

SEX, SEX, AND MORE SEX – OH, DID I MENTION SEX?

ADOLESCENTS, SEX, AND THE MEDIA

Victor C. Strasburger, M.D.

10344 2nd St NW

Professor of Pediatrics

Albuquerque, NM 87114

Professor of Family & Community Medicine

(O) 505-272-0338

University of New Mexico School of Medicine

VStrasburger@salud.unm.edu

ABSTRACT

In the absence of effective sex education in the U.S., the media have arguably become the leading sex educator for children and teenagers. Considerable research now exists that attests to the ability of the media to influence adolescents' attitudes and beliefs about sex and sexuality. In addition, new research has found a significant link between exposure to sexual content in the media and earlier onset of sexual intercourse. Although there is little research on the behavioral effects of "new" media, they are discussed as well. Suggestions for clinicians, parents, the Federal government, and the entertainment industry are provided.

"Something's in the air, and I wouldn't call it love. Like never before, our kids are being bombarded by images of oversexed, underdressed celebrities who can't seem to step out of a car without displaying their well-waxed private parts to photographers." -- Lead article, *Newsweek*, February 12, 2007(1)

"One erect penis on a U.S. screen is more incendiary than a thousand guns."
-- *Newsweek* critic David Ansen (2, p. 66)

"[My doctor's] only gone to one medical school, but if you go online, you can get advice from all over the world." (3, p. 17)

In the absence of effective sex education in the U.S., the media have arguably become the leading sex educator for children and teenagers (FIGURE 1). Given the fact that American media are extremely suggestive and rarely responsible, this is not a healthy situation. Previous research was convincing in showing that the media contribute to teenagers' sexual attitudes and beliefs about sex and sexuality.(4) Now, new research is beginning to show that the media may contribute substantially in a cause-and-effect manner to the risk of early intercourse and even pregnancy among teenagers.(5,6) Given the risks of early sexual activity - teen pregnancy, sexually transmitted infections (STIs), HIV and AIDS, etc. - any factor which might have an impact and which could be lessened is important to consider.(7)

Why is this an issue?

Although the teenage pregnancy rate in the U.S. has declined significantly in the past two decades - 34% between its

peak in 1991 and 2005 (8) -- it remains the highest in the Western world. It is 10-15 times higher than in other developed countries with the lowest birth rates.(9) In 2009, approximately 410,000 15-19 year-old female teens - 4% of all female teens in that age group -- gave birth.(10). Most of these are unintended pregnancies,(11) and the total cost of all such pregnancies in women of childbearing age is an estimated \$11 billion a year.(12) Approximately 18% of women having abortions in the U.S. are teenagers and one-third are young adults, ages 20-24 years.(13)

Similarly, rates of adolescent sexual activity have leveled off but remain problematic. According to the 2009 Youth Risk Behavior Survey (14):

- In 2009, nearly half (46%) of all high school students reported ever having had sexual intercourse. This represents a decline from 54% in 1991.
- More than one-third had had sex in the previous three months. Six per cent said that they had first had sex before age 13. Fourteen per cent reported having had four or more sexual partners.
- Condom use at last intercourse has increased since 1991 but has plateaued at 61%; birth control pill use has decreased to 20%.

Rates of other sexual activities, especially oral sex, are less well investigated. The YRBS, for example, does not ask about oral sex. One study of 580 9th graders found that 20% had had oral sex.(15). A large 2002 study that included 10,000 15-19 year-olds in found that 55% had had oral sex by age 19.(16)

With sexual activity obviously comes the risk of STIs, and teenagers and young adults have a disproportionate percentage. Of the 18 million STIs diagnosed annually in the U.S., approximately half occur in young people aged 15-24 years, even though they represent only 25% of the sexually experienced population.(17)

One might think that with all of these risks to young people's health, there might be a public health impetus to educate teenagers in an intensive and comprehensive way about sex.(18) In the U.S., however, that has not been the case.(19) The first 8 years of the new millennium have been devoted to abstinence-only sex education, which has been shown to be ineffective (20,21) except with 12 year-old African-American boys in inner city Philadelphia.(22) Congress has spent \$1.5 billion on programs that don't work and are ineffective.(19) Comprehensive sex education - which does work (21) - has been marginalized.(23) Although most of the nearly 2800 15-19 year-olds surveyed in the 2006-2008 National Survey of Family Growth reported receiving sex education, 30% of females and 38% of

males reported receiving no information on methods of birth control.(24)

Research shows that parent-child communication can clearly be effective in preventing early sexual activity among teenagers.(25) But parents seem to be caught in the middle. While the majority of parents favor sex education in schools - 90% say it is very or somewhat important in one national survey of parents in 2004 (26) - half of parents of 10-12 year-olds have not talked about peer pressure to have sex or how to prevent pregnancy and STIs (27). In a separate Kaiser survey, two-thirds of parents said they are very concerned about their children being exposed to too much inappropriate content in the media, and 55% said that sex in the media was contributing a lot to teenagers' behavior (28). As the Senior Vice President of the Kaiser Family Foundation noted, "The 'big talk' isn't what it used to be. It now needs to be 'supersized.'" (29)

"New" media vs. "old" media

Despite the seeming tidal wave of "new" media in the past decade (Internet, cell phones, iPads, social networking sites, etc. - see FIGURE 2), "old" media - TV, movies, and videos - still predominate among children and adolescents. The 2009 Kaiser survey of > 2,000 8-18 year-olds found that they spent an average of > 7 hours a day with a variety of different media but TV remains predominant (FIGURES 3 + 4).(30) What has changed is

that TV and movies may no longer be viewed on a TV set but rather on a computer, cell phone, or iPad.(31). Nielsen reports that time spent watching TV and video online rose 45% from 2010 to 2011.(32) TV viewing is actually at an all-time high. Although teens watch less TV than adults (who average nearly 35 hours/week), they still watch an average of nearly 24 hours per week.(33)

But there is no question that the topography of the media landscape is changing, particularly among teenagers (34-36):

- Teenagers watch an average of > 7 hours of TV a month on mobile devices.
- Teens ages 13-17 send an average of 3,364 texts per month and spend more time texting than talking on the phone.
- While adults have caught up to teens in social networking, teens are still heavier users - more than three-fourths of 12-17 year-olds have accessed social networks or blogs.
- American 18 year-olds average nearly 40 hours a week online from their home computers, including 5 ½ hours of streaming video.
- 93% of teenagers now use the Internet. In a 2009 survey, 7% of 12-17 year-olds owned a cell phone, and 80% owned an iPod and a game console.

How much sexual content is there in the media?

Clearly, media and teens' use of them are in a state of flux. Unfortunately, the last content analysis of sexual content on American TV was 6 years ago; but its findings are probably still relevant. More than 75% of primetime TV programs contain sexual content, yet only 14% of sexual references mention risks or responsibilities of sexual activity (FIGURES 5,6).⁽³⁷⁾ Talk about sex on TV can occur as often as 8-10 times per hour, and the amount of sexual content continues to rise.⁽³⁸⁾ Remarkably, teen shows actually have more sexual content than adult shows.⁽³⁷⁾

Reality TV is also becoming more common and is often filled with sexual innuendo. In 1997, there were only 3 reality dating shows; by 2004 there were > 30.⁽³⁹⁾ Shows like *Temptation Island* bring contestants together with the sole purpose of seeing who "hooks up."

Several other "old" media popular with teenagers are also rife with sexual innuendo: In popular music, an analysis of the 279 most popular songs in 2005 revealed that 37% contained sexual references, many of which were degrading to women.⁽⁴⁰⁾ Virtually every R-rated teen movie since the 1980s has contained at least 1 nude scene and often several references to intercourse.⁽⁴⁾ Teen magazines devote an average of 2.5 pages per issue to sexual topics, but the primary focus seems to be on when to lose one's virginity.^(41,42) In mainstream

advertising, women are as likely to be shown in suggestive clothing (30%), partially clothed (13%), or nude (6%) as they are to be fully clothed.(43)

"New" media have brought new concerns to the forefront - among them, pornography, sexting, and displays of risky behavior on social networking sites. One national sample of 1500 10-17 year-olds found that nearly half of the Internet users had been exposed to online pornography in the previous year.(44) One recent study of MySpace profiles revealed that nearly one-quarter of them referenced sexual behaviors.(45) "Sexting" - or the transmission of nude pictures - may not be as common as previously thought, however. A national survey of nearly 1300 teens in 2008 put the figure at 20%.(46) However, a very recent national study of 1560 Internet users ages 10-17 puts the figure at 1% for youth reporting sending sexual images of themselves and 5.9% of youth reporting they had received sexual images.(47).

What does the research show?

Abundant research documents that the media can exert a powerful influence on children and teenagers.(4) Probably the two main mechanisms are via giving young people "scripts" of how to behave in novel situations (script theory)(48) and by making certain risky behaviors seem normative ("super-peer theory")(49,50). Dozens of studies show that teenagers learn

information and attitudes about sex and sexuality from the media (FIGURES 7,8), and that heavy consumers of media are more likely to think that real human behavior mimics behavior seen on TV and in movies (the "cultivation hypothesis").(42,51,52)

But most studies of teenagers and media are correlational - taking a sample at one point in time and investigating if heavily exposed subjects are affected more than lightly exposed subjects. Such research yields possible associations but not cause-and-effect. There are now 14 longitudinal correlational studies which allow cause-and-effect conclusions to be drawn, and virtually all of them show an impact of sexual content in the media on adolescents' sexual behavior (TABLE 1)(6,53-66). No study is perfect, however. The best study (55) looked at the total media diet of teenagers (TV, movies, music, magazines) but omitted the Internet. Studies range from 1-3 years in follow-up and control for a whole host of other factors known to be associated with early sexual intercourse (e.g., household composition, socioeconomic status, parental education, academic achievement, gender, pubertal status, parental styles, religiosity, etc.). Overall, the findings show a doubled risk for early sexual intercourse for teens exposed to more sexual content.(6) Several studies have found that Whites are affected and Blacks are not, but the studies typically start assessing teenagers at age 14 and may miss the onset of sexual intercourse

in Blacks. Studies have also found a relationship between sexual content and noncoital behavior, (53,55), multiple sexual partners,(52), STIs (52), teen pregnancy,(57) and sexual aggression (66).

The 14 studies vary in which media they assess. Most have assessed TV (53,54,57,58,63,65), a few have examined a variety of different media (55,59,64), two have examined rock music and music videos (52,56), one examined the protective role of parental co-viewing (59) and only three have examined Internet pornography and other x-rated material (61,62,66). To date, there are no longitudinal studies on the behavioral impact of sexting or displays of risky behaviors on teenagers' social networking profiles.

This is difficult research to do, and it is instructive that there are >2,000 studies on media violence but less than 100 on sexual content and adolescents' attitudes and behavior. Parents and schools are shy about allowing access to adolescents - particularly young adolescents - for studies about sex, and both the Federal government and private foundations have almost completely ignored funding for such research.

Contraceptive advertising

One of the great paradoxes of American television is that sex is used to advertise everything from cars and shampoos to the new Fall line-up of TV shows but advertising contraceptives is

nearly verboten.(42) The U.S. is the only Western country that still subscribes to the myth that giving teenagers access to birth control - and media are one way of doing that - will make them more sexually active. In fact, one recent study found that 86% of the recent decline in teen pregnancies could be attributed to increased contraceptive use; only 14% was attributable to increased abstinence.(67) There are now 8 peer-reviewed clinical studies that have found that giving teenagers freer access to condoms does not increase their sexual activity but does increase the use of condoms among those who are already sexually active.(68-75) In 2007, both CBS and FOX refused to air a condom advertisement because it specifically mentioned preventing pregnancy rather than preventing HIV/AIDS.(76) Two of the 6 major networks refuse to air condom ads, and 3 others air them only after 9 p.m. or 11 p.m. Several networks also refuse to air ads for birth control pills, and the ones that do refuse to allow the words "prevent pregnancy" in such ads.(77) This, despite the fact that a majority of American adults favor the advertising of condom ads on TV (71% of 1,142 adults surveyed in a national sample done by Kaiser). In fact, more adults oppose beer ads (34%) than condom ads (25%).(78)

Can media have a positive impact?

Media represent just one avenue for sex education, but a potentially powerful one. The disconnect between sexual content

and responsible sexual information seen in the 2005 Kaiser report (FIGURE 6) is remediable. In fact, there have been several notable attempts by writers and producers to embed socially responsible information into mainstream programming (so-called "edutainment"):

- In 2002, *Friends* aired an episode about condoms. Twenty-seven percent of a national sample of teenagers reported seeing the episode and many talked with an adult about contraception as a result.(79)
- The hit show *ER* has featured storylines on emergency contraception and on HPV.(80)
- A 2008 episode of *Grey's Anatomy* explored the issue of treating HIV-positive women who are pregnant.(81)
- Media giant Viacom has partnered with MTV to air public service announcements (psa's) concerning HIV/AIDS and condom use.(82)

Mass media have also been used to try to increase parent-child discussions about sex. In North Carolina, an intensive campaign of psa's on radio, TV, and billboards delivered the message "Talk to your kids about sex. Everyone else is." A follow-up study found it to be effective.(83)

Solutions

If the U.S. and other Western countries are serious about lowering rates of teen pregnancy and nurturing sexually healthy

adolescents, then the media and society's use of media must change dramatically.

Clinicians. Clinicians are weighed down by many financial and time constraints. Nevertheless, the media have an impact on *virtually every concern* they have about teenagers - sex, drugs, aggressive behavior, obesity, eating disorders, sleep, school performance.(84) Clinicians need to ask 2 media-related questions at every well-child and well-teen visit: (1) How much entertainment screen time do you spend, per day (including all possible screens)? (2) Is there an Internet connection, TV, cell phone, or iPad in your bedroom? Research has shown that the presence of a bedroom TV increases the risk of substance use and early sexual activity by teens.(85) According to a recent office-based study, just a minute or two of counseling about media could result in nearly 1 million more children and teenagers limiting their total media time.(86) Clinicians can also use new media to access their patients in new ways: A \$2 million grant from the National Institutes of Health is being used to produce 12 20-minute soap opera vignettes that women can watch on their cell phones.(87). Cell phone texts, social networking sites, and teen-friendly websites can be used to connect teenagers to much-needed health services.(88,89)

Parents. On a list of 100 problems parents want to fight with their children about, media usually would rank at about

#112. Parents think they're children and teenagers are "safe" if they are in their bedroom, watching TV or surfing online. The research says otherwise.(84) Having clear rules about media, setting limits on screen time, and keeping media out of the bedroom are associated with fewer hours of media time for adolescents.(90) Parents of younger children - especially preteens - need to understand that letting their children see PG-13 and R-rated movies may lead to harmful consequences.(91-93) Parents also need to be more aware of social networking sites and maintain some vigilance.(36,94,95)

Parents also need to understand that sex education is not just a 1-semester course taught in high school. It is a lifelong process - much of it non-verbal - and it includes how young parents refer to their baby's genitalia when changing a diaper, whether there is an "open bathroom door policy," how parents are affectionate with each other, and how they react to something sexy on TV. Parents who understand media effects can use TV and movies wisely to replace "the big talk" with questions about what sexual content is being watched together (co-viewing).

Schools. With rare exceptions, schools have become relatively clueless in how to deal with "new" media and have done a poor job of sex education.(96) Administrators seem to fear the aftershocks of permitting comprehensive sex education,

yet the majority of American adults favor such programs over abstinence-only sex ed.(26) Schools also need to create intelligent rules to deal with Internet abuse and sexting. In particular, media literacy programs have been shown to be effective with both "old" media (97,98) and "new" media.(99)

Entertainment industry. With the billions of dollars it rakes in every year, Hollywood needs to be more responsible in how it deals with the sensitive issues of sex and sexuality (FIGURE 9). Embedding pro-social health messages into mainstream programming does not interfere with anyone's First Amendment or creative rights, yet it could potentially have major positive health consequences (TABLE 2). (100) A dialogue between adolescent medicine clinicians, pediatricians, family practitioners, public health activists and Hollywood writers, directors, and producers could be very useful.

Federal Government. From 2000-2008, the US Government spent \$1.5 billion on abstinence-only sex education, despite the fact that (a) multiple research studies showed it to be ineffective (5) and (b) the media are hardly abstinence-only, and they have become an increasingly powerful sex educator in young people's lives. Congress and the Federal Communications Commission (FCC) need to encourage the advertising of condoms, birth control pills, and even emergency contraception. Congress also needs to provide funding for more research into media

effects. To date, there has been very little Federal funding for media research and virtually no funding from private foundations. Given the impact that media have on young people's lives, this lack of funding is extremely short-sighted.

RECOMMENDED READINGS:

Brown JD (ed). *Managing the Media Monster: The Influence of Media (From Television to Text Messages) on Teen Sexual Behavior and Attitudes*. Washington, DC: The National Campaign to Prevent Teen and Unplanned Pregnancy, 2008.

Levin DE, Kilbourne J. *So Sexy So Soon: The New Sexualized Childhood and What Parents Can Do to Protect Their Kids*. New York, NY: Ballantine, 2009.

REFERENCES

1. Deveny K, Kelley R. Girls gone wild: What are celebs teaching kids? *Newsweek*, February 12, 2007, pp. 40-47.
2. Ansen D. A handful of tangos in Paris. *Newsweek*, September 12, 1999, p. 66.
3. Boyar R, Levine D, Zensius N. *TECHsex USA: Youth Sexuality and Reproductive Health in the Digital Age*. Oakland, CA: ISIS, Inc. 2011.
4. Strasburger VC, Wilson BJ, Jordan AB. *Children, Adolescents, and the Media*, 2nd ed. Thousand Oaks, CA: Sage, 2009.
5. Strasburger VC and Council on Communications and Media. Sexuality, contraception, and the media (policy statement). *Pediatr*. 2010; 126:576-582.

6. Wright PJ. Mass media effects on youth sexual behavior: Assessing the claim for causality. *Communication Yearbook* 2011; 35: 343-386.
7. Christakis DA, Zimmerman FJ. Media as a public health issue. *Arch Pediatr Adolesc Med.* 2006; 160: 445 - 446.
8. National Campaign to Prevent Teen and Unplanned Pregnancy. Teen childbearing in the United States, final 2008 birth data. Washington, DC: Author, 2010.
9. United Nations. *2008 Demographic Yearbook.* New York, NY: United Nations, 2010.
10. Centers for Disease Control and Prevention. *Vital Signs: Teen Pregnancy - United States, 1991-2009.* *MMWR* 2011; 60(13): 414-420.
11. Kaiser Family Foundation. *Sexual Health of Adolescents and Young Adults in the United States.* Menlo Park, CA: KFF, 2011.
12. Monea E, Thomas A. Unintended pregnancy and taxpayer spending. *Perspectives on Sexual and Reproductive Health* 2011; 43:88-93.
13. Kost K, Henshaw S, Carlin L. *US Teenage Pregnancies, Births and Abortions: National and State Trends and Trends by Race and Ethnicity.* New York, NY: Guttmacher Institute, 2010.
14. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance - United States, 2009, Surveillance Summaries, June 4, 2010. *MMWR* 2010; 59(No. SS-5).
15. Halpern-Felsher BL, Cornell JL, Kropp RY, Tschann JM. Oral versus vaginal sex among adolescents: perceptions, attitudes, and behavior. *Pediatr.* 2005; 115:845-851.
16. Mosher WD, Chandra A, Jones J. Sexual behavior and selected health measures: men and women 15-44 years of age, United States, 2002. *Advance Data* 2005; 362:1-55.
17. Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2009.* Atlanta: U.S. Department of Health and Human Services; 2010.
18. Strasburger VC: Is there an unconscious conspiracy against teenagers in the United States? *Clin Pediatr.* 2006; 45(8): 714-717.
19. Quindlen A. Let's talk about sex. *Newsweek*, March 16, 2009, p. 62.

20. Santelli J, Ott MA, Lyon M, Rogers J, Summers D, Schleifer R. Abstinence and abstinence-only education: a review of U.S. policies and programs. *J Adolesc Health*. 2006; 38:72-81.
21. Kirby D, Laris BA. Effective curriculum-based sex and STD/HIV programs for adolescents. *Child Dev Perspect*. 2009; 3:21-29.
22. Jemmott JB, Jemmott LS, Fong GT. Efficacy of a theory-based abstinence-only intervention over 24 months. *Arch Pediatr Adolesc Med* 2010; 164:152-159.
23. Lindberg LD, Santelli JS, Singh S. Changes in formal sex education: 1995-2002. *J Adolesc Health*. 2006; 38:182-189.
24. Martinez G, Abma J, Copen C. Educating teenagers about sex in the United States. NCHS data brief, no. 44. Hyattsville, MD: National Center for Health Statistics, 2010.
25. Martino SC, Elliott MN, Corona R, Kanouse DE, Schuster MA. Beyond the "big talk": The roles of breadth and repetition in parent-adolescent communication about sexual topics. *Pediatr*. 2008; 121:e612-e618.
26. National Public Radio/Kaiser Family Foundation/Kennedy School of Government. *Sex Education in America*. Menlo Park, CA: KFF, 2004.
27. The Kaiser Family Foundation/Children Now. *Talking with Kids About Tough Issues: A National Survey of Parents and Kids*. Menlo Park, CA: KFF, 1999.
28. Rideout V. *Parents, Children & Media*. Menlo Park, CA: Kaiser Family Foundation, 2007.
29. Kaiser Family Foundation. New national survey finds kids in families who talk openly about sex and relationships more likely to say would turn to parent first if faced with crisis (new release). March 1, 1999. Available at <http://www.kff.org/youthhivstds/1460-kids.cfm>. Accessed 6/13/11.
30. Rideout VJ, Foehr UG, Roberts DF. *Generation M²: Media in the Lives of 8- to 18-Year-olds*. Menlo Park, CA: Kaiser Family Foundation, 2010.
31. Battaglio S. The future of TV is now. *TV Guide*, October 4-10, 2010, pp. 22-23.

32. Worden N. Online video viewing jumps, bolstering Netflix. *Wall Street Journal*, February 14, 2011. Available at: <http://online.wsj.com/article/SB10001424052748703584804576144371093782778.html> Accessed 6/13/11.
33. Nielsen Company. *State of the Media: TV Usage Trends: Q3 and Q4 2010*. March 10, 2011. Available at: http://blog.nielsen.com/nielsenwire/media_entertainment/tv-usage-trends-q3-and-q4-2010/ Accessed 6/13/11.
34. Nielsen Company. How the Class of 2011 engages with media. June 8, 2011. Available online at: <http://blog.nielsen.com/nielsenwire/consumer/kids-today-how-the-class-of-2011-engages-with-media/> Accessed 6/13/11.
35. Pew Foundation. *Trend Data for Teens 2011*. Available online at: <http://www.pewinternet.org/Static-Pages/Trend-Data-for-Teens.aspx> Accessed 6/13/11.
36. O'Keefe GS, Clarke-Pearson K, Council on Communications and Media. *Clinical Report: The Impact of Social Media on Children, Adolescents, and Families*. *Pediatr*. 2011; 127:800-804.
37. Kunkel D, Eyal K, Finnerty K, Biely E, Donnerstein E. *Sex on TV 4: A Biennial Report to the Kaiser Family Foundation*. Menlo Park, CA: KFF, 2005.
38. Kunkel D, Eyal K, Donnerstein E, Farrar KM, Biely E, Rideout V. Sexual socialization messages on entertainment television: comparing content trends 1997-2002. *Media Psychol*. 2007; 9:595-622.
39. Zurbriggen EL, Morgan EM. Who wants to marry a millionaire? Reality dating television programs, attitudes towards sex, and sexual behaviors. *Sex Roles* 2006; 54: 1-17.
40. Primack BA, Gold MA, Schwarz EB, Dalton MA. Degrading and non-degrading sex in popular music: a content analysis. *Public Health Rep*. 2008; 123:593-600.
41. Walsh-Childers K, Gotthoffer A, Lepre CR. From "just the facts" to "downright salacious:" Teens' and women's magazines' coverage of sex and sexual health. In: Brown JD, Steele JR, Walsh-Childers K, eds. *Sexual Teens, Sexual Media*. Hillsdale, NJ: Lawrence Erlbaum; 2002:153-171.
42. Brown JD, Strasburger VC. From Calvin Klein to Paris Hilton and MySpace: adolescents, sex and the media. *Adolesc Med State Art Rev*. 2007; 18:484-507.

43. Reichert T, Carpenter C. An update on sex in magazine advertising: 1983 to 2003. *J Mass Commun Q*. 2004; 81:823-837.
44. Mitchell KJ, Wolak J, Finkelhor D. Trends in youth reports of sexual solicitations, harassment and unwanted exposure to pornography on the Internet. *J Adolesc Health*. 2007; 40:116-126.
45. Moreno MA, Parks MR, Zimmerman FJ, Brito TE, Christakis DA. Display of health risk behavior on MySpace by adolescents. *Arch Pediatr Adolesc Med*. 2009; 163:27-34.
46. National Campaign to Prevent Teen and Unplanned Pregnancy. *Sex and Tech*. Washington, DC: National Campaign to Prevent Teen and Unplanned Pregnancy; 2008.
47. Mitchell K, Finkelhor D, Jones L, Wolak J. Youth sexting: Past Year prevalence and episode characteristics from a National Study of Youth. Manuscript under review, 2011.
48. Huesmann LR. The role of social information processing and cognitive schema in the acquisition and maintenance of habitual aggressive behavior. In Geen RG, Donnerstein E (eds). *Human Aggression: Theories, Research, and Implications for Policy*. New York: Academic Press, 1998, p. 73-109.
49. Strasburger VC. "Sex, drugs, rock 'n' roll": Are the media responsible for adolescent behaviors? *Adolesc Med: State of the Art Rev*. 1997; 8:403-414. [CHECK TO SEE 1ST MENTION OF SUPER-PEER]
50. Brown JD, Halpern CT, L'Engle KL. Mass media as a sexual super peer for early maturing girls. *J Adolesc Health*. 2005; 36:420-427.
51. Fisher DA, Hill DL, Grube JW, Bersamin MM, Walker S, Gruber EL. Televised sexual content and parental mediation: influences on adolescent sexuality. *Media Psychology*. 2009; 12:121-147.
52. Wright PJ, Malamuth NM, Donnerstein E. Research on sex in the media: What do we know about effects on children and adolescents. In Singer DG, Singer JL (eds). *Handbook of Children and the Media*, 2nd ed. Thousand Oaks, CA: Sage, 2012, in press.
53. Wingood GM, DiClemente RJ, Bernhardt JM, Harrington K, Davies SL, Robillard A, Hook EW. A prospective study of exposure to rap music videos and African American female adolescents' health. *Am J Public Health*. 2003; 93:437-439.

54. Collins RL, Elliott MN, Berry SH, Kanourse D, Kunkel D, Hunter S, et al. Watching sex on television predicts adolescent initiation of sexual behavior. *Pediatr*. 2004; 114:e280-e289.
55. Ashby SL, Arcari CM, Edmonson MB. Television viewing and risk of sexual initiation by young adolescents. *Arch Pediatr Adolesc Med*. 2006; 160:375-380
56. Brown JD, L'Engle K, Pardun CJ, Guo G, Kenneavy K, Jackson C. Sexy media matter: exposure to sexual content in music, movies, television, and magazines predicts black and white adolescents' sexual behavior. *Pediatr*. 2006; 117:1018-1027.
57. Martino SC, Collins RL, Elliott MN, Strachman A, Kanouse DE, Berry SH. Exposure to degrading versus nondegrading music lyrics and sexual behavior among youth. *Pediatr*. 2006; 118:e430-e441.
58. Chandra A, Martino SC, Collins RL, et al. Does watching sex on television predict teen pregnancy? Findings from a National Longitudinal Survey of Youth. *Pediatr*. 2008; 122:1047-1054
59. Bersamin M, Todd M, Fisher DA, Hill DL, Grube JW, Walker S. Parenting practices and adolescent sexual behavior: a longitudinal study. *J Marriage Fam*. 2008; 70: 97-112.
60. Bleakley A, Hennessy M, Fishbein M, Jordan A. It works both ways: The relationship between exposure to sexual content in the media and adolescent sexual behavior. *Media Psychology*. 2008; 11:443-461.
61. Peter J, Valkenburg PM. Adolescents' exposure to sexually explicit Internet material and sexual preoccupation: a three-wave panel study. *Media Psychology*. 2008; 11:207-234.
62. Brown JD, L'Engle KL. X-rated: sexual attitudes and behaviors associated with U.S. early adolescents' exposure to sexually explicit media. *Communic Res*. 2009; 36:129-151.
63. Delgado H, Austin SB, Rich M, Bickham D. Exposure to adult-targeted television and movies during childhood increases risk of initiation of early intercourse (abstract). Presented at Pediatric Academic Societies meeting, Baltimore, MD, May 4, 2009.
64. Hennessy M, Bleakley, Fishbein M, Jordan A. Estimating the longitudinal association between adolescent sexual behavior and exposure to sexual media content. *J Sex Research*. 2009; 46:1-11.

65. Bersamin MM, Bourdeau B, Fisher DA, Grube JW. Television use, sexual behavior, and relationship status at last oral sex and vaginal intercourse. *Sexuality & Culture*. 2010; 14:157-168.
66. Ybarra ML, Mitchell KJ, Hamburger M, Diener-West M, Leaf PJ. X-rated material and perpetration of sexually aggressive behavior among children and adolescents: is there a link? *Aggressive Behav*. 2011; 37:1-18.
67. Santelli JS, Lindberg LD, Finer LB, Singh S. Explaining recent declines in adolescent pregnancy in the United States: the contribution of abstinence and increased contraceptive use. *Am J Public Health*. 2007; 97:150-156.
68. 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; 17:184-188.
69. Furstenberg FF Jr, Geitz LM, Teitler JO, Weiss CC. Does condom availability make a difference? An evaluation of Philadelphia's health resource centers. *Fam Plann Perspect*. 1997; 29:123-127.
70. Guttmacher S, Lieberman L, Ward D, Freudenberg N, Radosh A, Des Jarlais D. Condom availability in New York City public high schools: relationships to condom use and sexual behavior. *Am J Public Health*. 1997; 87:1427-1433.
71. Jemmott JB III, Jemmott LS, Fong GT. Abstinence and safer sex: HIV risk-reduction interventions for African American adolescents. *JAMA*. 1998; 279:1529-1536.
72. Schuster MA, Bell RM, Berry SH, Kanouse DE. Impact of a high-school condom availability program on sexual attitudes and behaviors. *Fam Plann Perspect*. 1998; 30:67-72.
73. Kirby D, Brener ND, Brown NL, Peterfreund N, Hillard P, Harrist R. The impact of condom distribution in Seattle schools on sexual behavior and condom use. *Am J Public Health*. 1999; 89:182-187.
74. Blake SM, Ledsky R, Goodenow C, Sawyer R, Lohrmann D, Windsor R. Condom availability programs in Massachusetts high schools: relationships with condom use and sexual behavior. *Am J Publ Health*. 2003; 93:955-962.
75. Sellers DE, McGraw SA, McKinlay JB. Does the promotion and distribution of condoms increase sexual activity? Evidence from an HIV prevention program for Latino youth. *Am J Public Health*. 1994; 84:1952-1959.

76. Kristof N. Beyond chastity belts. *New York Times*. May 2, 2006, p. A25. Available online at: http://select.nytimes.com/2006/05/02/opinion/02kristof.html?_r=1 Accessed 6/16/11.
77. Espey E, Cosgrove E, Ogburn T. Family planning American style: Why it's so hard to control birth in the US. *Obstet Gynecol Clin N Am*. 2007; 34:1-17.
78. Kaiser Family Foundation. *A Survey Snapshot: Condom Advertising on Television*. Menlo Park, CA: KFF, 2001.
79. Collins RL, Elliott MN, Berry SH, Kanouse E, Hunter SB. Entertainment television as a healthy sex educator: the impact of condom-efficacy information in an episode of Friends. *Pediatr*. 2003; 112:1115-1121.
80. Brodie M, Foehr U, Rideout V, et al. Communicating health information through the entertainment media. *Health Aff (Millwood)*. 2001; 20:192-199.
81. Rideout V. *Television as a Health Educator: A Case Study of Grey's Anatomy*. Menlo Park, CA: Kaiser Family Foundation; 2008.
82. Tannen T. Media giant and foundation team up to fight HIV/AIDS. *Lancet*. 2003; 361:1440-1441.
83. DuRant RH, Wolfson M, LaFrance B, Balkrishnan R, Altman D. An evaluation of a mass media campaign to encourage parents of adolescents to talk to their children about sex. *J Adolesc Health*. 2006;38: 298.e1-298.e9.
84. Strasburger VC, Jordan AB, Donnerstein E: Child and adolescent health and the media. *Pediatr*. 2010; 125: 756-767.
85. Gruber EL, Wang PH, Christensen JS, Grube JW, Fisher DA. Private television viewing, parental supervision, and sexual and substance use risk behaviors in adolescents (abstr). *J Adolesc Health*. 2005; 36:107.
86. Barkin SL, Finch SA, Ip EH, et al. Is office-based counseling about media use, timeouts, and firearm storage effective? Results from a cluster-randomized, controlled trial. *Pediatr*. 2008; 122:e15-e25.
87. Delli Santi A. Cell phone soap operas deliver safe-sex message. Associated Press, January 4, 2009.

88. Ralph LJ, Berglas NF, Schwartz SL, Brindis CD. Finding teens in TheirSpace: Using social networking sites to connect youth to sexual health services. *Sex Res Soc Policy*. 2011; 8:38-49.
89. Borzekowski DLG, McCarthy C, Rosenfeld W. Ten years of TeenHealthFX.com - A case study of an adolescent health website. *Pediatr Clin North Am*. 2012; in press.
90. Ramirez ER, Norman GH, Rosenberg DE, Kerr J, Saelens BE, Durant N, Sallis JF. Adolescent screen time and rules to limit screen time in the home. *J Adolesc Health*. 2011; 48:379-385.
91. Dalton MA, Adachi-Mejia AM, Longacre MR et al. Parental rules and monitoring of children's movie viewing associated with children's risk for smoking and drinking. *Pediatr*. 2006; 118: 1932-1942.
92. Jackson C, Brown JD, L'Engle KL. R-rated movies, bedroom televisions, and initiation of smoking by White and Black adolescents. *Arch Pediatr Adolesc Med*. 2007; 161:260-268.
93. Sisson SB, Broyles ST, Newton RL Jr, Baker BL, Chernausek SD. TVs in the bedrooms of children: Does it impact health and behavior? *Prev Med*. 2011; 52:104-108.
94. Mitchell KJ, Ybarra M. Social networking sites: finding a balance between their risks and their benefits. *Arch Pediatr Adolesc Med*. 2009; 163:87-89.
95. Collins RL, Martino SC, Shaw R. *Influence of New Media on Adolescent Sexual Health: Evidence and Opportunities*. Santa Monica, CA: RAND, 2011.
96. Strasburger VC: Why are teachers and schools so clueless about the media? *Liberal Opinion Week*, January 27, 2010, p. 24.
97. McCannon B. Media literacy/media education: solution to big media? In: Strasburger VC, Wilson BJ, Jordan A. *Children, Adolescents, and the Media*, 2nd ed. Thousand Oaks, CA: Sage; 2009, pp. 519-569.
98. Pinkleton BE, Austin EW, Cohen M, Chen Y-C, Fitzgerald E. Effects of a peer-led media literacy curriculum on adolescents' knowledge and attitudes toward sexual behavior and media portrayals of sex. *Health Commun*. 2008; 23:462-472.
99. Moreno MA, VanderStoep A, Parks MR, Zimmerman FJ, Kurth A, Christakis DA. Reducing at-risk adolescents' display of risk behavior on a social networking web site. *Arch Pediatr Adolesc Med*. 2009; 163:35-41.

100. Murphy ST, Hether HJ, Rideout V. *How Healthy is Prime Time? An Analysis of Health Content in Popular Prime Time Television Programs*. Menlo Park, CA: Kaiser Family Foundation, 2008.

FIGURES

1= Big Talk cartoon (Caption: Copyright c Stahler, *Cincinnati Post*. Reprinted with permission.)

2=Pew, gadgets (Caption: contained in Figure)

3,4 = Kaiser Media Use (Caption: From Ref. #30. Used with permission.)

5,6 = Kunkel, sex (Caption: From Ref. # 37. Used with permission.)

7,8= ISIS (Caption: From Ref. #3. Used with permission.)

9- NotMyFaultywood cartoon (Caption: Copyright c Jim Borgman. Reprinted with permission.)

TABLES

1=Longitudinal studies

2=Appropriate Sexual content

TABLE 1**RECENT LONGITUDINAL STUDIES OF THE IMPACT OF SEXUAL CONTENT ON SEXUAL BEHAVIOR**

<u>STUDY</u>	<u>N</u>	<u>MEDIA TYPE</u>	<u>DURATION</u>	<u>FINDINGS</u>
Wingood (2003)	480 14-18y. females	Rap videos	1 yr.	Exposure to sexual rap videos predicted multiple partners
Collins (2004)	1792 12-17y.	TV	1 yr.	Sexual media exposure strongly predicted intercourse a year later
Ashby (2006)	4808 7th-12th gr.	TV	1 yr.	> 2 hrs. TV/day increased risk Of intercourse 1.35x
Brown (2006)	1107 12-14y.	Sexual media diet (TV, movies, mags., music)	2 yrs.	2x increased risk of sexual intercourse for White teens with high sexual media diet
Martino (2006)	1242 12-17y.	Music	3 yrs.	Degrading sexual content predicted earlier intercourse

Bersamin (2008)	887 12-16y.	TV	1 yr.	Parental coviewing of TV protective against early intercourse and oral sex
Bleakley (2008)	501 14-16y.	TV, movies, mags., music, video games	1 yr.	Positive and reciprocal relationship between media exposure and intercourse
Chandra (2008)	744 12-20y.	TV	3 yr.	Sexual media exposure = a strong predictor of teen pregnancy
Peter (2008)	962 13-20y.	Internet	1 yr.	Exposure to sexual content on the Internet increased sexual preoccupation
Brown (2009)	967 7th-8th graders	X-rated movies, magazines, Internet pornography	2 yr.	Early exposure to x-rated media predicts earlier onset of sexual intercourse and oral sex
Delgado (2009)	754 7-18y.	TV, movies	5 yr.	Watching adult-targeted TV increases the risk of intercourse by 33% for every hr/day viewed at a young age

Hennessy (2009)	506 14-18y.	TV, movies, mags., music, video games	2 yr.	Increased risk of intercourse for White teens and media
Bersamin (2010)	824 14-18y.	TV	1 yr.	Premium cable TV viewing associated with casual sex
Ybarra (2011)	1159 10-15y.	X-rated media (movies, mags., Internet pornography)	3 yrs.	Intentional exposure to violent x-rated material predicted a nearly 6x risk of sexually aggressive behavior

TABLE 2

GUIDE TO RESPONSIBLE SEXUAL CONTENT IN TV, FILMS, AND MUSIC

- Recognize sex as a healthy part of life
- Parent-child conversations about sex should be encouraged
- Demonstrate that not only the young, unmarried, and beautiful have sexual relationships
- Not all affection and touching must culminate in sexual intercourse
- Portray couples having sexual relationships with feelings of love and respect for each other
- Consequences of unprotected sex should be discussed or shown
- Use of contraceptives should be shown as a normal part of a sexual relationship
- Avoid associating violence with sex or love
- Miscarriage should not be used as a dramatic prop for resolving an unwanted pregnancy
- The ability to say “no” should be respected

Adapted from Haffner DW, Kelly M. Adolescent sexuality in the media. SIECUS Rep. March/April, 1987, pp. 9-12.