Santa Clara County 🔥 Office of Education

Supplemental Report:
Children and Screen Time
April 2017

Background

In June of 2016, the Santa Clara County Office of Education (SCCOE) published the report "Children and Screen Time", summarizing research findings and recommendations for parents and educators regarding the educational and social use of digital media with children. The report expressed support for the American Academy of Pediatrics' (AAP) recognition of the reality that today's children grow up fully engaged in digital media, which can have both positive and negative effects on development. The overall message was to balance media use with other healthy behaviors.

Among various studies supporting and contesting the benefits of digital media use reported since the publication of the SCCOE report, there appears to be no one-size-fits-all solution for defining the appropriate amount of screen time for school-aged children and adolescents. For such children, moderate screen time use is considered acceptable unless it interferes with other positive behaviors like outdoor activity, sleeping, and eating well.

The AAP released its new policy recommendations in the fall of 2016 (https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/pages/media-and-children.aspx). For school-aged children, the AAP recommends having consistent limits on media, and caregivers should monitor behavior to make sure that screen time doesn't get in the way of exercise, a good night's sleep, and other healthy habits. The academy states that when used thoughtfully and appropriately, digital media can enhance daily life, but suggests that parents also have media-free times and locations, such as dinner time and bedrooms. Lastly, the AAP recommends that parents should lead by example in their healthy media habits.

According to the AAP Policy Statement on Media Use in School-Aged Children and Adolescents (Media Use in School-Aged Children and Adolescents):

> This policy statement focuses on children and adolescents 5 through 18 years of age. Research suggests both benefits and risks of media use for the health of children and teenagers. Benefits include exposure to new ideas and knowledge acquisition, increased opportunities for social contact and support, and new opportunities to access health-promotion messages and information. Risks include negative health effects on weight and sleep; exposure to inaccurate,

inappropriate, or unsafe content and contacts; and compromised privacy and confidentiality. Parents face challenges in monitoring their children's and their own media use and in serving as positive role models. In this new era, evidence regarding healthy media use does not support a one-size-fits-all approach. Parents and pediatricians can work together to develop a Family Media Use Plan (Family Media Use Plan) that considers their children's developmental stages to individualize an appropriate balance for media time and consistent rules about media use, to mentor their children, to set boundaries for accessing content and displaying personal information, and to implement open family communication about media.

Introduction

Today's generation of children and adolescents are growing up immersed in media, including broadcast and social media. Broadcast media include television and movies. Interactive media include social media and video games in which users can both consume and create content. Interactive media allow information sharing and provide an engaging digital environment that becomes highly personalized.

Media Use Patterns

The most common broadcast medium continues to be TV. A recent study found that TV hours among school-aged children have decreased in the past decade for children younger than 8 years.[1] However, among children aged 8 years and older, average daily TV time remains over 2 hours per day.[2] TV viewing also has changed over the past decade, with content available via streaming or social media sites, such as YouTube and Netflix.

Overall media use among adolescents has continued to grow over the past decade, aided by the recent increase in mobile phone use among teenagers. Approximately three-quarters of teenagers today own a smartphone,[3] which allows access to the Internet, streaming TV/videos, and interactive "apps." Approximately one-quarter of teenagers describe themselves as "constantly connected" to the Internet.[3]

Social media sites and mobile apps provide platforms for users to create an online identity, communicate with others, and build social networks. At present, 76% of teenagers use at least 1 social media site.[3] Although Facebook remains the most popular social media site,[3] teenagers do not typically commit to just 1 social media platform; more than 70% maintain a "social media portfolio" of several selected sites, including Facebook, Twitter, and Instagram.[3] Mobile apps provide a breadth of functions, such as photo sharing, games, and video-chatting.

Video games remain very popular among families; 4 of 5 households own a device used to play video games.[4] Boys are the most avid video game players, with 91% of boys reporting having access to a game console and 84% reporting playing video games online or on a cell phone.[3]

Benefits of Media

Both traditional and social media can provide exposure to new ideas and information, raising awareness of current events and issues. Interactive media also can provide opportunities for the promotion of community participation and civic engagement. Students can collaborate with others on assignments and projects on many online media platforms. The use of social media helps families and friends who are separated geographically communicate across the miles.

Social media can enhance access to valuable support networks, which may be particularly helpful for patients with ongoing illnesses, conditions, or disabilities.[5] In one study, young adults described the benefits of seeking health information online and through social media, and recognized these channels as useful supplementary sources of information to health care visits.[6] Research also supports the use of social media to foster social inclusion among users who may feel excluded[7] or who are seeking a welcoming community: for example, those identifying as lesbian, gay, bisexual, transgender, questioning, or intersex. Finally, social media may be used to enhance wellness and promote healthy behaviors, such as smoking cessation and balanced nutrition.[8]

Risks of Media

A first area of health concern is media use and obesity, and most studies have focused on TV. One study found that the odds of being overweight were almost 5 times greater for adolescents who watch more than 5 hours of TV per day compared with those who watch 0 to 2 hours.[9] This study's findings contributed to recommendations by the American Academy of Pediatrics that children have 2 hours or less of sedentary screen time daily. More recent studies have provided new evidence that watching TV for more than 1.5 hours daily was a risk factor for obesity, but only for children 4 through 9 years of age.[10] Increased caloric intake via snacking while watching TV has been shown to be a risk factor for obesity, as is exposure to advertising for high-calorie foods and snacks.[11,12] Having a TV in the bedroom continues to be associated with the risk of obesity.[13]

Evidence suggests that media use can negatively affect sleep.[14] Studies show that those with higher social media use[15] or who sleep with mobile devices in their rooms[16] were at greater risk of sleep disturbances. Exposure to light (particularly blue light) and activity from screens before bed affects melatonin levels and can

delay or disrupt sleep.[17] Media use around or after bedtime can disrupt sleep and negatively affect school performance.[13]

Children who overuse online media are at risk of problematic Internet use,[18] and heavy users of video games are at risk of Internet gaming disorder.[19] The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*,[20] lists both as conditions in need of further research. Symptoms can include a preoccupation with the activity, decreased interest in offline or "real life" relationships, unsuccessful attempts to decrease use, and withdrawal symptoms. The prevalence of problematic Internet use among children and adolescents is between 4% and 8%,[21,22] and up to 8.5% of US youth 8 to 18 years of age meet criteria for Internet gaming disorder.[23]

At home, many children and teenagers use entertainment media at the same time that they are engaged in other tasks, such as homework.[24] A growing body of evidence suggests that the use of media while engaged in academic tasks has negative consequences on learning.[25,26]

Media Influence

Evidence gathered over decades supports links between media exposure and health behaviors among teenagers.[27] The exposure of adolescents through media to alcohol,[28,29] tobacco use,[30,31] or sexual behaviors[32] is associated with earlier initiation of these behaviors.

Adolescents' displays on social media frequently include portrayal of health risk behaviors, such as substance use, sexual behaviors, self-injury, or disordered eating.[33–36] Peer viewers of such content may see these behaviors as normative and desirable.[37,38] Research from both the United States and the United Kingdom indicates that the major alcohol brands maintain a strong presence on Facebook, Twitter, and YouTube.[29,39]

Cyberbullying, Sexting, and Online Solicitation

Cyberbullying and traditional bullying overlap,[40] although online bullying presents unique challenges. These challenges include that perpetrators can be anonymous and bully at any time of day, that information can spread online rapidly,[41] and that perpetrator and target roles can be quite fluid in the online world. Cyberbullying can lead to short- and long-term negative social, academic, and health consequences for both the perpetrator and the target.[42] Fortunately, newer studies suggest that interventions that target bullying may reduce cyberbullying.[43]

"Sexting" is commonly defined as the electronic transmission of nude or seminude images as well as sexually explicit text messages. It is estimated that

~12% of youth aged 10 to 19 years have ever sent a sexual photo to someone else.[44] The Internet also has created opportunities for the exploitation of children by sex offenders through social networking, chat rooms, e-mail, and online games.[45]

Social Media and Mental Health

Research studies have identified both benefits and concerns regarding mental health and social media use. Benefits from the use of social media in moderation include the opportunity for enhanced social support and connection. Research has suggested a U-shaped relationship between Internet use and depression, with increased risks of depression at both the high and low ends of Internet use.[46,47] One study found that older adolescents who used social media passively (e.g., viewing others' photos) reported declines in life satisfaction, whereas those who interacted with others and posted content did not experience these declines.[48] Thus, in addition to the number of hours an individual spends on social media, a key factor is how social media is used.

Social Media and Privacy

Content that an adolescent chooses to post is shared with others, and the removal of such content once posted may be difficult or impossible. Adolescents vary in their understanding of privacy practices[49]; even those who know how to set privacy settings often don't believe they will work.[50] Despite efforts by some social media sites to protect privacy or to delete content after it is viewed, privacy violations and unwelcome distribution are always risks.[51,52]

Parent Media Use and Child Health

Social media can provide positive social experiences, such as opportunities for parents to connect with children via video-chat services. Unfortunately, some parents can be distracted by media and miss important opportunities for emotional connections that are known to improve child health.[53,54] One research study found that when a parent turned his or her attention to a mobile device while with a young child, the parent was less likely to talk with the child.[55] Parental engagement is critical in the development of children's emotional and social development, and these distractions may have short- and long-term negative effects.

Conclusions

The effects of media use are multifactorial and depend on the type of media, the type of use, the amount and extent of use, and the characteristics of the individual child. Children today are growing up in an era of highly personalized media use experiences, so parents must develop personalized media use plans for

their children that attend to each child's age, health, temperament, and developmental stage. Research evidence shows that children and teenagers need adequate sleep, physical activity, and time away from media. Pediatricians can help families develop a Family Media Use Plan (Family Media Use Plan) that prioritizes these and other health goals.

Resources for Parents and Community

Additional resources for informing children's technology and media use can be found at the Common Sense Media website at Common Sense Media. Common Sense Media is a San Francisco-based non-profit organization that provides education and advocacy to promote safe technology and media for children. The website contains links to research, reviews, and practical advice for parents, for educators, and for advocates. Free education programs include a Connecting Families Program, which can be used to engage and educate parents and communities about issues ranging from media violence and commercialism to cyberbullying and cellphone etiquette; and a K-12 Digital Literacy and Citizenship Curriculum consisting of more than 60 lesson plans, student handouts, videos and interactive components that span three topic areas: Safety and Security, Digital Citizenship, and Research and Information Literacy.

Recommendations

The SCCOE reiterates its earlier finding that educators play a key role in teaching digital and media literacy to their students, by guiding them to engage in appropriate, positive, and safe ways to utilize helpful digital resources. The quality of the content engaged in is a more important consideration than the delivery platform or the amount of time spent with media. As detailed in the June 2016 Children and Screen Time report, the SCCOE reaffirms that "the appropriate and innovative use of technology can help every student become an engaged and efficient learner". Key findings are:

- Personalized and adaptive instruction increases learning
- Online learning can enhance and expand offerings
- Blended learning models appear to be beneficial
- Learning technologies should be used effectively
- Student privacy must be protected
- Face-to-face interactions are essential and contribute to learning
- Balance technology use with physical activity
- Follow the guidance for use of devices provided by the manufacturer

The full SCCOE Children and Screen Time report can be accessed via the SCCOE website in three languages at: Children and Screen Time for English, or Los niños y el tiempo frente a la pantalla for Spanish, or Trẻ em và số giờ trước màn hình for Vietnamese.

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