns around who children interact with online⁴, (they may experience cyber-bullying or access age inappropriate content), or whether screen-based communication may jeopardize their social development or well-being.⁵

Due to concerns that too much screen's time may have a detrimental effect on young children, expert groups have suggested controlling screen time for children. In 2019, the American Academy of Pediatrics (AAP) revised screen time guidelines published in 2016, recommending limiting screen time for children aged 2– 5 years to 1 hour/day of high-quality programs and for

parents to limit screen time with children 6 years and older. The AAP also came out with a no-screens recommendation for children younger than 18-to-24-months old with one exception: video chatting. (According to the report's authors, talking with distant family members via services such as Skype and FaceTime can help build relationships). The report still maintains that there's little evidence babies can understand or benefit from watching TV, using apps or engaging in other online activities.⁶

The Canadian Paediatric Society issued similar guidelines in 2017.⁷ In 2019 the World Health Organization, (WHO), as part of a guidelines report on physical activity, sedentary behavior and sleep, also released a set of screen time guidelines which recommended that infants under 1 year old should not be exposed to electronic screens and that children between the ages of 2 and 4 should not have more than one hour of "sedentary screen time" each day.⁸ Prior to 2019, the global recommendations for health did not include children less than 5 years.

Impact on development

It is not known whether early exposure to screen media changes the developing brain. Published research on how (and how much) children younger than 5 years of age actually learn from screens remains limited.⁹ Still, studies show that while babies do not absorb content from TV, it can catch and hold their attention.¹⁰ They can imitate specific actions they see on screen between 6 and 14 months, and remember brief sequences by 18 months.¹¹

Children begin to understand content by the end of their second year.¹² There is solid evidence that infants and toddlers have difficulty transferring new learning from a 2D representation to a 3D object (e.g., from screen to real life) and are unlikely to learn from TV at this age.¹³ By contrast, they learn intensely through face-to-face interaction with parents and caregivers. Early learning is easier, more enriching and developmentally more efficient when experienced live, interactively, in real time and space, and with real people.¹⁴

Depending on how they are used, mobile devices could have both positive and negative impacts on family interactions. Devices can be used for family entertainment, social support, or access to educational materials for children. However, mobile devices can also distract parents from face-to-face interactions with their children, which are crucial for cognitive, language, and emotional development. In addition, devices provide instant access to videos and games, increasing the likelihood that screen time will replace other enriching child activities or be used as a "pacifier" to control child behavior.¹⁵

Weighing the evidence

In 2018 a retrospective study published in the British Medical Journal systematically examined the evidence of harms and benefits relating to time spent on screens for children and young people's health and well-being.¹⁶ Electronic databases were searched for systematic reviews in February 2018. 13 reviews were identified. Eligible reviews reported associations between time on screens (screen time; any type) and any health/well-being outcome in children and youth.

Study authors noted a growing criticism of professional guidelines as non-evidenced-based.¹⁷ They also referenced an increasing number of studies concluding that evidence for many harmful impacts of screen time on health was inconsistent, with systematic reviews showing

inconsistent findings. The inconclusive results and contradictory findings led the authors to conclude that a causal chain between screen watching and bad outcomes could not be established. One other major weakness that the authors found in many of these studies was the number focusing on television screen time, with smaller numbers examining computer use or gaming and very few studies including or examining mobile screen devices.

The authors recommended that when thinking about screen time, parents should find a balance between screen and non-screen time, a balance that is dependent on the nature of the child (temperament), the child's age, and the content in question.¹⁸

Digital parenting

Changing the conversation around screen time can help parents recognize that there are as many ways of "good" parenting with screens as without them. Research has long suggested that when parents jointly engage with their children (asking questions, extending play) children attain more sustainable learning outcomes¹⁹, yet this advice is often lost in a parent's anxiety over watching the screen time clock, instead of watching, or engaging with, one's child.

What it means to be an effective 'digital parent' can often become somewhat contradictory, as parents try to minimize the negative effects of screen time while at the same time try to seize the unique opportunities afforded by the digital age. Parents may feel the pressure of decisions over digital technologies, worrying that their children may become 'addicted' to screens or fall victim to (or perpetrate) 'cyberbullying', but also that if they fail to provide digital opportunities, their children will be 'left behind.' Paradoxically, these anxieties are rising because digital media become ever more taken for granted. This is reflected in the recent American Academy of Pediatrics' (AAP) comment that "'screen time" is becoming simply "time," and therefore to some extent part of every aspect of daily life.²⁰

Many of the fears and anxieties about the impacts of screen time can distract parents into counting minutes rather than making judgements about the nature of their children's media use, reflecting on how they interact with their children through media or model good habits in their digital lives. Focusing only on limits may not be realistic in an age when digital media are fast becoming the infrastructure for work, leisure, learning, relationships and community life.

For parents caught between fears of media harms and hopes for a digital future, a more nuanced consideration of the nature and purpose of screen media in different contexts can be helpful. Parents may struggle with the tension between protecting their children versus giving them the freedom to explore, learn and grow independently.

Parents need help in better understanding the content of what their children watch and do on and with screens, the context of where they watch and do, and the connections they make (or do not make) while watching and doing.²¹ This approach provides more insights into the positive or negative impact of digital media use than a simple measure of time. Rather than seeing themselves as policing children's media use, parents need to be encouraged to think critically about how they can support positive uses and minimize negative consequences.²²

Influencing a child's screen time behavior

In a recent study on the role of media in families, education counseling professionals who work with families to help mediate digital media use with children, were asked to discuss the role that parental practices have in influencing a child's screen time behaviors. One of the most alarming observations made during this study was the increasing tendency of more and more parents to casually pass their mobile devices to their toddlers. For some mothers and fathers, it became standard practice to give their child a smartphone or a tablet to play with. Counseling professionals pointed out that parents often resort to this in order to distract or calm the child, so they can work, make a phone call or check emails.²³

These professionals point out that handling a smartphone is easy, even for the youngest children. Furthermore, mobile devices can be used everywhere. In this context, a number of these professionals are worried that parents might be less aware of the needs of their children, particularly toddlers, when they themselves are distracted by excessive mobile media use. In the professionals' point of view, young parents may adopt an uncritical attitude towards the media use of their toddlers. In particular, they neither reflect developmental issues regarding media usage, nor have their children engaged with age appropriate content.²⁴

Babies and young infants are born with a strong drive to understand causality; they want to know why and what makes something happen. For these young children, the feedback and reinforcing behavior of a touchscreen is very powerful, especially when it does something predictable. Studies have indicated that young children will spend considerably more time with a touchscreen device or iPad than they will with their favorite toy.²⁵

Research has long suggested that when parents "jointly engage" with their children – asking questions, extending play – children attain more sustainable learning outcomes.²⁶ A problem may arise when the emotionally resonant back and forth conversation between a parent and young child so essential to early learning is interrupted by a text or a quick check-in on Instagram. According to Kathy Hirsch-Pasek, a psychology professor from Temple University, *"Toddlers cannot learn when we break the flow of conversations by picking up our cellphones or looking at the text that whizzes by our screens."*²⁷

Parents must make efforts to create a home environment in which their children can safely and productively consume media. However, with the advent of mobile media that streams online content directly into children's personal devices, parents are often finding the ability to manage or supervise their children's media use more challenging given the diversity of content and intensity of use.²⁸

Instead of focusing only on the number of hours children are spending glued to their screens, researchers are looking for other ways to measure the devices' impact such as: When youngsters are on their phones, do they hear their parents call them to the dinner table? Do they willingly give back the devices when they are told their time is up? Does their compulsive use of the device disrupt their sleep?²⁹

According to Dr. Dimitri Christakis, director of the Center for Child Health, Behavior and Development at Seattle Children's Research Institute, and a contributor to the AAP Screen time Guidelines, parents should at a minimum strive to 'unplug' their children from digital screens at least 3 hours a day; in lieu of an after-school activity, during dinner, and an hour before bedtime. He also recommends that parents should focus on qualitatively maximizing those times when their child is off screens.³⁰

Although screen-based technology is an important part of many people's lives, researchers and practitioners agree that it is critical that children still have time to explore the three-dimensional world and socialize with both adults and other children. Screen time should be used in meaningful ways to support children's development. Parents should make conscious efforts to actively engage with their children and participate in their children's screen time use. This not only encourages social and emotional development, but it provides parents the opportunity to observe and monitor what their children are watching during their screen time use.

Social play, one that is free from screens, is a critical component to children's social and emotional development. However, when parents choose to incorporate screen time into their children's lives, it is important to understand the significant role that they play in how screen time exposure may influence their children's development. At the same time, in order to gain any real benefits from screen time, it is important that parents serve as role models with their own screen time habits, in addition to being active participants in their children's screen time use.

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