



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.^{1–3} 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.⁴

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.⁵ 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.⁶ 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.⁷ Also in 2000, the Federal Bureau of Investigation released a report on shootings in schools that stated that media violence is a risk factor.⁸ 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.⁹ 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.¹⁰ 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.¹¹ Yet, the entertainment industry, the American public, politicians, and parents all have been reluctant to accept these findings and to take action.⁴ The debate should be over.^{9,12}

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).¹³ Children between 0 and 6 years of age spend an average of almost 2 hours each day using screen media (television, movies, computers).^{14,15} 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.^{13,15,16} 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.^{13,17} Their risk of obesity increases 31%,¹⁷ and their risk of smoking doubles.¹⁸ 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.^{19,20}

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.²¹ 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.²² 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.²³ In a study of the top-rated PG-13 films of 1999–2000, 90% contained violence, half of it of lethal magnitude.²⁴ An estimated 12% of 22 million 10- to 14-year-olds saw 40 of the most violent movies in 2003.²⁵ More than 80% of the violence portrayed in contemporary music videos is perpetrated by attractive protagonists against a disproportionate number of women and blacks.²⁶ Similarly, teenagers' music has become more violent, especially rap music.^{3,27,28} 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.²⁹ 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).³⁰

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

particular, tend to portray heroes using violence as a justified means of resolving conflict and prevailing over others.^{24,31} Television, movies, and music videos normalize carrying and using weapons and glamorize them as a source of personal power.^{22,32} 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.^{33,34} Of 33 popular games, 21% feature violence against women.³⁵ 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.³⁶

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.³⁷

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.^{13,38,39} 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.³⁹ Many parents find the entertainment industry's media-rating sys-

tems difficult to use.⁴⁰ 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.⁴¹ 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.⁴² 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.⁴⁰ Video games with higher ratings may actually attract more young children (the “forbidden-fruit” hypothesis).⁴³ 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.⁴⁴

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.^{9,45–47} The new Center on Media and Child Health at Harvard lists more than 2000 research reports.⁴⁸ The strength of the association between media violence and aggressive behavior found in meta-analyses^{9,49} 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 cancer⁵⁰—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.⁵¹ Several different psychological and physiologic processes underlie media-violence effects on aggressive attitudes, beliefs, behaviors, and emotions, and these processes are well understood.^{2,3,9} 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.^{52,53} 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.^{54,55}

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.³ 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.^{9,47,54} Other studies have shown that the more realistically violence is portrayed, the greater the likelihood that it will be tolerated and learned.^{3,56} Titillating violence in sexual contexts and comic violence are particularly dangerous, because they associate positive feelings with hurting others.^{57,58} One study of nearly 32 000 teenagers in 8 different countries, for example, revealed that heavy television-viewing was associated with bullying.⁵⁹

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.^{60–62} 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.”⁶¹ For some children, exposure to media violence can lead to anxiety, depression, posttraumatic stress disorder,^{56,63} sleep disturbances and nightmares,^{56,64} and/or social isolation.⁶⁵ 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.^{66–68} Numerous studies have shown that an insidious and potent effect of media violence is to desensitize all of us to real-life violence.^{69–72}

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.²⁹ 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.⁵⁴ Correlational and experimental studies have revealed that violent video games lead to increases in aggressive behavior and aggressive thinking and decreases in prosocial behavior.^{62,73–76} 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.^{54,77} Other recent longitudinal studies in Germany and Finland have revealed similar effects across 2 years.^{78,79} On the other hand, there is also good evidence that prosocial video games can increase prosocial attitudes and behavior.⁸⁰

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.⁴⁷ Video games provide an ideal environment in which to learn violence and use many of the strategies that are most effective for learning.⁸¹ 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.^{54,62,82} 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.^{81,83} 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.⁸⁴

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.⁸⁵ Of all deaths by homicide or suicide, fully half were gun related, making gun violence a leading killer of children and adolescents.⁸⁶ 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.⁸⁷ 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.⁸⁷ 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.⁸⁸ 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.⁸⁵ An estimated 30% of 6th-through 10th-graders report either bullying other students or being targets of bullies.⁸⁹ 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.⁹⁰ 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.^{2,3,54,91,92}

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.^{4,93} 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?^{24,93} For all children, healthy alternatives such as sports, interactive play, and reading should be suggested.⁹⁴ When heavy media use by a child is identified, pediatricians should evaluate the child for aggressive behaviors, fears, or sleep disturbances and intervene appropriately.^{95,96}
3. Pediatricians should encourage parents to adhere to the AAP media recommendations^{11,95}:
 - Remove televisions, Internet connections, and video games from children's bedrooms.
 - Make thoughtful media choices and coviev them with children. Covievving 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,³⁸ yet research has indicated that the latter is potentially more unhealthy.^{2,3}
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.^{93,109,110} Research has demonstrated that media education and thoughtful media use can reduce violent behavior in children.^{9,92,111}
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.⁹⁷ 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.⁹⁷ 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.⁹⁸ There have been no studies to indicate that screen time contributes positively to infant development,^{99,100} 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.^{100–108}
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.⁴⁰

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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.^{4,30,112,113}

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