

RUNNING HEAD: ADOLESCENT SEXUAL BEHAVIOR

**Adolescent Sexuality: Current Directions in Health and Risk-Reduction**

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### Summary Points

- Sexuality is a normative developmental task of adolescence, requiring a balanced focus on the risky aspects of sexual behavior as well as sexual health, well-being, and pleasure.
- The majority of young people in Western countries engage in some form of sexual behavior by age 17 to 18 years, but this varies with gender, ethnicity, economic status, family relationships, pubertal timing, and dating behavior.
- Young people today practice safe sex behaviors at levels at or better than generations before, but in many countries they still have concerning rates of sexual transmitted infections and unintended pregnancy.
- The best evidence suggests that general skills-based programs, which include risk-reduction and contraceptive information, provide the information and interpersonal, emotional and decision-making skills that equip adolescents to negotiate sexual relationships and experiences in safer ways.

### **Adolescent Sexuality: Current Directions in Health and Risk-Reduction**

Sexuality is often defined to include sexual behavior, the development of sexual preferences, the understanding of the self as a sexual being, sexual decision-making, and agency (Vasilenko, Lefkowitz, & Welsh, 2014). It also incorporates the understanding of others' sexual desires, and how to approach and manage intimacy with another person. Although sexual development and sexuality are founded in biology (Harden, 2014; Rodgers & Rowe, 1993), they also evolve from new life experiences that become more prevalent in adolescence, including the tendency to form close, dyadic relationships with peers of the same- and other-sex, and increased autonomy to spend more time with peers without the presence or supervision of parents or other adults (Impett & Tolman, 2006; Savin-Williams & Diamond, 2004; Zimmer-Gembeck, Ducat, & Collins, 2011; Zimmer-Gembeck, 2002). Thus, it is not surprising that all aspects of sexuality develop rapidly, expand with sexual expression and depth of experience during adolescence (and early adulthood), and become highly salient features of adolescents' and early adults' daily lives.

In this chapter, we provide a brief review of current research on adolescent sexuality, and focus primarily on sexual behavior, conceptions of the sexual self, and sexual health. We begin by describing challenges in the study of adolescent sexual behavior, as well as the theoretical frameworks most utilized by researchers, before briefly summarizing what is known from research about the onset and progression of behavior, and the correlates of early onset sexual behavior. We highlight similarities and differences between male and female adolescents, and consider the role of sociocultural background. We then discuss other aspects of sexuality, most prominently sexual self-perceptions and their role in sexual health and satisfaction. Finally, we summarize some recent research on school programs designed to assist youth with their sexual behavior decisions and/or positive sexual development.

## **The Study of Adolescent Sexuality**

The predominant emphasis of research in the past four decades has been on the risks associated with adolescent sexual behavior. Many scholars have adopted a problem orientation and used Problem Behavior Theory (Jessor & Jessor, 1977) or Social Control Theory (Hirschi, 1969) to guide their research on adolescent sexuality (e.g., Capaldi, Crosby, & Stoolmiller, 1996; Tubman, Windle, & Windle, 1996). Others have had the primary aim of understanding the correlates of sexual risk behavior in order to gather information useful to risk reduction programs to improve public health. For example, in some studies, the aims have been to understand adolescent sexual planning and decision-making to guide the development of better interventions to assist adolescents to delay sexual intercourse, improve condom use or limit their number of sexual partners (e.g., Sieving, McNeely, & Blum, 2000).

Another perspective on adolescent sexual behavior has been described in longitudinal studies that emphasize sexuality as part of normative development, as well as continuing to note the importance of individual dispositions and social environments in the development of sexual behavior patterns. In these investigations, researchers have emphasized the importance of the unfolding of biological processes. In what could be called a Biosocial Model, along with extensions of this model (Rodgers & Rowe, 1993), sexual activity, unlike other behaviors that can be risky, has been described as an activity almost every person will engage in by young adulthood and throughout life. Because of the normative biological and social-relational aspects of sexual behavior, researchers with this perspective have acknowledged the importance of biological factors, such as hormones and physical maturation, and social factors related to maturation, such as dating, that may promote the onset and patterns of sexual behavior during adolescence.

Overall, this variety of views highlights the fact that adolescents can be both risky and

responsible, and sexuality development can be a correlate of other problems but also is an essential component in intimacy, pleasure and closeness including the refinement of skills in acquiring and maintaining positive relationships and support throughout adulthood (Siebenbruner, Zimmer-Gembeck, & Egeland, 2007; Willoughby et al., 2007). These perspectives highlight sexuality as an important developmental task of adolescence, and advances a developmental research agenda focused on positive sexual health promotion (Boislard & Zimmer-Gembeck, 2012; Diamond, 2003; O'Sullivan, Meyer-Bahlburg, & McKeague, 2006) rather than viewing this component of human life as aberrant or deviant in its earliest forms.

### **Sexual Behavior**

**Onset and progression.** There are countless surveys that provide information about how many adolescents are engaging in a range of different sexual behaviors. In fact, searching the literature can produce literally thousands of reports from the last half-century alone on sexual behavior. This can make consolidating this information complex and confusing. Nevertheless, the most recent of these studies provide up-to-date age-, gender-, and racial/ethnic-specific rates of vaginal intercourse and, increasingly, other forms of sexual behavior such as oral sex. In the USA and other countries, there also are comprehensive and diverse longitudinal datasets that have been ideal for exploring individual differences in sexual behavior from the earliest years of adolescence into adulthood, and differences in patterns and progress in sexuality across these age periods (for reviews see Dir, Coskunpinar, & Ciders, 2014; Zimmer-Gembeck & Helfand, 2008).

What do these studies tell us? First, they tell us about rates and progression of sexual behavior with increasing age. It is clear that the majority of young people residing in the U.S. (and in some other Western countries, such as Australia and Canada) have first sexual intercourse before leaving secondary school, with a first experience of vaginal intercourse most common at

ages 16 or 17 years (Rotermann, 2012; Longmore, Manning, Giordano, & Rudolph, 2004; Zimmer-Gembeck, Ducat, & Boislard-Pepin, 2011). This average timing of first sexual intercourse is similar, but sometimes slightly later (e.g., at 17 rather than 16 years), among adolescents in Western European countries (Boyce et al., 2006; Skinner, Smith, Fenwick, Fyfe, & Hendriks, 2008). Overall, by about age 16-17, 50-70% of Western adolescents have experienced sexual intercourse, and 70-90% report first sexual intercourse by age 18 (for a review, see Zimmer-Gembeck, 2013). Sexual behavior rates can vary from study to study within a country, however. For example, surveys show that the percentage of adolescents who report first vaginal intercourse by the end of grade 8 can be as low as 10% to as high as almost 40%, where adolescents in economically disadvantaged urban environments typically report earlier initiation of intercourse than other adolescents (e.g., O'Donnell, Myint-U, O'Donnell, & Stueve, 2003; Santelli et al., 2004; Waller & Dubois, 2004).

Second, sexual surveys tell us about gender and racial/ethnic differences. In general, the gap in age of sexual activity initiation between boys and girls seems to be closing (Grunbaum et al., 2004). Nevertheless, a large minority of studies from the US still report that males have their first experience of intercourse earlier than females (see Zimmer-Gembeck & Helfand, 2008). The variability in rates of sexual behavior is explained in part by jointly considering gender and race/ethnicity. When both are considered, the proportion of non-Hispanic Black study participants can often explain the gender difference, because Black males tend to report the earliest onset of vaginal intercourse when compared to all other groups including Black females (O'Sullivan, Mantsun, Harris, & Brooks-Gunn, 2007). However, even among Black American adolescents, the gender gap seems to be narrowing (L'Engle & Jackson, 2008).

Third, recent surveys inform us about sexual behaviors other than intercourse. For example,

some studies report that rates of oral sex among teenagers are similar to rates of vaginal intercourse (Malacad & Hess, 2010) and that, if it is initiated, the onset of oral sex occurs just months earlier than the time of first vaginal intercourse (O'Sullivan et al., 2007). Moreover, although the increasing rate of oral sex among adolescents has been a concern expressed by many parents and policymakers in recent years, oral sex among adolescents does not seem to be more prevalent today compared to rates reported before the new millennium (Maticka-Tyndale, 2008). It is important to note, however, that there has been a tendency to overlook some of the sexual activity among the 1% to 15% of adolescents who report same-sex attraction (Boyce et al., 2006; Savin-Williams & Diamond, 2004), but surveys show that most same-sex attracted youth do engage in heterosexual vaginal intercourse at some time during their teen years (Halpern, 2011). In addition, the tendency to focus on vaginal intercourse equates onset of a partnered sexual life as occurring at first intercourse, when in fact many adolescents report a range of sexual activities, such as breast and genital fondling, long before first intercourse occurs (O'Sullivan et al., 2007). Moreover, much of their early partnered sexual life is sporadic with extended delays between occasions, and most sexual experiences occurring within the context of a steady relationship (Giordano, Manning & Longmore, 2006).

Fourth and finally, as described above for oral sex, surveys tell us about historical and cohort changes in adolescent sexual behavior. When rates from the 1970s, 1980s, 1990s, and later are compared, it seems that adolescents are more likely to delay first intercourse until the later teen years compared to adolescents growing up in the 1970s or 1980s (Maticka-Tyndale, 2008). Furthermore, today's adolescents are more knowledgeable about safe-sex behaviors, and they are better able to carry out these safe behaviors (e.g., using condoms) than adolescents in previous decades, suggesting that they in many ways have a more positive sexual health record than their

parents' and often their grandparents' generations. Other good news is that less than 10% of adolescents report vaginal intercourse without any contraception in some surveys, although the proportion of youth reporting inconsistent use of contraceptives is higher than 10% in other surveys (Boyce et al., 2006; Finer & Philbin, 2013; Wielandt, Boldsen, & Knudsen, 2002). Other good news is that teens seem to limit their number of sexual partners when they are sexually active, with most reporting a history of 1 or 2 partners (Lindberg, Jones, & Santelli, 2008). On the other hand, in many countries (e.g., the US, the UK, and New Zealand) adolescents continue to have a higher than desired rate of unintended pregnancy. In addition, rates of sexually transmitted infections (STIs) are still alarmingly high among young people. For example, the US Centers for Disease Control and Prevention find that youth 15-24 years account for almost half of new infections annually (Satterwhite et al., 2013). One in four sexually active women in this age range has an STI, such as chlamydia (Forhan et al., 2009).

**The correlates of sexual debut.** The evidence regarding the correlates of early (usually defined as age 15 or earlier) onset of first vaginal intercourse has been summarized in four comprehensive reviews (Goodson, Evans, & Edmundson, 1997; Kirby, 2002; Kotchick, Shaffer, Forehand, & Miller, 2001; Zimmer-Gembeck & Helfand, 2008). In these reviews, many correlates of earlier first sexual activity are described ranging from person factors, such as earlier pubertal onset and a tendency towards more problem behavior, to religious factors, such as lower church attendance to parenting factors, such as less monitoring of adolescents' behavior (e.g., parents having less knowledge about adolescents whereabouts, interests, and activities; less likely to set a curfew). Being involved in dating earlier is also a strong correlate of earlier sexual behavior. Of this range of correlates, it is difficult to identify precisely which contributes most to early sexual initiation, especially when considering the added complexity of how these factors interact with and

buffer each other (e.g., see Kincaid, Jones, Sterrett, & Mckee, 2012). For example, the correlates of sexual initiation are intercorrelated with each other suggesting complex pathways to sexual intercourse. For example, family factors, such as living in a two-parent home and the levels of parental warmth are rarely associated with adolescent sexual intercourse when factors like dating behavior, deviance in friends or adolescent problem behavior are also considered. Such findings across the studies summarized in these reviews (e.g., Zimmer-Gembeck & Helfand, 2008) suggest that family factors are not directly implicated in the onset of adolescents' sexual behavior, but are indirectly important via their roles in establishing the types of friends that adolescents will have, the problem behaviors such as substance use that adolescents will experiment with, and adolescents' attitudes and aspirations. A further example is found within the association of pubertal development and earlier sexual debut, where the association is indirect via puberty's role in prompting the earlier establishment of dating relationships (Siebenbruner et al., 2007; Zimmer-Gembeck & Collins, 2008).

### **The Sexual Self**

Much like adults, male and female adolescents' sexual experiences can involve a spectrum of feelings, reactions, and appraisals. Researchers note that adolescents' sexual experiences can be emotionally and physically satisfying but also caution that they can prompt significant negative emotional reactions, such as guilt, shame, anger, regret, and disappointment (Impett & Tolman, 2006; Smiler, 2013). Other research has found that high levels of positive desire, pleasure and satisfaction characterize almost all sexual experiences among young people, even when an occasional sexual problem emerges (O'Sullivan & Majerovich, 2008). One adaptive outcome of sexual experimentation during adolescence seems to be emotional and cognitive growth, such as developing a firmer or more positive sense of what it means to be a sexual partner and producing

heightened feelings of confidence in one's ability to manage sexual and other intimate interactions. For example, research has shown that a greater range of sexual experiences in late adolescence and early adulthood is associated with enhanced reflection about the self and relationships, and is associated with greater esteem about one's sexual self, the body, efficacy in the sexual domain; all of these feelings of sexual esteem and efficacy have been associated with greater general well-being and life satisfaction in late adolescents and early adulthood (Horne & Zimmer-Gembeck, 2005; Zimmer-Gembeck et al., 2011). Overall, many adolescent sexuality researchers, health experts, and educators are coming to recognize that individual sexual attitudes, perceptions, and related cognitions are core to sexual health and that these sociosexual attitudes and perceptions can sometimes be associated with experiences with sex and intimate relationships (O'Sullivan & Brooks-Gunn, 2005; Zimmer-Gembeck et al., 2011). For example, a recent 4-year longitudinal study of adolescents elucidated a bidirectional relationship, whereby sexual self-concept became more positive over time in response to gains in sexual experience, but improvements in sexual self-concept also sparked increases in sexual behavior over time (Hensel, Fortenberry, O'Sullivan, & Orr, 2011; see also O'Sullivan & Brooks-Gunn, 2005).

Another part of the developmental task of sexuality in the second decade of life is to clarify one's sexual orientation. For a substantial minority of young people, defining one's own sexual attractions can take extra cognitive and emotional effort. Between 10 and 20% of youths endorse at least one measure of nonexclusive heterosexuality across studies (Igartua, Thombs, Burgos, & Montoro, 2009). Same-sex attractions and timing of sexual identity development often do not synchronize (Diamond & Savin-Williams, 2000), and there have been a recent but strong history of challenging efforts to pigeonhole sexual identity and attractions for sexual-minority youth (Diamond, 2003).

## **Recent Progress in Promoting Adolescent Sexual Development**

Many programs exist to reduce adolescent sexual risk behavior, including delaying sex until a later, more appropriate time in one's development, limiting the number of sexual partners, reducing the frequency of sexual behavior, and using protection against pregnancy, HIV, and other STIs (for a review see Gavin, Catalano, David-Ferdon, Gloppen, & Markham, 2010). Almost all of these programs have been implemented and evaluated in the USA, however there are also programs and evaluations available from many other countries (e.g., Givaudan et al., 2008; Hanass-Hancock, 2014). In general, reviews of the evidence suggest that group-based comprehensive risk-reduction programs and school-based, comprehensive contraceptive education programs (Bennett & Assefi, 2005; Kohler, Manhart, & Lafferty, 2008) have stronger and longer-lasting benefits than abstinence-only or abstinence-plus programs. Experts in pregnancy prevention point out that an exclusive emphasis on sexual abstinence does not appear to be effective for delaying the initiation of sex as it has had little effect on reducing patterns of any form of sexual behavior during adolescence, and may in fact be linked to higher rates of unprotected sex once onset has occurred (Kirby, 2008). Even more concerning, it may also be detrimental with one study reporting higher rates of unprotected sex once onset has occurred (Kirby, 2008).

The more promising approaches -- comprehensive risk-reduction and contraceptive education programs -- have some common features, including the behaviors they hope to change and the content included in the programs. Risk-reduction programs aim to reduce behaviors associated with STI transmission and unintended pregnancy, such as reducing the number of different sexual partners reported by adolescents and the use of protection during all sexual activity, while still upholding abstinence as a better method of avoiding intended pregnancy and infections. Similarly, contraceptive education programs include messages about abstinence and

provide information on birth control methods, like condoms and hormonal methods, to prevent STIs and unintended pregnancy. For example, one school-based program, Safer Choices, focuses on delaying the initiation of sex, reducing the frequency of unprotected sexual intercourse, reducing the number of unprotected sexual partners, increasing condom use consistency, and increasing contraceptive use (Kirby et al., 2004; see also Kirby, Baumler, & Coyle, 2011). This program has five components of staff development, peer resources, school environment changes, parent education, and linking schools with community agencies. This large and intensive program has shown positive effects, albeit generally fairly small effects, on some of the targeted sexual risk behaviors in every group studied, including boys and girls, and every sociocultural group. In another program evaluation of It's Your Game: Keep It Real, a program designed for grade 7 students to reduce pregnancy and HIV/STI rates, initiation of sex was reduced in the intervention group ( $n = 558$ ) compared to a comparison group ( $n = 349$ ; Tortolero et al., 2010). About 23% of the intervention group initiated sex by grade 9, whereas the rate was significantly higher at 30% in the comparison groups (see also Markham et al., 2012).

Many contemporary approaches in sexual risk avoidance focus on providing general skills that should serve adolescents when they need to avoid risk behavior across many domains. Although more research is needed to understand exactly what core beliefs and skills help young people, general positive youth development programs, which focus on a range of skills such as promoting prosocial behavior, decision-making and emotional competence, seem to be most promising as a sexual risk reduction program (Gavin et al., 2010). A new direction in intervention is the use of technology to provide information to youth about sexual health or to provide a resource for youth to gain access to services. In general, in a recent review of 10 evaluations of programs using digital media (Guse et al., 2012), two of the programs were effective in delaying

onset of sexual intercourse, but most have not shown this high level of effectiveness. However, multiple other interventions that were included in this review reported increased adolescent knowledge about sexual health and protective behaviors, or increased feelings of efficacy to engage in protective sexual health behaviors, following participation in their programs.

## **Conclusion**

Recent theoretical frameworks that consider adolescent sexuality as normative and developmentally appropriate have fostered a greater understanding of sexuality and sexual well-being in young people, moving beyond risk behavior alone to include self-perceptions and feelings of pleasure, esteem, and intimacy that were once overlooked in this age group. This holistic approach can help reframe research and policy to better evaluate the antecedents and consequences of adolescent sexual behavior, in terms of both physical and mental health. Although useful to consider, correlates of early debut and other risk behavior on their own do not explain how and why risk behavior occurs. More likely, consideration of such factors with greater scope and complexity, such as how interpersonal skills, family factors, social environment, and pubertal onset interact provide a richer understanding of the circumstances in which risk behavior occurs. Similarly, intervention strategies with more scope- ones that emphasize and enhance interpersonal skills necessary to navigate sexual and romantic relationships, as well as provide factual information about pregnancy, STIs, contraception, and consent- are better at equipping adolescents with the tools to make sexually safe choices. It is within these safe choices that adolescents can experience the positive sexual development that is integral to their sexual and overall well-being, and in addition leaves them better prepared for future intimate relationships.

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