

## Media Literacy for Clinicians and Parents

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The growth of technology over the past decades has created an environment rich in media opportunities for children and adults. From the first popular radio broadcasts in the 1920s through the widespread use of the Internet in the 1990s, electronic media clearly have been established as a dominant global influence. During this time, clinicians and researchers have sought to examine the impact of various types of media on children and adolescents. The research results have been scrutinized and debated heavily by the professional community, manufacturers and creators of media, government agencies charged with protecting children, and parents. Research in the field is complex; studies often attempt to imitate media exposure, but not in the context of a child's life that includes a long list of individual, developmental, family, cultural, and economic variables.

The field of media literacy has emerged and is defined as the ability to access, analyze, and evaluate media content [1]. Clinicians have struggled with how to integrate media literacy into clinical practice, and parents are torn between supporting the autonomy and learning opportunities electronic media make possible, and protecting their children from harmful influences. They need to know how to integrate research findings and expert opinion into the everyday world of parenting.

This article discusses media literacy for clinicians and parents through four lenses: (1) the interaction between tasks of development and media exposure,

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(2) the “socialization” of media through the family, (3) special clinical circumstances and potential therapeutic uses of media, and (4) electronic media rating systems, monitoring and blocking devices, and guidelines from professional organizations.

## **The interaction between tasks of development and media**

### *How young children perceive and use media*

A basic understanding of developmental tasks at various ages helps to frame the debate about the use of media in a child’s life. It is also important to note that aside from interactive games and some experimental television programs, electronic media provide one-way visual or auditory input. The reaction of a child who is watching or listening has no effect on what comes next, so cause and effect is passively learned through observation. Although many experts have suggested that the media merely provide entertainment, it is clear that they teach through repetition, with the ability to shape values and influence language and behavior. This passivity and potential receptivity are important underlying principles that should be borne in mind at each stage of child development.

### *Infancy through toddlerhood*

During infancy (0–6 months), the primary tasks are adjusting to the world outside the womb, eating and sleeping to facilitate growth, and the beginning social interaction through smiling, cooing, and reaching for people and objects. Physical touch is essential, with soft cuddling and comforting important to the actual facilitation of eating and growth. Input to the brain as it is wiring itself and continuing to grow is crucial; it is highly likely that these early touch points with the environment influence neuronal pathways. The human voice and soft music are known to soothe and stimulate interaction, whereas loud voices and noises produce full-body startle response, interfere with an infant’s ability to eat, and raise stress hormone levels. The media—especially music—may have a role in soothing and calming; parents naturally sing to their babies to quiet and comfort them.

From 6 months to 1 year, infants continue to grow and interact with others. Exploration of the world around them through touch and feel is essential. Language starts through reciprocal interactions, and children begin to understand cause and effect. All of these tasks require an interactive process. The non-reciprocal way in which the media operate does not provide the feedback loop necessary for children at this age. Infants need to explore through their senses, get feedback that is immediate, and then repeat these interactions over and over to learn from them. It is highly likely that at this early age cognitive and emotional learning are synergistic, that learning to pick up and eat “finger food” is

developmentally optimized if the activity takes place with a warm, encouraging adult rather than in front of a television screen that presents images and words unrelated to an infant's behavior or feelings.

Aside from music, the best use of electronic media at this stage may be none at all. The American Academy of Pediatrics (AAP) discourages television watching for children under age 2 and encourages adult-child interaction (eg, talking, singing, or reading together) that promotes healthy brain development [2]. Surveys of parents suggest that many infants and toddlers spend time in front of the television, however [3]. A survey by the Kaiser Family Foundation found that 39% of children under age 4 live in homes in which a television is on all or most of the time, even if no one is watching [4]. (In the case of infants, it is difficult to know how "watching" is defined, because they do not seem to attend to television for more than brief periods.) The effects of television exposure may vary based on a child's temperament.

Moving on to children aged 1 to 2 years, the development of motor skills and language with purpose continues. Children begin to scribble, throw a ball, feed themselves, walk, and run. Media can play a role in teaching language; studies have found that television programs that promote language (as when characters "talk to" the viewing child and encourage responses or label objects) [5] and music have a role in soothing. Visual images are fascinating, yet the ability to understand them is not developed and needs adult explanation. The ability to learn from a video image is limited [6]. Optimal learning at this stage depends on interaction with someone who is able to modify his or her response continuously and adjust to what a child has done and how a child is feeling (eg, frustrated, eager, tired, anxious). This interaction allows toddlers to figure things out in small incremental ways and build a step at a time in knowledge and self-esteem at their own pace. Television, even if played in the background, may disrupt this interaction and play with parents [6]. Because toddlers will be surrounded by and using television and computer screens throughout childhood and adulthood, however, too much emphasis on "protecting" them from media arguably could be counterproductive.

### *Preschool years*

As exploration continues from age 2 to 5 years, children are moving more into the world of socializing with others through play. The play skills of sharing, taking turns, and following simple rules begin to emerge. Many skills acquired gradually over these 3 to 4 years are actually school readiness skills. Some media content is specifically geared toward promoting school readiness, primarily public television shows such as "Sesame Street," "Reading Rainbow," and "Between the Lions" and some newer commercial cable television programs with restricted advertising breaks, such as "Blue's Clues" and "Dora the Explorer." They often combine developmentally appropriate cognitive challenges, pacing, and repetition with characters that have feelings and values [6-8]. Many commercial network programs, however, are not geared to children's developmental stage and emphasize sales of program-related toys. Frequent viewing of such programs can

hinder later academic performance [9]. The accompanying commercial advertisements for food, toys, and games also may be detrimental. Children at that age see little difference between program and commercial content and do not understand the persuasive intent of advertising [10]. The consumer-oriented push of enticing food ads requires close adult monitoring, lest a child be trained early in life to sit and eat. Increased hours of watching television and the presence of television in a child's bedroom contribute to preschoolers' increasing risk of being overweight [11]. This trend is especially concerning because of children's increasingly sedentary lifestyle at home and school and greater access to fast food and junk food.

At this stage, television, movies, and videos are the primary sources of media content, although computers and computer games come into play as children develop the necessary motor skills to manipulate input through a mouse, buttons, or a joystick-like implement. A child may sit on a parent's lap and play with the computer at age 2.5 and start pointing and clicking with a mouse at age 3.5 [12]. Currently, systems are being marketed for preschoolers that mimic video game consoles (eg., the VSmile by VTech) and hand-held game systems (eg, Leapster by LeapFrog) and have larger and simpler controls. As with television, effects of interactive media on cognitive development seem related to the appropriateness of software and parent involvement [13].

Although interactive games have greater capacity to teach cause and effect, they may limit fantasy play within the structure of the software rather than being derived from or related to a child's own life. Children benefit in their social and emotional growth when their own experiences and feelings can be acted out with creative materials. Dress-up, pretend worlds created with toys, drawings, paintings, and clay and cardboard creations are but a few examples of how play promotes self-expression at this stage. Although research is limited, a study of kindergarten children found that when played cooperatively, video games could enhance social skills [14].

One concern about children's media consumption is that children aged 8 and younger typically cannot reliably tell fantasy from reality and cannot comprehend complex motives and intentions. Researchers who study advertising have demonstrated that children younger than age 8 are perceptually dependent and focus more on how something looks than what is said about it [15,16]. If the visuals of a game contradict the semantic meaning, young children attend to the visuals. It becomes difficult for media literacy information to counteract the messages children get at this age through visual stimuli.

Studies by Cantor [17,18] have shown how children at this age become fearful upon seeing images that they think are real. Whereas the research demonstrated transitory fright responses, a small proportion of viewers had more debilitating reactions. Cantor's research of first, fourth, seventh, and eleventh graders regarding their reactions to televised coverage of the Persian Gulf War showed how children at different ages were upset by different aspects, with younger children being more upset by the visual images and older children being upset by the more abstract conceptual aspects [19].

Although these results are of concern, we also know from daily experience that children have a growing sense of what is real and what is not from an early age. When parents read fairy tales at bedtime, although there may be transient fright, few children suffer long-term harm or attempt the stunts related in the story. Few children have jumped out of windows to mimic Superman, Super Grover, or Spiderman. In our clinical experience, children who have taken serious risks come from chaotic and often abusive or neglectful homes. They know reality and try to escape it. Research cannot capture easily the interplay between a developing child and the thousands of increasing complex and confusing images they see through television, video games, computer animation, and movies, some of which are exciting, fun, or brutally realistic live coverage of a horrific event.

### *How school-aged children and adolescents perceive and use media*

A national survey of children's media use found that children aged 8 to 13 spend more time with media than any other age group [20]. Children rapidly acquire new information during the early school age years with an accompanying understanding of time and motion and greater understanding of cause and effect. During this time, they move from concrete thinking and the world of fantasy to abstract thinking and the ability to understand more complex thought. They develop a greater ability to learn from electronic media. There are also gains in academic and social skills, membership in peer groups, and development of important friendships. Entertainment media begin to shape children's understanding of social relationships and expectations about behavior and appearance, but the learning is limited because it does not occur through children's personal interactions. There is also wide variability from child to child as to how they process information, particularly at the early phase of this stage from age 6 to 10, before the development of abstract thinking. Rather than attempt to summarize the body of research that addresses media influences on the development of older children and adolescents, this article focuses on areas of particular concern to parents and mental health professionals: the effects of violent and sexual content and the relatively new medium of video games.

### *Potential effects of media violence*

One concern at this stage is how exposure to media violence may affect attitudes and later aggressive and violent behavior. A recent comprehensive study of broadcast and cable television—the National Television Violence Study 3 [21]—found that during a typical week, 61% of programs contained some violence. The most violence was found on premium cable channels, particularly in movies. As with earlier National Television Violence studies, the consortium of researchers agreed that exposure to violence had the potential to affect children adversely and that the risk of learning aggressive behavior increased when (1) the perpetrator was attractive, (2) the violence was seen as justified, (3) the

violence was seen as realistic and involved a real-life weapon, (4) the violence was rewarded, or at least not punished, (5) the violence had little or no harmful consequences, or (6) the violence was seen as funny. (For children younger than age 7, most exposure to high-risk portrayals of violence came from cartoon programs.) Other research suggested that even portrayals of indirect aggression (eg, spreading rumors or secretly destroying someone's property) can inspire imitation [22]. Another concern is that exposure to violent content may increase fear of being victimized (particularly graphic, realistic, unjustified, or rewarded violence against appealing characters). Extensive graphic violence and humorous violence are believed to desensitize children to violence [21].

In the National Television Violence studies, violence was defined as "any overt depiction of credible threat of physical force or the actual use of such force intended to physically harm an animate being or group of beings." This category also included physically harmful consequences that resulted from unseen violent means. One difficulty in interpreting media violence research involves differences in how content is defined as violent and measures of exposure to violent content. This difficulty can be seen in two longitudinal studies of television violence. Johnson et al [23] followed children for 17 years and found that watching 3 or more hours a day of television at age 14 was associated positively with fights, assaults, and other aggressive acts at age 16 and 22. In a 15-year study by Huesmann et al [24], watching violent programs, professing belief in realism of content, and identifying with same-sex aggressive characters at ages 6 to 9 predicted young adult aggressive behavior.

The study by Johnson et al compared effects of watching 3 or more hours of television per day versus watching 1 hour or less per day. The content of programming was not assessed, based on the assumption that more television watched meant greater exposure to violence. The study by Huesmann et al did not measure directly the amount of exposure to either television or violent content. Instead, researchers presented children with an annual series of eight lists, each of which named ten programs, and asked them to mark their favorite on each list. Children also were asked whether they watched that show "every time it's on," "a lot, but not always," or "once in a while." These results were interpreted based on researcher rankings of these shows on a five-point scale that represented the amount of violence portrayed. (Examples of "very violent" shows included "The Six Million Dollar Man" and "Roadrunner" cartoons.) Belief in realism and identification were assessed by asking children whether selected violent live and cartoon shows were true in "telling what life is really like" and asking children how much they "acted like or did things like" specific characters.

### *Effects of video and computer games*

Several recent studies have focused on the effects of violent content in video games. The availability and use of interactive games has increased dramatically over the past decade. Surveys suggest that boys spend an average of 30 min-

utes to 1 hour a day playing video games, with girls playing significantly less often [25,26]. (Of note, the appearance of games with greater appeal to girls, such as “The Sims” and “Dance Dance Revolution,” may be closing this gap.)

At their worst, video and computer games allow children to sit in isolation for many hours immersed in a world of explicit sexual and violent aggression. Some experimental studies and surveys have found that exposure to game violence is linked with greater aggression, poor school grades, or desensitization to violence [25,27]. Other studies have found that a preference for violent games was linked to reduced aggression or that longer playing times were linked to less aggression than short playing times [28,29]. Several factors, including cultural differences and developmental stage of subjects, may partially account for these differences.

Popular press reports have linked violent games (along with fighting and gore in other media) to extreme acts or an epidemic level of violence [30]. It is worth noting, however, that in the period between 1994 and 2001—a time of extraordinary media growth and heightened concern about violence in the media—the rate of juvenile arrests for violent crimes fell 44%, to the lowest level since 1983. In terms of property crimes, the rate in 2001 was the lowest level in more than 30 years [31–34]. Media violence also is rarely put into context with other factors known to contribute to violence, such as abusive or antisocial parents, family poverty, and substance abuse [30].

As with television violence, varying definitions and measures of violent content and aggression make interpretation of research difficult. Because these are correlational studies, the direction of causality is also unknown [25,30]. Aggressive or hostile youths may be drawn to violent games, which might increase or decrease acting out for an individual student. Students who fare poorly in school may turn to games as a way to demonstrate competence. Until more evidence is available, it seems wise for parents to monitor the content of games, television, and movies and limit hours of use.

Some studies have examined the effects of interactive games on other aspects of children’s development. Depending on the content, interactive games may promote the development of cognitive skills, such as spatial representation, interpreting diagrams (iconic skills), and visual attention [35]. Studies of how interactive games may promote or limit social development and friendships have had mixed results, perhaps related to variation in measures. This area needs further study [28].

### **Potential effects of media on self-image and sexuality**

Exposure to unrealistic and often unhealthy body ideals from television, movies, and magazines affects children’s self-image, aspirations about appearance, and efforts to control weight. A large prospective study of children aged 9 to 14 found that making efforts to look like same-sex media images predicted the development of weight concerns and constant dieting in girls and boys [36].

The movement through adolescence is characterized largely by the emergence of sexuality and the search for identity. There is increased independence from the family and more focus on the social group and the culture. Experimentation emerges and is paired with a belief in indestructibility. With these issues in mind, the widespread sexuality and portrayal of high-risk behaviors on television, in the movies, in music videos, and in video games—although appealing to the basic instincts and drives of teenagers—are also potentially overstimulating and encourage dangerous behaviors. A Kaiser Family Foundation study [37] found that 64% of television programs in 2001/2002 included some sexual content. Those programs averaged 4.4 scenes involving sex per hour. A related survey found that 72% of teens aged 15 to 17 think that such content influences sexual behaviors of teens “somewhat” or “a lot” [38].

In a 1987 in-home survey of 2760 14- to 16-year-old youths [39], the amount of exposure to radio, music videos, movies, and favorite type of music (eg, heavy metal) was associated with greater participation in eight potentially risky behaviors—sexual intercourse, drinking, smoking cigarettes, smoking marijuana, cheating, stealing, cutting class, and driving a car without permission—regardless of parental education level. A recent national longitudinal survey of 12- to 17-year-old youths found that watching programs with greater sexual content (ie, discussion or portrayal) predicted initiating intercourse and progressing to more advanced noncoital activities, even when controlling for other factors associated with earlier sex [40]. Among African-American youths in the sample, exposure to content that addressed sexual risks or safety reduced the odds of initiating intercourse or increasing noncoital activities. Sexual activity was not related to average number of hours of television exposure, which reinforced the importance of how sexual activity and its consequences are portrayed. (See the article by Collins elsewhere in this issue.) As with violence, it is important to put concerns about media influence on risky sexual behaviors into context. According to National Youth Risk Behavior Survey data from 1991 to 2003 [40a], fewer high school students are initiating sexual intercourse; those who are sexually active have had fewer sex partners.

Another 1-year follow-up study, which focused on African-American girls aged 14 to 18, found that hours of watching rap music videos were associated positively with several unhealthy behaviors, including having multiple sexual partners, getting in trouble with the law, using drugs or alcohol, and becoming infected with a sexually transmitted disease [41]. Viewing rap videos also was associated with less parental monitoring and unemployment, but the relationship held even when controlling for these covariates. Many other factors may contribute to or mediate these behaviors, such as poverty, exposure to violence in the home, quality of parenting, and quality of schools. We also do not know if individuals who chose to watch more rap videos would have exhibited the same dysfunctional behaviors regardless of media exposure.

Other health risk behaviors are also affected by mass media. A longitudinal study of children aged 10 to 15 found a dose-response relationship between hours of television watching and initiation of smoking [42]. Youths who watched 5 or

more hours per day were six times more likely to start smoking than individuals who watched less than 2 hours, even after controlling for some other risk factors.

### *The role of temperament and traits*

All development occurs on the substrate of inborn temperament and traits. As established by Thomas et al [43], children come into this world with styles and traits that are persistent throughout childhood into adulthood. Some babies are easier to manage and learn self-regulation more quickly. Other babies become easily overwhelmed, overreact to stimuli, and require a longer time to be soothed. As infants grow into toddlers, their characteristics of shyness, natural curiosity and ready exploration, and even aggressiveness become more apparent. The effect of watching a scary movie on a shy 3-year-old child or shy 7-year-old child might be different from the effect on a 3-year-old child who already exhibits aggressive tendencies or a 7-year-old child who is known for her daring behavior.

Media researchers have tried to take traits into account, particularly in the area of aggression and violence. Measures of trait hostility and aggression are used to determine if there is a differential effect. Some studies have found greater effects of violent content in video games for subjects high in trait hostility; others have not. More studies are needed to see how children's traits or temperament might moderate media effects [44]. Children with trait hostility and aggression may be drawn to more violent activities, whether they be contact sports (eg, football or wrestling), more aggressive school yard play, or more violent media. It is unclear whether playing football or a violent video game reinforces aggressive behavior for some children or provides a "release" of hostility that is socially acceptable for others. Research data that describe risk factors for groups of children do not take into account individual variability, parental interactions, and a host of other factors that should be a part of parents' daily decision making.

### *Discussion*

Although this is not a comprehensive discussion of the interaction between media and the tasks of development, it highlights how the issues vary at different ages. Media literacy efforts must take into account the age of children and their developmental levels. It is clear that electronic media have the power to teach; it is a matter of what the programs and ads are teaching, the effects of these messages in the context of children's lives, and whether time spent with media unduly limits the necessary time for hands-on learning, first through play and later through age-appropriate social interactions. The reasonable balance between the passivity of television, interaction with electronic games, use of the Internet, one-to-one peer activities, group activities, and family time probably varies with every child based on age, personality, temperament, social or environmental factors, and more.

## Family context and media

American children are growing up surrounded by media. At the end of the twentieth century, the typical child had three televisions, a video game console, a computer, and multiple VCRs/CD players in the home [20]. The rapid changes in media access are taking place within a family unit and culture that are also rapidly evolving. For example, because of divorce and remarriage, death of a parent, out-of-wedlock births, foster care, and imprisonment, fewer children are raised from birth to 18 in a traditional, two-parent nuclear family. (During 2003, 68% of children under 18 were living with two married parents, down from 77% in 1980 [45].) The number of children in day care and the number of hours children spend in care per week have increased, in parallel with the number of families with mothers who want to or have to work. (It is estimated that 41% of children younger than age 5 with employed mothers spend 35 or more hours per week in nonparental care [46].) Media literacy, the rapid evolution of media, and efforts to assess the impact of media are all happening quickly within a context of unstable family life and a society that in many of its actions does not value children.

It is difficult for children to avoid the influence of mass media. They face peer expectations to keep up with the most recent sports story, the hottest music video, and related fashion trends. School assignments encourage them to search the Internet. Many children own a portable music player that allows downloading of popular songs. Friends discuss the latest television event before the school day starts. Children play video-simulated sports against each other or join a world-wide game on the Internet.

What are reasonable family policies regarding the media? Parents may be tempted to shout, "Stop! I do not want my children exposed to all of these sights and sounds streaming into my home. I do not want their development harassed or hurried by media." Even if one could be successful in exerting the control necessary to limit media exposure, however, would that approach optimize a child's development? Appropriately limiting autonomy and peer relationships is good parenting when confronting substance use, gang behavior, or delinquency or protecting a younger child from a friend's irresponsible parents or peer who is a bully or demeaning. How great must the danger be to rationalize limiting children's developmental trajectory toward autonomy and the free flow of information among peers—preparation for the next stage of life, high school, and college?

It is also tempting to say, "The horse is out of the barn. I have no control and they are going to see it and hear it no matter what. I want my child to have friends and not be 'out of it.' I want my child to like me. And who has the time for all this monitoring? So, go to R-rated movies and watch MTV. . . I've got my own life to lead." Parents can feel caught in the dilemma of over-controlling their children's lives or surrendering control to the prevailing winds of our culture. Ultimately, parents must decide what is best for their children based on knowledge of each particular child's strengths, weaknesses, or vulnerabilities and the context of their chosen family values.

Family approaches and rules concerning media literacy and exposure should be consistent with what parents do to encourage autonomy in the many other areas of a child's life. Parents assess children's readiness, strengths, and weaknesses, determine the risk associated with the developmental step, prepare children, provide guidance, set rules or boundaries, cope with their own anxiety, and then launch the next step. For example, is a child ready to walk to school on his or her own? Can the child find the way? Should he or she go with a friend? Does the child understand the risk of going off the path or talking to a stranger? Can he or she follow traffic safety rules? Reckless or impulsive children may not be ready and must be older to safely accept this autonomy, whereas anxious yet competent children may benefit from encouragement to be among the first in the class to achieve this landmark. For most middle-class children in the United States, it certainly would be "safer" to wait and maybe never allow a child to walk to school (or be among the last in a class). If a child is ready, however, many parents would take the risk; the act of walking away is a metaphor for growing up, being trustworthy, and ultimately gaining self-esteem. Thousands of these little gains form the basis of productive adulthood and generative parenting.

The same process of gradual movement toward autonomy, guided by parental involvement, applies to media decisions. Children benefit, given our culture and being at the appropriate developmental step, from some decision-making authority about what they watch on television, what they do to "relax," how they balance leisure time with homework, what video games they play, and how they use the Internet. Parents who live in a safe neighborhood let a 6-year-old child walk to school after initially walking with him but do not let a child go downtown on a public bus. Similarly at this age, a child would be allowed to go to G-rated or maybe PG movies but not PG-13 or R-rated movies. Parents set a range of acceptable options and let children make some choices, the boundaries being set by the advantages of building autonomy and the risks of choices. In addition to limiting rental or purchase of materials, new technologies are available to help parents block some media content or restrict time spent with media. (See the description at the end of this article.)

The pervasive presence of violence or sexually inappropriate content in media unfortunately has created a general negative tone regarding its influence on children and family life. As researchers try to help parents manage the potential risks of excessive and unsupervised media use, the positive ways that media can be used within the family are often neglected. Television can bring family members together for shared recreation and as a trigger for relevant discussions. On the recreational side, cheering on a favorite sports team or just spending time together is special and creates important shared memories. In terms of building character, rooting for a team that does not often win but continues to play hard and embodies local pride can teach patience, anger management, and tolerance. On a more serious note, television can provide many hours of enjoyable time through educational shows, especially shows on history, science, hobbies, or current issues relevant to families. Watching entertainment programs as a family can have unexpected benefits.

For example, it can be fun to watch a pop culture show such as “American Idol” with a teenager and compare ratings of the contestants. This is also an opportunity to discuss unrealistic expectations, overdependence on other people’s opinions or adoration, and coping with defeat. Discussion of the songs can lead to an appreciation of music favored by the younger or older generation that would not otherwise have been heard. Similarly, watching family dramas such as “American Dreams” can lead to an Internet search about the Vietnam War, the civil rights movement, and meaningful discussions of substance use, racism, premature and premarital sexuality, abortion, over- and under-controlling parents, grief, anger, and forgiveness. In a recent national survey, one in three teens aged 15 to 17 reported that television content had triggered a discussion about a sexual issue with a parent [38].

Just as they learn the alphabet or English grammar, children in the elementary grades can start to understand the technical and content aspects of television and movies [47]. The technical side includes the electronic workings of televisions as explained through interesting books, programs, and websites, such as “The Way Things Work” series, and the commercial aspect of television, including how programs are paid for by companies selling their products. Children also can learn about the different types of programs (eg, comedies, dramas, news, documentaries) and how to tell the “real” from the pretend. Finally, parents can describe the technical aspects of producing a program, from casting actors and making costumes and sets to camera angles and special effects. Parents can search for television programs and websites (including “Nova” on PBS) that explore topics such as these.

As children get older, they are more able to understand subtler aspects of program content, such as plots, themes, and historical or geographical setting and how these aspects combine with technical elements to affect how the program makes us feel. They also can explore motivations for characters’ behaviors (from interpersonal relationships to substance use) and aspects of their appearance (eg, clothing or weight) and identify common—perhaps harmful—stereotypes (eg, the portrayal of grandparents, scientists, or “crazy people”).

These types of questions can form the underpinnings of discussions with older children as you watch television programs or commercials together [48]:

- Who created this message and why are they sending it? Who owns and profits from it?
- What techniques are used to attract and hold attention?
- What lifestyles, values, and points of view are represented in this message?
- What is omitted from this message? Why was it left out?
- How might different people interpret this message?

With older teens, watching a program such as the F/X channel’s “Nip/Tuck,” a graphic and intense drama that deals with the personal lives of two plastic surgeons and their patients, creates an opportunity to discuss unrealistic expectations and desperation, promiscuity, dread about aging, and complex marital issues

such as infidelity and damaging secrets. Although the scenes may be uncomfortable to watch with a teenager, it is likely that these same scenes will be watched with peers in their homes or at the movies with no adult available to help put the behaviors and feelings in context. Discussion of these topics without the show as a substrate or facilitator would be difficult at best and unlikely to occur at all.

Beyond television, experience with the Internet also can be positive. Use of the computer, access to the Web, “instant messaging,” and games are all relevant to our culture, education, fun, and peer interaction. Although there is the real worry that X-rated material or a “stranger” lurking on the Web creates danger, when one weighs this potential risk against the gains of autonomy, access to information, and communicating with a group of friends, the benefits greatly exceed the risk, provided that parents have assessed the degree of autonomy their child is ready to manage and have discussed the dos and don’ts of on-line behavior.

GetNetWise, a website supported by a coalition of industry and advocacy groups, has an online safety guide that provides advice tailored to children’s ages and likely activities (including chat, email, instant messaging, and newsgroups) [49]. For example, as preteens begin to master abstract thinking and are able to explore more content on their own, it is important to talk about the credibility of Web content and how to determine the quality or biases of what they find. This site also has links to sample “rules of the road” contracts that parents and children can review and agree to—from never giving out a full name, location, or password to alerting adults to messages that use bad language or seem threatening. (See later discussion for technologies that parents can use to limit Internet time or access.) The Federal Trade Commission also has helpful information for children, parents, and teachers [50].

These media risks are happening in the home, where there are opportunities to listen, observe (gently and at a distance), explain, and reassess. The key to media literacy is ongoing parental involvement that is geared to children’s developmental levels, with gradual movement toward more autonomy as children mature.

### **Special clinical circumstances**

Because of the focus on the potential negative effects of media, the special clinical circumstances in which media can serve a specific therapeutic role for a child and family are often neglected. Electronic media can be used as creative tools to address important issues, such as the capacity for play and relaxation, the development of self-esteem, and the development of peer relationships.

#### *The striving family*

Some families are on overdrive in terms of work, daily schedules, expectations, and achievement orientation. Any time focused on an activity, either

individual or group, has to be productive or a step to a more evolved “useful” activity. Even fun is defined as a lesson or practice that is part of making progress. These families resist any “downtime” or “senseless fun.” Often children in these families, if given a bit of permission, readily wish for or identify media opportunities through television, Internet, video games, or movies to take time off or feel more in tune with peers. These children state that their parents would never allow them to watch a desired television show or watch with them. Such parents assume a kind of elite status in their blanket condemnation of virtually all media.

These circumstances may call for a family prescription that mandates a regular hour of senseless fun watching a sitcom or drama to encourage a slight change in expectation or intensity of the striving. Sometimes families reject this single hour as the beginning of a moral decline, whereas others have discovered a show or a video game that has had a positive effect. (It is often an added benefit to have children tutor parents in a video game that reverses the common pattern in the striving family of parents constantly teaching and tutoring children.)

Many striving families are also controlling. In a recent visit to an upper-class urban community, parents were asked how many allow their sixth grade children to have a computer in their room with Internet access. It was stunning that only 3 of nearly 100 families permitted this access, although many had installed screening software. They all wanted their about-to-be teenagers to use the Internet in public view, in a hallway or kitchen, rather than privately. These children were among the most sophisticated and accomplished, were least likely to get into trouble, and lived in a safe community. It is doubtful that these parents really could control Internet access—or that they were as computer literate as their children. They still argued vigorously that this level of control was essential. Will these children ultimately feel better about themselves or be any safer for this scrutiny, or might this oversight have exactly the opposite effect?

### *Difficulties with peer relations*

Some children have difficulties with peer relationships and need some structure to facilitate time with friends. Often this structure can be an activity, such as playing sports, being in band, or joining scouting. Some children do not participate in activities or groups, and media can serve this bridge function. Going to a movie is among the most structured of activities, as is watching television or playing video games. Children who are socially awkward may be masters at certain video games. Inviting a potential friend over for the newest version of a game can feel safe and facilitate a relationship.

### *Children with attention deficit hyperactivity disorder*

Children with attention deficit hyperactivity disorder (ADHD) are frequently particularly devoted to media, including television, video games, and computers. Many of these children find school stressful, demanding, and—even with a

customized treatment plan—not supportive of their self-esteem. Coming home from school and immediately starting on homework can be overwhelming. Children with ADHD seem to benefit from an after-school activity, especially a sport, and a little “down time” watching a television show as a transition to homework or as a break. Electronic games and the Internet are forgiving, can be reset, can be turned on and off, and do not criticize. Children are in control of the computer, video game and television, errors are private and reversible, and there is always another chance. Some children with ADHD are adept at video games and computers, which can provide a highly valued source of self-esteem. Research suggests that judicious use of interactive games can enhance social relationships and classroom learning for boys with ADHD [51].

### *Children with developmental disorders*

Children who are developmentally delayed often use media in ways similar to children with ADHD. Television, videos, and computer games can occupy large amounts of time and fill the void of social contact. This population is at risk, however, of having difficulty distinguishing the fantasy world from the real world. In particular, some children mimic what they have seen and heard in the wrong social context and put themselves potentially at risk. An example of this is the young teenager with Asperger’s syndrome who watches the Comedy Central show “South Park,” then enters school the next day and calls another student a name used in the show. The guiding principles for parents with developmentally delayed children involve being aware of their children’s ability to tell fantasy from reality and their tendency to mimic what is seen or heard in socially inappropriate ways. Children who are developmentally delayed may have trouble in these areas into their teenage years and beyond; parents must consider their children’s developmental age versus chronologic age when using the age-based media rating systems.

## **Understanding rating systems, monitoring devices, and guidelines**

### *Rating systems*

Rating systems have been designed by each area of the entertainment industry for the ostensible purpose of helping parents to choose age-appropriate media for their children. They have done so in response to pressure from the public through grassroots efforts, from Congress, and from regulatory agencies, such as the Federal Communications Commission and the Federal Trade Commission. Note that in most of the world, government regulation (eg, the Australian Office of Film and Literature Classification) or close cooperation among government, industry, and consumer groups (eg, the new Pan European Game Information age rating system for interactive games) is the norm. This section first presents the ratings systems for television, movies, computer/video games, and music/

recordings. A discussion of the issues that have been debated among professional organizations, parents, and entertainment industry representatives follows.

### *Television*

The “TV Parental Guidelines” were developed in anticipation of V-chip technology, a device mandated by the Telecommunications Act of 1996 to be installed in television sets (of 13 inches or larger) manufactured after January 2000. After the act was passed, entertainment industry executives began to plan a ratings system, which went into effect in 1997 [52]. The V-chip allows parents to program the television set such that shows designated to have violent content are not shown. The ratings are TV-Y (all children), TV-Y7 (directed to older children), TV-Y7-FV (directed to older children-fantasy violence), TV-G (general audience), TV-PG (parental guidance suggested), TV-14 (parents strongly cautioned), and TV-MA (mature audience only; unsuitable for children under 17). Programs in these last three categories also may have letter ratings, such as S for sexual situations, D for suggestive dialog, L for coarse language, and V for violence. Confusingly, the meaning of these letters is not the same for TV-PG, TV-14, or TV-MA; they represent progressively stronger content (Fig. 1).

### *Movies*

The first modern US media ratings system—and the template for the rest—began in 1968 as a joint venture of the Motion Picture Association of America and the National Association of Theater Owners [53]. The Classification and Ratings Administration determines ratings and provides a brief explanation for those films not rated G (e.g., “rated R for violence and language”). The Classification and Ratings Administration rating board has 8 to 13 anonymous paid members; the Motion Picture Association of America president selects the chairman, but it is unclear how other members are selected. Producers or distributors who submit their movies for review pay fees that fund the board. According to the Motion Picture Association of America’s website, there are no specific qualifications for board members other than parenting experience and “intelligent maturity.” The criteria used to determine various categories are vague and are based on “theme, violence, language, nudity, sensuality, drug abuse and other elements” [54].

The established ratings are as follows: G (general audiences), PG (parental guidance suggested), PG-13 (parents strongly cautioned), R (restricted: under 17 requires accompanying parent or adult guardian), and NC-17 (no one 17 and under admitted) (Fig. 2).

### *Computer/video games*

In response to congressional hearings and proposed legislation, a consortium of game producers founded the Interactive Digital Software Association (currently the Entertainment Software Association) in 1994. In turn, the Interactive Digital Software Association created and funded a self-regulatory body called the Entertainment Software Rating Board (ESRB) [53]. According to

The following categories apply to programs designed for the entire audience.

**TV-Y** **TVY All Children.**  
This program is designed to be appropriate for all children. Whether animated or live-action, the themes and elements in this program are specifically designed for a very young audience, including children from ages 2 - 6. This program is not expected to frighten younger children.

**TV-Y7** **TVY7 Directed to Older Children.**  
This program is designed for children age 7 and above. It may be more appropriate for children who have acquired the developmental skills needed to distinguish between make-believe and reality. Themes and elements in this program may include mild fantasy violence or comedic violence, or may frighten children under the age of 7. Therefore, parents may wish to consider the suitability of this program for their very young children. Note: For those programs where fantasy violence may be more intense or more combative than other programs in this category, such programs will be designated TV-Y7-FV.

The following categories apply to programs designed for the entire audience.

**TV-G** **TVG General Audience.**  
Most parents would find this program suitable for all ages. Although this rating does not signify a program designed specifically for children, most parents may let younger children watch this program unattended. It contains little or no violence, no strong language and little or no sexual dialogue or situations.

**TV-PG** **TVPG Parental Guidance Suggested.**  
This program contains material that parents may find unsuitable for younger children. Many parents may want to watch it with their younger children. The theme itself may call for parental guidance and/or the program contains one or more of the following: moderate violence (V), some sexual situations (S), infrequent coarse language (L), or some suggestive dialogue (D).

**TV-14** **TV14 Parents Strongly Cautioned.**  
This program contains some material that many parents would find unsuitable for children under 14 years of age. Parents are strongly urged to exercise greater care in monitoring this program and are cautioned against letting children under the age of 14 watch unattended. This program contains one or more of the following: intense violence (V), intense sexual situations (S), strong coarse language (L), or intensely suggestive dialogue (D).

**TV-MA** **TVMA Mature Audience Only.**  
This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17. This program contains one or more of the following: graphic violence (V), explicit sexual activity (S), or crude indecent language (L).

Fig. 1. Television ratings. Actual TV Parental Guidelines Monitoring Board rating symbols can be viewed at <http://www.tvguidelines.org>.

the ESRB website, it consists of three (anonymous) trained raters who have no ties to the industry. (An application can be submitted on the ESRB website; prior experience playing games is not required.) Although academics and educators were involved in the founding of the ESRB and its first director was a child psychologist, experts are not currently known to be involved, and the ratings protocol is not made available.

The rating system consists of two components: an age symbol to be placed on the front of the game and a “content descriptor” to be placed beside the age symbol on the back. According to the ESRB, more than 550 publishers have submitted games to be rated, and more than 1000 are rated each year. In 2004,

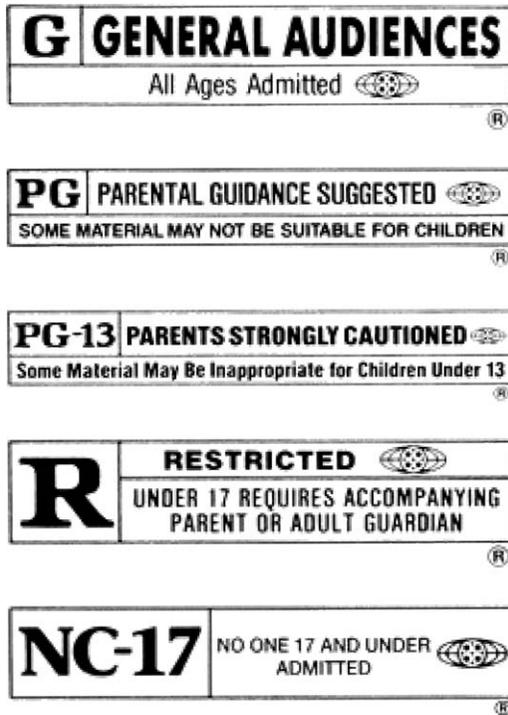


Fig. 2. Voluntary movie rating system. (Courtesy of the Motion Picture Association of America, Encino, CA; with permission.)

54% of the games received an E (everyone), 33% a T (teen), 12% an M (mature), and less than 1% were rated EC (early childhood). (There is also an AO or Adults-Only rating, but this is seldom used.) Sales figures are similar, with 53% of games sold rated E, 30% rated T, and 16% rated M [54a]. Ratings or sales data by content descriptors was not reported (Fig. 3; Box 1).

### *Music and recordings*

In 1985, the Recording Industry Association of America reached an agreement with the National Parent Teacher Association and the Parents' Music Resource Center to place the logo "Parent Advisory" on music that has strong language or graphic references to violence, sex, or substance abuse. The nature of the explicit content is not stated on the label, and the industry does not provide lyrics to parents for review. There are no age-based guidelines, and it is up to individual retailers to decide whether to stock labeled recordings or edited versions, to attempt to restrict sales to minors, or to do nothing to limit minors' access (Fig. 4) [53,55].

Music labeling is a self-regulatory process; individual record companies and their artists decide whether to add the label [53]. According to the Recording Industry Association of America website (<http://www.riaa.com>), the "Parent Advisory Label lets parents take that responsibility for their families and respects

<b>EC</b>	<p><b>EARLY CHILDHOOD</b> Titles rated <b>EC - Early Childhood</b> have content that may be suitable for ages 3 and older. Contains no material that parents would find inappropriate.</p>	<b>E</b>	<p><b>EVERYONE</b> Titles rated <b>E - Everyone</b> have content that may be suitable for persons ages 6 and older. Titles in this category may contain minimal violence, some comic mischief and/or mild language.</p>
<b>T</b>	<p><b>TEEN</b> Titles rated <b>T - Teen</b> have content that may be suitable for persons ages 13 and older. May contain violent content, mild or strong language, and/or suggestive themes.</p>	<b>M</b>	<p><b>MATURE</b> Titles rated <b>M - Mature</b> have content that may be suitable for persons ages 17 and older. Titles in this category may contain mature sexual themes, more intense violence and/or strong language.</p>
<b>AO</b>	<p><b>ADULTS ONLY</b> Titles rated <b>AO - Adults Only</b> have content suitable only for adults. Titles in this category may include graphic depictions of sex and/or violence. Adult Only products are not intended for persons under the age of 18.</p>	<b>RP</b>	<p><b>RATING PENDING</b> Titles listed as <b>RP - Rating Pending</b> have been submitted to the ESRB and are awaiting final rating.</p>

Fig. 3. Video and computer game ratings. Actual Entertainment Software Rating Board rating symbols can be viewed at <http://www.ESRB.org>.

the core American value of freedom of expression that tolerates unpopular speech and frowns upon censorship.” The Recording Industry Association of America does offer voluntary marketing and advertising guidelines that encourage prominent display of the label in advertising and during the sales process, including during online searches and sales. The new music downloading services vary considerably in how they label or describe content on the Web and during download. Some services do provide links to [parentalguide.org](http://parentalguide.org), as Recording Industry Association of America guidelines recommend [55,56].

*Rating systems discussion*

Although the rating systems provide parents with useful information, all ratings are assigned subjectively by board members whose training and expertise are unknown using instruments and methods that are not publicly available. Greater transparency in the process and greater involvement of child development experts (especially experts with children who play such games) would reassure parents. For example, an independent review of ESRB content descriptors found many areas of disagreement [57].

Parents also are confused by the differing categories used by each industry. Is TY-14 the same as PG-13 and the same as T? Some professionals and parents advocate for a simplified, content-based media rating system that crosses all types of media [58]. Such a system would include descriptors in areas of concern to parents, such as violence, sex, nudity, strong language, and drug use. A review of systems used in other countries may be helpful; for example, the EU game ratings system [59] includes icons for fear (material that might scare young children) and

**Box 1. Entertainment Software Rating Board content topics**

- Alcohol reference
- Animated blood
- Blood
- Blood and gore
- Cartoon violence
- Comic mischief
- Crude humor
- Drug reference
- Edutainment
- Fantasy violence
- Informational
- Intense violence
- Language
- Lyrics
- Mature humor
- Mild violence
- Nudity
- Partial nudity
- Real gambling
- Sexual themes
- Sexual violence
- Simulated gambling
- Some adult assistance may be needed
- Strong language
- Strong lyrics
- Strong sexual content
- Suggestive themes
- Tobacco reference
- Use of drugs
- Use of alcohol
- Use of tobacco
- Violence

*Data from* Entertainment Software Rating Board. Understanding ratings. Available at: <http://www.ESRB.org>.

discrimination (content that depicts or may encourage discrimination). Comprehensive labeling of media would be analogous to food labels that explain content.

The Federal Trade Commission has raised concerns about the marketing of violence to youth and has published a series of reports [51,53,60]. These reports included results of “mystery shopper” sting operations to see if children aged



**"The Parental Advisory is a notice to consumers that recordings identified by this logo may contain strong language or depictions of violence, sex or substance abuse. Parental discretion is advised."**

Fig. 4. Music industry rating logo (Recording Industry Association of America, Washington, DC).

13 to 16 were able to purchase or view mature-content media. In the 39-state 2003 survey, 36% of the "mystery shoppers" were able to buy a ticket for an R-rated movie, 81% could purchase an R-rated film on DVD, 83% bought an explicit content-labeled music CD, and 69% acquired an M-rated video game. Approximately half of the children were asked their age at the movie theaters; fewer than one fourth were asked when purchasing DVDs, CDs, or games. The movie and video game figures showed improvement from the initial 2000 survey, but access to explicit-content music did not change. (DVD purchases were not previously measured.)

There is also concern about whether information about the ratings systems is readily available. Although movies and video games advertisements show the rating, there are no accompanying reminders of what the system is. For example, retailers that sell video games seldom prominently post a display that reminds parents of the ESRB rating system and cautions them about purchasing violent games. There have been some legislative efforts to require more prominent signs and explanations of the rating system, most recently in California [61]. The rating systems are nicely summarized at the website <http://www.parentalguide.org>. This site is sponsored by the entertainment industry groups; it also links to each of their sites, on which frequently asked questions about the rating systems are answered. The Federal Trade Commission's website also provides information and allows parents to file complaints [62].

Another issue involves "ratings creep," or stretching of the boundaries of acceptability in various rating categories [63]. This practice has been particularly apparent in the Motion Picture Association of America rating system for PG and PG-13 categories. What was once R content currently passes for PG-13, which concerns parents but benefits the movie industry, because it broadens a film's potential audience. This slide toward PG-13 inadvertently was encouraged by the Federal Trade Commission, which slammed Hollywood for marketing R-rated movies to children under 17 and theaters for allowing young teens to buy tickets [53]. A more restrictive rating (PG-13 versus PG or G) actually may make films more attractive to teens [64].

The Classification and Ratings Administration sponsors a website, <http://www.filmratings.com>, that allows parents to search for a movie by name and get brief information on its rating (eg, "Matrix Reloaded" is "rated R for sci-fi

violence and some sexuality”). For persons who want additional information, websites with no connection to the motion picture industry are available, and they provide the user with extensive detail about a given movie (eg, <http://www.kids-in-mind.com>, <http://www.gradingthemovies.com>, and <http://www.moviemom.com>).

Some nonprofit media literacy groups also maintain useful websites. For example, the National Institute on Media and the Family, founded by David Walsh, PhD (<http://www.mediafamily.org>) provides extensive information for parents on video games, movies, and television shows. This information include “KidScore” game reviews with details on playability, graphics, reading level, entertainment and educational value, and age appropriateness. Common Sense Media (<http://www.common Sense Media.org>) also provides “family friendly” ratings based on developmental criteria from respected experts. Other media education sites recommended by the AAP are as follows:

*Annenberg Public Policy Center:* <http://www.annenbergpublicpolicycenter.org> (research reports on media issues)

*Center for Media Literacy:* <http://www.medialit.org> (resources, training, and curricula for media literacy, including programs for school use)

*Coalition for Quality Children’s Media:* <http://www.cqcm.org/kidsfirst> (a source of media reviews and quality children’s media)

*Kaiser Family Foundation:* <http://www.kff.org/entmedia/index.cfm> (fact sheets, surveys, reports, news, and links)

*LimiTV:* <http://www.limitv.org> (advocacy for reducing children’s television use)

*Lion & Lamb Project:* <http://www.lionlamb.org> (advocacy to stop the marketing of violent toys, games, and entertainment to children)

*Media Education Foundation:* <http://www.mediaed.org> (produces and distributes video documentaries to encourage critical thinking and debate around media content, media ownership, and diverse representations of ideas and people)

*New Mexico Media Literacy Project:* <http://www.nmmlp.org> (produces videos and CD-ROMs on media literacy; provides speakers and workshops)

*TV-Turnoff Network:* <http://www.tvturnoff.org> (encourages reducing television use to promote healthier lives and communities, including a “More Reading, Less TV” school program)

*TV Parental Guidelines Monitoring Board:* <http://www.tvguidelines.org> (from the television industry; provides information on ratings, guidelines, and the V-chip; links to education and advocacy organizations)

### *Monitoring and blocking devices*

Many thoughtful parents struggle on a daily basis with how to monitor the media their children are consuming. For television and computers, there are technologies that may help. The V-chip allows parents to use a “parental lock

code” as a password to activate or change V-chip settings. Programs can be blocked by age category or content label. For example, a parent could block all programs rated TV-14, but if the family’s primary concern is violence, the block can be specific to TV-14-V shows. The V-chip also can be set to block unedited movies on premium cable channels via the Motion Picture Association of America film rating system. Unfortunately, the V-chip is not seen as user friendly; parents find it difficult to locate and complicated to program, especially given their often-limited understanding of the ratings system. Some parents also feel that they can supervise children’s viewing adequately without the V-chip [65]. A 2001 survey found that only 7% of parents had used a V-chip [66].

Other technology is available for homes with cable television. Cable providers are required by law to offer “lockboxes” for sale or lease upon customer request. Some cable set-top boxes or keypads come already equipped with parental controls. More advanced digital equipment may allow multiple options, including blocking by date, time, channel, program title, and television or film rating [67].

Home computers are another portal of entry for material inappropriate for children, particularly in the realm of pornography. The speed at which technology advances and the adeptness of its makers and hackers have been daunting. The burden is unfortunately on parents, because the message from regulators essentially is that the rate at which technology develops far surpasses the rate at which laws and governmental monitoring can take place. The 1998 Children’s Online Privacy Protection Act requires that website operators post their privacy policy, obtain parental consent before collecting, using, or disclosing personal information about a child, and allow parents to review personal information collected on their children and choose to revoke consent and delete the information. Information on policies and advice for parents, teachers, and children on safe Internet use is available on the Federal Trade Commission website [68].

GetNetWise.org reviews the technologies available to families to block or limit access to Internet content. GetNetWise permits a search for all of these tools by function, technology to be controlled, and computer operating system. (They suggest that parents first check with their Internet service provider or online service provider to see what child safety tools or features they offer free or at a discount.) Options include:

- Special Web browsers or search engines geared to children’s interests and abilities
- Tools that block outgoing content to prevent children from sending personal information
- Tools that limit time spent online (either total time or times of day) to reduce excessive or unsupervised Internet use
- Tools that monitor children’s online activity, such as storing addresses of websites visited, which can be used surreptitiously or with the child’s knowledge
- Tools that filter or block content by website address (URL), human review of Web pages, key words (such as “sex” or “breast”), or “context sen-

sitive” key words that avoid overzealous blocking of innocuous pages with information on “breast cancer” or “chicken breast” recipes. Some filters allow parents to override the filter for certain sites

Filtering software is particularly controversial because it can over-block and prevent access to innocuous sites or under-block and allow offensive material to slip through. A 2000 survey found that approximately one third of parents with home Internet access had used a filtering device [69]. No technology can replace parental monitoring or discussions with children of how to handle the inevitable exposure to inappropriate or upsetting material.

Finally, parents have some limited ability to block inappropriate content in interactive games. For example, the Xbox game console has parental controls that can prevent playing of games based on rating (for example, all M-rated games). A few computer games offer an option to block mature content, although this may make the game or its plot more confusing.

## **Guidelines from professional organizations**

Professional organizations that focus on children have researched the impact of media on children and adolescents for the past 40 years. The lead organizations have been the American Medical Association (AMA), the AAP, the American Psychological Association, and the American Academy of Child and Adolescent Psychiatry. Each organization has issued policy statements, published guidelines, brochures, and fact sheets for use by clinicians and parents.

### *The American Medical Association*

In publications, on their website, and at public forums such as congressional hearings, the AMA has promoted greater awareness of media violence as a risk factor that affects the health of young people. They published a “Physician Guide to Media Violence” [70] in 1996 and a “JAMA Patient Page on Violence in the Media” in 2000 [71]. The AMA’s most recent policy statement on the topic of media (H-515.974, Mass Media Violence and Film Ratings) addressed what it describes as the shortcomings of the current ratings systems. In sum, it stated that the AMA will do the following:

1. Speak out against the excessive portrayal of violence in media
2. Urge the entertainment industry to make fundamental changes in the rating system to contain more precise content information
3. Work with the entertainment industry to reduce media violence
4. Urge the entertainment industry to develop a uniform ratings system across all media forms
5. Use physicians to counsel parents about the known effects of media violence

6. Monitor changes in the current ratings systems
7. Urge consideration for the potential development of a television violence code
8. Support all other appropriate measures to address and reduce television, cable, and motion picture violence

### *The American Academy of Pediatrics*

The AAP has been particularly active in addressing media effects on children. The AAP encourages pediatricians to incorporate questions about media use into their routine visits, including use of their “Media History Form” (available for purchase from the AAP). The form is designed to help youth and parents examine their media use habits and allow pediatricians to offer advice and support on areas of concern.

The AAP’s Media Matters national public education campaign was launched in 1997 to “help pediatricians, parents and children become more aware of the influence that media (television, movies, computer and video games, advertising, popular music, etc.) have on child and adolescent health.” The AAP website provides handouts and brochures for parents and professionals, such as “The Ratings Game: Choosing your Child’s Entertainment,” “Television and the Family,” “The Internet and the Family,” and “Understanding the Impact of Media on Children and Teens.” The AAP also published a series of research-based policy statements in their journal *Pediatrics*, which is available in full text from the Media Matters section of their website (<http://www.aap.org/advocacy/mmpolicy.htm>). The series are as follows:

February 1995: Children, adolescents, and advertising [72]

August 1999: Media education [73]

July 2000: Joint statement on the impact of entertainment violence on children [74]

January 2001: Sexuality, contraception, and the media [75]

February 2001: Children, adolescents, and television [76]

November 2001: Media violence [77]

What follows is a summary of AAP guidelines for pediatricians to share with parents, drawn from “Children, Adolescents, and Television” and other policy statements:

- Limit children’s total media time (with entertainment media) to no more than 1 to 2 hours of quality programming per day
- Remove television sets from children’s bedrooms (create an “electronic media-free” environment in children’s rooms)
- Discourage television viewing for children younger than 2 years and encourage more interactive activities that promote proper brain development, such as talking, playing, singing, and reading together

- Monitor the shows children and adolescents are viewing. Most programs should be informational, educational, and nonviolent
- View television programs with children and discuss the content. Use controversial programming as a stepping-off point to initiate discussions about family values, violence, sex and sexuality, and drugs
- Use the videocassette recorder wisely to show or record high-quality, educational programming for children
- Support efforts to establish comprehensive media-education programs in schools
- Encourage alternative entertainment for children, including reading, athletics, hobbies, and creative play
- Be good media role models by selectively using media and limiting their own media choices
- Alert and educate parents when positive media opportunities arise, either educational or informative

(It should be noted that some AAP statements on media effects have been criticized for inaccuracies or exaggerations [78]. As a general rule, researchers and clinicians are advised to read the original sources that are cited in research reviews.)

### *The American Psychological Association*

The American Psychological Association, like the AMA, has focused predominantly on the area of violence prevention. American Psychological Association children and media policy briefings, congressional testimony, and article reprints can be found at <http://www.apa.org>. The American Psychological Association recently turned its attention to the health risks that children face from advertising [79], increasing the amount of “educational/informational” programming for children of various ages and backgrounds [80], and concerns about the effects of violent video games [81].

### *The American Academy of Child and Adolescent Psychiatry*

The American Academy of Child and Adolescent Psychiatry has continued to publish advice for parents through its Facts for Families series (available at: <http://www.aacap.org>). Currently, five series deal with the media: “Children and TV Violence” (1999), “The Influence of Music and Music Videos” (2000), “Children and Watching TV” (2001), “Children Online” (1997), and “Children and the News” (2002). As a smaller member organization, the American Academy of Child and Adolescent Psychiatry works collaboratively with the other physician groups (AAP and AMA) and with the American Psychological Association on policy statements, supports grass roots efforts, and lobbies government for more active involvement.

## Summary

Media literacy is a young field that has evolved over the last two decades in response to growing concern about how mass media affect children. This article has outlined an approach for clinicians and parents that is highly individualized and family based. Larger school-based approaches logically would have some appeal, but actual research in this area is scant. One randomized, controlled school-based study used a 6-month, 18-lesson curriculum to encourage second- and third-grade children to monitor and limit their media use and be “intelligent viewers” [82,83]. As a group, the intervention school students were found to have reduced their television use and perhaps videotape and video game use (parent and child reports differed or changes were nonsignificant); they also showed reductions in some measures of aggression at post-test relative to controls (peer-rated aggression and verbal aggression observed on the school playground). Other measures showed no significant changes, however. Because results were reported at the school level, it is hard to know what might have accounted for any changes at the individual level (eg, amount of exposure to the curriculum, changes in use of various media, or parent education about media use).

The content of television programs, videos, and video games was not assessed. Influencing choices about media content may be as important as limiting amount of media consumption, except when it comes to physical health, weight gain, and displacement of healthier activities. The Robinson study looked for effects of media consumption on weight and found that reducing meals eaten in front of the television and time sitting watching television promoted a healthier body weight. Future studies might provide useful insights for parents and health professionals on the relative influence of school-based and parent education on media literacy and changes in media choices and home routines.

Differing definitions, perspectives, and methodologies add to the challenge of translating existing media research into advice on which parents can act. The availability, content, and interactivity of media are evolving so fast that research conducted even a few years ago may offer little guidance. We also know little about how the dose of media, context of media use, and children’s temperament, experiences, and relationships might mediate any positive or negative effects. We can, however, draw some comfort from the knowledge that children are influenced overwhelmingly by the values and behavior of their parents (and how they are treated by others, especially caregivers and teachers). In general, children are resilient and have an amazing capacity to adapt to the world. Parents, as they do for many areas of a child’s life, must assess their own values and experiences, listen to various experts, and then guide children toward productive autonomy.

On a societal level, concerns about media’s influence—especially on violence and social isolation—can be mitigated by addressing issues known to affect children’s healthy development, such as day care, educational opportunities, after-school activities, adequate health care, access to mental health services, and protection from violence in the home. Efforts to give parents and families

more time together and provide high-quality care for children when parents are absent are the positive supports that will help children and families cope with rapid cultural change.

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