

Screen Time for Children and Adolescents During the Coronavirus Disease 2019 Pandemic

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The coronavirus disease 2019 (COVID-19) pandemic has led to laws and policies that include national school closures, lockdown or shelter-in-place laws, and social-distancing recommendations that may translate to higher overall screen time among children and adolescents for the duration of the enforcement of these laws and policies. These policies may need to be periodically reinstated to control future COVID-19 recurrences or other national emergencies. Excessive screen time is associated with cardiovascular disease risk factors such as obesity, high blood pressure, and insulin resistance because it increases sedentary time and is associated with snacking (1).

Although prior policy statements from organizations such as the American Academy of Pediatrics have suggested specific limits on screen time (i.e., <1 to 2 h/d) for entertainment purposes (2), the most recent policy statement published in 2016 advocated for families to make an individualized family media-use plan (3) without specifying universal daily screen time limits. Mitigating the potential adverse health consequences of screen time may be an important consideration in a family's media-use plan.

Although excessive screen time may be associated with health risks, including poor sleep and higher accumulated time spent sedentarily (1), given current laws and policies during COVID-19, rises in screen time may be inevitable and even beneficial for education and socialization. These increases in overall screen time may result from nondiscretionary or discretionary activities that foster positive youth development or that are purely for entertainment. A higher accumulation of screen time may also be an unavoidable reality among children whose parents are working remotely from home. Developing an adapted family media-use plan (3) during COVID-19 may be especially important and these plans should leverage screen time for its strengths and benefits while mitigating known risks.

Promoting Physical Activity

Although screen time is traditionally associated with sedentary behavior and snacking, which may promote obesity and cardiovascular disease risk factors (1), screen time does not have to be sedentary. While sheltering in place, screen time can be used to promote physical activity (4) through platforms such as online physical activity classes, exercise applications on mobile devices, or video games that have a physical activity component (5). A recent systematic review among adolescents found that digital interventions that included education, goal setting, self-monitoring, and parental involvement led to significant increases in physical activity (5).

Educational Opportunities

Amid national school closures, many schools and universities have transitioned to virtual or online curriculums, which necessitate that students use screens and which will support important educational benefits. Most remote learning (including teaching, assignments, submission, and feedback on materials) is conducted on screens. Although this constitutes a large proportion of the day that is specifically required for schoolwork and instruction, this time is largely equivalent to in-school instruction. Having more years of education is associated with long-term health benefits through multiple factors, including economics, access to health services, health-related practices, and coping with stress (6).

Social Media and Social Support

In addition, social media may be an ideal platform for children and adolescents to keep connected with their friends and peers while practicing social distancing. One study prior to COVID-19 found that social media use of <2 h/d was associated with high levels of school connectedness in high school students (7). During periods of school closure and social distancing, children and adolescents who already have familiarity with social media may have an advantage in weathering the period of social distancing given their fluency with interacting with others via social media (8). Children and adolescents may also use virtual games and online activities to keep socially connected during shelter-in-place or stay-at-home orders issued by federal or local governments. Social media can be used as a platform to play and connect with friends and family given that it is vital for children to play and communicate with friends and family during the pandemic, especially in the summer months when options are limited, school is out, and children have more free time.

Sleep

Excessive screen time is associated with poor sleep through several mechanisms, including nighttime exposure to bright lights, which may suppress melatonin production, and displacement of other activities beneficial for sleep, such as physical activity (1). Given these associations, the American Academy of Pediatrics recommends avoiding screens at least 1 hour before bedtime (3). This practice may mitigate sleep disturbances, especially given that sleep quality may be poorer because of stressors or anxiety related to the COVID-19 pandemic (9).

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Mental Health

Increased screen time may also further exacerbate the risk for depression, anxiety, suicide, and inattention among children and adolescents (1). However, during the COVID-19 pandemic, many mental health educational resources and support services are being offered via online platforms (e.g., mobile applications), which would necessitate the use of screen time (10). Furthermore, mental health practices may offer counseling and therapy sessions exclusively via telehealth, which would be conducted on screens (11).

Screen time may become more ubiquitous during periods of school closures, lockdowns or sheltering in place, and social distancing, and these policies may need to be periodically reinstated to control future COVID-19 recurrences. Professional societies should update their current guidance regarding screen time to support families trying to adhere to arbitrary screen time limits or experiencing guilt over excess screen time during the COVID-19 pandemic. For instance, the American Academy of Pediatrics could provide specific examples of family media-use plans (3) during COVID-19 that would adapt to current needs and illustrate the benefits of screen time by emphasizing activities that foster physical activity, education, socialization, and positive youth development, while still setting some limits to mitigate risks such as poor sleep or excessive sedentary time. Moreover, screen time guidelines need to account for the upcoming summer months, when many children and adolescents will not have classes but may still be encouraged to practice social distancing, particularly as regions progress through phased re-openings. These screen time resources could be disseminated electronically or via mailings by professional societies, health care

practices, and clinicians. Clinicians can also ask parents about family media use during COVID-19 and distribute these resources during any clinical visits. Communities and schools can promote beneficial uses of screen time, such as accessing educational resources, physical activity instruction, and mental health support (9).**O**

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