

# **The Impact of Media Use and Screen Time on Children, Adolescents, and Families**

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## **ABSTRACT**

The media, and especially visual media in recent years, are playing an increasing role in the lives of children, adolescents, and families in the United States. While the limited use of high-quality and developmentally appropriate media may have a positive influence, excessive or developmentally inappropriate use carries grave health risks for children and their families. Excessive exposure to screens (television, tablets, smartphones, computers, and video game consoles), especially at early ages, has been associated with lower academic performance, increased sleep problems, obesity, behavior problems, increased aggression, lower self-esteem, depression, and increased high risk behaviors, including sexual activity at an earlier age. The American College of Pediatricians encourages parents to become media literate and limit all screen time for their children. Parents, too, must limit their own screen time, especially the use of smartphones, to improve their interaction and engagement with their children, as well as to assure the physical safety of their children. The College encourages pediatricians to discuss the impact of media with all families, and calls upon the media industry, sponsors, educators, and policymakers to act responsibly to protect the physical and emotional health of children and families.

## **INTRODUCTION**

The term media commonly refers to mass communication through the use of newspapers, books, magazines, television, radio, film, Internet-enabled devices, or video games. There is abundant research evaluating the impact of various media on children and adolescents; however, television watching, video game playing, and electronic screen time have received a great deal of attention in recent years because of their popularity among youth. While not exhaustive, this position paper reviews key medical and social science research findings, and provides a summary of the major known adverse effects of screen time in particular.

## **TRENDS IN USE OF MEDIA**

### **Time spent using media**

Children and adolescents' use of media has greatly increased in the past 5 – 10 years, which has been documented in numerous Kaiser Family Foundation Studies. The most recent 2010 report regarding behavior of two thousand 8 – 18 year olds showed that the average child spent 7.5 hours each day using media. However, because of multi-tasking, children actually crammed 10.75 hours of media use into that 7.5-hour period of time. On a typical day, this study also revealed that, 8 - 18 year olds spent approximately 4.39 hours viewing television, 2.31 hours listening to music, 1.29 hours using computers, and 1.13 hours playing video games. It is important to note that print media, such as books or magazines, and movies, are also consumed on a daily basis but the least amount of time is spent with these media.<sup>1</sup> Another study found 18 year olds in America spent nearly 40 hours each week accessing the Internet from their home computers.<sup>2</sup>

As part of the International Study of Asthma and Allergies in Children Phase Three, adolescents between 12 and 15 years of age from 37 countries provided information on television viewing habits. Eighty-nine percent of adolescents reported more than one hour of television viewing daily.<sup>3</sup>

### **Media exposure of younger children**

Younger children are increasingly exposed to screen time opportunities, with one study showing 18 percent of children 0 – 2 years old had a television in their bedroom. Sixty-three percent of children between birth and two years of age had watched television in the day prior to the survey, and the mean television viewing time was 75 minutes.<sup>4</sup>

A more recent study in Singapore evaluated 725 children aged two years and below. Of 93 children who were between 18 and 24 months of age, 88.2 percent were allowed daily screen time, with television and mobile devices being the most commonly used.<sup>5</sup>

### **Various forms of media**

Although there are other media readily available, television is still the predominant medium accessed today. However, television shows may now be downloaded onto computers, smartphones, and tablets. As reported in 2010, approximately 60 percent of viewing by adolescents is done via television, with the remaining 40 percent occurring via alternative devices.<sup>1</sup>

Another development over the past 25 years has been the increased access children have to the Internet and video games. Children using the Internet and video games add, at a minimum, one hour more daily to time spent engaged in media use. In addition, the use of social media contributes greatly to increased screen time. In 2011, the American Academy of Pediatrics reported 75 percent of adolescents owned a cell phone, 25 percent use the phone for accessing social media, and 22 percent of adolescents log on to social media more than 10 times a day.<sup>7</sup> Adolescents use their cell phones more for texting rather than for live conversation. In one survey, teens 13 to 17 years of age were noted to send an average of 3364 texts per month, with one-third of adolescents stating they sent more than 100 texts per day.<sup>2</sup>

### **Parental rules regarding media**

Most children and adolescents live in homes where there are no parental rules regarding screen time. In one study, less than 30 percent of children and adolescents 8 - 18 years of age stated there were household rules regarding time spent viewing television. Parents were more likely to have rules regarding programs viewed—but even so, only 46 percent of these children and adolescents stated there were such rules in their home. In this same study, 64 percent of those surveyed stated the television in their homes was left on during meals, and 45 percent stated the television was left on most of the time.<sup>1</sup>

Even more significant, parental television viewing time is more closely associated with children’s viewing time—and impacts the screen time of their children more than household rules. So parents should be encouraged to decrease their own viewing time in order to impact that of their children.<sup>7</sup>

### **Media use decreases time spent in more healthful activities**

Time spent with ‘screen use’ must be taken from other more potentially beneficial activities of the day—personal ‘face-to-face’ communication and interaction with family and friends, outdoor play (with its associated benefits of creativity, problem solving, and exercise), reading, homework, doing chores, and sleeping.

## **IMPACT on PLAY and DEVELOPMENT**

As younger children are increasingly exposed to screen time through the use of parental cell phones, researchers are beginning to evaluate the impact of this on the preschooler. In one study by a global security software maker 2200 mothers from 10 developed nations, including the United States and Canada, who had children between two and five years of age were surveyed. The study reported that more of these preschool children could use technology than could demonstrate ‘life skills’ such as tying their shoes, riding a bike,

or swimming. For example, 58 percent of the preschool children knew how to play a computer game versus only 9 percent who could tie their shoes. (Mothers aged 35 and older were slightly better at teaching their children ‘life skills’.)<sup>8</sup>

The Association of Teachers and Lecturers in the United Kingdom warned that as preschool children spend more time using screen technology they become less able to perform basic tasks such as using building blocks. Older children were less able to utilize pen and pencil for school tasks.<sup>9</sup> Two small studies suggest the importance of traditional toys in the language development of young children. One study of toddlers (between 18 and 30 months of age) found improved language scores among the children whose parents engaged them in play with building blocks. Another study of 26 parent-infant dyads found that during play with electronic toys, there was less vocalization – both by the parent and their infants (age 10-16 months).<sup>10,11</sup>

Adults tend to absorb information from television, even though they forget the source, and sometimes cannot recall whether the events were real or simulated<sup>12</sup> Children also learn from what they view. Significantly, even toddlers have been shown to imitate behaviors they have viewed on a screen.<sup>13</sup> More importantly, young children pay greater attention to visual images rather than the plot, so they are often unable to understand the storyline or moral lesson and are less able to separate reality from fiction.

Visual images can also be frightening for the young child—and these images can remain in the child’s sub conscious for a long time, causing nightmares and other sleep disturbances.

### **IMPACT on BEHAVIOR and ATTENTION**

Screen time likely impacts children’s behavior and capacity to pay attention via several mechanisms as it leads to sleep disturbances and adversely impacts brain development. A 2016 study linked increased screen time with poor sleep quality and behavior problems.<sup>14</sup>

The number of hours spent viewing television at a young age has also been linked with future attention difficulties. An analysis using the National Longitudinal Survey of Youth found “hours viewed per day at both ages one and three was associated with attentional problems at age seven.”<sup>15</sup>

Similar results are available for the adverse effect on attention in older children and adolescents. A study of 1323 middle school children and 210 late adolescents/early adult participants found a relationship between time spent viewing television and playing video games with difficulties paying attention. This study is significant because its longitudinal design for the children in middle school which allowed the researchers to control for previous attention difficulties. In addition, the researchers documented the contribution of video game playing to the development of attention problems as assessed by teachers.<sup>16</sup>

### **IMPACT OF MEDIA ON SEXUAL RISK BEHAVIORS**

#### **Inaccurate Sexual Information**

Sexual messages are prevalent in film, television, and music, and are often explicit but also inaccurate and misleading. Unfortunately, however, these messages are frequently accepted as truth by young people. Both programming and advertising are highly sexualized in their content. Teens rank the media as the second leading source of information about sexual behavior (The first is school sex education).<sup>17</sup>

#### **Earlier Sexual Debut**

Studies reveal that the more an adolescent watches television programming featuring sexual content, the more likely that adolescent is to prematurely initiate sexual activity. Teens exposed to a high level of sexual

content were also twice as likely to experience a pregnancy within the next three years as compared to those teens who viewed less sexualized programming.<sup>18,19</sup> These studies also documented that teens who were exposed to talk about sex on television experienced risks similar to those teens who viewed actual sexual behavior.<sup>18</sup>

Additionally, a 2012 longitudinal study of 6522 adolescents in the U.S., ages 10 to 14, found that early exposure to sexual content in popular, mainstream movies was predictive of an earlier age of sexual debut and engagement in risky sexual behaviors. The findings suggested that exposure to sexual content in movies may promote sexual risk taking by changing actual sexual behaviors and also by accelerating the normal rise in sensation seeking in teens.<sup>20</sup> Similarly, research on 1058 youth between 14 and 21 years of age found “more frequent exposure to sexual media was related to ever having had sex, coercive sex victimization, and attempted /completed rape but not risky sexual behavior.”<sup>21</sup> However another longitudinal study of adolescents in the United States found sexual exposure through movies predicted the age of sexual debut, as well as engagement in risky sexual behaviors.<sup>20</sup>

### **Pornography via Internet**

In the Internet era, pornography has become easily accessible to people of all ages, including children and adolescents. In recent years, there has been an increase in empirical research examining the impact of pornography use among minors. A recent and systematic examination of the peer-reviewed research spanning years 1995 to 2015 indicated that pornography use among adolescents is prevalent, mainly accessed via the Internet, and first exposure often occurs unintentionally. Although there are many variables impacting this research, pornography is associated with more permissive sexual attitudes and stronger gender-stereotypical sexual beliefs. Additionally, the same review found pornography use to be associated with early sexual intercourse, greater experience with casual sex behavior, and increased sexual aggression both as perpetrators and victims.<sup>22</sup>

### **Pornography via Social Media**

Social media sites also contribute to the early exposure of sexually explicit material via shared nude photographs (“selfies”). In her book, *American Girls: Social Media and the Secret Lives of Teenagers*, Nancy Jo Sales reports on her interviews with 200 teenagers and documents the intense pressure they experience to send and receive sexually-explicit photographs. Cybersex is impacting even middle school students as they are sending and receiving sexually-explicit photos of themselves via their cell phones, photos which are often widely distributed and used to bully, degrade, and demean. In one study, 22 percent of teen girls said they have sent partially nude or fully nude photos of themselves, and 18 percent of boys have done so.<sup>22</sup> Adolescents adversely impacted by cybersex/bullying often suffer from lower school grades, anxiety, alcohol and drug use, depression, and rarely, suicidal ideation and suicide.

Adolescents sharing such photographs could be prosecuted for being in possession of child pornography—and indeed some attempts have been made to curb this epidemic by doing so. In 2014, law enforcement in Fayetteville, North Carolina, were investigating a suspected statutory rape case and found an explicit photograph of a 16-year-old girl on a 16-year-old boy’s cell phone. Both the male and female were charged with multiple counts but most charges were dismissed as the County District Attorney Cumberland stated, “...the consequences were much too serious for the conduct.”<sup>24</sup> This case demonstrates the difficulties law enforcement encounters as it seeks to decrease the possession and distribution of sexually-explicit material among minors, and several states have responded by decreasing the penalties for minors convicted of sexting.

### **Pornography via High School Literature Classes**

Common Core standards influence the selection of books utilized in United States high school English literature classes, and some books listed in the Appendix B of the standards include pornographic sections containing graphic depictions of consensual and, more disturbingly, illegal sexual behavior (e.g., rape,

incest, abuse, bestiality, pedophilia). The likelihood of adolescents encountering violent or pornographic literature at school is increasing in part due to the fact that Advanced Placement English classes, by nature, lend themselves toward more mature content. The number of students enrolling in Advanced Placement classes in the United States has nearly doubled in the last decade and more than quadrupled among low-income students. (“10 Years of Advanced Placement Exam Data Show Significant Gains in Access and Success; Areas for Improvement.”)<sup>25</sup>

Although the majority of research conducted on the effects of reading are positive, studies have almost exclusively focused on the amount of time engaged in reading as an activity, or the level of reading ability. The impact of different types of content in literature is a newer arena of examination, but one that has been initiated in recent years. For example, research examining the effects of reading physical and relational aggression in literature has revealed a correlation between reading aggressive content in literature and subsequent increases in actual aggressive behavior.<sup>26</sup> Additionally, neuroscience is beginning to evaluate, via functional MRI scans, the way in which literature impacts the brain. Changes in the connectivity between various regions of the brain have been documented after a study subject read a novel, and some of the changes persisted for several days after the reading was completed.<sup>27</sup>

See College statement, The Impact of Pornography on Children, for additional information:

<http://www.acpeds.org/the-college-speaks/position-statements/the-impact-of-pornography-on-children>

### **Sexual Exploitation**

Pornography is often viewed as a ‘victimless’ crime, but its relation to sex trafficking and cybersex clearly demonstrate the harm associated with it. Pornography fuels the demand for sex trafficking as men develop a sense of ‘entitlement’ and women are portrayed as objects of sexual satisfaction. Mary Layden, co-director of the Sexual Trauma and Psychopathology Program at the University of Pennsylvania, found that men who visited prostitutes were twice as likely to view pornography as men who did not engage with prostitutes.<sup>28</sup>

A related and serious challenge facing children, adolescents, and their parents is cybersex. Cybersex or Internet sex is a virtual sex encounter between persons remotely connected via a computer network. It is a form of role-playing; the participants pretend they are having sexual relations. These computer sites are available to all who desire access, including children. The Internet also plays a growing role in sex crimes committed against children. These crimes range from sexual exploitation, such as child pornography, to actual assault against a victim identified through the Internet.<sup>29</sup>

### **IMPACT on TOBACCO and ALCOHOL USE**

Excessive viewing of television, movies, computer, and video games also results in increased tobacco and alcohol use.<sup>17,30</sup> A recent study documented that when parents restrict viewing of R-rated movies, children have a reduced risk of experimenting with cigarettes in the future.<sup>31</sup>

### **IMPACT on SLEEP and NUTRITION**

Media use may interfere with adequate quantity (duration) and quality (nighttime waking, nightmares, irregular bedtimes) of sleep. In addition to the well-known problems associated with inadequate sleep, poor quantity or quality of sleep is associated with impaired immune function, and impaired regulation of metabolism.<sup>32</sup>

Parents of 495 children in kindergarten through fourth grade were surveyed regarding their children’s sleep habits as well as their television viewing. Twenty-five percent of the children had a television in their bedroom. The authors note, “The television-viewing habits associated most significantly with sleep

disturbance were increased daily television viewing amounts and increased television viewing at bedtime, especially in the context of having a television set in the bedroom.”<sup>33</sup>

Sleep deprivation has also been reported to be associated with obesity, diabetes, school failure, and behavior problems including hyperactivity.<sup>32</sup> Demonstrating the impact of night-time use of electronic devices on sleep and obesity, researchers in Alberta, Canada, surveyed 3398 fifth grade children and found 64 percent of parents stated their children had access to one or more electronic devices in their bedroom. The study found a relationship between night-time use of electronic devices and shortened sleep duration, increased body weight, and lower levels of physical activity.<sup>34</sup>

In a study of over 207,000 adolescents from 37 countries, researchers found that increased hours spent watching television were associated with higher BMI in adolescents with an apparent dose response effect.<sup>3</sup>

### **IMPACT ON ACADEMIC PERFORMANCE**

The negative associations between excessive media exposure and academic performance has been well documented.<sup>36</sup> Zimmerman and Christakis evaluated young children up to seven years of age regarding the impact of television viewing on cognitive development. Controlling for parental cognitive stimulation and maternal education, the researchers found “each hour of average daily television viewing before age three years was associated with deleterious effects” in several scales evaluating reading recognition and comprehension.<sup>35</sup>

Children with a television in their bedroom are known to score 7 to 8 points lower on standardized tests for mathematics and reading than those without a television in their bedroom.<sup>36</sup>

If instant messaging via electronic devices is considered, research notes there may be a negative impact on academic performance when messaging interferes with sleep. A study of 1537 students from three high schools in New Jersey found those students who reported more use of instant messaging after ‘lights out’ were more likely to report fewer hours of sleeping and lower academic performance.<sup>37</sup>

### **IMPACT ON BULLYING**

Internet bullying (cyber bullying) is common and has serious consequences. Over half of today’s adolescents state they have been bullied online, and over 25 percent of adolescents state they have been bullied repeatedly through the Internet or on cell phones. However, only 1 in 10 teens tell a parent about the bullying.<sup>38</sup>

Sadly, some victims of cyber bullying resort to suicide to escape the embarrassment. A review of 37 studies found a definite relationship between cyber bullying and suicidal ideation and behavior.<sup>39</sup>

### **IMPACT ON DEPRESSION**

Several studies demonstrate the relationship between increased use of screen time and depression. One longitudinal study in Denmark followed a cohort of 435 adolescents into young adulthood and found “each additional hour/day spent watching television or screen viewing in adolescence was associated with ...greater odds of prevalent depression in young adulthood, and dose-response relationships were indicated.”<sup>40</sup>

Another study from Canada evaluated 2482 youth in grades 7 – 12 and concluded, “Video game playing and computer use but not TV viewing were associated with more severe depressive symptoms...Screen time may represent a risk factor or marker of anxiety and depression in adolescents.”<sup>41</sup>

A study of 8256 Australian adolescents utilizing self-report surveys found a relationship between increased leisure time screen use and depressive symptoms in the younger (12 – 14-year-old) adolescents.

A Meta-Analysis from the British Journal of Sports Medicine in 2016 suggests that screen time in children and adolescents is associated with depression risk in a non-linear dose-response manner.<sup>64</sup>

## **IMPACT on AGGRESSIVE BEHAVIOR and VIOLENCE**

### **Aggressive Behavior**

Also of grave concern is the association between viewing media violence and increased real-life aggression. The American Academy of Pediatrics, in its policy statement on Media Education, documents, “Results of more than 2000 scientific studies and reviews have shown that significant exposure to media violence increases the risk of aggressive behavior in certain children and adolescents, desensitizes them to violence, and makes them believe that the world is a ‘meaner and scarier’ place than it is.”<sup>43</sup>

A 2010 research paper entitled *Health Effects of Media on Children and Adolescents*, poignantly states:

*“The relationship between media violence and real-life aggression is nearly as strong as the impact of cigarette smoking on lung cancer: Not everyone who smokes will get lung cancer, and not everyone who views media violence will become aggressive themselves. However, the connection is significant. The most problematic forms of media violence include attractive and unpunished perpetrators, no harm to victims, realism, and humor.”<sup>45</sup>*

### **Violence in Television**

Of concern, nearly two-thirds of all TV programs contain violent scenes, including so-called children’s programs, and it is well documented that children imitate behavior seen on television, including such media violence.<sup>45,46</sup>

Numerous studies have now documented the link between viewing violence and future aggressive behavior. One such study evaluated 430 third, fourth, and fifth graders and their teachers and found children’s exposure to media violence predicted higher verbal, as well as higher physical, aggressive behavior.<sup>47</sup>

More concerning is the fact that not only is violence depicted frequently in media, but it is depicted in ways that reinforce aggressive behavior in viewers—it is shown as justifiable, realistic, and without adverse consequences.

### **Violence in Video Games**

Video games deserve special mention; as even parents of toddlers are utilizing the games on their smartphones to entertain their young children. Children and adolescents who spend time playing video games (especially violent games) are more likely to have difficulties paying attention in school; act aggressively toward others; interpret others’ behaviors more negatively; have decreased empathy; have less pro-social behavior; and respond more violently when confronted.<sup>48,49,50</sup>

Half of all video games contain violence, and 90 percent of video games marketed to children age 10 years and older have violent content. Unfortunately, the top selling video games are those that are the most

violent, and parents provide less oversight for video games than they do for television viewing. Ninety percent of adolescents in grades 8 – 12 reported their parents never check the ratings of video games prior to purchase and 89 percent stated their parents never limited time playing video games.<sup>50</sup>

### **Violence in Literature**

There is less research on the impact of reading violence, but one study indicates the possible adverse effects of reading literature that depicts physical and relational aggression. Using undergraduate college students, one study evaluated the impact of reading selections with either physical or relational aggression and the impact on subsequent behavior. Although a small study, the authors did find “exposure to aggression in literature showed a specific effect on subsequent aggressive behavior.”<sup>25</sup>

### **IMPACT ON SOCIAL-EMOTIONAL DEVELOPMENT**

Mirror neurons are cells in the brain that appear to be involved in the development of empathy and compassion. They allow an individual to have ‘cognitive empathy’—the mental ability to take another’s perspective—and these mirror neurons are undergoing dramatic changes during adolescence, as are other areas of the brain.

A study from UCLA demonstrated the impact of media via cell phones on the ability of sixth graders to recognize people’s emotions in photos and videos. Students attending a nature camp who went without screen time for five days were compared with students who would attend the camp later. Each set of students were evaluated at the beginning and end of the week, with the students who attended camp and went without screen time improving in their emotional cognition after only five days of non-use. The authors stated, “Decreased sensitivity to emotional cues—losing the ability to understand the emotions of other people—is one of the costs. The displacement of in-person social interaction by screen interaction seems to be reducing social skills.”<sup>51</sup>

### **IMPACT ON PARENTING**

The amount of time a parent views television can influence the amount of screen time a child experiences. A 2013 study of 1550 parents with children less than 18 years of age found the amount of time a parent watched television was a better indicator of the children’s viewing time than were rules about time limits or even whether the child had a television in the bedroom.<sup>7</sup> So, it is important to encourage parents to limit their television viewing to maintain healthy habits in their homes.

The impact of cell phone use on parenting is a new area of research, but the data that is surfacing is concerning. An online survey<sup>52</sup> of 6000 children and parents found 54 percent of children said their parents checked their smartphones too often, and 32 percent felt they were unimportant when parents were distracted.

Parents agreed. Over half of the parents said they probably checked their smartphones too frequently and 28 percent felt they did not set a good example for their children. In addition, 25 percent stated they wanted their children to use their smartphones less.<sup>52</sup>

A study from Boston Medical Center evaluated parent-child interactions at fast food restaurants. Fifty-five caregivers were observed, and children were between infancy and 10 years of age. Forty of the caregivers used a cell phone during the meal and 16 used it throughout the entire meal.<sup>53</sup>

Since young children learn more from face-to-face encounters, and older children feel unimportant when parents are using cell phones, parents must be encouraged to turn off their cell phones when interacting with their children.

### **IMPACT ON SAFETY**

Adolescent drivers are known to be at increased risk for accidents due to distracted driving and inexperience, so all 50 states in America have implemented Graduated Driver's Licenses. Several national surveys have demonstrated the widespread use of cell phones while driving, including texting. In a 2013 study of 3000 people aged 16 years and older, 58 percent of the 16 – 18-year-old drivers stated they had talked on a cell phone, 39 percent said they had read texts or emails, and 31 percent said they had sent emails or texts while driving within the last month.<sup>54</sup>

Another study of 8500 high school students aged 16 and up found 45 percent of drivers said they had texted while driving within the preceding month.<sup>55</sup>

Since even experienced drivers are at risk for distracted driving and show slower responses to hazards when talking on a cell phone, it is important for inexperienced adolescent drivers to be encouraged to avoid all technology while operating a vehicle.<sup>56</sup>

### **IMPACT OF ADVERTISING**

It is also important to mention the impact not only of media content but also of sponsors (i.e., advertisers). Advertising is a powerful force in American culture. The preeminent advertising medium is television. The principal goal of most children's television is to sell products to children and their families. The television commercial is likely the single most influential source of information to which the young are exposed. The average American child will have viewed approximately 500,000 television commercials by the end of high school. Numerous studies have documented that the young child is often unable to understand the intent of advertising and usually accepts the advertising claim as true.<sup>57</sup>

Among products seen on television, food is the most widely advertised. In children's shows, 50 percent of advertisement time is devoted to foodstuffs. Most of these ads are for products that nutritionists agree should be consumed occasionally and/or in small portions. Only 15 percent of food ads targeting children include reference to an active lifestyle. Public Service Announcements (PSAs) on fitness and nutrition are very few. TV stations dedicate an average of only 17 seconds per hour to PSAs; moreover, 46 percent of all PSAs air after midnight. Children under eight years old see one PSA on fitness and nutrition for every 26 food-related advertisements.<sup>58,59</sup> Young children (at the mean age of eight) have been shown to select food products that they have seen advertised over those that were not.<sup>60</sup>

In addition, the sedentary hours spent viewing media take away from outdoor activities that might promote a healthy lifestyle and counter the rising incidence of obesity.

### **IMPORTANCE OF MEDIA EDUCATION – for parents, children, and adolescents**

The College emphasizes the positive and critical role of media education (defined as learning how to analyze the underpinnings and influence of mass media). A media-educated public is better able to understand mass media messages and their purposes. A media-educated person understands that all media messages are constructed, that media messages shape our understanding of the culture, and that mass media has powerful economic implications. It is crucial that all parents become media educated. Parents should be aware of program ratings and monitor programs that their children watch.<sup>61</sup> Software that allows the

adult to block undesirable programs is also a helpful tool. The mass media must be held accountable to the principles of the Children's Television Acts of 1990 and 1996. Enforcement of the Children's Television Acts will help to ensure that children's programs are truly designed for them. Media education of children has been accomplished as early as elementary school. It has been incorporated into school curricula in Canada, Australia, and Brazil. As a result of this intervention, children have demonstrated the ability to evaluate programs and advertising more critically.<sup>62</sup>

In summary, the media have a substantial influence on today's children and adolescents. At the current time, disappointingly, parents cannot confidently look to the media for a consistent menu of high-quality programming. Pediatricians and parents must do their part, ideally working with the media, to secure opportunities for educating children that facilitates the best outcomes for children. We urge them to do so.

## **RECOMMENDATIONS**

1. Discourage TV viewing and all screen exposure (including on smartphones and iPads) for all children under the age of two.<sup>63</sup>
2. Discourage use of electronic toys for younger children.
3. Encourage use of toys fostering creativity, such as blocks and crayons.
4. Have a goal of limiting all media exposure for entertainment purposes (television, movies, computer/video games, and music) to one hour or less per day for children over two years of age, and avoid developmentally inappropriate content all together.
  - a. Turn the television off during mealtimes.
  - b. Do not allow your child or adolescent to have a television, computer, or Internet access in the bedroom, including Internet-enabled game consoles and phones.
  - c. Determine appropriate time limits for use of social media with adolescents.
5. Although teens have a need to develop and practice independence and separation from their parents, it is important to encourage alternate forms of entertainment, especially those involving physical activity with participation of all family members.<sup>63</sup>
6. Parents should screen and monitor the media viewing of their children and adolescents.
  - a. Watch television with your children so you know what programs they are watching and what lessons they are receiving. Every television program and video game will teach your children something. Choose programs and games that support your family's values.
  - b. Ask your children questions while watching the program. Do they understand what is happening? Do they think what is happening is real or possible? (Young children often cannot understand the story's idea—they just see the action.)
  - c. Explain commercials to your children. Commercials are made to encourage us to spend money. Children can understand that we do not need a certain product to really be happy. Ask your children questions that stimulate conversations about the commercials.
7. Parents should also be aware of the video game rating system—and know the rating of the games their children play. Pornography is embedded and accessed through a variety of games aimed at youth.

- a. Video games often become more violent and more sexual at higher levels. Parents need to check the levels of the games their children have access to and remove any inappropriate games from these devices.
- b. Set limits on video game play just as with television viewing.
- c. Disallow play of video games on the Internet with unknown players.

8. Pediatricians and parents should become media literate—and should be good role models in their use of media.

- a. Parents should limit their own use of media – turn off the television, smartphones, and computers during mealtimes.
- b. Don't text or talk on cell phones while driving.
- c. Think of other ways to entertain your child while traveling, such as listening to or singing songs together, making up stories, and bringing books for your child to read.
- d. Parents should be encouraged to consider utilizing Internet or router filters such as “Covenant Eyes” or “Router Limits”, or Internet provider services such as “Integrity Online” to decrease the likelihood of inappropriate access to obscenity or high-risk online activities.
- e. Parents should maintain awareness of literature children are reading in school, especially in high school. Be aware of the increasing use of sexually explicit material in high school literature classes.

9. Pediatricians should routinely provide anticipatory guidance that addresses media exposure as a part of the health maintenance visit.

10. Pediatricians and parents should discuss the profound influence the mass media has on a child's well-being and actively work together towards improving the overall quality of media content as well as reducing the child's exposure to cyber bullying.

- a. Encourage parents to discuss this topic with their children and adolescents.
- b. Limit younger adolescents' access to social media.
- c. Encourage parents to monitor social media sites.

11. Educators are encouraged to only use high-quality and developmentally-appropriate media, including books, in the classroom. Additionally, educators are encouraged whenever possible to model and teach principles of media literacy, digital citizenship, and Internet safety. We encourage educators to maximize the benefits of mass media and technology while at the same time minimizing the risks when children and adolescents are in their care.

12. The media industry should consider the substantial influence that programming and advertising have on children and adolescents. The College calls upon the media industry and their sponsors to act responsibly. This would include limiting the portrayal of unhealthy behaviors including violence, smoking, overeating, eating high sugar/high fat foods, sexual behavior between unmarried individuals, and sexual innuendoes or frank references. Instead, increase portrayals of healthy behavior to include families engaging in physical activities together, healthy eating, and respectful dialogue between individuals.

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*The American College of Pediatricians is a national medical association of licensed physicians and healthcare professionals who specialize in the care of infants, children, and adolescents. The mission of the College is to enable all children to reach their optimal, physical, and emotional health and well-being.*

### **OTHER RECOMMENDED READING**

For an exhaustive review, see: Strasburger VC, Jordan AB, and Donnerstein E. Children, Adolescents, and the Media: Health Effects. *Pediatric Clinics of North America*. 2012; 59:533-587.

American Medical Association, Physician Guide to Media Violence, 1996

Neil Postman, Amusing Ourselves to Death, Penguin Books USA Inc., 1985

Neil Postman and Steve Powers, How to Watch TV News, Penguin Books USA Inc., 1992.

### **AAP RESOURCES:**

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**A PDF of this statement** The Impact of Media Use and Screen Time on Children, Adolescents, and Families is available here.

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