

Screen time and children: How big is the problem? What can be done?

Gauri A Oka¹¹Research Consultant, Central Research and Publication Unit (CRPU), Bharati Vidyapeeth (DU) Medical College and Hospital, Pune, Maharashtra, India
E-mail ID: gauri.oka@bharativedyapeeth.edu

Submission: 09.08.2024

Publication: 30.09.2024

https://www.doi.org/10.56136/BVMJ/2023_00477

The inevitable and unavoidable use of various visual display units like televisions, mobile phones, computers, laptops, and tablets by children for educational and entertainment purposes is the present-day norm. A growing number of children seem to be getting hooked onto some or the other screen from a very tender age, at times as early as infancy.

A study on preschoolers in western India found that more than 87% of children started using screens before their third birthday, with an average screen time of 2.7 hours per day, which increased to 3.5 hours on weekends⁽¹⁾. Another study from southern India which focused on developmental delays in children under five years, found that the prevalence of excessive screen time was 73%, with significant associations with mothers' screen time usage and screen use at bedtime⁽²⁾. Many modifiable risk factors have come to light from research on this subject, most importantly, televisions in children's bedrooms, less outdoor activity time, and excessive screen time of caregivers⁽³⁾. A large longitudinal study spanning 12 years on Czech adolescents found that with increasing screen time usage, there was a corresponding decrease in moderate to vigorous physical activity and an increase in the prevalence of overweight and obesity⁽⁴⁾.

Research on the topic of screen time and its harmful effects on children's health is abundant. In general, screen time of more than one to two hours per day is considered excessive for children of all age groups. Excessive screen time is known to adversely affect children physically and mentally. An increase in screen time exposure is significantly associated with an increase in back pain prevalence⁽⁵⁾, with a dose-response relationship between daily television, computer, and mobile phone use durations and low back pain^(6,7). The results of a large study from Malaysia have shown that children develop behavioral problems with the use of electronic devices⁽⁸⁾. Children's scholastic performances become poorer with increasing weekday television screen time and access to inappropriate content like adult-rated movies⁽⁹⁾. Excessive screen time exposure has been found to be associated with poor developmental outcomes in under-five children, decreased sleep quality, digital eye strain, obesity, metabolic syndrome, and anxiety disorders in the pediatric age group⁽¹⁰⁻¹³⁾.

To a large extent, parents are responsible for setting examples in front of their offspring. Today, it is not uncommon to find

parents or grandparents introducing very young children to screens as an incentive to eat, carry out simple daily chores, or just as a means to keep children engaged so that the adults get some time for themselves. Mothers pushing babies in prams who, in turn, hold mobile phones in their hands and stare at moving images while on a stroll in the outdoors is also a common sight these days. Parental screen behaviors are keenly observed and emulated by growing children⁽¹⁴⁾. Children get easily drawn into the make-believe and not-always-true virtual world and tend to belittle their own lifestyle, values, and upbringing⁽¹⁵⁾. Studies have shown that parents fret and worry over not only the time spent on social media but also the content that their children might be accessing on social media. The negative influence of unrealistic and larger-than-life social media content is well known.

Interventions to reduce screen time exposure in children and adolescents have been tried, mostly in high-income countries. As shown by two large recent systematic reviews and meta-analyses published in 2021 and 2022, screen time reductions have been achieved by effective engagement of children, teachers, and parents. Parental counseling using newsletters, flyers, and posters has been found to result in some success. Interactive sessions targeting parental education in limiting screen time, increasing physical activity and leisure time, and maintaining their log books have been identified as non-digital ways of curbing screen time in children^(16,17). Stress has been placed on family, school, and community-level counseling to emphasize the positive effects of daily physical activity, healthier diet, decreased sedentary hours, and reduced screen time exposure to achieve a wholesome, beneficial effect. The World Health Organization's global guidelines of 2020 advocate an hour of moderate to vigorous physical activity per day on average for children, along with muscular strengthening exercises at least thrice a week.

In 2022, the Indian Academy of Pediatrics published guidelines on screen time and digital wellness for children of all age groups⁽¹⁸⁾. The recommendations state that there should be absolutely no screen time for children less than two years of age. For children up to five years of age, supervised screen time may be permitted for not more than 60 minutes a day. For older children, the guidelines recommend that

screens should not be considered as a substitute for outdoor engagements, physical exercise, family and peer bonding, sleep, and academic activities.

Recently, Texas, Florida, and eight other states have pledged to follow the policy of banning students from bringing their cell phones to schools in 2024. Parents in the United Kingdom have expressed their desire to develop two kinds of smartphones: one suitable for children under 16 years, devoid of any social media apps, and one “adult” smartphone. The cultural differences between the East and the West might make these reports sound alien or irrelevant to people in our part of the world. However, if we do not act fast, we may soon find ourselves grappling with a situation that might have escalated well beyond our control.

Going forward, it is important to accept that there is no turning back from this point in the rapidly advancing digital world. Children's exposure time to various screens is bound to increase if left unbridled. It is vital to realize the detrimental effects of overexposure to screens and the free access to age-inappropriate content on young, impressionable children. Parental engagement cannot be overemphasized. Many parents are reluctant to change the screen habits of their children for fear of initiating conflicts. Many are reluctant because they are ill-equipped to provide reasonable alternative sources of engagement or are ill-informed about such alternatives. Some parents are simply unavailable. It is this wide array of real-world scenarios that should prompt a broader consideration of the issue surrounding the virtual world.

There cannot be a one-stop solution to this problem. There cannot be a fit-all solution, either. Starting small is imperative. No screen exposure before the child is two years old, or better still, till it becomes absolutely unavoidable (as in the case of academic requirement), would be the first important step in this direction. Furthermore, children's use of devices for surfing social media for purely entertainment purposes and the use of gadgets for gaming can be curtailed. Explicit family rules regarding meals away from screens, shutting down screens two hours before bedtime, and bedtime without screens can go a long way in cultivating healthy digital practices.

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ORCID

Gauri A Oka  0000-0003-3425-8512

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