From a clinical or public health perspective, the visible tracks of adolescent sex are its untoward consequences marking an otherwise obscure trail of sexuality running through young people’s lives. Some consequent sexual infections such as those due to human immunodeficiency virus (HIV) cause a treatable but fatal chronic illness, and all the sexually transmitted diseases may have sequelae that reverberate through the life span. Pregnancy—that most beatified evidence of the biological Homo sapiens of the seminal blessings of the divine—is framed as an epidemic scourge threatening ruin to our society. Despite conflicting evidence, pregnancy among teens is causally linked by many to poor birth outcomes, child abuse and neglect, poverty, and multigenerational welfare dependence. The language and images of epidemiological risk pervade both lay and professional discourse surrounding adolescent sex. The content and meaning of adolescent sexual health are diminished by research perspectives that implicitly endorse virginity until heterosexual married monogamy as a public health goal.

The primary purpose of this chapter is to briefly review a few of the implications of exclusive focus on epidemiological risk as a framework for understanding adolescent sexuality. A research orientation will then be outlined that attempts to reframe the rather narrow issues of sexually transmitted diseases and pregnancy within a broader understanding of the phenomenology of adolescent sex. The goal is not to discount the significant contributions drawn from the risk and risk-taking perspectives. Rather, the limitations of this perspective are presented by way of defining a path toward additional ways of enhancing our understanding of adolescent sex and learning how to help youth achieve a healthy sexuality.

RISK AND RISK TAKING

Confusion of the terms risk and risk taking has led to a great deal of conceptual mischief that mixes epidemiological observation with biological and psychological theory. In epidemiology, risk expresses the probability of a specified health outcome. Although risk is often taken as shorthand for adverse or undesirable outcomes, outcomes are technically...
either harms or benefits. Beneficial outcomes are taken as absence of harms. In a more
restricted sense, risk refers to the likelihood of an outcome (usually but not necessarily a
disease and usually in a specified time frame),
given the presence of specific conditions (risk
factors). Risk factors—especially those asso-
ciated with high-visibility public health cam-
paigns—often become synonymous with the
adverse outcome. The absence of a risk
factor is equated with protection. This
language of risk and protection aligns closely
to traditional sexual proscriptions: no sex
until marriage.

Because traditional epidemiology assumes
that a risk factor operates within a set of
more-or-less complex causal linkages, so
understanding of risk and risk factors
obviously offers a useful starting place for
intervention. Ideally, risk is probabilistic,
objective, and morally neutral. However, the
language of risk—as applied to adolescent
sex—can be striking in its starkness. This is
most clearly epitomized by writings about
the various epidemics of HIV infections
among adolescents. For example,

A healthy, productive generation of adoles-
cents in the 1990s will ensure that America
has the healthy generation of adults needed
to support the growing elderly population
in the 21st century. The AIDS epidemic
threatens the viability, perhaps the very
existence, of this next generation. The
social and economic well-being of this first
“AIDS generation” may well predict the
future well-being of this nation as a whole
in the next century. (Hein, 1992, p. 3)

This is an apocalyptic vision of a nation
brought to ruin by the infectious conse-
quences of voluntary behaviors. It is quite a
burden to attach to a single age group.
Recognition of the magnitude of the HIV
epidemic clearly contributed to the increased
emphasis on the health risks of adolescent
sex. Despite the relative rarity of HIV disease
among adolescents, adolescent sex is linked
to the HIV-related diseases of adults.
Research related to adolescent sexual behav-
ior is now commonly introduced by some
variation of the following:

Many of the new AIDS cases are diagnosed
in the 20–29-year-old population. Since the
average time from HIV infection to the
development of AIDS may be as long as
10 years, many of these young adults are
believed to have contracted HIV during
adolescence. (Klein et al., 2001, p. 193)

Linking adolescent behavior to adult disease
means that almost any aspect of adolescent
sexual behavior is problematic. This formu-
lation is difficult to criticize. Stoic acceptance
of preventable casualties is immoral, either as
personal philosophy or as public health policy.
However, research and policy perspectives
grounded only in sex-as-risk cannot see adoles-
cent sex as a vehicle for advanced knowledge,
expanded experience, and perfected skills.

The shorthand rhetoric of adolescent
sex-as-risk also treats specific sexual risk
behaviors as inherent attributes of adolescent
sexuality. Sex with multiple partners, rela-
tively frequent intercourse, and inconsistent
use of barrier contraception (i.e., condoms)
are often cited as characteristics of adolescent
sexual behavior associated with increased
risk of sexually transmitted infections.
Although seldom included in recent scientific
literature, an assumption that adolescent sex
is inherently promiscuous lies not far beneath
the surface. As risk factors, condom nonuse
and number of sex partners increase risk of
adverse consequences. As presumed charac-
teristics of adolescent sex, however, these are
alarmist phrases used to characterize all
adolescent sexual behavior, excluding con-
deration of those adolescents who regularly
attempt prevention of sexually transmitted
diseases (STDs) or those for whom sexual
experiences with more than one person are
potentially useful as a developmental phase.
For most health conditions, persons without risk factors still have some risk of the adverse outcome but at a lower level compared with those with a specified risk factor. For example, coronary artery disease occurs among persons with normal cholesterol levels, albeit at lower rates compared with those with higher cholesterol levels. By contrast, sexual behaviors are a relatively less common class of risk factor (for the outcomes of sexually transmitted diseases and pregnancy) where the absence of a risk factor (e.g., coitus or other sexual contact) completely removes risk of the adverse health outcome. Much of the history of efforts to control sexually transmitted diseases in this century has revolved around efforts—often cloaked in the language and professional stature of medicine—to remove sex as a risk factor for sexually transmitted disease. Implementation of virginity as public health policy (exemplified by recent federal legislation) is only the most recent example of a recurrent effort that has failed in most of the decades of this century.

Of course, abstinence is not the only solution proposed to meet the perceived threats of STD and pregnancy. During the past decade, condom use has become the sine qua non of responsible sex. Each coitus is latex protected, and unprotected opportunity is rejected on principle. In many respects, the change of attitudes about condoms and the dramatic increase in condom use during the past decade reflect the success of public education and behavior change. Condom use by sexually active teenagers is reasonably described as a social norm. Even now, however, the great ambivalence about adolescent sex continues to require emphasis on the risks of sex and inadequacies, even the dangers, of condoms.

For adolescents, the lingering interest in risk elimination (i.e., by removing sex as a risk factor) dominates most discussion about condom use. Abstinence is offered as the preferred choice. Condoms are a begrounded second alternative for those failing abstinence. Here, both public and professional discourse identifies the physical and behavioral deficiencies of condom use, especially for STD prophylaxis. For example, critics responding to recommendations for school-based condom availability programs cited the following data:

Condoms have a poor track record as contraceptives (30% failure for youngsters), offer no protection against chlamydia or HPV, and have a 17% rate of tearing, breakage, and slipping. With regard to HIV, they are not impermeable. There are no long-term controlled studies demonstrating efficacy. A meta-analysis calculates a 30% failure rate. (Friedman & Trivelli, 1996, p. 285)

The STD prevention effectiveness of condoms is an issue of real concern, although the data for specific STDs are surprisingly unclear. The point of interest, however, is that a prevention effectiveness of less than 100% is defined as ineffective when the topic is sex and the subjects are adolescents. From the sex-as-danger perspective, the risks of sex are great and condoms inadequately effective. The logic of the risk perspective of adolescent sex thus leads once more to abstinence. Curiously, similar standards of effectiveness don't seem to apply in other aspects of adolescents' lives. Rigorous application of the absolute protection rule would require banning high school football because helmets don't prevent all head injury. Teens would also need to "abstain" from contact with motor vehicles because traffic regulations, advanced safety engineering, seatbelts, and airbags do not prevent all collision-related injuries and deaths.

Even when condom effectiveness is not an issue, the risk perspective shapes both research paradigms and public health interventions. As mentioned earlier, condom use
is implicitly inconsistent if it falls short of 100% of exposures, and self-reported "Always" use of condoms has become a standard definition of consistent condom use in some adolescent health research (DiClemente, Lodico, et al., 1996). Condom use is often measured by a single item, typically asking the subject to indicate how often a condom was used during sexual intercourse. Various time periods (usually 3 to 12 months) are used, and the subjects are provided with alternatives such as "Never," "Rarely," "About half the time," "Most of the time," and "Always." Only those endorsing "Always" are counted as condom users; all others—despite their obvious behavioral differences as well as their differences in risk of STD—are singly grouped as "nonusers." This approach has been justified because "effectiveness [of condoms] as a risk reduction strategy is dependent on consistent use" (DiClemente, Lodico, et al., 1996, p. 270).

From the perspective that all adolescent sex is dangerous (risky), this approach to condom use measurement is logical. However, other conceptual and methodological issues arise. For starters, substantial variability in behavior is hidden among adolescents who choose the "Always" option on questionnaires. For example, our research group has demonstrated major differences in subjects' interpretations of the meaning of "Always," and we have shown—in a comparison of survey reports of condom use with diary records of sexual activity among adolescent women—that those reporting "Always" condom use recorded condom use for between 0% and 100% of coital events (Fortenberry, Cecil, Zimet, & Orr, 1997). The finding that "Always" does not mean 100% raises very serious questions about the appropriateness of this rather restrictive measurement philosophy. Furthermore, some subjects in our study identified their condom use as "Most of the time" but then indicated condom use for every coital event. From the "all-or-none" perspective, these highly consistent users would be grouped with those who never used condoms at all.

The problems caused by this purposeful misclassification of subjects' responses are serious enough. When translated to the actual message given to teens, the effects of a 100% condom use standard are potentially quite dangerous. Many teens who fail in this very demanding task believe that a point-of-no-return has been crossed and that additional condom use is now futile. Perhaps more important, a standard of 100% condom use suggests that negotiation within a sexual relationship is not acceptable or that a given relationship may be accurately appraised as having relatively low STD risk. Despite warnings that such demands for absolutism are dangerous (Canes & Himman, 1992), the risk perspective of adolescent sex leaves no other logical alternative.

The "sex-as-risk" perspective has been taken up for political purposes as well, and it intersects surprisingly well with current public health approaches. In defense of positions advocating "abstinence," some writers argue that failure rates for condoms are so high as to make it hazardous either as public health policy or as a standard for personal behavior. These commentators suggest that condoms promote adolescent sexual activity by removing inhibitions (presumably due to fear of disease); higher levels of sexual activity combined with low levels of efficacy (either for STD/HIV or pregnancy prevention) make abstinence the only feasible health standard for policy or behavior. Several studies demonstrate no effect on levels of sexual activity when condoms are made available, for example, in schools (Kirkby, 2002). For the most part, however, this argument has been resistant to data, in part, because of fairly widespread willingness to ignore evidence in favor of ideology.

The risk perspective generates an even more insidious set of problems. Not only is
coitus itself dangerous, but noncoital sexual behaviors such as mutual masturbation is suggested as a risk because it is said to cause unanticipated emotional reactions (for which teens may be unprepared) and presumably may lead to coitus. Exactly what the “unanticiptated emotional reactions” might be, and the ways in which they might be harmful, is unclear. Recent concern about an “epidemic” of oral sex among adolescents—concern justified because of poorly documented risks of HIV and other sexually transmitted organisms associated with oral sex—additionally suggests that adolescent sexual expression itself (rather than adverse outcomes) is the source of public anxiety (Edwards & Carne, 1998b; Remer, 2000). The idea that mutual masturbation or oral sex experiences may be educating, pleasurable, and self-affirming is alien to the risk perspective. Developmentally, however, such experiences are exactly the point of adolescence. Anke Ehrhardt (1996) points out that the sex-as-risk perspective completely negates those aspects of adolescents’ sexual learning that require experience and information if competency is to be achieved. Dr. Ehrhardt suggests that our narrow focus on fear of consequences may lead to increased rates of sexual dysfunction and interpersonal problems. To this point, issues related to the widely used if not predominant paradigm of adolescent sex as risk have been presented. Adolescent risk taking is a distinct but conceptually related issue that is widely used in discussions of adolescent sexual behavior.

ADOLESCENT SEX AS RISK TAKING

The epidemiological risk associated with adolescent behaviors (including sexual behaviors) led to the development of a peculiar perspective during the 1980s. Volitional behaviors associated with substantial morbidity (i.e., risk) were labeled as risk taking in an effort to simultaneously explain epidemiological patterns of morbidity (due to disease, injury, and pregnancy) and the developmental biological, social, and psychological antecedents of these behaviors. One widely cited definition of risk taking noted,

Our definition of risk taking includes only volitional behaviors in which the outcomes remain uncertain with the possibility of an identifiable negative health outcome. Young people with limited or no experience engage in behaviors with anticipation of benefit and without understanding the immediate or long-term consequences of their actions. (Irwin, 1993, p. 11)

The model seems most directly derived from observations about recreational and motor vehicle injury patterns among adolescents. For example, risky use of bicycles or skateboards (among younger adolescents) and various patterns of risky motor vehicle operation (among older adolescents) are often cited as justification for the risk-taking perspective. The facts that younger drivers tend to drive at higher rates of speed and change lanes without signals and have more single vehicle accidents are usually cited. Sexual behavior then becomes risk taking because of its inherent risks and because adolescents engage in risk taking while riding bicycles or driving cars. The motor vehicle accident metaphor has been extended even further with the “sex under the influence paradigm that equates substance use to impaired judgment, loss of control, and subsequent sexual “accidents.” This metaphor is so appealing that it has resisted substantial evidence to the contrary.

Risk taking has been applied to a full range of adolescent sexual behaviors. Coitus is risk taking, of course. Having more than one partner during a given time interval (even if these are sequential partners) is risk taking. Failure to use condoms or contraceptives is
risk taking. Inconsistent condom use is risk taking. Penile-anal intercourse is risk taking. There is no provision within the risk-taking model for sex that is not risk taking. Sex that would take place because of mutual desire, reciprocated liking, or out of desire for intimate companionship is not considered. Or such considerations would be irrelevant. The risk-taking perspective suggests that adolescent sex is risk taking because the behaviors entail social and physical risks and because many adolescents have sex. Thus, risk taking (including sexual risk taking) becomes a defining characteristic of adolescence. Those who are not risk takers might even be considered abnormal from this perspective. Adolescence—with all its intimations of exploration and change—is reduced by this model to a disease (Baizerman & Erickson, 1988).

Limitations of the Risk Perspective

The focus on adolescent sex as a risky (or risk-taking) behavior has clearly contributed greatly to understanding of adolescent sexuality. As with many ideas that were quite serviceable in their time, the limitations of risk and risk-taking perspectives are increasingly obvious. Here is a partial listing of a few of the more important limitations of these perspectives.

The Negation of the Experiential, Developmental, and Maturational Aspects of Sex. Some writers note that risk and risk-taking aspects of adolescent sex are part of the experimental, tentative nature of adolescent development. For the most part, however, the risk/risk-taking perspective ignores the fact that it is exactly these types of experiences that may stimulate development of adult competencies. A hint of this perspective even seems to have lingered in an otherwise excellent vision of the National Commission on Adolescent Sexual Health: "Society should encourage adolescents to delay sexual behaviors until they are ready physically, cognitively, and emotionally for mature sexual relationships and their consequences" (Sexuality Information and Education Council of the United States, 1995, n.p.).

Neither is this report, or the literature in general, entirely clear about the qualities of "mature sexual relationships," nor is a rationale provided for insisting on the maturity of an interpersonal relationship that by definition is based on relative lack of experience and skill.

The Negation of Important Intra- and Interpersonal Aspects of Sexuality. The risk/risk-taking perspectives seldom address the apparently substantive personal and interpersonal reasons that adolescents might have for having sex. In consequence, we are left with an exclusive—almost pornographic—focus on relative physical proximities of genitals (nearly always the penis and vagina). Our understanding of adolescents' sexualities is so rudimentary that most discussions collapse to the percentage of adolescents who have ever put/received a body appendage in an orifice, with how many people, and to what consequence. So one can say with a fair degree of precision how many teens get gonorrhea or HIV or have an elective abortion but have almost no idea about the relative importance that adolescent boys attach to touching or the frequency of orgasms in adolescent girls.

Lack of Attention to Larger Issues of Social Control of Sexuality. As noted earlier, the risk/risk-taking perspectives—with epidemiologically justified emphasis on abstinence—become powerful tools for reinforcing traditional gendered sex roles and predominant social-cultural themes of nonmarital chastity. Safer sex discussions for adolescents often emphasize the certainty of STD/HIV prevention by abstinence, simultaneously
emphasizing the fallibility of condoms. Marriage is asserted as the defining condition of coital behavior, as a solution to the epidemiological and other social perils of unregulated sex. Legislative insistence on abstinence-only education and provision of federal dollars to encourage marriage among the poor are policies consistent with data provided by risk/risk-taking research perspectives.

BEYOND RISK/RISK TAKING: A RESEARCH AGENDA

Two important points are evident. First, the risk and risk-taking perspectives of adolescent sex create such a narrow focus on the genital specifics of sex that abstinence and mandated virginity are logical outcomes. Second, this view is untenable, not because abstinence is good or bad but because the genital specifics are—in a larger sense—irrelevant. The risk/risk-taking perspectives draw focus away from the development of sexuality and its importance in an adolescent’s life to the brief conjunction of a few square centimeters of epithelium.

Finally, an additional research orientation is needed to expand understanding of adolescent sexuality and its important personal and public health consequences. Although not exhaustive, several key elements of this expanded research perspective are listed.

Development of the Gendered Aspects of Sexuality Throughout Adolescence. The extension of feminist perspectives to the understanding of sexuality among adolescent girls has increased attention to developmental conflicts between adolescents’ sexual knowledge and desire and cultural scripts available from the surrounding culture (Tolman, 2000). Our understanding of adolescent male sexuality could benefit from similarly nuanced analyses.

Place and Geography. Unequal distribution of some sexually transmitted organisms means that risk of infection differs among adolescents with similar sexual behaviors. Social resources, community standards, access to care, and collective efficacy are issues of increasingly recognized importance in the epidemiology of sexually transmitted infections (Ellen, Hessol, Kohn, & Bolan, 1997). Fullilove (2001) and others point out the consequences of destruction of urban communities in the name of “urban renewal.” These sorts of influences are typically excluded from risk/risk-taking research perspectives.

Social and Sexual Networks. A recent report found that many adolescent females with bacterial sexually transmitted infections had few behaviors associated with high risk for infection (Bunnell et al., 1999). Infections were presumably “imported” by sex partners with links to higher-risk sexual networks. Selection of sex partners with markedly different levels of sexual activity may be associated with increased levels of risk in some groups (Laumann & Youm, 1999).

Relational Contexts of Sexual Behaviors. Relatively little research addresses adolescent sexual behavior within the context of sexual dyads. Within-dyad communication, conflict, power, and influence are receiving increased attention in terms of adolescent romantic relationships. To date, however, this research gives less attention to issues of sexuality and sexual behavior within these relationships. We have shown, for example, that adolescent dyads with noncongruent levels of involvement in health-harming behaviors such as alcohol and marijuana use are less consistent condom users than dyads congruent for low levels of alcohol/marijuana use but more consistent than dyads congruent for high levels of substance use (Forrenberry, in press).
Phenomenology of Adolescent Sexual Behavior. Variable, day-to-day factors such as opportunity, mood, and partner support may influence the occurrence of sexual activity and related behaviors. For example, we found increased levels of positive mood were associated with increased probability of coitus on any given day but were not associated with condom use when coitus did occur (Fortenberry, Temkit, Harezlak, Tu, & Orr, 2001). Other day-to-day factors such as school difficulties and conflict with parents could also be productively examined as factors surrounding and perhaps influencing adolescent sexual behaviors.

CONCLUSION

The epidemiological consequences of adolescent sexual behavior are an important focus of social and behavioral research. Nearly exclusive focus on risk, however, has created a limited research paradigm with uneasy correspondences to a social and political agenda that excludes sex from adolescent sexual health. With an eye on outcomes, a more balanced research perspective may better inform our understanding of adolescent sexuality and improve efforts to reduce harmful consequences.