

Adolescents, Sex, and the Media: Ooooo, Baby, Baby—a Q & A

Victor C. Strasburger, MD

*Departments of Pediatrics and Family & Community Medicine, Division of Adolescent Medicine,
University of New Mexico School of Medicine, MSC10 5590, 1 University of New Mexico,
Albuquerque, NM 87131, USA*

One erect penis on a US screen is more incendiary than a thousand guns.

Newsweek critic David Ansen [1]

Sexually speaking, playing catch-up is what being a teenager is all about, and movies like *American Pie* are, by now, an essential part of the ritual.

Entertainment Weekly critic Owen Gleiberman [2]

By baring a single breast in a slam-dunk publicity stunt of two seconds' duration, [Janet Jackson] also exposed just how many boobs we have in this country. We owe her thanks for a genuine public service.

New York Times critic Frank Rich [3]

American media have arguably become the leading sex educator in the United States. By the time they reach adolescence, today's children have viewed a kaleidoscopic array of sex and sexuality on television, in movies, and on the Internet—casual sex, promiscuity, alternative sex, pornography, and just about every suggestive aspect of sex imaginable, especially if they have watched “The Jerry Springer Show.” The average child sees nearly 15,000 sexual references on television alone [4] and more than 80% of popular teen shows contain

E-mail address: vstrasburger@salud.unm.edu

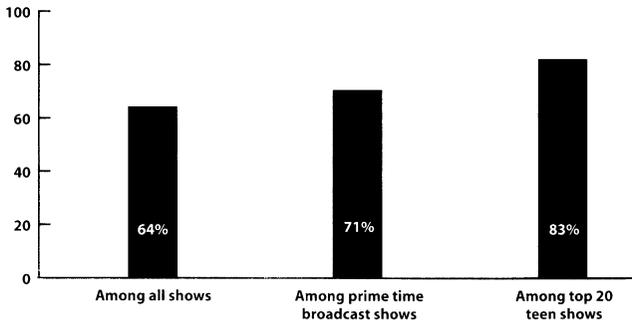


Fig. 1. Percentage of shows with sexual content, by type of show in 2001–2002. (From Kunkel D, Biely E, Eyal K, et al. *Sex on TV 3*. Menlo Park (CA): Kaiser Family Foundation; 2003; with permission.)

appreciable sexual content (Fig. 1) [5]. Missing from their viewing diets are the healthier aspects of human sexuality, such as answers to questions about what it means to be a man or a woman, when is sexual activity appropriate, what a healthy body self-image is, and how pregnancy and sexually transmitted disease can be prevented (Fig. 2). As one author sadly notes [6]:

I've often wondered what it would be like if we taught young people swimming the same way we teach sexuality. If we told them that swimming was an important adult activity, one they will all have to be skilled at when they grow up, but we never talked with them about it. We never showed them the pool. We just allowed them to stand outside closed doors and listen to all the splashing. Occasionally, they might catch a glimpse of partially clothed people going in and out of the door to the pool and maybe they'd find a hidden book on the art of swimming, but when they asked a question about how swimming felt or what it was about, they would be greeted with blank or embarrassed looks. Suddenly, when they turn 18 we would fling open the doors to the swimming pool and they would jump in. Miraculously, some might learn to tread water, but many would drown.

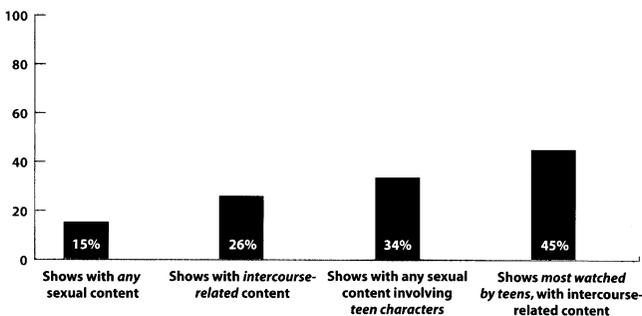
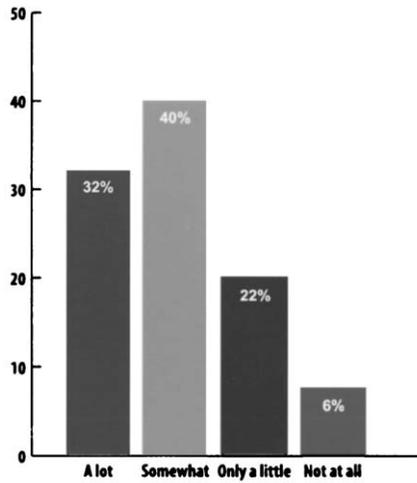


Fig. 2. Among shows with sexual content, the percent that also include safer sex references, by program type, in 2001–2002. (From Kunkel D, Biely E, Eyal K, et al. *Sex on TV 3*. Menlo Park (CA): Kaiser Family Foundation; 2003; with permission.)

How much do you think sexual content in the media influences your friends?



How much do you think sexual content in the media influences you?

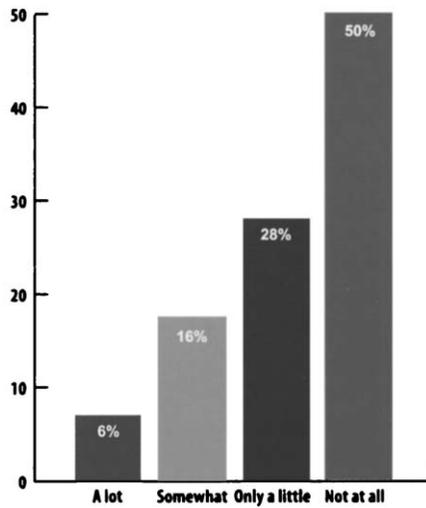


Fig. 3. Third-person effect. (From Kaiser Family Foundation. Teens, sex, and TV. Menlo Park (CA): Kaiser Family Foundation; 2002; with permission.)

How important are the media for teenagers?

The media represent the most important and most underrated influence on children and adolescents. By the time today’s children and adolescents reach age 70, they will have spent 7 to 10 years of their lives watching only television [7]. The average American child or teen spends 5.5 hours per day, with a variety of media, according to a study of 3000 2- to 18-year-olds [8]. This means that other activities—reading, spending time with friends, playing sports—are being displaced. Teenagers, in particular, may be multi-tasking with a variety of media all at once—TV, computer, cell phone—while doing their homework.

Do teenagers think that the media affect them?

In a word, no. Like adults, teenagers believe that the media affect everyone else but themselves. This is a well-documented phenomenon that is known as the “third-person effect” [9]. So, for example, in a survey of more than 500 teenagers nationwide, nearly three fourths believed that sexual content on TV influences teens their age, but fewer than one fourth believed that their own behavior is influenced (Fig. 3) [10]. A physician who is asked to go into a middle school or high school classroom and speak on the topic of “adolescents and the media” would be well-advised to begin by talking about the impact of the media on the teenagers’ younger brothers and sisters, not on the teens themselves.

Do teenagers actually learn about sex from the media?

The media represent a powerful source of information for teens about sex, particularly because schools and parents are not always eager to tackle the subject adequately. For example, in a 2004 national survey of 519 teenagers, ages 15 to 17 years, the media far outranked parents or schools as the source of information about birth control (Fig. 4) [11]. A survey of 530 parents that was done at the same time found that nearly half of parents of seventh and eighth graders and one fourth of parents of high-schoolers never had discussed birth control with

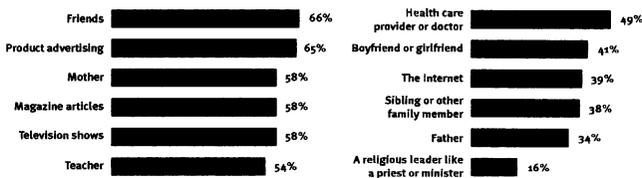


Fig. 4. Sources of information about sex. (From Kaiser Family Foundation/Seventeen Magazine. Sex smarts: birth control and protection. Menlo Park (CA): Kaiser Family Foundation; 2004; with permission.)

their teens [12]. A related survey of 275 school principals nationwide found some remarkable lapses in sex education [13]:

- 10% of schools did no sex education
- 58% of schools made no effort to talk about sexual orientation
- 68% of schools did not invite parents to attend a preliminary session about sex education
- Of the 90% of schools with sex education programs:
 - 30% were abstinence-only
 - 47% were abstinence + (abstinence is stressed but birth control is mentioned)
 - Only 20% were comprehensive

How do the media teach teens about sex and sexuality?

Media influence viewers' perceptions of social behavior and social reality and contribute to cultural norms [14]. For teenagers, who are eager to soak up any available information that is related to sex and sexuality, the media offer "scripts" [15] in which gender roles, courtship, and sexual gratification are modeled recurrently [6].

In any given society, at any given moment in history, people become sexual the same way they become anything else. Without much reflection, they pick up directions from their social environment. They acquire and assemble meanings, skills, and values from the people around them. Critical choices often are made by going along and drifting. People learn when they are young the few things that they are expected to be, and continue to accumulate slowly a belief in who they are and ought to be throughout the rest of childhood, adolescence, and adulthood.

Although American media are not the most sexually explicit media in the world, they are the most sexually suggestive (Box 1). Teenagers who watch a lot of TV and movies are more likely to accept stereotypical sex roles and to believe that the unusual sexual behavior that is presented on talk shows is realistic [16].

Box 1. Sexually suggestive messages that are seen frequently on American television

Sex "just happens."

There is no time to prepare to have sex.

Being "swept away" is the natural way to have sex.

Adults do not use contraception.

Adults do not plan for sex at all.

Everyone is having sex.

Married people frequently cheat on each other.

Sex is a recreational sport.

This is known as a cultivation effect—heavy exposure to media alters a viewer’s perception of social reality in a way that matches the media world. Another theory of how the media influence young people is the social cognitive theory—children and teens learn behavior by observing others, directly in real life and vicariously, through the media [17].

Closely related to the cultivation effect is the “super-peer theory” of media [7]. The influence of peers on teenagers is well-documented and accepted. The media function as a kind of “super peer.” Thus, one survey of teenagers found that they believed that TV “encouraged” them—even more than their friends did—to have sex [18]. Several studies found that teens routinely overestimate the number of their peers who are sexually active; viewing suggestive TV content contributes to this [14]. In a survey of 2100 teenage girls, only 11-year-olds said that they do not feel pressure from the media to have sex [19].

What do the media teach teenagers about sex?

It depends on the medium. In general, what television shows suggest, movies actually show. Increasingly, teenagers are unable to avoid explicit sexual content on the Internet, even if they try to.

According to the most recent and comprehensive analysis of the 2001/2002 television season [5]:

- Nearly 75% of all primetime television shows contain some sexual content. For the top 20 teen shows, this figure increases to 83%.
- One of every seven shows includes a portrayal of sexual intercourse or implied intercourse.
- Overall, only 15% of shows with sexual content mention any of the risks or responsibilities that are involved in having sex. When the shows involve teen characters, this figure increases to one third. Forty-five percent of the top 20 teen shows mention risks and responsibilities.

These data confirm that American television frequently is sexually suggestive and unrealistic. Sex is depicted most often as a casual pastime, a romp in the hay, with little or no consequences (Fig. 5). Most significantly for teenagers, casual sex frequently is shown as being normative behavior: everyone “does it.” No wonder teenagers routinely overestimate the number of their peers who are sexually active in real life. The major networks seem almost obsessed with sex, especially the WB and FOX networks. In one short-lived WB comedy, “Off Centre,” the writers had so much fun referring to male genitalia that they triggered a warning memo from the network’s standards and practices department [20]:

We are dealing with a tonnage issue with regard to the sexual/suggestive material...It is essential to reduce or modify the significant number of uses

of “penis”...as well as euphemisms for the same, such as “your thingie,” “covered wagon,” “unit,” “turtleneck,” “little fella,” “anteater,” ...”hooded cobra,” “cloaking device,” and “my pig is still snugly wrapped in his doughy blanket”...

Since the 1980s, virtually every R-rated teen movie has featured at least one nude scene and some, like “Fast Times at Ridgemont High” and “Porky’s” contain up to 15 instances of sexual intercourse. In “American Pie,” four male high school seniors struggle to lose their virginity. One masturbates with an apple pie after his friends tell him that that is what intercourse feels like. Yet discussions of contraception are nonexistent. As one movie critic noted, the film “is pitched to the first generation of male and female adolescents who have been taught, from birth (mostly by Music Television [MTV]), to act as sex objects for each other” [2].

Sex on the Internet is now a \$500 million dollar industry [21]. In a 2001 survey of more than 1200 teens, 70% of all 15- to 17-year-olds admitted to



Fig. 5. Advertisement for “Are You Hot?” ABC show.

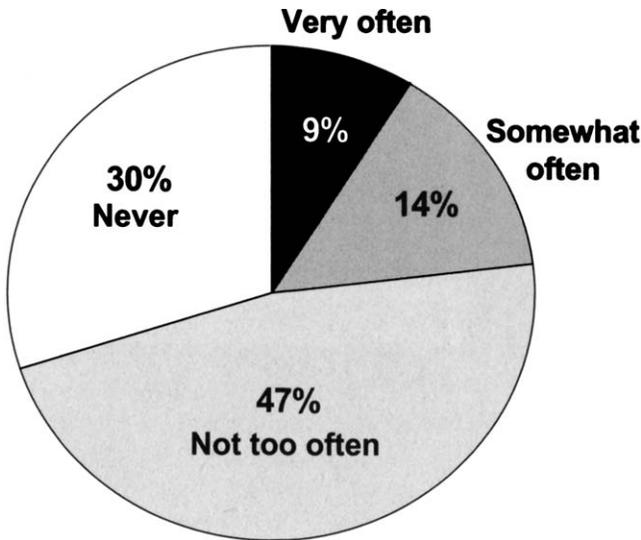


Fig. 6. Percent of 15- to 17-year-olds who have stumbled accidentally across pornography online. (From Rideout V. Generation Rx.com: how young people use the Internet for health information. Menlo Park (CA): Kaiser Family Foundation; 2001; with permission.)

having “accidentally” stumbled across pornography online (Fig. 6) [22]. The sheer volume of pornography on the Internet, the arcane diversity of it (eg, bestiality, rape, bondage), and the ease of access to it—within seconds—makes Internet pornography a force with which to be reckoned [23].

So American media are filled with sexual content. That does not necessarily mean that teenagers are more likely to have sex because they view such content, does it? Isn't it just make-believe and harmless entertainment?

No. Hollywood producers and directors would have us believe that their products are harmless fantasy, but the communications literature indicates otherwise. For example, there are now 3000 studies on the harmful impact of media violence on children and adolescents. The media violence literature seems to indicate that young people do learn from what they view and experience changes in attitudes and beliefs. Several studies exist which demonstrate that adolescents who view a lot of sexual content tend to overestimate the amount of sexual behaviors among their peers and have more permissive attitudes toward sex [24].

Only eight studies have examined the effects of sexual content on teenagers. Of these, five are more than 10 years old; only one is a longitudinal study. Four more studies have been funded by the National Institutes of Mental Health and will be issuing their findings within the next year or two [25]. The most ambitious

are examining all media use, over 5 years, beginning with 5000 North Carolina teens, ages 12 to 14. The eight studies are:

In a study of 75 pregnant and nonpregnant teen girls, the pregnant girls watched more soap operas before becoming pregnant and were less likely to believe that their favorite soap opera characters would use birth control [26].

A study of 391 middle school students in North Carolina found that those who viewed more sexual content on TV were more likely to have begun having sexual intercourse [18].

A study of 326 Cleveland teens found that those with a preference for MTV had increased sexual experience in their mid-teen years [27].

Data from the National Surveys of Children showed that boys who watched more TV had the highest prevalence of sexual intercourse [28].

A study of 214 teens, ages 13 to 18, found that girls who watched more music videos were more likely to engage in premarital sex [29].

A phone survey of more than 1000 teens, ages 14 to 19, in upstate New York found that listening to pop or hip-hop music or reading women's magazines was associated with having had sex [30].

A study of black female teens found that greater exposure to rap music videos or X-rated movies correlated with their having had multiple sexual partners and testing positive for a sexually-transmitted disease [31].

In the first longitudinal study of its kind (longitudinal studies are the only research studies that can yield cause-and-effect data), California researchers found that teens who were exposed to sexual media were more likely to begin intercourse at a younger age. Nearly 1800 teens, ages 12 to 17, were studied initially and a year later. Exposure to sexual media doubled the risk of their initiating sexual intercourse or advancing significantly in their noncoital activity [32].

Is another interpretation possible? Rather than sexual media “causing” teens to become sexually active at a younger age, could it be that sexually active teens seek out more sexual content in their media?

Yes, it is possible, but not likely. What is most likely is that there is a complex and reciprocal relationship between sexual content and sexual activity, similar to what is found with media violence and aggressive behavior [33]. Sexual media probably do influence teenagers' sexual beliefs and behavior, but teens who become sexually active at a younger age probably do seek out more sexual content in their media as well. The litmus test for determining whether this is true is the longitudinal studies that are being conducted. The first of the upcoming group of longitudinal studies is clear in finding that there is a cause-and-effect relationship between exposure to sexual content and early onset of sexual activity [32].

Teenagers seems to watch a lot of music videos. Do they have an impact as well?

Although MTV and music videos have defined an entire generation, it is unclear how popular they are among today’s teenagers. In addition, music videos now represent a minority of MTV programming. Shows like “Real Life” are extremely popular on MTV. One content analysis from the early 1990s found that women frequently are portrayed as “bimbos” [34]. But Black Entertainment Television now features the most problematic videos (Table 1) [35]. As one TV critic opined [36]:

If there is such a thing as a typical music video, it features one or more men performing while beautiful, scantily clad young women dance and writhe lasciviously.

Rock music lyrics—which have become increasingly graphic as well—do not seem to have the same impact on listeners. This may be because teenagers are listening to the beat, rather than the lyrics, or because the ability to comprehend the lyrics is age-dependent [37].

What about birth control advertising? It seems like there are more and more ads on TV for “the patch”

As American media have become increasingly suggestive, it seems odd that birth control advertising is still considered controversial. Other Western countries have no problems in publicly advertising condoms and birth control pills, and their teenage pregnancy rates remain considerably lower than those of the United States [38]. When Zaire began advertising condoms because of the urgent AIDS problem, the sale of condoms increased 20-fold in just 3 years [39]. The media represent a crucial access point for teenagers for information about birth control; yet many Americans still subscribe to the popular myth that if teenagers are given

Table 1
Content of common music video genres

Category	Rap	Hip-Hop	Rock	R&B	Country
Profanity	73%	17%	2%	0%	0%
Guntalk	59%	8%	6%	2%	5%
Alcohol	42%	17%	8%	6%	19%
Violence	36%	0%	22%	17%	30%
Female “sex dance”	25%	58%	8%	31%	8%
Heavy cleavage	15%	25%	6%	17%	30%
Simulated intercourse	9%	42%	2%	13%	3%

N = 203 videos.

Data from Jones K. Are rap videos more violent? Style differences and the prevalence of sex and violence in the age of MTV. Howard J Commun 1997;8:343–56.

access to birth control, they will become sexually active at a younger age. There are at least six recent, peer-reviewed, controlled clinical trials which demonstrated that giving teens freer access to condoms, for example, does nothing more than increase the use of condoms among those who already are sexually active [40–45].

In two separate national polls, most adults (including Catholics) favor birth control advertising on television [46,47]. Yet condom ads rarely are seen on national TV, and the only ads for birth control products are for Ortho-Tri-Cyclen, which emphasize its effect on acne, and for Ortho-Evra (“the patch”) which emphasize its ease of use (Figs. 7 and 8; Box 2). Condom ads like the one in Fig. 7 are responsible and effective and could be useful if similar ones were shown regularly on TV. The FOX network denied an ad for the spermicide, Encare, that would have aired during its sexually suggestive show, “Temptation Island” [48]. Meanwhile, ads for Viagra, Cialis, and Levitra seem to be flooding the airwaves.

In mainstream programming, including mentions of condoms and other birth control products can be educational for parents and their teenagers according to a recent national sample of 506 12- to 17-year-olds who were regular viewers of the hit series, “Friends.” The show aired an episode about condoms, and 27% of the national sample saw the episode. Forty percent of the teens watched

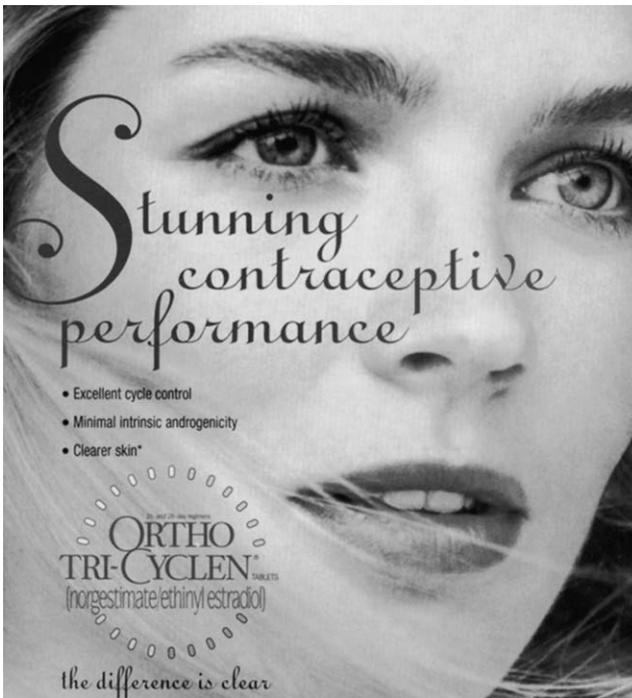


Fig. 7. Ortho-Tri-Cyclen advertisement.

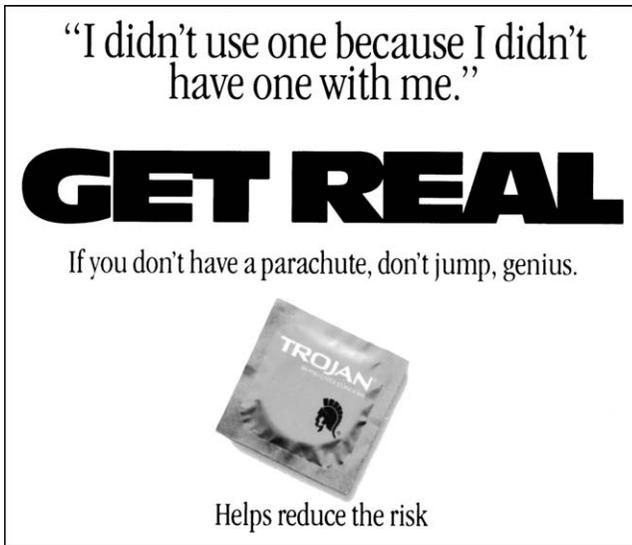


Fig. 8. Condom print advertisement.

with an adult, and 10% talked about condom efficiency as a direct result of the episode [49].

Are there other effects of sexual content on TV?

Sex is more than sexual intercourse, pregnancy, or STDs. Studies show that a variety of subtler aspects of human sexuality may be affected by the media [7]. In particular, teenage girls are extremely vulnerable to media portrayals of body image. The very notion of “What is thin?” has changed considerably. A study of *Playboy* centerfolds and Miss America pageant contestants over a 10-year period found that their body weights averaged 13% to 19% less than those that would be expected for age [50]. Twenty years ago, the average American model weighed 8% less than the average American woman; today, she weighs 23% less [51]. Young girls and teens are bombarded with images of anorectic models and movie stars (Fig. 9). Perhaps that explains why nearly one third of third grade girls have tried to lose weight. By sixth grade, this figure reaches 60% [52]. As many as half of normal-weight teenage girls consider themselves to be overweight and have tried dieting [53].

Many intriguing studies link media usage by teen girls with disordered body self-image:

- One recent study of 837 ninth-grade girls found that their music videos consumption correlated with their concerns about their appearance and their weight [54].

- In a large study of nearly 7000 9- to 14-year-olds, with a 1-year follow-up, girls who said that they wanted to look like television or movie stars were twice as likely to be concerned about their weight, to be constant dieters, and to engage in purging behavior [55,56].
- Fashion magazines for teen girls can be particularly unhealthy. In a study of 600 girls in fifth through 12th grades, more than two thirds reported that their ideal body shape was influenced by the fashion magazines that they read [55].

Is the research so strong that eating disorders of young women can be blamed on the media?

Not quite yet. But two intriguing studies suggest that the media do play a central role in many young women’s eating disorders. The first was a study of nearly 3000 Spanish 12- to 21-year-olds over an 18-month period. Those who read girls’ magazines had a doubled risk of developing an eating disorder [57]. The second study—a naturalistic study on the Pacific isle of Fiji—is more powerful [58]. Three years after American television was introduced onto the island, 15% of teen girls reported vomiting to control their weight, compared with only 3% before the introduction of TV. Furthermore, the proportion of teen girls

Box 2. Network standards for birth control advertising

ABC: Refuses condom advertising. Written policy calls ads for prescription contraceptives generally “unacceptable,” although it has broadcast ads for Ortho-Tri-Cyclen and Ortho-Evra.

CBS: Accepts ads for condoms and other contraceptives but only after 9 PM.

FOX: Accepts condom ads but only for 9 PM or later and only if they focus on “health-related concerns,” not “alleviating the risk of pregnancy.” Has aired Ortho-Tri-Cyclen ads.

NBC: Accepts condom ads but only for after 11 PM. Has aired ads for birth control pills.

THE WB: Refuses condom ads. No official policy on birth control pill ads.

UPN: Refuses condom ads and birth control pill ads.

Data from Wilke M. Changing standards: condom advertising on American television. Menlo Park (CA): Kaiser Family Foundation; 2001.

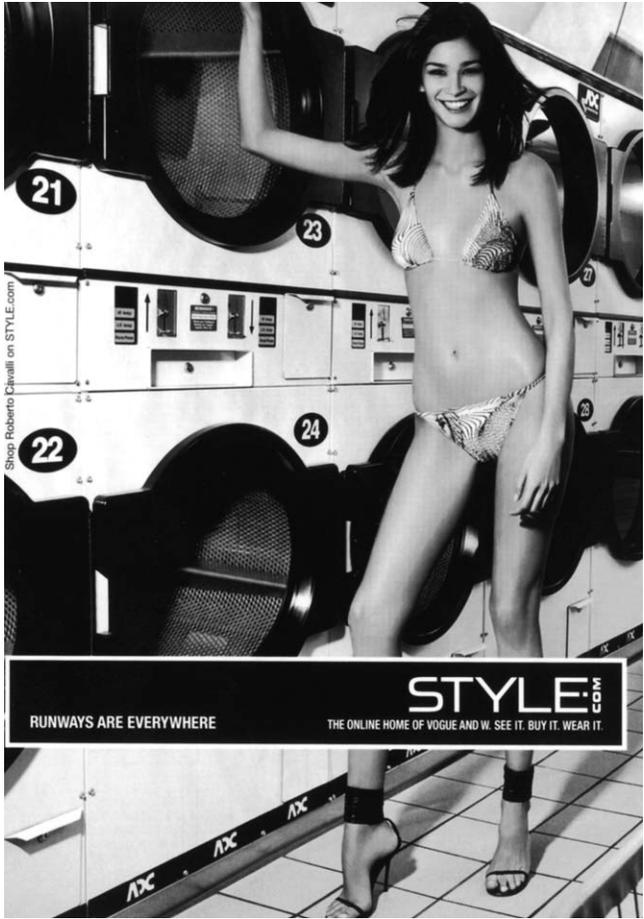


Fig. 9. Anorectic model: Style.com.

who scored abnormally high on a test for disordered eating doubled. After the introduction of American television shows, three fourths of the girls reported feeling “too big or fat,” and those who watched more TV were much more likely to feel this way.

The media seem impervious to change or influence, especially for the average parent or pediatrician. Are there solutions?

Absolutely. Certainly, it is disconcerting that other Western countries have a healthier attitude toward sex and sexuality than does the United States. For

example, a recent study of teens in the Netherlands, France, and Germany concluded [59]:

In the countries studied, adolescents are valued, respected, and expected to act responsibly. Equally important, most adults trust adolescents to make responsible choices because they see young people as assets rather than problems. That message is conveyed in the media, in school texts, and in health care settings.

By contrast, American media tend to view teens as “hormones with legs.” On primetime programming, there is an extraordinary amount of sexual content, but much of it is suggestive, rather than responsible. Meanwhile, the federal government insists on funding abstinence-only programs (which do not seem to work). The result is that American teenagers receive inadequate and inaccurate information about sex and sexuality—especially birth control—which leads to the United States having the highest teen pregnancy rate in the Western world. This is occurring while American adults have made the adult porn industry a \$10 billion enterprise [60]. In fact, American adults spend more money on adult entertainment than they do on sporting events, movies, or buying music [60].

But there are solutions for health care providers, parents, teenagers, Hollywood, and society as a whole. First, health care providers need to acquaint themselves with some of the literature concerning media effects on adolescents. The media transect virtually every public health concern that practitioners have concerning adolescents—violence, sex, drugs, suicide, and obesity. Yet most clinicians do not watch much television themselves, they do not frequent teenage movies, and they do not watch MTV or listen to rap music. Understanding the cultural milieu of today’s teenagers is absolutely crucial to being able to care for them adequately. A recent study of the 209 accredited pediatric residency training programs in the United States found that less than one third offer formal training about media influences [61]. The American Academy of Pediatrics, the Society for Adolescent Medicine, the American Medical Association, and other health care organizations need to devote more of their continuing medical education time to issues that involve media influence because the media have such a major impact on so many contemporary health issues. Health care providers need to learn to take media histories, especially when they are seeing a teenager with: aggressive behavior in school, learning difficulties, obesity, depression or suicidal ideation, or disordered eating.

Parents, too, need to be aware of what media their teenagers are using. Studies show that parents’ views can override depictions in the media, but only if the parent actually expresses an opinion and if the parent is watching the same TV show or movie as the teen [7,14]. Most parents are not aware of how much time their children or teens are spending with various media; nearly half of the students in a recent Boston survey reported that their parents set no limits on their TV viewing [62]. Two national studies found that nearly two thirds of teenagers have a TV set in their own bedroom (Fig. 10) [8,63].

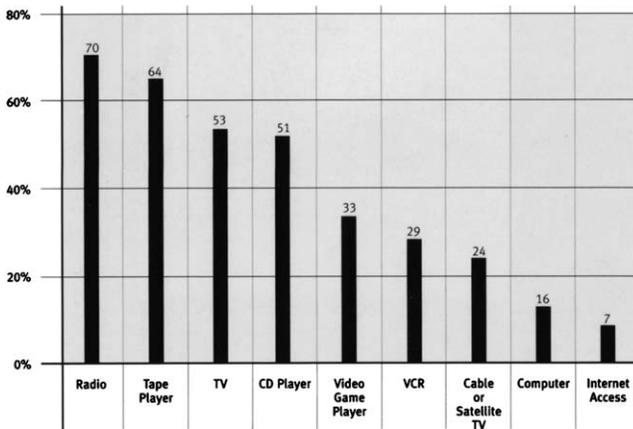


Fig. 10. Media in the bedroom. (From Roberts DF, Foehr UG, Rideout V, et al. Kids and media at the new millenium. Menlo Park (CA): Kaiser Family Foundation; 1999; with permission.)

Teenagers would benefit greatly from healthier media. They also need to be exposed to media education. A century ago, to be “literate” meant being able to read and write. In the new millennium, being literate also means being able to analyze and decode an amazing array of media [64]. Many other countries incorporate media education into the normal school curriculum, however, in the United States, only New Mexico specifically does so [65]. Media education has the potential to “immunize” teens against harmful media effects. Several studies confirm this [66–70]. It needs to be incorporated into every sex education and health education curriculum.

Hollywood writers and producers need to recognize that they have become the de facto sex educators for young people in America. As such, they need to take greater responsibility for the sexual dialog and behavior that they depict, particularly in programming that targets teens. Madison Avenue advertisers also need to exercise greater care in the body types that they depict. Advertisers need to avoid creating campaigns that are gratuitously provocative, suggestive, or demeaning (Fig. 11).

Society, too, has lost sight of its responsibility in raising healthy, sexual adults. School sex education programs have suffered greatly in the past decade; they need to go beyond abstinence-only boundaries. Similarly, birth control advertising needs to become mainstream, as it is in European countries. Pornography on the Internet is a major problem, but it is one that has an easy solution: creation of an XXX top-level domain for adult-oriented, sexually explicit material. A major government panel reported this solution 2 years ago [23], but no one has talked publicly about implementing it. Finally, more money needs to be spent on media research (at the moment, only one private foundation—the Kaiser Family Foundation—has a major interest in media).

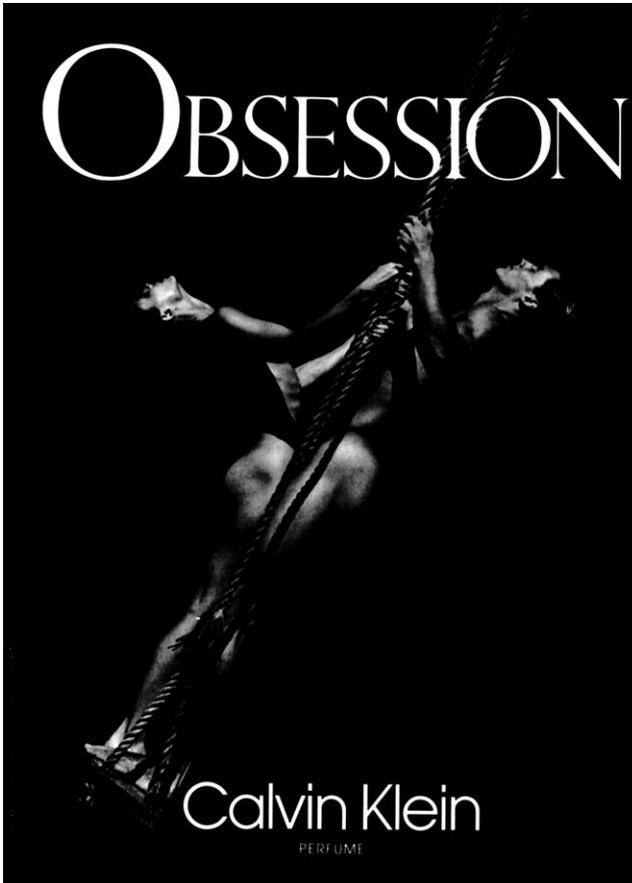


Fig. 11. Calvin Klein advertisement.

The great tragedy of American media is that they can be so astonishingly creative, informative, and entertaining, yet for children and adolescents, they continue to be so potentially unhealthy, especially in their sexual content.

References

- [1] Ansen D. A handful of tangos in Paris. *Newsweek*. September 13, 1999. p. 66.
- [2] Gliberman O. Virgin megascare. *Entertainment Weekly*. July 16, 1999. p. 43–4.
- [3] Rich F. My hero, Janet Jackson. *The New York Times*, February 15, 2004; section 2, p. 1.
- [4] Harris L, and associates. Sexual material on American network television during the 1987–88 season. New York: Planned Parenthood Federation of America; 1987.
- [5] Kunkel D, Biely E, Eyal K, et al. Sex on TV 3. Menlo Park (CA): Kaiser Family Foundation; 2003.
- [6] Roberts E. Teens, sexuality and sex: our mixed messages. *Television & Children* 1983;6:9–12.

- [7] Strasburger VC. Children, adolescents, and the media. *Curr Prob Pediatr Adolesc Health Care* 2004;34:54–113.
- [8] Roberts DF, Foehr UG, Rideout VJ, et al. Kids and media at the new millennium. Menlo Park (CA): Kaiser Family Foundation; 1999.
- [9] Buckingham D. After the death of childhood: growing up in the age of electronic media. Cambridge (UK): Polity Press; 2000.
- [10] Kaiser Family Foundation. Teens, sex and TV. Menlo Park (CA): Kaiser Family Foundation; 2002.
- [11] Kaiser Family Foundation/Seventeen Magazine. Sex smarts: birth control and protection. Menlo Park (CA): Kaiser Family Foundation; 2004.
- [12] National Public Radio/Kaiser Family Foundation/Kennedy School of Government. Sex education in America: general public/parents survey. Menlo Park (CA): Kaiser Family Foundation; 2004.
- [13] National Public Radio/Kaiser Family Foundation/Kennedy School of Government. Sex education in America: principals survey. Menlo Park (CA): Kaiser Family Foundation; 2004.
- [14] Strasburger VC, Wilson BJ. Children, adolescents, and the media. Thousand Oaks (CA): Sage; 2002.
- [15] Gagnon JH, Simon W. The sexual scripting of oral genital contacts. *Arch Sex Behav* 1987;16: 1–25.
- [16] Greenberg BS, Smith SW. Daytime talk shows: up close and in your face. In: Brown JD, Steele JR, Walsh-Childers K, editors. Sexual teens, sexual media. Hillsdale (NJ): Lawrence Erlbaum; 2002. p. 79–93.
- [17] Bandura A. Social cognitive theory of mass communication. In: Bryant J, Zillmann D, editors. Media effects: advances in theory and research. Hillsdale, NJ: Lawrence Erlbaum; 1994. p. 61–90.
- [18] Brown JD, Newcomer SF. Television viewing and adolescents' sexual behavior. *J Homosex* 1991;21:77–91.
- [19] Haag P. Voices of a generation: teenage girls on sex, school, and self. Washington, DC: American Association of University Women Educational Foundation; 1999.
- [20] Rice L. On the air. *Entertainment Weekly*. March 22, 2002. p. 92–3.
- [21] Donnerstein E. The internet. In: Strasburger VC, Wilson BJ, editors. Children, adolescents, and the media. Thousand Oaks (CA): Sage; 2002. p. 301–21.
- [22] Rideout V. Generation Rx.com: how young people use the internet for health information. Menlo Park (CA): Kaiser Family Foundation; 2001.
- [23] Thornburgh D, Lin HS. Youth, pornography, and the internet. Washington, DC: National Academy Press; 2002.
- [24] Escobar-Chaves SL, Tortolero S, Markham C, et al. Impact of the media on adolescent sexual attitudes and behaviors. Austin (TX): The Medical Institute; 2004.
- [25] National Institute on Child Health and Development. Workshop on sex and the media. Bethesda (MD): National Institute on Child and Health Development; 2000.
- [26] Corder-Bolz C. Television and adolescents' sexual behavior. *Sex Education Coalition News* 1981;3:40.
- [27] Peterson RA, Kahn JR. Media preferences of sexually active teens. Presented at the annual meeting of the American Psychological Association, Toronto. August 1984.
- [28] Peterson JL, Moore KA, Furstenberg Jr FF. Television viewing and early initiation of sexual intercourse: is there a link? *J Homosex* 1991;21:93–118.
- [29] Strouse JS, Buerkel-Rothfuss N, Long EC. Gender and family as moderators of the relationship between music video exposure and adolescent sexual permissiveness. *Adolescence* 1995;30: 505–21.
- [30] Pazos B, Fullwood EU, Allan MJ, et al. Media use and sexual behaviors among Monroe County adolescents. Presented at the annual meeting of Society for Adolescent Medicine, San Diego. March 2001.
- [31] Wingood GM, DiClemente RJ, Harrington K, et al. Exposure to X-rated movies and adolescents' sexual and contraceptive-related attitudes and behavior. *Pediatr* 2001;107:1116–9.

- [32] Collins RL, Elliott MN, Berry SH, et al. Watching sex on television predicts adolescent initiation of sexual behavior. *Pediatr* 2004;114:e280–9.
- [33] Huesmann LR, Moise-Titus J, Podolski C-L, et al. Longitudinal relations between children's exposure to TV violence and their aggressive and violent behavior in young adulthood: 1977–1992. *Dev Psychol* 2003;39:201–21.
- [34] Gow J. General roles in popular music videos: MTV's "top 100 of all time." Presented at the Popular Cultural Association/American Culture Association convention, New Orleans. 1993.
- [35] Jones K. Are rap videos more violent? Style differences and the prevalence of sex and violence in the age of MTV. *Howard J Commun* 1997;8:343–56.
- [36] Arnett J. The sounds of sex: sex in teens' music and music videos. In: Brown JD, Steele JR, Walsh-Childers K, editors. *Sexual teens, sexual media*. Hillsdale (NJ): Lawrence Erlbaum; 2002. p. 253–64.
- [37] Strasburger VC, Hendren RO. Rock music and music videos. *Pediatr Ann* 1995;23:97–103.
- [38] Alan Guttmacher Institute. *Teenage sexual and reproductive behavior in developed countries: can more progress be made?* New York: Alan Guttmacher Institute; 2001.
- [39] Alter J. The power to change what's "cool." *Newsweek*. January 17, 1994. p. 23.
- [40] Wolk LI, Rosenbaum R. The benefits of school-based condom availability: cross-sectional analysis of a comprehensive high school-based program. *J Adolesc Health* 1995;17:184–8.
- [41] Furstenberg Jr FF, Geitz LM, Teitler JO, et al. Does condom availability make a difference? An evaluation of Philadelphia's health resource centers. *Fam Plann Perspect* 1997;29:123–7.
- [42] Guttmacher S, Lieberman L, Ward D, et al. Condom availability in New York City public high schools: relationships to condom use and sexual behavior. *Am J Public Health* 1997;87:1427–33.
- [43] Jemmott III JB, Jemmott LS, Fong GT. Abstinence and safer sex: HIV risk-reduction interventions for African American adolescents. *JAMA* 1998;279:1529–36.
- [44] Schuster MA, Bell RM, Berry SH, et al. Impact of a high-school condom availability program on sexual attitudes and behaviors. *Fam Plann Perspect* 1998;30:67–72.
- [45] Kirby D, Brener ND, Brown NL, et al. The impact of condom distribution in Seattle schools on sexual behavior and condom use. *Am J Public Health* 1999;89:182–7.
- [46] Harris L, and Associates. *Attitudes about television, sex and contraception advertising*. New York: Planned Parenthood Federation of America; 1987.
- [47] Mozes A. US TV viewers find condom ads acceptable. Available at www.kaisernetwork.org. Accessed June 20, 2001.
- [48] Sharigan S. TV's last taboo. Available at <http://www.prospect.org>. Accessed June 20, 2001.
- [49] Collins RL, Elliott MN, Berry SH, et al. Entertainment television as a health sex educator: the impact of condom-efficacy information in an episode of *Friends*. *Pediatr* 2003;112:1115–21.
- [50] Wiseman CV, Gray JJ, Mosimann JE, et al. Cultural expectations of tiñes in women: an update. *Int J Eat Disord* 1992;11:85–9.
- [51] Kilbourne J. *Deadly persuasion: why women and girls must fight the addictive power of advertising*. New York: Free Press; 1999.
- [52] Maloney MJ, McGuire J, Daniels SR, et al. Dieting behavior and eating attitudes in children. *Pediatr* 1989;84:482–9.
- [53] Krowchuk DP, Dreiter SR, Woods CR, et al. Problem dieting behaviors among young adolescents. *Arch Pediatr Adolesc Med* 1998;152:884–8.
- [54] Borzekowski DLG, Robinson T, Killen JD. Does the camera add 10 pounds? Media use, perceived importance of appearance, and weight concerns among teenage girls. *J Adolesc Health* 2000;26:36–41.
- [55] Field AE, Cheung L, Wolf AM, et al. Exposure to the mass media and weight concerns among girls. *Pediatr* 1999;103:e236.
- [56] Field AE, Camargo Jr CA, Taylor CB, et al. Relation of peers and media influences to the development of purging behaviors among preadolescent and adolescent girls. *Arch Pediatr Adolesc Med* 1999;153:1184–9.
- [57] Martinez-Gonzalez MA, Gual P, Lahortiga F, et al. Parental factors, mass media influences, and the onset of eating disorders in a prospective population-based cohort. *Pediatr* 2003;111:315–20.

- [58] Becker AE. Eating behaviours and attitudes following prolonged exposure to television among ethnic Fijian adolescent girls. *Br J Psychiatry* 2002;180:509–14.
- [59] Kelly MA, McGee M. Report from a study tour: teen sexuality education in The Netherlands, France, and Germany. *SIECUS Rep* 1999;27:11–4.
- [60] Lane FS. *Obscene profits: entrepreneurs of pornography in the cyber age*. New York: Brunner-Routledge; 2001.
- [61] Rich M, Bar-on M. Child health in the information age: media education of pediatricians. *Pediatr* 2001;1:244–51.
- [62] Wiecha JL, Sobol AM, Peterson KE, et al. Household television access: associations with screen time, reading and homework among youth. *Ambul Pediatr* 2001;1:244–51.
- [63] Woodard EH, Gridina N. *Media in the home 2000: the fifth annual survey of parents and children*. Washington, DC: Annenberg Public Policy Center at the University of Pennsylvania; 2000.
- [64] Rich M. For a child, every moment is a teachable moment. *Pediatr* 2001;108:179–80.
- [65] McCannon B. Media literacy: what? Why? How? In: Strasburger VC, Wilson BJ, editors. *Children, adolescents, and the media*. Thousand Oaks (CA): Sage; 2001. p. 322–67.
- [66] Singer DG, Zuckerman DM, Singer JL. Helping elementary school children learn about TV. *J Commun* 1980;30:84–93.
- [67] Singer DG, Singer JL. Evaluating the classroom viewing of a television series, “Degrassi Junior High.” In: Zillmann D, Bryant J, Huston AC, editors. *Media, children, and the family: social scientific, psychodynamic, and clinical perspectives*. Hillsdale (NJ): Lawrence Erlbaum; 1994. p. 97–115.
- [68] Huesmann LR, Eron LD, Klein R, et al. Mitigating the imitation of aggressive behaviors by changing children’s attitudes about media violence. *J Soc Psychol* 1983;44:899–910.
- [69] Austin EW, Pinkleton BE, Fujioka Y. The role of interpretation processes and parental discussion in the media’s effects on adolescents’ use of alcohol. *Pediatr* 2000;105:343–9.
- [70] American Academy of Pediatrics, Committee on Public Education: Media education. *Pediatr* 1999;104:341–3.