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## Media Violence

Council on Communications and Media

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# Policy Statement—Media Violence

## COUNCIL ON COMMUNICATIONS AND MEDIA

### KEY WORD

media violence

### ABBREVIATION

AAP—American Academy of Pediatrics

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## abstract

Exposure to violence in media, including television, movies, music, and video games, represents a significant risk to the health of children and adolescents. Extensive research evidence indicates that media violence can contribute to aggressive behavior, desensitization to violence, nightmares, and fear of being harmed. Pediatricians should assess their patients' level of media exposure and intervene on media-related health risks. Pediatricians and other child health care providers can advocate for a safer media environment for children by encouraging media literacy, more thoughtful and proactive use of media by children and their parents, more responsible portrayal of violence by media producers, and more useful and effective media ratings. Office counseling has been shown to be effective. *Pediatrics* 2009;124:1495–1503

## INTRODUCTION

Although shootings in schools around the world periodically prompt politicians and the general public to focus their attention on the influence of media violence, the medical community has been concerned with this issue since the 1950s.<sup>1–3</sup> **The evidence is now clear and convincing: media violence is 1 of the causal factors of real-life violence and aggression.** Therefore, pediatricians and parents need to take action.<sup>4</sup>

In 1972, the US Surgeon General issued a special report on the public health effects of media violence that was based on a growing and nearly unanimous body of evidence.<sup>5</sup> Ten years later, the National Institute of Mental Health issued a comprehensive review of the research on media violence and its effects, which outlined concerns about children's psychological health.<sup>6</sup> At a Congressional public health summit in July 2000, the American Academy of Pediatrics (AAP) was joined by the American Medical Association, the American Academy of Child and Adolescent Psychiatry, and the American Psychological Association in issuing an unprecedented joint statement on the impact of entertainment violence on children.<sup>7</sup> Also in 2000, the Federal Bureau of Investigation released a report on shootings in schools that stated that media violence is a risk factor.<sup>8</sup> In 2003, a panel of media-violence experts convened by the National Institute of Mental Health, at the request of the US Surgeon General, published its comprehensive report on the effects of media violence on youth, which revealed media violence to be a significant causal factor in aggression and violence.<sup>9</sup> Most recently, in 2007, the Federal Communications Commission (FCC) released its report on violent television programming and its effects on children and agreed with the Surgeon General that there is "strong evidence" that exposure to media violence can increase aggressive behavior in

children.<sup>10</sup> The weight of scientific evidence has been convincing to pediatricians, with more than 98% of pediatricians in 1 study expressing the personal belief that media violence affects children's aggression.<sup>11</sup> Yet, the entertainment industry, the American public, politicians, and parents all have been reluctant to accept these findings and to take action.<sup>4</sup> The debate should be over.<sup>9,12</sup>

## EXPOSURE

American children between 8 and 18 years of age spend an average of 6 hours and 21 minutes each day using entertainment media (television, commercial or self-recorded video, movies, video games, print, radio, recorded music, computers, and the Internet).<sup>13</sup> Children between 0 and 6 years of age spend an average of almost 2 hours each day using screen media (television, movies, computers).<sup>14,15</sup> Televisions are also commonly present in bedrooms, with 19% of infants, 29% of 2- to 3-year-olds, 43% of 4- to 6-year-olds, and 68% of children 8 years and older having a television in their bedrooms.<sup>13,15,16</sup> The effects of having a television in a child's bedroom are only beginning to be studied, but the early indications are alarming. Children with a television in their bedroom increase their television-viewing time by approximately 1 hour per day.<sup>13,17</sup> Their risk of obesity increases 31%,<sup>17</sup> and their risk of smoking doubles.<sup>18</sup> In addition, if children have a television in their bedroom, parents are less able to monitor what is seen; parents are less able to have consistent rules for children's media use; children participate in fewer alternative activities such as reading, hobbies, and games; and children perform more poorly in school.<sup>19,20</sup>

A large proportion of children's media exposure includes acts of violence that are witnessed or "virtually perpe-

trated" (in the form of video games) by young people. By 18 years of age, the average young person will have viewed an estimated 200 000 acts of violence on television alone.<sup>21</sup> The National Television Violence study evaluated almost 10 000 hours of broadcast programming from 1995 through 1997 and revealed that 61% of the programming portrayed interpersonal violence, much of it in an entertaining or glamorized manner.<sup>22</sup> The highest proportion of violence was found in children's shows. Of all animated feature films produced in the United States between 1937 and 1999, 100% portrayed violence, and the amount of violence with intent to injure has increased through the years.<sup>23</sup> In a study of the top-rated PG-13 films of 1999–2000, 90% contained violence, half of it of lethal magnitude.<sup>24</sup> An estimated 12% of 22 million 10- to 14-year-olds saw 40 of the most violent movies in 2003.<sup>25</sup> More than 80% of the violence portrayed in contemporary music videos is perpetrated by attractive protagonists against a disproportionate number of women and blacks.<sup>26</sup> Similarly, teenagers' music has become more violent, especially rap music.<sup>3,27,28</sup> And, as teenagers increasingly use the Internet, they are exposed to violence there as well; a survey of more than 1500 10- to 15-year-olds revealed that 38% had been exposed to violent scenes on the Internet.<sup>29</sup> Video games also are filled with violence. A recent analysis of the Entertainment Software Ratings Board (ESRB) ratings of video games revealed that more than half of all games are rated as containing violence, including more than 90% of games rated as appropriate for children 10 years or older (E10+ and T ratings).<sup>30</sup>

Prolonged exposure to such media portrayals results in increased acceptance of violence as an appropriate means of solving problems and achieving one's goals.<sup>2,3,9</sup> American media, in

particular, tend to portray heroes using violence as a justified means of resolving conflict and prevailing over others.<sup>24,31</sup> Television, movies, and music videos normalize carrying and using weapons and glamorize them as a source of personal power.<sup>22,32</sup> Children in grades 4 through 8 preferentially choose video games that award points for violence against others, and 7 of 10 children in grades 4 through 12 report playing M-rated (mature) games, with 78% of boys reporting owning M-rated games.<sup>33,34</sup> Of 33 popular games, 21% feature violence against women.<sup>35</sup> Because children have high levels of exposure, media have greater access and time to shape young people's attitudes and actions than do parents or teachers, replacing them as educators, role models, and the primary sources of information about the world and how one behaves in it.<sup>36</sup>

After the tragic shootings at Columbine High School in 1999, the Federal Trade Commission (FTC) investigated whether the motion picture, music, and video-game industries specifically advertised and marketed violent material to children and adolescents. Working with industry-provided documents, the FTC determined that, despite the fact that their own rating systems found the material appropriate only for adults, these industries practiced "pervasive and aggressive marketing of violent movies, music, and electronic games to children," such as promoting R-rated movies to Campfire girls.<sup>37</sup>

Studies have revealed that children and adolescents can and do easily access violent media that are deemed inappropriate for them by the various rating systems and parents.<sup>13,38,39</sup> In a study of PG-, PG-13-, and R-rated films, the rating did not even predict the frequency of violence in the various films.<sup>39</sup> Many parents find the entertainment industry's media-rating sys-

tems difficult to use.<sup>40</sup> The movie ratings are used by approximately three quarters of parents, but only about half of parents say they have ever used the video-game ratings, the television ratings, or the music advisories to guide their choices.<sup>41</sup> Many parents find the ratings unreliably low, with an objective parental evaluation revealing as many as 50% of television shows rated TV-14 to be inappropriate for their teenagers.<sup>42</sup> At the same time, most parents do not even know that their television is equipped with a V-chip (“V” for “viewer” control), and only 20% of parents actually use it.<sup>40</sup> Video games with higher ratings may actually attract more young children (the “forbidden-fruit” hypothesis).<sup>43</sup> The various media ratings are determined by industry-sponsored ratings boards or the artists and producers themselves. They are age based, which assumes that all parents agree with the raters about what is appropriate content for children of specific ages. Furthermore, different rating systems for each medium (television, movies, music, and video games) make the ratings confusing, because they have little similarity or relationship to one another. The AAP offers an informational brochure that pediatricians can offer to parents and children to help them use the various rating systems to guide better media choices.<sup>44</sup>

## IMPACT

Research has associated exposure to media violence with a variety of physical and mental health problems for children and adolescents, including aggressive and violent behavior, bullying, desensitization to violence, fear, depression, nightmares, and sleep disturbances. Consistent and significant associations between media exposure and increases in aggression and violence have been found in American and cross-cultural studies; in field experiments, laboratory experiments, cross-

sectional studies, and longitudinal studies; and with children, adolescents, and young adults.<sup>9,45–47</sup> The new Center on Media and Child Health at Harvard lists more than 2000 research reports.<sup>48</sup> The strength of the association between media violence and aggressive behavior found in meta-analyses<sup>9,49</sup> is greater than the association between calcium intake and bone mass, lead ingestion and lower IQ, and condom nonuse and sexually acquired HIV infection, and is nearly as strong as the association between cigarette smoking and lung cancer<sup>50</sup>—associations that clinicians accept and on which preventive medicine is based without question.

Children are influenced by media—they learn by observing, imitating, and adopting behaviors.<sup>51</sup> Several different psychological and physiologic processes underlie media-violence effects on aggressive attitudes, beliefs, behaviors, and emotions, and these processes are well understood.<sup>2,3,9</sup> Furthermore, because children younger than 8 years cannot discriminate between fantasy and reality, they may be especially vulnerable to some of these learning processes and may, thereby, be more influenced by media violence.<sup>52,53</sup> However, even older adolescents and young adults are adversely affected by consumption of media violence, demonstrating that the ability to discriminate between fantasy and reality does not inoculate one from the effects of media violence.<sup>54,55</sup>

Some research has indicated that the context in which media violence is portrayed and consumed can make the difference between learning about violence and learning to be violent.<sup>3</sup> Plays such as *Macbeth* and films such as *Saving Private Ryan* treat violence as what it is—a human behavior that causes suffering, loss, and sadness to victims and perpetrators. In this context, with helpful adult guidance on the

real costs and consequences of violence, appropriately mature adolescent viewers can learn the danger and harm of violence by vicariously experiencing its outcomes. Unfortunately, most entertainment violence is used for immediate visceral thrills without portraying any human cost and is consumed by adolescents or children without adult guidance or discussion. Furthermore, even if realistic portrayals of harmful consequences of violence reduce the typical immediate short-term aggression-enhancement effect, there still exists the potential long-term harm of emotional desensitization to violent images.<sup>9,47,54</sup> Other studies have shown that the more realistically violence is portrayed, the greater the likelihood that it will be tolerated and learned.<sup>3,56</sup> Titillating violence in sexual contexts and comic violence are particularly dangerous, because they associate positive feelings with hurting others.<sup>57,58</sup> One study of nearly 32 000 teenagers in 8 different countries, for example, revealed that heavy television-viewing was associated with bullying.<sup>59</sup>

In addition to modeling violent behavior, entertainment media inflate the prevalence of violence in the world, cultivating in viewers the “mean-world” syndrome, a perception of the world as a dangerous place.<sup>60–62</sup> Fear of being the victim of violence is a strong motivation for some young people to carry a weapon, to be more aggressive, and to “get them before they get me.”<sup>61</sup> For some children, exposure to media violence can lead to anxiety, depression, posttraumatic stress disorder,<sup>56,63</sup> sleep disturbances and nightmares,<sup>56,64</sup> and/or social isolation.<sup>65</sup> Some have defended media violence as an outlet for vicariously releasing hostility in the safety of virtual reality. However, research that has tested this “catharsis hypothesis” revealed that after experiencing media

violence, children and young adults behave more aggressively, not less.<sup>66–68</sup> Numerous studies have shown that an insidious and potent effect of media violence is to desensitize all of us to real-life violence.<sup>69–72</sup>

Interactive media, such as video games and the Internet, are relatively new media forms with even greater potential for positive and negative effects on children's physical and mental health. Exposure online to violent scenes has been associated with increased aggressive behavior.<sup>29</sup> Studies of these rapidly growing and ever-more-sophisticated types of media have indicated that the effects of child-initiated virtual violence may be even more profound than those of passive media such as television. In many games, the child or teenager is "embedded" in the game and uses a "joystick" (handheld controller) that enhances both the experience and the aggressive feelings. Three recent studies directly compared the effects of interactive (video games) and passive (television and movies) media violence on aggression and violence; in all 3 cases, the new interactive-media-violence effect was larger.<sup>54</sup> Correlational and experimental studies have revealed that violent video games lead to increases in aggressive behavior and aggressive thinking and decreases in prosocial behavior.<sup>62,73–76</sup> Recent longitudinal studies designed to isolate long-term violent video-game effects on American and Japanese school-aged children and adolescents have revealed that in as little as 3 months, high exposure to violent video games increased physical aggression.<sup>54,77</sup> Other recent longitudinal studies in Germany and Finland have revealed similar effects across 2 years.<sup>78,79</sup> On the other hand, there is also good evidence that prosocial video games can increase prosocial attitudes and behavior.<sup>80</sup>

Children learn best by observing a behavior and then trying it. The conse-

quences of their behavioral attempts influence whether they repeat the behavior. All violent media can teach specific violent behaviors, the circumstances when such behaviors seem appropriate and useful, and attitudes and beliefs about such behavior. In this way, behavioral scripts are learned and stored in memory.<sup>47</sup> Video games provide an ideal environment in which to learn violence and use many of the strategies that are most effective for learning.<sup>81</sup> They place the player in the role of the aggressor and reward him or her for successful violent behavior. Rather than merely observing only part of a violent interaction (such as occurs in television violence), video games allow the player to rehearse an entire behavioral script, from provocation, to choosing to respond violently, to resolution of the conflict.<sup>54,62,82</sup> Children and adolescents want to play them repeatedly and for long periods of time to improve their scores and advance to higher levels. Repetition increases their effect. In addition, some youth demonstrate pathologic patterns of video-game play, similar to addictions, in which game play disrupts healthy functioning.<sup>81,83</sup> Advances in the measurement of brain function have been applied to the study of media violence. Several studies have linked media-violence exposure to decreases in prefrontal cortex activity associated with executive control over impulsive behavior.<sup>84</sup>

### AAP ACTION

Interpersonal violence, for victims and perpetrators, is now a more prevalent health risk than infectious disease, cancer, or congenital disorders for children, adolescents, and young adults. Homicide, suicide, and trauma are leading causes of mortality in the pediatric population. In 2004, unintentional injuries claimed 17 741 lives, homicides claimed 5195 lives, and sui-

cide claimed 4506 lives among 5- to 24-year-olds.<sup>85</sup> Of all deaths by homicide or suicide, fully half were gun related, making gun violence a leading killer of children and adolescents.<sup>86</sup> For young black males, homicide is the leading cause of death, accounting for nearly 45% of all deaths. The homicide rate for black males is 2.7 to 15.8 times higher than for other racial/ethnic groups at the same age.<sup>87</sup> Although violent crime rates have decreased by more than 50% between 1994 and 2004 for young people 12 to 24 years of age, they remain higher at this age than at any other age.<sup>87</sup> Furthermore, the proportion of youth admitting to having committed various violent acts within the previous 12 months has remained steady or even increased somewhat in recent years.<sup>88</sup> In the 2007 National Youth Risk Behavior Survey, 18% of students in the 9th through 12th grades reported carrying a weapon to school in the month preceding the survey, and more than one third had been in a physical fight in the year before the survey.<sup>85</sup> An estimated 30% of 6th-through 10th-graders report either bullying other students or being targets of bullies.<sup>89</sup> A recent large study of New York City students found that nearly 10% of girls and more than 5% of boys reported a lifetime history of being sexually assaulted, and 10% of both boys and girls reported experiencing dating violence in the previous year.<sup>90</sup> Although exposure to media violence is not the sole factor contributing to aggression, antisocial attitudes, and violence among children and adolescents, it is an important health risk factor on which we, as pediatricians and members of a compassionate society, can intervene. Some research has suggested that interventions of the types discussed below can reduce media-violence consumption and its effects on children and adolescents.<sup>2,3,54,91,92</sup>

## RECOMMENDATIONS

1. Pediatricians must become cognizant of the pervasive influence that the wide and expanding variety of entertainment media have on the physical and mental health of children and adolescents.<sup>4,93</sup> Residency training conferences, grand rounds, and continuing medical education courses are all important venues that should be used for teaching pediatricians about the effects of media on children and adolescents.
2. Pediatricians should ask at least 2 media-related questions at each well-child visit: (1) How much entertainment media per day is the child or teenager watching? (2) Is there a television set or Internet connection in the child's or teenager's bedroom?<sup>24,93</sup> For all children, healthy alternatives such as sports, interactive play, and reading should be suggested.<sup>94</sup> When heavy media use by a child is identified, pediatricians should evaluate the child for aggressive behaviors, fears, or sleep disturbances and intervene appropriately.<sup>95,96</sup>
3. Pediatricians should encourage parents to adhere to the AAP media recommendations<sup>11,95</sup>:
  - Remove televisions, Internet connections, and video games from children's bedrooms.
  - Make thoughtful media choices and coviev them with children. Covievng should include discussing the inappropriateness of the violent solutions offered in the specific television show, movie, or video game and helping the child to generate nonviolent alternatives. Parents tend to limit sexual content more than violent content,<sup>38</sup> yet research has indicated that the latter is potentially more unhealthy.<sup>2,3</sup>
4. Pediatricians and other child health professionals should ensure that only nonviolent media choices be provided to patients in outpatient waiting rooms and inpatient settings.
5. On a local level, pediatricians should encourage parents, schools, and communities to educate children to be media literate as a means of protecting them against deleterious health effects of media exposure.<sup>93,109,110</sup> Research has demonstrated that media education and thoughtful media use can reduce violent behavior in children.<sup>9,92,111</sup>
6. On state and national levels, pediatricians should work with the AAP and
  - Limit screen time (including television, videos, computer and video games) to 1 to 2 hours per day, using the V-chip, and avoiding violent video games (defined as games that include intentional harm to other game characters, including cartoonish or unrealistic violence as well as realistic or gory violence). Counseling about limiting screen time has been shown to be effective in office settings.<sup>97</sup> For example, just a minute or two of office counseling about media violence and guns could lead to less violence exposure for more than 800 000 children per year.<sup>97</sup> Parents also need to be reminded that they are important role models in terms of their own media use.
  - Avoid screen media for infants or toddlers younger than 2 years.<sup>98</sup> There have been no studies to indicate that screen time contributes positively to infant development,<sup>99,100</sup> and there are now 7 studies that have documented possible language delays among children younger than 2 years who are exposed to television or videos.<sup>100–108</sup>
7. Pediatricians should advocate for more child-positive media. Pediatricians should support and collaborate with media producers, applying our expertise in child health and development toward creating child-friendly and truthful media. The AAP makes the following recommendations to the entertainment industry:
  - Avoid the glamorization of weapon-carrying and the normalization of violence as an acceptable means of resolving conflict.
  - Eliminate the use of violence in a comic or sexual context or in any other situation in which the violence is amusing, titillating, or trivialized.
  - Eliminate gratuitous portrayals of interpersonal violence and hateful, racist, misogynistic, or homophobic language or situations unless explicitly portraying how destructive such words and actions can be. Even so, violence does not belong in media developed for very young children.
  - If violence is used, it should be used thoughtfully as serious drama, always showing the pain and loss suffered by victims and perpetrators.
  - Music lyrics should be made easily available to parents so they can be

their AAP chapters and districts to collaborate with other health care organizations, educators, government, and research-funding sources to keep media violence on the public health agenda. Media violence is often characterized in the public domain as a values issue rather than what it truly is: a public health issue and an environmental issue. A recent revealed found that two thirds of parents actually favor increased governmental oversight of the media when children and teenagers are concerned.<sup>40</sup>

7. Pediatricians should advocate for more child-positive media. Pediatricians should support and collaborate with media producers, applying our expertise in child health and development toward creating child-friendly and truthful media. The AAP makes the following recommendations to the entertainment industry:

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- If violence is used, it should be used thoughtfully as serious drama, always showing the pain and loss suffered by victims and perpetrators.
- Music lyrics should be made easily available to parents so they can be

read before deciding whether to purchase the recording.

- Video games should not use human or other living targets or award points for killing, because this teaches children to associate pleasure and success with their ability to cause pain and suffering to others.
  - Play of violent video games should be restricted to age-limited areas of gaming arcades; the distribution of videos and video games and the exhibition of movies should be limited to appropriate age groups.
8. Pediatricians should advocate for a simplified, universal, content-based media-rating system to help parents guide their children to make

healthy media choices. Content should be rated on the basis of research about what types of media depictions are likely to be harmful to children, rather than simply on what adults find offensive. Just as it is important that parents know the ingredients in food they may feed to their children, they should be fully informed about the content of the media their children may use.<sup>4,30,112,113</sup>

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#### REFERENCES

1. Smith A. Influence of TV crime programs on children’s health. *J Am Med Assoc.* 1952; 150(1):37
2. Hogan MJ. Adolescents and media violence: six crucial issues for practitioners. *Adolesc Med Clin.* 2005;16(2):249–268, vii
3. Strasburger VC, Wilson BJ, Jordan AB. *Children, Adolescents, and the Media.* 2nd ed. Thousand Oaks, CA: Sage; 2009
4. Strasburger VC. Go ahead punk, make my day: it’s time for pediatricians to take action against media violence. *Pediatrics.* 2007; 119(6). Available at: [www.pediatrics.org/cgi/content/full/119/6/e1398](http://www.pediatrics.org/cgi/content/full/119/6/e1398)
5. US Surgeon General’s Scientific Advisory Committee on Television and Social Behavior. *Television and Growing Up: The Impact of Televised Violence—Report to the Surgeon General.* Rockville, MD: National Institute of Mental Health, US Public Health Service; 1972. Publication No. HSM 72–9090
6. Pearl D, Bouthilet L, Lazar J. *Television and Behavior: Ten Years of Scientific Progress and Implications for the Eighties.* Rockville, MD: National Institute of Mental Health; 1982
7. American Academy of Pediatrics; American Academy of Child and Adolescent Psychiatry; American Psychological Association; American Medical Association; American Academy of Family Physicians; American Psychiatric Association. Joint statement on the impact of entertainment violence on children: Congressional public health summit—July 26, 2000. Available at: [www.aap.org/advocacy/releases/jsttmtev.cfm](http://www.aap.org/advocacy/releases/jsttmtev.cfm). Accessed January 26, 2009
8. O’Toole ME. *The School Shooter: A Threat Assessment Perspective.* Quantico, VA: Federal Bureau of Investigation, US Department of Justice; 2000
9. Anderson CA, Berkowitz L, Donnerstein E, et al. The influence of media violence on youth. *Psychol Sci Public Interest.* 2003;4(3):81–110
10. Federal Communications Commission. In the matter of violent television programming and its impact on children: statement of Commissioner Deborah Taylor Tate. MB docket No. 04–261, April 25, 2007. Available at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-07-50A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-07-50A1.pdf). Accessed August 31, 2009
11. Gentile DA, Obert C, Sherwood NE, Story M, Walsh DA, Hogan M. Well-child exams in the video age: pediatricians and the American Academy of Pediatrics guidelines for children’s media use. *Pediatrics.* 2004;114(5): 1235–1241
12. Murray JP. Media violence: the effects are both real and strong. *Am Behav Sci.* 2008; 51(8):1212–1230
13. Roberts DF, Foehr UG, Rideout V. *Generation M: Media in the Lives of 8–18 Year-Olds.* Menlo Park, CA: Henry J. Kaiser Family Foundation; 2005
14. Rideout VJ, Vandewater EA, Wartella EA. *Zero to Six: Electronic Media in the Lives of Infants, Toddlers and Preschoolers.* Menlo Park, CA: Henry J. Kaiser Family Foundation; 2003
15. Vandewater EA, Rideout VJ, Wartella EA, Huang X, Lee JH, Shim MS. Digital childhood: electronic media and technology use among infants, toddlers, and preschoolers. *Pediatrics.* 2007;119(5). Available at: [www.pediatrics.org/cgi/content/full/119/5/e1006](http://www.pediatrics.org/cgi/content/full/119/5/e1006)
16. Rideout V, Hamel E. *The Media Family: Electronic Media in the Lives of Infants, Toddlers, Preschoolers and Their Parents.* Menlo Park, CA: Henry J. Kaiser Family Foundation; 2006
17. Dennison BA, Erb TA, Jenkins PL. Television viewing and television in bedroom associated with overweight risk among low-income preschool children. *Pediatrics.* 2002;109(6): 1028–1035
18. Jackson C, Brown JD, L’Engle KL. R-rated movies, bedroom televisions, and initiation of smoking by white and black adolescents. *Arch Pediatr Adolesc Med.* 2007;161(3): 260–268
19. Gentile DA, Walsh DA. A normative study of family media habits. *J Appl Dev Psychol.* 2002;23(2):157–178
20. Borzekowski DL, Robinson TN. The remote, the mouse, and the No. 2 pencil: the household media environment and academic achievement among third grade students. *Arch Pediatr Adolesc Med.* 2005;159(7): 607–613
21. Huston AC, Donnerstein E, Fairchild H, et al.

- Big World, Small Screen: The Role of Television in American Society*. Lincoln, NE: University of Nebraska Press; 1992
22. Federman J, ed. *National Television Violence Study*. Vol 3. Thousand Oaks, CA: Sage; 1998
  23. Yokota F, Thompson KM. Violence in G-rated animated films. *JAMA*. 2000;283(20):2716–2720
  24. Webb T, Jenkins L, Browne N, Afifi AA, Kraus J. Violent entertainment pitched to adolescents: an analysis of PG-13 films. *Pediatrics*. 2007;119(6). Available at: [www.pediatrics.org/cgi/content/full/119/6/e1219](http://www.pediatrics.org/cgi/content/full/119/6/e1219)
  25. Worth KA, Chambers JG, Naussau DH, Rakhra BK, Sargent JD. Exposure of US adolescents to extremely violent movies. *Pediatrics*. 2008;122(2):306–312
  26. Rich M, Woods ER, Goodman E, Emans SJ, DuRant RH. Aggressors or victims: gender and race in music video violence. *Pediatrics*. 1998;101(4 pt 1):669–674
  27. Herd DA. Changes in the prevalence of violent rap song lyrics 1979–1997. Presented at: American Public Health Association annual meeting; October 28, 2008; San Diego, CA
  28. Espejo R. *Should Music Lyrics Be Censored for Violence and Exploitation?* Detroit, MI: Greenhaven Press; 2008
  29. Ybarra ML, Dierner-West M, Markow D, Leaf PJ, Hamburger M, Boxer P. Linkages between Internet and other media violence with seriously violent behavior by youth. *Pediatrics*. 2008;122(5):929–937
  30. Gentile DA. The rating systems for media products. In: Calvert S, Wilson B, eds. *Handbook on Children and Media*. Boston, MA: Blackwell; 2007:527–551
  31. Comstock G, Strasburger VC. Media violence: Q & A. *Adolesc Med*. 1993;4(3):495–510
  32. DuRant RH, Rich M, Emans SJ, Rome ES, Allred E, Woods ER. Violence and weapon carrying in music videos: a content analysis. *Arch Pediatr Adolesc Med*. 1997;151(5):443–448
  33. Funk JB, Buchman DD. Playing violent video and computer games and adolescent self-concept. *J Commun*. 1996;46(2):19–32
  34. Walsh D, Gentile DA, Walsh E, et al. *Tenth Annual MediaWise Video Game Report Card*. Minneapolis, MN: National Institute on Media and the Family; 2006. Available at: [www.mediafamily.org/research/report\\_vgrc\\_2005.shtml](http://www.mediafamily.org/research/report_vgrc_2005.shtml). Accessed January 26, 2009
  35. Dietz TL. An examination of violence and gender role portrayals in video games: implications for gender socialization and aggressive behavior. *Sex Roles*. 1998;38(5–6):425–442
  36. Strasburger VC. Risky business: what primary care practitioners need to know about the influence of the media on adolescents. *Prim Care*. 2006;33(2):317–348
  37. US Federal Trade Commission. *Marketing Violent Entertainment to Children: A Review of Self-regulation and Industry Practices in the Motion Picture, Music Recording and Electronic Game Industries*. Washington, DC: US Federal Trade Commission; 2000
  38. Cheng TL, Brenner RA, Wright JL, Sachs HC, Moyer P, Rao MR. Children's violent television viewing: are parents monitoring? *Pediatrics*. 2004;114(1):94–99
  39. Jenkins L, Webb T, Browne N, Afifi AA, Kraus J. An evaluation of the Motion Picture Association of America's treatment of violence in PG-, PG-13-, and R-rated films. *Pediatrics*. 2005;115(5). Available at: [www.pediatrics.org/cgi/content/full/115/5/e512](http://www.pediatrics.org/cgi/content/full/115/5/e512)
  40. Rideout V. *Parents, Children and Media*. Menlo Park, CA: Henry J. Kaiser Family Foundation; 2007
  41. Rideout V. *Parents, Media and Public Policy: A Kaiser Family Foundation Survey*. Menlo Park, CA: Henry J. Kaiser Family Foundation; 2004
  42. Walsh DA, Gentile DA. A validity test of movie, television, and video-game ratings. *Pediatrics*. 2001;107(6):1302–1308
  43. Bijvank MN, Konijn EA, Bushman BJ, Roelofsma PHMP. Age and violent-content labels make video games forbidden fruits for youth. *Pediatrics*. 2009;123(3):870–876
  44. American Academy of Pediatrics. *The Ratings Game. Choosing Your Child's Entertainment*. Elk Grove Village, IL: American Academy of Pediatrics; 2000
  45. Huesmann LR, Moise-Titus J, Podolski CL, Eron LD. Longitudinal relations between children's exposure to TV violence and their aggressive and violent behavior in young adulthood: 1977–1992. *Dev Psychol*. 2003;39(2):201–221
  46. Slater MD, Henry KL, Swaim RC, Anderson LL. Violent media content and aggressiveness in adolescents: a downward spiral model. *Commun Res*. 2003;30(6):713–736
  47. Bushman BJ, Huesmann LR. Short-term and long-term effects of violent media on aggression in children and adults. *Arch Pediatr Adolesc Med*. 2006;160(4):348–352
  48. Center on Media and Child Health. Available at: [www.cmch.tv](http://www.cmch.tv). Accessed January 28, 2009
  49. Paik H, Comstock G. The effects of television violence on antisocial behavior: a meta-analysis. *Commun Res*. 1994;21(4):516–546
  50. Bushman BJ, Huesmann LR. Effects of televised violence on aggression. In: Singer D, Singer JL, eds. *Handbook of Children and the Media*. Thousand Oaks, CA: Sage Publications; 2001:223–254
  51. Bandura A. Social cognitive theory of mass communication. In: Bryant J, Zillmann D, eds. *Media Effects: Advances in Theory and Research*. Hillsdale, NJ: Lawrence Erlbaum; 1994:61–90
  52. Flavell JH. The development of children's knowledge about the appearance-reality distinction. *Am Psychol*. 1986;41(4):418–425
  53. Wright JC, Huston AC, Reitz AL, Pieymat S. Young children's perceptions of television reality: determinants and developmental differences. *Dev Psychol*. 1994;30(2):229–239
  54. Anderson CA, Gentile DA, Buckley KE. *Violent Video Game Effects on Children and Adolescents: Theory, Research, and Public Policy*. New York, NY: Oxford University Press; 2007
  55. Johnson JG, Cohen P, Smailes EM, Kasen S, Brook JS. Television viewing and aggressive behavior during adolescence and adulthood. *Science*. 2002;295(5564):2468–2471
  56. Cantor J. *Mommy, I'm Scared: How TV and Movies Frighten Children and What We Can Do to Protect Them*. New York, NY: Harcourt Brace; 1998
  57. Linz DG, Donnerstein E, Penrod S. Effects of long-term exposure to violent and sexually degrading depictions of women. *J Pers Soc Psychol*. 1988;55(5):758–768
  58. Grossman D, DeGaetano G. *Stop Teaching Our Kids to Kill: A Call to Action Against TV, Movie, and Video Game Violence*. New York, NY: Crown; 1999
  59. Kuntsche E, Pickett W, Overpeck M, Craig W, Boyce W, Gaspar de Matos M. Television viewing and forms of bullying among adolescents from eight countries. *J Adolesc Health*. 2006;39(6):908–915
  60. Gerbner B, Gross L, Morgan M, Signorielli N. The "mainstreaming" of America: violence profile No. 11. *J Commun*. 1980;30(3):10–29
  61. Bryant J, Carveth RA, Brown D. Television viewing and anxiety: an experimental examination. *J Commun*. 1981;31(1):106–119
  62. Anderson CA, Dill KE. Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *J Personal Soc Psychol*. 2000;78(4):772–790
  63. Singer MI, Slovak K, Frierson T, York P. Viewing preferences, symptoms of psychological trauma, and violent behaviors among children who watch television. *J Am Acad Child Adolesc Psychiatry*. 1998;37(10):1041–1048
  64. Zimmerman FJ. *Children's Media Use and Sleep Problems: Issues and Unanswered Questions*. Menlo Park, CA: Kaiser Family Foundation; 2008
  65. Bickham DS, Rich M. Is television viewing associated with social isolation? Roles of exposure time, viewing context, and violent

- content. *Arch Pediatr Adolesc Med.* 2006;160(4):387–392
66. Berkowitz L, Rawlings E. Effects of film violence on inhibitions against subsequent aggression. *J Abnorm Soc Psychol.* 1963;66(3):405–412
  67. Geen RG, Quanty MB. The catharsis of aggression: an evaluation of a hypothesis. In: Berkowitz L, ed. *Advances in Experimental Social Psychology.* NY: Academic Press; 1977: 1–37 Vol 10. New York
  68. Bushman BJ, Baumeister RF, Stack AD. Catharsis, aggression, and persuasive influence: self-fulfilling or self-defeating prophecies? *J Pers Soc Psychol.* 1999;76(3):367–376
  69. Drabman RS, Thomas MH. Does media violence increase children's toleration of real-life aggression? *Dev Psychol.* 1974;10(3):418–421
  70. Thomas MH, Horton RW, Lippincott EC, Drabman RS. Desensitization to portrayals of real-life aggression as a function of exposure to television violence. *J Pers Soc Psychol.* 1977;35(6):450–458
  71. Carnagey NL, Anderson CA, Bushman BJ. The effect of video game violence on physiological desensitization to real-life violence. *J Exp Soc Psychol.* 2007;43(3):489–496
  72. Bushman BJ, Anderson CA. Comfortably numb: desensitizing effects of violent media on helping others. *Psychol Sci.* 2009;20(3):273–277
  73. Irwin AR, Gross AM. Cognitive tempo, violent video games, and aggressive behavior in young boys. *J Fam Violence.* 1995;10(3):337–350
  74. Silverman SB, Williamson PA. The effects of video game play on young children's aggression, fantasy, and prosocial behavior. *J Appl Dev Psychol.* 1987;8(4):453–462
  75. Krahé B, Möller I. Playing violent electronic games, hostile attributional style, and aggression-related norms in German adolescents. *J Adolesc.* 2004;27(1):53–69
  76. Anderson CA, Carnagey NL, Flanagan M, Benjamin AJ, Eubanks J, Valentine JC. Violent video games: specific effects of violent content on aggressive thoughts and behavior. *Adv Exp Soc Psychol.* 2004;36:199–249
  77. Anderson CA, Sakamoto A, Gentile DA, et al. Longitudinal effects of violent video games on aggression in Japan and the United States. *Pediatrics.* 2008;122(5). Available at: [www.pediatrics.org/cgi/content/full/122/5/e1067](http://www.pediatrics.org/cgi/content/full/122/5/e1067)
  78. Hopf WH, Huber GL, Weib RH. Media violence and youth violence. *J Media Psychol.* 2008;20(3):79–96
  79. Wallenius M, Punamaki RL. Digital game violence and direct aggression in adolescence: a longitudinal study of the roles of sex, age, and parent-child communication. *J Appl Dev Psychol.* 2008;29(4):286–294
  80. Gentile DA, Anderson CA, Yukawa S, et al. The effects of prosocial video games on prosocial behaviors: international evidence from correlational, longitudinal, and experimental studies. *Pers Soc Psychol Bull.* 2009;35(6):752–763
  81. Gentile D. Pathological video-game use among youth ages 8 to 18: a national study. *Psychol Sci.* 2009;20(5):594–602
  82. The impact of interactive violence on children: hearing before the Senate Committee on Commerce, Science, and Transportation. 106th Congress, 1st session (March 21, 2000) [statement of Craig Anderson, Department of Psychology, Iowa State University]. Available at: [www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/23/4b/03.pdf](http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/23/4b/03.pdf). Accessed August 31, 2009
  83. Griffiths MD, Hunt N. Dependence on computer games by adolescents. *Psychol Rep.* 1998;82(2):475–480
  84. Carnagey NL, Anderson CA, Bartholow BD. Media violence and social neuroscience: new questions and new opportunities. *Curr Dir Psychol Sci.* 2007;16(4):178–182
  85. Eaton DK, Kann L, Kinchen S, et al; Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance: United States, 2007. *MMWR Surveill Summ.* 2008;57(4):1–131
  86. Miniño AM, Heron MP, Smith BL. Deaths: preliminary data for 2004. *Natl Vital Stat Rep.* 2006;54(19):1–49
  87. National Adolescent Health Information Center. *2007 Fact Sheet on Violence: Adolescents & Young Adults.* San Francisco, CA: University of California, San Francisco; 2007. Available at: <http://nahic.ucsf.edu/downloads/violence.pdf>. Accessed January 28, 2009
  88. Bureau of Justice Statistics. *Sourcebook of Criminal Justice Statistics.* 31st ed. Washington, DC: US Department of Justice; 2003. Available at: [www.albany.edu/sourcebook](http://www.albany.edu/sourcebook). Accessed June 29, 2007
  89. Nansel TR, Overpeck M, Pilla RS, Ruan WJ, Simons-Morton B, Scheidt P. Bullying behaviors among US youth: prevalence and association with psychosocial adjustment. *JAMA.* 2001;285(16):2094–2100
  90. Olshen E, McVeigh KH, Wunsch-Hitzig RA, Rickert VI. Dating violence, sexual assault, and suicide attempts among urban teenagers. *Arch Pediatr Adolesc Med.* 2007;161(6):539–545
  91. Huesmann LR, Eron LD, Klein R, Brice P, Fischer P. Mitigating the imitation of aggressive behaviors by changing children's attitudes about media violence. *J Pers Soc Psychol.* 1983;44(5):899–910
  92. Robinson TN, Wilde ML, Navracruz LC, Haydel KF, Varady A. Effects of reducing children's television and video game use on aggressive behavior: a randomized controlled trial. *Arch Pediatr Adolesc Med.* 2001;155(1):17–23
  93. Strasburger VC. "Clueless": why do pediatricians underestimate the media's influence on children and adolescents? *Pediatrics.* 2006;117(4):1427–1431
  94. Ginsburg KR; American Academy of Pediatrics, Committee on Communications and Committee on Psychosocial Aspects of Child and Family Health. The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics.* 2007;119(1):182–191
  95. American Academy of Pediatrics, Committee on Public Education. Media education. *Pediatrics.* 1999;104(2 pt 1):341–343
  96. Christakis DA, Zimmerman FJ. Children and television: a primer for pediatricians. *Contemp Pediatr.* 2007;24(3):31–45
  97. Barkin SL, Finch SA, Ip EH, et al. Is office-based counseling about media use, timeouts, and firearm storage effective? Results from a cluster-randomized, controlled trial. *Pediatrics.* 2008;122(1). Available at: [www.pediatrics.org/cgi/content/full/122/1/e15](http://www.pediatrics.org/cgi/content/full/122/1/e15)
  98. Strasburger VC. First do no harm: why have parents and pediatricians missed the boat on children and media? *J Pediatr.* 2007;151(4):334–336
  99. Christakis DA. The effects of infant media usage: what do we know and what should we learn? *Acta Paediatr.* 2009;98(1):8–16
  100. Schmidt ME, Rich M, Rifas-Shiman SL, et al. Television viewing in infancy and child cognition at 3 years of age in a US cohort. *Pediatrics.* 2009;123(3). Available at: [www.pediatrics.org/cgi/content/full/123/3/e370](http://www.pediatrics.org/cgi/content/full/123/3/e370)
  101. Zimmerman FJ, Christakis DA, Meltzoff AN. Associations between media viewing and language development in children under age 2 years. *J Pediatr.* 2007;151(4):364–368
  102. Linebarger DL, Walker D. Infants' and toddlers' television viewing and language outcomes. *Am Behav Sci.* 2005;48(5):624–625
  103. Nelson K. Structure and strategy in learning to talk. *Monogr Soc Res Child Dev.* 1973;38(1–2):1–135. Serial No. 149
  104. Tanimura M, Okuma K, Kyoshima K. Television viewing, reduced parental utterance, and delayed speech development in infants and young children. *Arch Pediatr Adolesc Med.* 2007;161(6):618–619

105. Chonchaiya W, Prusksananonda C. Television viewing associates with delayed language development. *Acta Paediatr.* 2008;97(7):977–982
106. Fisch SM, Truglio RT. *“G” is for Growing: Thirty Years of Research on Children and Sesame Street.* Mahwah, NJ: Erlbaum; 2001
107. Okuma K, Tanimura M. A preliminary study on the relationship between characteristics of TV content and delayed speech development in young children. *Infant Behav Dev.* 2009;32(3):312–321
108. Christakis DA, Gilkerson J, Richards JA, et al. Audible television and decreased adult words, infant vocalizations, and conversational turns. *Arch Pediatr Adolesc Med.* 2009;163(6):554–558
109. Huston AC, Wright JC. Educating children with television: the forms of the medium. In: Zillmann D, Bryant J, Huston AC, eds. *Media, Children, and the Family: Social Scientific, Psychodynamic, and Clinical Perspectives.* Hillsdale, NJ: Lawrence Erlbaum; 1994:73–84
110. McCannon B. Media literacy/media education: solution to big media? In: Strasburger VC, Wilson BJ, Jordan A, eds. *Children, Adolescents, and the Media.* 2nd ed. Thousand Oaks, CA: Sage Publications; 2009:519–569
111. Rosenkoetter LI, Rosenkoetter SE, Acock AC. Television violence: an intervention to reduce its impact on children. *J Appl Dev Psychol.* 2009;30(4):381–397
112. Christakis DA, Zimmerman FJ. *The Elephant in the Living Room: Make Television Work for Your Kids.* New York, NY: Rodale Press; 2006
113. Strasburger VC. Media and children: what needs to happen now? *JAMA.* 2009;301(21):2265–2266

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