

Impact of the Sexual Revolution: Consequences of Risky Sexual Behaviors

Sheetal Malhotra, M.B.B.S., M.S.

ABSTRACT

The Sexual Revolution in the United States significantly changed attitudes and behavior and has led to an increased prevalence of risky sexual practices. Early sexual debut in adolescents is correlated with multiple sexual partners, sexually transmitted infection (STI), teen pregnancy, and emotional consequences. Human immunodeficiency virus (HIV) and many other STIs such as herpes, chlamydia, gonorrhea, and syphilis are easily transmitted during oral, vaginal, or anal sex.

Approximately 19 million new STI cases occur each year: about half in young persons aged 15 to 24. About 750,000 teenagers become pregnant each year. Early sexual activity and multiple partners are also associated with altered self-esteem, depression, and impaired ability to form healthy long-term relationships. Condoms, contraceptives, vaccines, and screening may help in reducing the risk of infection or pregnancy, but do not eliminate the risk. The only certain way to avoid these consequences of the Sexual Revolution is sexual abstinence outside a mutually monogamous lifelong relationship with an uninfected partner.

Continuing Impact of the Sexual Revolution

For most people, the “Sexual Revolution” is a thing of the past—a term used in association with the “swinging” 1960s and 1970s. But the relaxation of sexual inhibitions that began in the 1960s continues. Risky behavior that became the norm at that time is still with us—along with the consequences.

Risky sexual behavior in adolescents is common—about half of persons aged 15 to 19 have tried vaginal sex, more than half have tried oral sex, and about 11% have tried anal sex. Early sexual debut is correlated with the number of lifetime sexual partners.^{1,2} About 40% of persons aged 15 to 19 have had multiple sexual partners. This proportion increases with age—about 75% of persons aged 20 to 24 have had multiple sexual partners. In those aged 20 to 24, about 90% have had vaginal sex, more than 80% have tried oral sex, and about 30% have tried anal intercourse.³

In the past few years, more and more adolescents are engaging in oral and anal sex.⁴ Many young people think these are safe because they do not cause pregnancy. However, human immunodeficiency virus (HIV) and many other sexually transmitted infections (STIs) such as herpes, chlamydia, gonorrhea, and syphilis are easily transmitted during oral or anal sex. The risk of acquiring an STI during anal sex is high because of lower bowel lacerations and trauma during anal intercourse. These cuts and tears in the anal mucosa create conditions that foster infection.⁵

Adolescents engage in sexual activity for a variety of reasons, including lack of parental guidance and monitoring, peer pressure, curiosity, desire for intimacy,⁶ history of sexual abuse,^{7,8} and other risky behaviors such as alcohol and drug use.^{9,10,11} Adolescents who start sexual activity at an early age have a higher number of sexual partners; a higher risk of STIs, nonmarital pregnancy, and maternal and child poverty; and are more likely to suffer depression and emotional consequences.¹²

Consequences of the Sexual Revolution: STIs and HIV

Approximately 19 million new STI cases occur each year, about half in persons aged 15 to 24. The most common infections include chlamydia, human papillomavirus (HPV), and trichomoniasis. These three account for 88% of all new cases in adolescents and young adults.¹³ Most of the STIs are asymptomatic, making detection and treatment a challenge.

Approximately 3 million new cases of chlamydia occur every year.¹³ Of all cases in female patients, half occur in girls aged 15 to 19. The infection is asymptomatic in 75% of infected women and about half of infected men.¹⁴ Gonorrhea is another highly common infection. Highest rates of gonorrhea are seen in women and girls aged 15 to 19 and young men aged 20 to 24. The disease is asymptomatic in 85% of infected men and more than half of infected women.¹⁵ Gonorrhea may damage joints, the heart, or the brain if untreated. Both chlamydia and gonorrhea also increase the risk of HIV infection by three- to five-fold.¹⁶

If untreated, 10% to 40% of women with chlamydia and up to 20% of women with gonorrhea develop pelvic inflammatory disease (PID). Gonorrhea and chlamydia account for one-fourth to three-fourths of the acute PID cases in young women.^{17,18} PID often leads to infertility, pelvic pain, and ectopic pregnancies. One million women are diagnosed with PID every year.¹⁹

Syphilis, another bacterial STI like chlamydia and gonorrhea, has recently reemerged in the U.S. Syphilis infection increases the risk of HIV infection two- to five-fold.²⁰

Common viral STIs include genital herpes, a chronic infection that afflicts more than 50 million people in the U.S. Genital herpes increases the risk of HIV three- to seven-fold.²⁰

HPV affects about 20 million people in the U.S.; about 6.2 million new HPV infections occur each year.²¹ Of the 100 known HPV types, 40 cause genital infections, of which 18 are high-risk types. While low-risk HPV types cause genital warts and low-grade cervical changes, high-risk HPV types are associated with more than 99% of cervical cancers. Each year more than 11,000 women are diagnosed with cervical cancer in the U.S., and about 3,700 die.

HPV infection also causes vulvar, vaginal, penile, anal, and head and neck cancers.

In 2006, more than 35,000 new HIV cases were diagnosed in the U.S. HIV infection is believed to lead to acquired immunodeficiency syndrome (AIDS), which may be fatal. More than 500,000 Americans have died of AIDS, with 16,000 deaths occurring each year.²² Currently, more than a million people are said to be living with HIV/AIDS,²³ and a quarter of them are unaware that they are infected.

Trichomoniasis, caused by a protozoan, is very a common STI, which is asymptomatic in 85% of men^{24,25} and 50% to 80% of women. Untreated trichomonas infection can cause premature rupture of membranes during pregnancy, and may be passed on to female infants. Trichomoniasis also increases two- to three-fold the chances of getting HIV.²⁴

Most of these infections can also be transmitted through oral and anal sex. An infected mother can transmit infections such as syphilis, gonorrhea, herpes, HPV, and HIV to the baby during pregnancy or childbirth. Since most of these infections are asymptomatic, many infected people and their partners remain unaware of transmitting and acquiring these infections until they are faced with the sequelae many years later.

Teen Pregnancy

More than 750,000 teen pregnancies occur each year;²⁶ most are nonmarital. This means that about one in 10 teenage women get pregnant in a year—or about one in five sexually active teenage women. One out of three girls becomes pregnant at least once before reaching age 20.²⁷ Teen parents are more likely to drop out of school, continue to have nonmarital pregnancies, change jobs more frequently, be on welfare, and have mental and physical health problems.²⁸

Emotional Consequences

Early sexual activity and multiple partners are also associated with pain and suffering from broken relationships, a sense of betrayal and abandonment, confusion about romantic feelings, altered self-esteem, depression,²⁹ and impaired ability to form healthy long-term relationships.

How Can We Prevent These Consequences?

The only certain way to avoid the consequences of the Sexual Revolution is sexual abstinence outside a mutually monogamous lifelong relationship with an uninfected partner. Condoms, contraceptives, vaccines, and screening may help in reducing the risk of pregnancy or infection, and may help in early detection and treatment of STIs.

Condoms and other contraceptives may reduce the risk of STIs and pregnancy, but do not eliminate it. Even 100% condom use does not totally eliminate risk of any STI, including HIV. Condoms

reduce the risk of HIV transmission by 85%, but for STIs such as gonorrhea and chlamydia, risk reduction is only about 50%.³⁰ And the risk reduction is less with inconsistent use. Even in adults who knew their partner had HIV, less than half report consistent condom use.³¹ Condom use studies are done for a limited period of time; risk, however, accumulates over years.

Even though a vaccine is now available for some types of HPV infection, there is no prevention for infection by other types of HPV. Moreover, the prevalence of HPV vaccine types is low in the infected population.³²

Contraceptives that are most effective for pregnancy prevention provide no STI protection, and may even increase the risk of certain infections.^{33,34} Even with the use of contraceptives, 15% to 20% of teens become pregnant. About 20% of teenage women using oral contraceptives are pregnant within 6 months, and 20% of those relying on condoms become pregnant within a year. Teen pregnancy is much more likely in cohabiting couples. Almost half (47%) of cohabiting teens get pregnant in the first year of contraceptive use.³⁵

It is important to screen sexually active young adults for STIs. The CDC recommends annual screening of sexually active women under the age of 26 for chlamydia. HIV screening is recommended annually for the sexually active population, and more often for those with high-risk behaviors such as multiple or anonymous partners. Site-specific tests may be required in some cases for those engaging in oral sex and anal intercourse.³⁶

Conclusion

The far-reaching consequences of the Sexual Revolution can be only partly ameliorated by screening, vaccinating, treating STIs, and using contraceptives. Physicians need to be aware of the risks and their magnitude, and to inform young patients that healthy sex occurs only between mutually faithful, uninfected partners.

Sheetal Malhotra, M.B.B.S., M.S., is epidemiologist for the Medical Institute for Sexual Health in Austin, Tex. Contact: Smalhotra@medinstitute.org.

REFERENCES

- 1 Rector RE, Johnson KA, Noyes LR, Martin S. *The Harmful Effects of Early Sexual Activity and Multiple Sexual Partners Among Women: A Book of Charts*. Washington, D.C.: Heritage Foundation; 2003.
- 2 Sandfort TG, Orr M, Hirsch JS, Santelli J. Long-term health correlates of timing of sexual debut: results from a national US study. *Am J Public Health* 2008;98:155-161.
- 3 Mosher WD, Chandra A, Jones J. Sexual behavior and selected health measures: men and women 15–44 years of age, United States, 2002. *Advanced Data from Vital and Health Statistics*, No. 362. Centers of Disease Control and Prevention, Division of Vital Statistics; Sep 15, 2005.
- 4 Gindi RM, Ghanem KG, Erbeding EJ. Increases in oral and anal sexual exposure among youth attending sexually transmitted diseases clinics in Baltimore, Maryland. *J Adolesc Health* 2008;42:307-308.

- ⁵ Halperin DT. Heterosexual anal intercourse: prevalence, cultural factors, and HIV infection and other health risks, Part I. *AIDS Patient Care STDs* 1999;13:717-730.
- ⁶ Donenberg GR, Bryant FB, Emerson E, Wilson HW, Pasch KE. Tracing the roots of early sexual debut among adolescents in psychiatric care. *J Am Acad Child Adolesc Psychiatry* 2003;42:594-608. Available at: www.pubmedcentral.gov/picrender.fcgi?artid=1201420&blobtype=pdf. Accessed Mar 30, 2008.
- ⁷ Senn TE, Carey MP, Venable PA, Coury-Doniger P, Urban MA. Childhood sexual abuse and sexual risk behavior among men and women attending a sexually transmitted disease clinic. *J Consult Clin Psychol* 2006;74:720-731.
- ⁸ Senn TE, Carey MP, Venable PA. Childhood and adolescent sexual abuse and subsequent sexual risk behavior: evidence from controlled studies, methodological critique, and suggestions for research. *Clin Psychol Rev* 2008;28:711-735.
- ⁹ Yan AF, Chiu YW, Stoesen CA, Wang MQ. STD-/HIV-related sexual risk behaviors and substance use among U.S. rural adolescents. *J Natl Med Assoc* 2007;99:1386-1394.
- ¹⁰ Diclemente RJ, Wingood GM, Sionean C, et al. Association of adolescents' history of sexually transmitted disease (STD) and their current high-risk behavior and STD status: a case for intensifying clinic-based prevention efforts. *Sex Transm Dis* 2002;29:503-509.
- ¹¹ Klein W, Geaghan T, Macdonald T. Unplanned sexual activity as a consequence of alcohol use: a prospective study of risk perceptions and alcohol use among college freshmen. *J Am Coll Health* 2007;56:317-323.
- ¹² Pergamit MR, Huang L, Lane J. *The Long Term Impact of Adolescent Risky Behaviors and Family Environment*. Chicago, Ill.: National Opinion Research Center (NORC), University of Chicago; August 2001. Available at: <http://aspe.hhs.gov/hsp/riskybehav01>. Accessed Mar 29, 2008.
- ¹³ Weinstock H, Berman S, Cates W Jr. Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. *Perspect Sex Reprod Health* 2004;36:6-10. Available at: www.agiusa.org/pubs/journals/3600604.pdf. Accessed Mar 29, 2008.
- ¹⁴ CDC. *Chlamydia Fact Sheet*. Atlanta, Ga.: Centers for Disease Control and Prevention, U.S. Dept of Health and Human Services; December 2007. Available at: www.cdc.gov/std/Chlamydia/STDFact-Chlamydia.htm. Accessed Mar 30, 2008.
- ¹⁵ Korenromp EL, Sudaryo MK, de Vlas SJ, et al. What proportion of episodes of gonorrhoea and chlamydia becomes symptomatic? *Int J STD AIDS* 2002;13:91-101.
- ¹⁶ Hanson J, Posner S, Hassig S, et al. Assessment of sexually transmitted diseases as risk factors for HIV seroconversion in a New Orleans sexually transmitted disease clinic, 1990-1998. *Ann Epidemiol* 2005;15:13-20.
- ¹⁷ Westrom L, Eschenbach D. Pelvic inflammatory disease. In: Holmes KK, et al., eds. *Sexually Transmitted Diseases*. 3rd ed. New York, N.Y.: McGraw-Hill; 1999:783-809.
- ¹⁸ Simms I, Stephenson JM. Pelvic inflammatory disease epidemiology: what do we know and what do we need to know? *Sex Transm Infect* 2000;76:80-87.
- ¹⁹ Wolner-Hanssen P. Pelvic inflammatory disease incidence and diagnosis. In: Mead PB, Hager WD, Faro S, eds. *Protocols for Infectious Diseases in Obstetrics and Gynecology*. 2nd ed. Malden, Mass.: Blackwell Science; 2000:394-399.
- ²⁰ Taylor S. Sexual transmission of HIV-1: New data from the 10th CROI [CME online activity]. *Medscape*. New York, N.Y.: WebMD; 2003. Available at: www.medscape.com/viewarticle/455430. Accessed Mar 30, 2008.
- ²¹ CDC. *Genital HPV Infection Fact Sheet*. Atlanta, Ga.: Centers for Disease Control and Prevention, U.S. Dept of Health and Human Services; December 2007. Available at: www.cdc.gov/STD/HPV/STDFact-HPV.htm. Accessed Mar 31, 2008.
- ²² CDC. Advancing HIV prevention: new strategies for a changing epidemic—United States, 2003. *MMWR* 2003;52:329-332. Available at: www.cdc.gov/mmwr/PDF/wk/mm5215.pdf. Accessed Apr 1, 2008.
- ²³ CDC. *HIV/AIDS in the United States*. Atlanta, Ga.: Centers for Disease Control and Prevention, U.S. Dept of Health and Human Services; March 2008. Available at: www.cdc.gov/hiv/resources/factsheets/us.htm#1. Accessed Apr 1, 2008.
- ²⁴ Sorvillo F, Smith L, Krendt P, Ash L, et al. *Trichomonas vaginalis*, HIV, and African-Americans. *Emerg Infect Dis* 2001;7:927-932.
- ²⁵ Schwebke JR, Hook EW, III. High rates of *Trichomonas vaginalis* among men attending a sexually transmitted diseases clinic: implications for screening urethritis management. *J Infect Dis* 2003;188:465-468.
- ²⁶ Guttmacher Institute. *U.S. Teenage Pregnancy Statistics National and State Trends and Trends by Race and Ethnicity*. New York, N.Y.: Guttmacher Institute; 2006.
- ²⁷ National Campaign to Prevent Teen Pregnancy. How is the 3 in 10 statistic calculated? Fact sheet; October 2006. Available at: www.teenpregnancy.org/resources/reading/pdf/3_in_10.pdf. Accessed May 7, 2008.
- ²⁸ Coley RL, Chase-Lansdale PL. Adolescent pregnancy and parenthood: recent evidence and future directions. *Am Psychol* 1998;53:152-166.
- ²⁹ Hallfors DD, Waller MW, Bauer D, Ford CA, Halpern CT. Which comes first in adolescence—sex and drugs or depression? *Am J Prev Med* 2005;29:163-170.
- ³⁰ NIH. *Workshop Summary: Scientific Evidence on Condom Effectiveness for Sexually Transmitted Disease Prevention*. Bethesda, Md.: National Institutes of Health, U.S. Dept of Health and Human Services; 2001. Available at: www.niaid.nih.gov/dmid/stds/condomreport.pdf. Accessed Mar 31, 2008.
- ³¹ Hearst N, Chen S. Condom promotion for AIDS prevention in the developing world: is it working? *Stud Fam Plann* 2004;35:39-47.
- ³² Dunne EF, Unger ER, Sternberg M, et al. Prevalence of HPV infection among females in the United States. *JAMA* 2007;297:813-819.
- ³³ Cates W Jr. Contraception, contraceptive technology, and STDs. In: Holmes KK, et al. *Sexually Transmitted Diseases* 3rd ed. New York, N.Y.: McGraw-Hill; 1999:1067-1087.
- ³⁴ Morrison CS, Bright P, Wong EL, et al. Hormonal contraceptive use cervical ectopy and the acquisition of cervical infections. *Sex Transm Dis* 2004;31:561-567.
- ³⁵ Fu H, Darroch JE, Haas T, Ranjit N. Contraceptive failure rates: new estimates from the 1995 National Survey of Family Growth. *Fam Plann Perspect* 1999;31:56-63. Available at: <http://agiusa.org/pubs/journals/3105699.pdf>. Accessed Apr 2, 2008.
- ³⁶ Workowski KA, Berman SM. Sexually transmitted diseases treatment guidelines, 2006. *MMWR Recomm Rep*. 2006;55(Aug RR-11):1-94.

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