Adolescent Sexuality and Parent-Adolescent Processes:
Promoting Healthy Teen Choices*

Laurie L. Meschke,** Suzanne Bartholomae, and Shannon R. Zentall

Trends in adolescent sexual health, the relation between parenting and adolescent sexual outcomes, and adolescent sexuality interventions with a parent component are reviewed. American adolescents have higher rates of unprotected sex and STI contraction than adults and nine times the teen pregnancy rate of their European counterparts. Parenting efforts are related to adolescent sexual behavior. The review of 19 relevant programs supports the incorporation of theory and the ecological model in program design and evaluation.

The health of adolescents is greatly determined by their behavior (Adams, Schoebom, Moss, Warren, & Kann, 1992; Alan Guttmacher Institute [AGI], 1994; Chassin, Presson, Sherman, & McConnell, 1995; U.S. Department of Health and Human Services [DHHS], 1998b). An important and complex area of adolescent behavioral health is sexuality. Issues of experience and activity include the timing of first intercourse, number of sex partners, contraceptive use, pregnancy, and sexually transmitted infections (STIs). Each of these outcomes vary within and between ages, gender, race (Children’s Defense Fund [CDF], 1991), socioeconomic status, and religious groups (Coley & Chase-Lansdale, 1998; Katchadourian, 1990; Miller, 1998).

Complexity is also reflected in the particular influences associated with adolescent sexual activity (AGI, 1994; DHHS, 1995). Neighborhood (socioeconomic status, joblessness), peer (sexually active friends), familial (family instability, single-parent household, sibling sexual activity), and individual characteristics (race, gender, age, pubertal status) have all been associated with adolescent sexual outcomes (see AGI, 1994; Bearman & Brucker, 1999; Brewster, 1994; Brown & Theobald, 1999; Child Trends, 1997; Coley & Chase-Lansdale, 1998; Hogan & Kitagawa, 1985; Miller, 1998; Sucoff & Upchurch, 1998). Given the severity of negative consequences associated with sexual activity, ensuring that youth receive sexuality education is important for healthy development. Researchers have found parents to be the primary sex educators of children (DHHS, 1996), as less than 10% of youth report having had comprehensive sexuality education programs in other settings (Donovan, 1989; Klein & Gordon, 1992). Researchers also suggest that adolescents who feel a personal connection to family are at less risk of participating in risky behaviors, including early initiation of sexual intercourse (Resnick, et al., 1997). Therefore parents as educators, in conjunction with positive family relationships, are essential for healthy adolescent development.

The association of family processes with adolescent sexuality has led to the development of a number of adolescent health promotion programs with a parent component (see Table 1). These programs have goals such as increasing comfort levels when discussing sexual issues, increasing adolescents’ and their parents’ knowledge and awareness of sexual issues, and preventing adolescent health risks, such as pregnancy and STIs. Although evaluations have been limited, programs that have been evaluated have proven to be somewhat successful.

The purpose of this paper is threefold. First, current trends in adolescent sexual behavior are considered. Next, the associations of family factors and processes with adolescent sexuality are examined. Finally, current adolescent sexuality programs with a family component are reviewed. Recommended directions for future work in each of the three sections are also addressed.

Trends in Adolescent Sexual Behavior

The past four decades have been a period of great change in adolescent sexual activity and its consequences. Adolescents are initiating sexual activity at younger ages (DHHS, 1995), and teen pregnancy rates are now declining since their peak in 1991 (Child Trends, 1997). Important trends in the area of adolescent sexual behavior include sexual experience and activity, pregnancy, and STIs, including the human immunity deficiency virus (HIV) and the acquired immune deficiency syndrome (AIDS).

Regarding sexual experience, approximately 12.1% of males and 3.0% of females aged 18–21 reportedly have had sexual intercourse by 12 years of age. The largest increase was among 15-year-old females who reported having sex—a jump from 5% to 25% between 1979 and 1988 (DHHS, 1995). For over 20% of these young women, early sexual initiation (14 years or younger) was not voluntary (Abma, Driscoll, & Moore, 1998; Child Trends, 1997). Early initiation of sexual intercourse (age 14 or younger) has been related to lower contraception use and higher risk of pregnancy (DHHS, 1995).

The likelihood of sexual activity increases with age. Over twice as many 18 to 21 year old adolescents (78.9%) are sexually experienced compared to their 14 and 15-year-old counterparts (31.6%) (DHHS, 1997; DHHS, 1998a). However, the percent of high school students reporting ever having sex declined from 54% in 1990 to 48% in 1997 (Annie E. Casey Foundation, 1999). Data indicate that during the 1990s sexual abstinence increased slightly for males, whereas females reported a slight decrease. In 1995 among sexually experienced adolescents, 27% of females and 37% of males, aged 15–17, reported abstaining from sexual intercourse for the three months preceding the survey. These figures were up from the 1988 percentages of approximately 24% and 33%, respectively. However, supplemental 1997 data from a sexually active, in-school sample of 15–17 year old adolescents indicate that 23% of females and 34% of males

*This paper was originally presented at the meeting of Health Futures of Youth II: Pathways to adolescent health, Department of Health and Human Services, Annapolis, MD.

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Key Words: adolescence, intervention, parents, programming, sexuality, trends.
<table>
<thead>
<tr>
<th>Program</th>
<th>Primary Audience</th>
<th>Methods and Format</th>
<th>Evaluation</th>
</tr>
</thead>
</table>
| 1. Can We Talk? (National Education Association Health Information Network, 1998) | Middle school students and their parents | ● Help parents lead activities with children  
● Parenting training: 4-2 hour sessions  
● Parent teaching youth: 5 activities | ● Are waiting to hear about funding for a Summer 1999 evaluation  
● Focus groups addressed how program implementation could be more effective  
● Internal evaluation conducted |
| 2. FACTS and feelings (Jenson, Lee, & Miller, et al., 1993) | 7th and 8th graders and their parents | ● 7 video tapes  
● 6 newsletters (1 for parents and 1 for teens)  
● Conducted in parents’ homes | ● Participating parents reported greater increase in abstinence values and greater increase in communication frequency and quality than control parents (Miller, et al., 1993)  
● 6 month follow-up, informal evaluation found both parents (80%) and girls (45%) reporting an increase in communication |
| 3. Girl Talk (Brown, Lowry, & Orr, 1997) | 9 to 12 year old girls and their mothers | ● 4-2 hour sessions  
● 1 session for moms only  
● 3 sessions for moms and teens  
● “funwork” for take home | ● Internal evaluation focused on participants’ satisfaction |
| 4. Girl Talk, Too (Adams, S., Lowry, Orr, 1997) | 13 to 16 year old girls and their mothers | ● 5-2 hour sessions for moms and daughters  
● Topics: date rape, peer pressure, communication, and values  
● Homework | ● No information on evaluation was located |
| 5. Growing Pains: Sex education for parents: A newsletter series (Polulech, & Nuttall, 1988) | Early adolescents and their parents | ● 5 newsletters with exercises for teens and parents Available through ERIC | ● Consistently demonstrates a positive, short term impact on students  
● Independent evaluation currently being conducted (CA and OH)  
● Parent component has not been evaluated  
● User satisfaction is high for county evaluations, especially for moms  
● Due to cost, the non-profit creator has not done an independent evaluation of the program |
| 6. It Takes Two (Young Women’s Resource Center, 1994) | 7th-12th graders. Parent component is recommended, but optional | ● 6 parent sessions primarily to facilitate communication between parents and teens | |
| 7. Mother-Daughter Choices Program (Advocacy Press, 1993) | 6th-9th grade girls and their mothers | ● 6-2 hour sessions for moms and daughters  
● 1 session for moms only  
● Workbooks given to teens and their moms  
● Video also available  
● Topics: self esteem, assertiveness, future goals, communication | |
| 8. Parent-Child Sex Education: A training module (Brown, Downs, Peterson, & Simpson, 1989) | 9–12 years and their parents; 13–17 year old and their parents | ● 5 sessions for pre-teen with parents and 6 sessions for teen with parents (different programs for boys and girls) | |
| 9. Parents and Pre-Adolescents Can Talk (PACT)—three distinct programs (Gallagher, Kohl, & Dover, 1994) | Parents and their 5th-6th grade adolescents (9-90 minute sessions for parents and their young teens and 1-90 minute parent only session) | ● Homework for teens and parents  
● Topics: communication, self esteem, decision making, puberty, relationships, and sex roles and exploitation | |
| Parents and Adolescents Can Talk (PACT) (Kohl, Boik, Dover, & Gallagher, 1996) | Parents and their 7th-9th grade adolescents (8-2.5 hour sessions that include both parents and their teens) | | |
| PACT Older Youth Curricula (PACT) (Wilson, Dover, & Kohl, 1994) | Parents and their 10th-12th grade adolescents (7-2.5 hour sessions with parent involvement) | | |
Parents of 12 to 16 year olds  
Teens may also join group if established this way | ● 4-1 hour sessions  
● Topics: boundaries, puberty, and decision making  
● Enhances parent-teen communication | |

Note: Table 1: Current Teen Sexuality Programs with a Parent Component
<table>
<thead>
<tr>
<th>Program</th>
<th>Primary Audience</th>
<th>Methods and Format</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>Postponing Sexual Involvement (PSI) (Howard &amp; Mitchell, 1997)</td>
<td>Preteens and a special component for the parents</td>
<td>4-50 minute sessions (social and peer pressure; problem solving and using new skills)</td>
<td>No evaluation information available for parent component</td>
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<tr>
<td>Project Taking Charge (Hunter-Geboy, Lee, Preston, Schultz, &amp; White, 1995)</td>
<td>7th graders and their parents</td>
<td>6 week curriculum for the 7th graders and 3 parent-youth sessions</td>
<td>Participating teens reported increased knowledge about sexuality and greater communication with fathers about sexuality</td>
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<tr>
<td>Responsible Social Values Program (RSVP) (Thoms, 1996)</td>
<td>6th-8th youth and their parents</td>
<td>5-1 hour sessions for youth; Parents involved in 1 workshop (optional) and with homework (mandatory)</td>
<td>Evaluation on student portion only; External evaluation by Ohio State, Ohio Department of Health</td>
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<tr>
<td>Stay SMART (Skills Mastery and Resistance Training)—one component of the SMART moves program that addresses three age groups (6 to 15 years) (Boys and Girls Clubs of America, 1997)</td>
<td>13-15 year olds and their parents (optional)</td>
<td>Multi-focus prevention program targeting alcohol, tobacco, and other drug use and postponing sexual activity</td>
<td>Independent evaluation by Penn State (St. Pierre, et al., 1995)</td>
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<tr>
<td>Straight Talk (Ox, Lowry, Vickers, Crocker, &amp; Brown, 1994)</td>
<td>10 to 13 year old boys and their fathers</td>
<td>4-2 hour sessions; 1 session is fathers only; 3 sessions are for fathers and sons; homework</td>
<td>The parent component has not been evaluated; No independent evaluation; Evaluation focused on participant satisfaction</td>
</tr>
<tr>
<td>Talking about sex: A guide for families (Planned Parenthood Federation of America, 1996)</td>
<td>Parents and their young adolescents</td>
<td>30 minute animated video; Parents' guide; Children's activity workbook; Video; 3 sessions (1-3 hour session and 2-2 hour sessions)</td>
<td>No evaluation information available</td>
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<tr>
<td>Talking to Kids about AIDS (Tiffany, Tobias, Raqib, &amp; Zigler, 1993)</td>
<td>Parents and adults who will discuss HIV/AIDS with children and adolescents</td>
<td>5 chapters; Topics: communication, physical health, emerging sexuality, relationships, and safety</td>
<td>No evaluation information available</td>
</tr>
<tr>
<td>Teaching Human Sexuality: A Guide for Parents and Other Caregivers (Cyprian, 1998)</td>
<td>Written originally for foster parents addressing sexuality for birth to age 18, but appropriate for variety of concerned adults</td>
<td>3 parent sessions for the abstinence only version of the program</td>
<td>Demonstrated a positive, short term impact on students; Parent component has not been evaluated; Ongoing long-term evaluation underway in MN</td>
</tr>
<tr>
<td>Worth the Wait (Young Women's Resource Center, 1997)</td>
<td>6th-9th graders. Parent component is recommended, but optional</td>
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reported abstaining from sexual intercourse (DHHS, 1999; DHHS, 1998a).

Adolescent contraceptive use has also increased over the years (AGI, 1994; Adams, et al., 1992). The Center for Disease Control and Prevention [CDC] (1997) reported that between 1990 and 1997, 15- to 19-year-old males and females increased their condom use. An 11% increase occurred for females (40–51%) and a 14% increase for males (49–63%) (CDC, 1998b). However, adolescent contraceptive use remains lower than that of adults (CDC, 1997).

Despite the increased proportion of youth practicing protected intercourse, adolescents are disproportionately at risk for STIs. STI rates have declined among the total population, however the rate of decline among adolescents has not been as great (DHHS, 1995). In 1995, an estimated two-thirds of the 12 million STI cases occurred among individuals under the age of 25. In 1997, 15- to 19-year-old adolescents had the highest gonorrhea rate among all age groups and accounted for one-third of all gonorrhea cases in the United States. The total population had gonorrhea rates of 123 cases per 100,000, compared to 699 cases per 100,000 among 15- to 19-year-old adolescents (DHHS, 1998b).

Many reasons are behind the large number of adolescents (ages 10 to 19 years) contracting STIs. Compared to other age groups, teens are more likely to have multiple sex partners, engage in unprotected sex, and choose higher risk partners (CDC, 1997). Among the serious effects of STIs are impaired fertility, reproductive tract cancer, adverse pregnancy outcomes, and the transmission of HIV infection (DHHS, 1995).

Adolescents are also among the groups most at risk for contracting HIV (DHHS, 1997). A report released April 1998 revealed that worldwide, five adolescents aged 10 to 24 are infected with HIV every minute, resulting in 2.6 million new infections each year. Of those acquiring HIV after infancy, more than half are adolescents (UNAIDS, 1998). Over the past decade the number of U.S. adolescents (13–19 years of age) with AIDS has increased substantially, from 53 adolescent cases in 1986 to 3,130 AIDS cases in 1997. In the last 10 years the proportion of U.S. adolescent AIDS cases that are female more than tripled, from 14% in 1987 to 46% in 1996. These HIV/AIDS statistics are believed to be conservative estimates. A long incubation period (up to 10 years) between HIV infection and an AIDS diagnosis provides a measurement challenge (CDC, 1998a; DHHS, 1995). Although a person may contract HIV as an adolescent, a diagnosis may not be given until signs of the disease occur, which is likely to be in adulthood. Sexual transmission is the most commonly noted method of contracting HIV for adolescents. For male adolescents, 49% of the diagnosed cases were attributed to sex with other men. Of female adolescent HIV cases, 37% were contracted via heterosexual contact, primarily with older men (CDC, 1998a).

Another serious health outcome associated with lack of protection during sexual intercourse is pregnancy (CDC, 1995). Although the teen birth rate has been declining since 1991, it remains higher than the mid-1980s and higher than other industrialized countries. The 1997 birth rate in the United States for adolescents (15–19 years) was 52.3 live births per 1,000, down from 62.0 per 1,000 in 1991. Birth rates tend to vary across the country, with Mississippi having the highest birth rate among teens aged 15- to 19-years old (75 per 1,000) versus Vermont with the lowest (30 per 1,000) (AGI, 1999). Compounding the problem, most teenagers who give birth are unmarried. In 1950, 23% were unmarried compared to 84% in 1996 (CDC, 1998b).

Teen pregnancy results in a constellation of personal and societal problems. Adolescent mothers are more likely to experience poor physical and mental health, educational attainment, employment and income, and a greater level of financial dependence and poverty than their non-childbearing peers. In addition, compared to children of older mothers, the children of teen mothers are more likely to experience poor health, cognitive ability, academic achievement, and social behavioral outcomes (see reviews Coley & Chase-Lansdale, 1998; Hayes, 1987; Jorgensen, 1993).

In relation to pregnancy outcomes, between 1985 and 1996 the abortion rate among U.S. teens decreased by 31% to 29.2 abortions per 1,000 women aged 15–19. Nonetheless, over one-third of pregnancies among adolescents age 15–19 ended in abortion in 1996 (AGI, 1999). Both behavioral and attitudinal factors have been attributed to the declines including, increased emphasis on delaying sexual activity; increased fear of contracting an STI; increased responsibility toward casual sex and out-of-wedlock childbirth; and increased use of contraceptives with prolonged effectiveness (e.g. Norplant), as well as more effective use of contraception (Saul, 1999).

The likelihood of choosing abortion has been associated with both individual characteristics (e.g., more ambitious students, higher socioeconomic backgrounds, and more positive attitudes about abortion) (Brazzel & Acoc, 1988; Furstenberg, Brooks-Gunn, Chase-Lansdale, 1989) and safe and proximal access to clinics (Moore & Caldwell, 1977; Murry, 1995). Compared to older women, abortion is likely to result in more complications for adolescent females. They tend to wait until later in the pregnancy to abort, due to denial of the pregnancy or poor access to clinics (Borgatta, 1998).

Summary

Despite some improvement in outcomes associated with adolescent sexual health, much room for improvement remains. Although the frequency and number of adolescents engaging in sexual activity have decreased, the percentage of adolescents initiating intercourse at an early age has increased. Teen pregnancy rates have decreased slightly, however, U.S. rates continue to surpass their 1980 rates and remain the highest of any developed nation. Finally, the impact of the extreme rates of adolescent STI contraction (including HIV) on fertility issues, cancer rates, and morbidity remain to be seen.

Future Directions

Given the alarming statistics, it is clear that adolescent sexual behavior warrants further attention. Although these research trends are quite informative, more extensive efforts could be made to better monitor adolescent sexual health. Several high quality longitudinal datasets (e.g., NLSY, NSAM, NSFG, Add Health) linking adolescent sexual activity to demographic characteristics now exist, however, influential family and developmental processes have been under examined. For example, the CDC’s Youth Risk Behavior Surveillance System collects health data representative of U.S. high school students, however, family and developmental processes are overlooked. A smaller representative sample in addition to the larger sample could be tracked.
to assess developmental trajectories associated with sexual behavior. If one data source tracked multiple adolescent sexual behaviors and outcomes, person typologies could be created to monitor multiple events for individuals across time. For example, the proportion of early initiating adolescents who have had both multiple partners and one or more STIs could be calculated and followed across time.

The data reviewed here also come from multiple sources. For example, the Office of Disease Prevention and Health Promotion and the CDC have been tracking the health status and risk factors of the general population as well as special populations, such as adolescents and racial/ethnic groups. Smaller areas, including counties or school districts, should also be encouraged to track these trends in order to determine geographic areas and persons in need of intervention programs. The next section reviews the findings about the relation between parental factors and adolescent sexual behavior.

**Parental Processes and Adolescent Sexual Behavior**

The relation between parental process and adolescent sexual behaviors has been researched thoroughly, but findings are mixed. In 1998 Miller published an extensive, comprehensive review of parental influences on issues associated with adolescent pregnancy. Following a similar format (Miller, 1998), the literature examining the association of parental characteristics with adolescent sexual behaviors is reviewed in this section. Attempts were made to focus primarily on literature of the past decade. This review focuses primarily on communication, parental values, monitoring and parental control versus adolescent autonomy, and warmth and support.

**Communication**

Parent-adolescent communication and its correlation to adolescent sexual behavior has been more thoroughly researched than any other parental influence in this area. Despite this, little is known about the relation between communication and adolescent sexual behaviors in general. Specifically, no single aspect of parent-adolescent communication has been consistently and directly linked to changes in adolescent sexual behaviors (Jaccard & Dittus, 1993; Miller, 1998).

Evidence of the relation between parent-adolescent communication and teen sexual behavior is mixed. Some investigators have found no relation between parent/child communication and teen sexual behaviors (Casper, 1990; Handelsman, Cabral, & Weisfeld, 1987; Hovell et al., 1994; Miller, Norton, Fan, & Christopherson, 1998). Others have related higher levels of parental communication to an increased likelihood of adolescent intercourse (Widmer, 1997). Overall more frequent and positive parent-adolescent communication has been most commonly associated with fewer sexual partners and later and less frequent sexual activity (Jaccard, Dittus, & Gordon, 1996; Miller, Forehand, & Kotchick, 1999; Leland & Barth, 1993). Indeed, enhancing parental-adolescent communication is espoused as an important strategy in promoting healthy adolescent outcomes (see Healthy People 2000 objectives, DHHS, 1996).

Communication has also been linked to contraceptive use. The more mothers talked to their sons about birth control the more consistently the sons used birth control (Jaccard, et al., 1996). Girls whose mothers discussed birth control were about half as likely to engage in sex and three times more likely to use effective birth control than girls whose mothers did not discuss birth control (Newcomer & Udry, 1985). It appears that communication does not encourage dangerous adolescent sexual behavior. Although general mother-adolescent communication has been related to less frequent sexual activity and fewer sexual partners, mother-adolescent communication about sex has not been significantly correlated with adolescent sexual behaviors (frequency, number of sexual partners, age at first intercourse, or condom use) (Miller, et al., 1999).

Higher quality communication has been related repeatedly to decreased likelihood of intercourse, delayed first intercourse for sons, decreased likelihood of daughters being pregnant, and increased contraceptive use for daughters (East, 1996; Fisher, 1987; Leland & Barth, 1993; Pick & Palos, 1995). Parents perceived as less supportive and yet discussed sexual issues had adolescents who reported more sexual risk-taking than peers who perceived their parents as more supportive and whose parents communicated about sexual issues (Rodgers, 1999). The quality of the parent-adolescent relationship serves as a possible explanation for the mixed findings on the relation between parental communication and adolescent sexual behaviors. The quality of the communication and the supportive nature of the parent-adolescent relationship require further examination.

A barrier to positive communication is parents’ and adolescents’ difficulty in talking about sexual issues. Parental communication may be impeded by fears of encouraging or frightening adolescents about sexual behavior (Katchadourian, 1990). Fox and Inazu (1980) reported that the majority of mothers in their study felt “very uncomfortable” discussing topics such as dating, menstruation, sex, and birth control with their daughters. Adolescents are equally as wary. In a more recent study, 45% of female adolescents stated feeling “somewhat” to “very” uncomfortable talking with their parents about these issues (Hutchinson & Cooney, 1998).

Communication about sexuality varies within the population of adolescents and their parents. This variability has been related to demographic factors like gender and ethnicity. In a 1998 retrospective study, young women (19–20 years) reported that 73.8% of their mothers and 20.9% of their fathers had provided them with at least some information on general human sexuality. However, these women also stated that the majority of their parents did not talk about some important topics such as postponing sex, sexual pressures, and sexually transmitted diseases, with the contributions of fathers falling far below that of mothers (Hutchinson & Cooney, 1998). In a 1991 CDC study, parental gender was most strongly associated with whether or not AIDS was discussed. In both single and dual-parent households, mothers (74.2%) were much more likely than fathers (48.9%) to discuss AIDS (CDC, 1991). Parents generally have talked to same-sex children about sexual issues (Fisher, 1993). However, 87% of young women shared that they wanted more information from their fathers (Hutchinson & Cooney, 1998).

Differences in the amount of sexual information given to adolescents also appear to depend on the gender of the adolescent. In an unpublished dissertation, Hutchinson (as cited in Hutchinson & Cooney, 1998) found that only one-third of male adolescents reported receiving at least “some” information about sexuality, compared to almost half of female adolescents.

Ethnicity and SES also have been related to parent-adoles-
cent communication. Non-Hispanics (63.4%) were more likely than Hispanics (51.7%) to discuss AIDS with their children (CDC, 1991). African American parents reported discussing more sexual risk topics with their adolescent daughters than Caucasian parents (Hutchinson & Cooney, 1998). Regarding SES, adolescents whose mothers attended college were more likely to talk to their parents about sexual issues (Leland & Barth, 1993).

**Parental Values**

Parental values have also been associated with adolescent sexual behaviors. In fact, following his review of the literature, Miller (1998) concluded that the quality of parent-adolescent communication was related to a decrease in adolescent sexual behavior by transmitting values about sexuality, not through the obvious content of communication. Parental disapproval of teen sex has been related to later onset of first sexual experience, having fewer sex partners, less frequent sexual activity, and decreased teen pregnancy (Jaccard, et al., 1996; Miller, et al., 1999; Resnick et al., 1997). Fathers may play a particularly important role. Teens, who perceived their fathers’ disapproval independent of their mothers’ approval, delayed first intercourse (Dittus, Jaccard, & Gordon, 1997).

Religion can play a strong role in family socialization, particularly in relation to values (Jenkins, 1991). For example, White, adolescent fundamental Protestants reported a delay of first intercourse, whereas their peers reported a decrease in age of first intercourse (Cooksey, Rindfuss, & Guilkey, 1996). Adolescent denomination affiliation has been associated with risk of first intercourse and contraceptive use, although the relation varies by race (Brewster, Cooksey, Guilkey, & Rindfuss, 1998).

Parental values may also be indirectly transmitted to adolescents. Newcomer and Udry (1984) found that mothers who were sexually active as adolescents were more likely to have adolescent daughters who were sexually active. It is yet unclear whether this finding is due to environmental influences (i.e., parental values) or heredity. Specifically, pubertal timing is affected by heredity, which is subsequently associated with age of menarche. In turn, age of menarche has been positively related to the timing of sexual experience as mediated by association with older males (Stattn & Magnusson, 1990).

Again, as with communication, it is possible that the effect of parental values on adolescent sexual behavior is moderated by the quality of parent-adolescent relationships. Parental values may be more influential if the parents provided warmth and support to their teens. However, if parental values were permissive then the adolescents’ behaviors were more likely to be more permissive (Moore, Peterson, & Furstenberg, 1986; Weinstein & Thornton, 1989).

**Monitoring and Control/Autonomy**

Parental monitoring and control of adolescent activities are also related to sexual behaviors. The majority of research supports the notion that higher levels of parental monitoring promote the delay of first sexual intercourse (Ku, Sonenstein, & Pleck, 1993; Danziger, 1995; Capaldi, Crosby, & Stoolmiller, 1996), a lower number of partners and greater use of contraception (Luster & Small, 1994; Miller et al., 1999; Rodgers, 1999). This relation has occurred not only for White adolescents, but also for African-American (Hogan & Kitagawa, 1985; Miller et al., 1999) and Hispanic youth (Hovell et al., 1994; Miller et al., 1999). Other researchers have found no relation between parental monitoring and adolescent sexual experience. However, adolescents who spent time alone at home (Perkins, Luster, Villarruel, & Small, 1998) or dated alone (i.e., unsupervised) (Meschke, Zweig, Barber, & Eccles, in press) were more likely to be sexually active.

Monitoring and control appear to have a curvilinear effect. Both, too many rules and too little supervision, have been related to a greater likelihood of adolescent sexual activity (Miller, McCoy, Olson, & Wallace, 1986). Daughters, who felt controlled via high levels of maternal guilt, were more likely to engage in risky sexual behaviors than their peers who did not perceive their mothers as using guilt to control (Rodgers, 1999). However, a causal relation between parental monitoring and adolescent sexual behavior cannot be determined. For example, high levels of parental monitoring and various methods to control adolescents may be a reaction to adolescent behavior, with antisocial adolescent behavior potentially increasing parental rules and strictness (Miller, 1998). Given this, many unanswered questions about parental monitoring and adolescent sexual behavior remain.

**Warmth/Support**

A close parent-adolescent relationship is important not only in lowering adolescent sexual behaviors but also as a necessary part of effective limit setting and communication (Jaccard, et al., 1996; Rodgers, 1999). When there is less adolescent closeness with parents there is often an increase in peer influence on sexual issues (Whitbeck, Conger, & Kao, 1993). Female adolescents who held views similar to their peers were more likely to be sexually active and less likely to consistently use contraception than their counterparts, with views more like their parents (Shah & Zelnik, 1981).

In a study of 751 African-American adolescents (between 14 and 17 years), adolescents who had greater satisfaction in their relationship with their mothers were less likely to be sexually active and initiated intercourse later than adolescents with less satisfaction in their relationship with their mothers (Jaccard, et al., 1996; Jaccard, et al., 1998). Higher levels of parent-adolescent connectedness are also associated with a lower likelihood of pregnancy among daughters (Resnick, et al., 1997). Overall, parental closeness to and support for adolescents have been related to reduced adolescent sexual activity and increased contraceptive use.

**Other Influences**

In addition to parent-adolescent relationships, characteristics of families are also associated with teen sexual behavior. Socioeconomic status has been linked to adolescent sexual behavior, primarily through levels of income and educational attainment. Higher levels of income have been related to later onset of sexual behaviors and lower teen pregnancy rates (Hogan & Kitagawa, 1985; Inazu & Fox, 1980; Lauritsen, 1994). Likewise, higher levels of parental education have been associated with lower adolescent sexual activity, delay of intercourse initiation, greater use of contraception, and lower risk of pregnancy (Forste & Heath, 1988; Hayward, Grady, & Billy, 1992; Kahn, Rindfuss, & Guilkey, 1990; Roosa, Tein, Reinholdt, & Angelini, 1997).

Parental marital status has also been related to adolescent sexual activity. Adolescents, particularly females, living with one
parent are more likely to engage in early sexual behaviors and
less frequently use contraceptives than adolescents with two par-
ents in the home (Hogan & Kitagawa, 1985; Ku, et al., 1993;
Meschke, et al., in press; Miller & Bingham, 1989; Moore, Mor-
rison, & Glei, 1995). Further, the early onset of first intercourse
has mostly been related to living with a single parent, moderately
related to living with stepparents, and least related to living with
However, these findings may be due to a decrease in the number
of parents available to monitor, instead of simply a result of
family structure alone.

Parental values may be more easily transferred to children
when they are living in the same house with their parents. Dittus,
et al. (1997) discussed the importance of the paternal disapproval
of teen sex. They found that it was more difficult for teens to
perceive this disapproval when the father was absent. However,
if the teen did perceive their father’s disapproval of teen sex, it
moderated the effects of his absence (Dittus et al., 1997).

Ethnicity may affect the degree to which parental marital
status influences adolescent sexual behavior. In a sample of ado-
lescents from Black and Hispanic families, after controlling for
several demographic variables including age, gender, and ethnic-
ity, Miller, et al. (1999) found that family structure did not sig-
nificantly predict frequency of intercourse, number of sexual
partners, age at first intercourse or condom use. In a second study
based on the same sample, adolescents from single-parent fam-
ilies were positively influenced by mother-adolescent commu-
nication about sex, which was not found in the total sample
(Kotchick, Dorsey, Miller, & Forehand, 1999). These findings
suggest that parental marital status and its interaction with other
factors regarding its relation to adolescent sexuality should be
investigated to a greater extent.

Summary

Adolescent sexual behaviors appear to be related to a num-
ber of parental factors, including communication, values, moni-
toring and control, and warmth and support. Findings on com-
munication remain the most thoroughly studied as well as the
most inconclusive as to whether parent-adolescent communica-
tion has a positive relation to adolescent sexual health. The type
of parent-adolescent communication (general or sex-specific) as-
associated with adolescent sexuality also requires further clarifi-
cation. Parental values seem to be related to adolescent values,
and subsequently adolescent behavior. Moderate amounts of pa-
rental control also appear to promote healthy adolescent sexual-
ity. However, warm, supportive parent-adolescent relationships
seem to be essential. Warmth and support appear to mediate the
association of communication, values, and monitoring with ad-
olescent sexual behavior. In other words, the amount of influence
parents have on their adolescents’ sexual behaviors depends
greatly on the quality of their relationships.

Limitations and Future Directions

Numerous issues are yet to be addressed when reviewing
the research on parent-adolescent relationships and adolescent
sexual behavior. Primarily, longitudinal studies that include self-
reports from parents and adolescents, similar to that of Capaldi,
et al. (1996), should be conducted in order to investigate parental
 correlates from both parental and adolescent points of view. Ear-
lier studies focused almost exclusively on adolescent reports,
without taking parental perceptions into account.

Longitudinal studies should also address how parent-adoles-
cent relationships, that effectively influence healthy adolescent
sexual behaviors, develop over time. None of the studies includ-
ed in this review targeted populations younger than early ado-
lomence. Little information is available about the effect of the
quality of early parent-child relationships on subsequent child
development and parent-adolescent interactions. In addition, fu-
ture studies of adolescent sexuality should also examine parental
influence after controlling for sexual socialization that occurs
outside of the parents, including school, religious, peer, and sib-
ling influence.

Continuity in the areas of communication, warmth, and
monitoring across the life of the youth also needs to be exam-
ined. Panel research designs on family processes not only could
follow these trends, but also are likely to help explain the dif-
ferences within and between families of differing parental mar-
ital status, ethnicity, and other demographic issues. Other factors
such as frequency, consistency, and quality of family processes,
including monitoring and communication, have received little
longitudinal attention and constitute future research directions.

Few studies have examined the issue of gender differences
in parent-adolescent communications about sexuality. Discuss-
sions about sex with opposite sex parents may be an important
factor, especially given the significant relation between paternal
disapproval and adolescents’ abstinence from sex. Given the dis-
crepant findings about the association of parent-adolescent com-
munication about adolescent sexuality as related to gender, mother
and father communication must be considered as unique predic-
tors of adolescent sexual behavior. In addition to comparing the
parents’ communication, the interaction of the two also should
be examined. Finally, indirect types of communication, such as
modeling, may be equally or more influential than direct com-
munication. These issues require further investigation.

Evidence supporting the relation between parent-adolescen-
tic processes and teen sexuality is quite strong. However, research
alone does not change adolescent decision-making and choices
about sexual behavior. This information must be disseminated to
adolescents and their parents, who can use the information to
promote behaviors related to healthy adolescent sexuality, in-
cluding delaying first intercourse and exclusive participation in
protected sex. One dissemination method includes the develop-
ment, implementation, and evaluation of intervention programs
for adolescents and their parents. Current programs and their
limitations are reviewed in the following section.

Adolescent Sexuality Intervention and Parents

Bronfenbrenner (1979) argued that the relation between in-
dividuals and their environment can be tested via experimenta-
tion. A treatment can be applied to manipulate the environment
and, if the research model is supported, the subsequent effect
should be a change in the individuals’ behavior. Applying this
argument to adolescent sexuality, an intervention program could
attempt to enhance parent-adolescent communication (environ-
ment). If successful, change in communication should in turn
influence a predicted change in adolescent sexual behavior (e.g.,
delay of first intercourse). In other words, interventions are at-
tempts to manipulate the parent-adolescent processes relative to
adolescent sexuality, in order to promote healthy sexual behav-
iors (see Bogenschneider, 1996 for further clarification). Thus,
this strategy is a method by which to test theoretical models.
In general, research findings document that parent-adolescent processes are more often associated with adolescent sexuality outcomes than not, and yet the number of intervention programs designed to address this association is quite limited. In a 1990 report for the Carnegie Foundation, Small located ten adolescent sexuality programs with a parent component.

Coinciding with the increase of literature in this area and for the purpose of this paper, a similar search in 1998 resulted in the location of almost twenty programs (see Table 1). The search criteria only required that the program be readily accessible nationwide (i.e., offered nationwide or available for purchase to potentially be implemented nationally). The search included the Internet, several data bases (ERIC, Psychlit, Psychinfo), and placing requests on various listserves composed of professionals working in the areas of family, adolescence, and intervention.

Table 1 provides an overview of adolescent sexuality programs with a parent component now available nationwide. Of the ten programs located by Small (1990), only three (30%) are currently available: PACT, Parent-Child Sex Education, and RSVP. The programs available today differ in their strengths and approach to addressing adolescent sexuality issues.

**Current Status of Programming**

Adolescent sexuality interventions with a parent component are diverse on a number of issues including target audience, degree of parent participation, program longevity, format, and evaluation. The most common target audience is young adolescents. Sixteen of the 19 programs focus on early adolescents, ages 10 through 14. Three of the programs, PACT, Parent-Child Sex Education, and Plain Talk for Parents have separate programs for young adolescents and older teens. None of the three programs require that youth and their parents participate in more than one of the age specific programs. However, the potential exists. The program, Talking to Kids about AIDS, provides training for parents and other invested adults in talking to grade school through high school youth about AIDS. Although early adolescence is not the primary focus, they are included in the programming effort.

Despite the majority of programs focusing on early adolescence, the degree of parent involvement varies. Twelve of these programs focus equally on parents and teens (e.g., FACTS and feelings), three focus primarily on the parents (e.g., Plain Talk for Parents), and four interventions target adolescents with an optional parent component incorporated at the program’s end (e.g., Stay SMART). The optimal degree of parental involvement is not known and cannot be discerned from the evaluation results provided.

The longevity of the 19 programs also varies considerably. Some of the current programs, such as Parent-Child Sex Education and PACT, have been available for a decade or more, whereas others like Can We Talk? are just in their infancy, with project coordinators still working to recruit participation sites. Based on the available evaluation information, program longevity appears to have an impact on the availability of evaluation information. Greater longevity also seems to be related to the complexity of the evaluation design. Given the small number of programs with evaluations, complex or otherwise, the statistical significance of the relation between longevity and efficacy cannot be determined.

Delivery methods also differ between programs. The location of program implementation includes participants’ homes, community sites, or in some cases both. Homework accounts for the latter situation, with participants completing assignments prior to the next session. Three of the programs (FACTS and feelings, Growing Pains, and Talking About Sex) are delivered exclusively in the participants’ homes. These programs consist of videos and/or newsletters. Seven of the programs are implemented partially at community sites and partially at the participants’ homes. These programs include: Can We Talk?, Girl Talk; Girl Talk, Too; Mother-Daughter Choices; PACT programs; Straight Talk; and Talking to Your Children. The remaining nine programs are conducted exclusively at community locations, the most popular implementation site for teen sexuality programs with a parent component.

The time commitment required of participants, as related to delivery style, also varies, given the different number of sessions provided by the programs. Five was the average number of sessions in the programs, with a range of three to ten sessions that included parents. Comparison studies between the programs have not been conducted, therefore, the most effective approach remains unknown.

Evaluation is the only means to determine program efficacy. Two primary components have been associated with high quality evaluation: an external or independent evaluator and a long-term follow up (see Kirby, 1997 for a thorough list of evaluation issues). Having an external or independent evaluator helps ensure that the outcomes are not the result of excessive data manipulation or fabricated data, as the evaluator is not a personal stakeholder in the program. Long-term follow up refers to data collection occurring a considerable amount of time after the intervention. This design aids in confirming that the desired outcomes do not disappear shortly after the program has concluded.

In reviewing the programs, four categories of evaluation emerge, based on the evaluator and type of follow-up procedures utilized. The four categories are: (1) Process Only (evaluation focuses on program implementation and participant enjoyment), (2) Simple (internal or external evaluator with a follow up taking place one month or less after the program), (3) Intermediate (internal evaluator with long-term follow up occurring more than one month after the program), and (4) Complex (external evaluator and follow up of one month or more). These categories aid in interpreting the overall evaluation quality of the current programs.

Three programs have conducted a Process Only evaluation: Can We Talk?, Girl Talk, Too, and Straight Talk. These evaluations focus on implementation style and/or participant satisfaction. Each of these programs is relatively new. Thus, it is important that participants are satisfied with the program. If participants don’t enjoy the program, the chance of recruiting return or new participants decreases greatly. Of the 19 programs, four fell into the Simple category, having an internal or external evaluator with a short-term pre/post-test follow up. The three other programs, It Takes Two, Plain Talk, and Worth the Wait, all had external, long-term evaluations in the data collection process. Thus, it appears that programs at this stage are well on their way to meeting the criteria of the Complex stage of evaluation.

Two programs have had internal evaluators, but meet the criteria of having a long-term follow up evaluation. FACTS and feelings and Girl Talk are in the Intermediate evaluation cate-
gory. Despite the use of an internal evaluator, the first program has evaluation results published in a peer-reviewed journal (Miller, et al., 1993). This accomplishment strengthens the credibility of the evaluation considerably and provides support for conducting this type of evaluation.

The final evaluation category is Complex. Four programs met the criteria of having an external evaluator and follow up data collection occurring more than a month after the program’s conclusion. Three of the four programs, Stay SMART, Project Taking Charge, and PACT, have been evaluated by outside universities. The results of the Stay SMART (St. Pierre, Mark, Kalestreider, & Akin, 1995) and Project Taking Charge (Jorgensen, 1991) evaluations are published. However, the parent component of Stay SMART is not included in this evaluation. An independent evaluation firm has studied the fourth program, Parent-Child Sex Education. Evaluators of both, this program ( Kirby, 1985) and PACT, report a number of significant findings, including an increase in parent-child communication and parental sex knowledge (Cate, 1988 as in PACT, 1992).

Summary

Nineteen adolescent sexuality programs with a parent component that are currently available nationwide were located. Great diversity exists between programs. Most of the programs concentrate on early adolescents and their parents and are conducted primarily in community locations, with an average of five sessions per program. Evaluation efforts have also differed substantially, ranging from process focus (participants’ enjoyment) to complex (external evaluator with long term follow-up). No evaluation information was available for six of the programs. This review encourages further development of adolescent sexuality programs with a parent component and more evaluation to determine efficacy and the strengths of the various approaches.

Limitations and Future Direction

Despite programming variability, attempts have been made to evaluate the current status of programs addressing teen sexuality with a parent component. Thoughts on future directions follow in two sections. First, recommendations based on the review of the current programs are shared. Second, general recommendations based on current trends and developmental literature are discussed.

Apply a broader lifespan approach. The primary target of such programs is early adolescence. Given that the ultimate goal is to promote healthy adolescent sexual behavior, early adolescence is an appropriate age for intervention. Young adolescents are likely to be sexually inexperienced (DHHS, 1995; Miller, et al., 1986). However, sexuality issues do not end once an adolescent reaches age 15, yet the majority of current programs stop by this age. Sexuality is an ongoing issue that deserves to be revisited on a regular basis. It is recommended that programs expand their age focus and duration of intervention. Given the biological, social, and cognitive development occurring during adolescence, it is likely that an educational concept (e.g., orgasm or resistance skills) might sound foreign at age 10, but may be thoroughly understood at age 15. Three of the 19 programs have sessions covering two or more age groups (PACT, Parent-Child Sex Education, and Plain Talk for Parents). Comprehensive interventions taking a broader life span approach should be encouraged in order to optimize the chances of educating the adolescent in an age appropriate fashion.

Strategize delivery methods. The current programs differ in the amount of time that parents invest in the sessions and the location of the intervention implementation. As stated earlier, the appropriate evaluation to interpret which approach is most effective, has not been conducted. However, previous studies report that parents prefer programs that promote communication with their son or daughter, don’t require much time to complete, and can be completed in the home (Beck, et al., 1991; Crockett, et al., 1989 as cited in Toomey, et al., 1996). Reducing potential barriers to parent participation could benefit programming efforts. With this in mind, it would appear that the three programs (FACTS and feelings, Talking to your children about sex, and Can we talk?) utilizing newsletters and/or videotapes are most conducive to the schedules of parents and, thus, may prove to be optimal.

Increase comparative research. Comparative research is needed to determine how different approaches to intervention and their efficacy might differ by family characteristics, including parental employment, family composition, and ethnicity or individual characteristics, such as age, developmental level, gender, or ethnicity. Different family types are likely to have different needs. For example, race is argued to be related to differing worldviews and socialization (e.g., Scott, 1993). Programming could be designed to address specific familial or cultural needs. The Parent-Child Sex Education program has somewhat unique programs for male and female adolescents, but this is the extent to which diversity is expressed in current programming.

Increase quality of evaluation. High quality evaluation of implemented programs should also be encouraged and address as many aspects of programming as possible. Time and energy should not be devoted to ineffective programs and efficacy cannot be determined without evaluation. To help bridge program evaluation and basic research, studies and theories should serve as a foundation in program development. Subsequently, program evaluation could be conducted using all or some of the same measures used in the research guiding the program design. For example, numerous measures of parent-adolescent communication (see review by Miller, 1998) have been developed and could easily be incorporated into program evaluations. Consistency between previous research and evaluation could eliminate one of the possible issues associated with the lack of significant findings—inconsistent or inappropriate measures.

Evaluations should measure changes in behavioral outcomes, in addition to measuring mediating processes such as parent-adolescent communication. Consistent pre- and post-test instruments incorporating both behavior change and mediation processes could benefit program evaluation and the efficacy of interventions. Long-term follow up on changes of the target behavior could also be conducted. Programs proven to be successful after evaluation and replication in a variety of communities could be implemented nationwide, thereby distributing the benefits of these programs’ generalizability.

Incorporate the ecological model. Beyond the recommendations evolving from the review of the current programs, efforts also should be applied to incorporating the ecological model (Bronfenbrenner, 1979) in program development and evaluation. Bronfenbrenner argued that in addition to proximal environments, such as family interactions, the larger environment also influences developmental outcomes. Indeed, in addition to parenting processes, neighborhood or community issues have also been found to influence teen sexuality (e.g., Brewster, 1994). Of
the 19 programs reviewed, only one teen sexuality program with a parent component made an attempt to include community. Specifically, the PACT programs require “communities to provide a structure whereby parents, organizations, agencies, and institutions within each community coalesce efforts and resources to address the problems related to adolescent sexual behavior and attitudes” (PACT, 1992, page 2). This objective is enforced primarily to help ensure that the program is sustained in the community, following the facilitator training. In addition to the creation of such program goals, evaluation efforts should be designed to understand if and how these goals are achieved. It is imperative that program developers and evaluators consider the contextual issues surrounding their intervention efforts.

Cross cultural or multi-site comparisons. Given that the U.S. has the highest teen pregnancy rates of industrialized nations and an average age of first intercourse that has recently begun to slightly decrease, it would seem that there is much to learn from other nations. For example, the 1988 teen birthrate in the Netherlands was only 10 per 1,000, compared to 97 per 1,000 in the U.S. (AGI, 1994). What is the Dutch approach to sexuality education? Is such programming feasible in the U.S.? To date, a cross-cultural comparison of program implementation and evaluation has not been undertaken.

On a smaller scale, comparing the effectiveness of programs implemented at different sites within the United States, including central city, rural, and suburban contexts, would also be informative. Much can be learned from effective programs replicated at multiple sites with multiple audiences. To date, the evaluation of Project Taking Charge (Jorgensen, 1991) is the only study reported as occurring in areas with different levels of urbanity. Unfortunately, due to the small sample size, program site comparisons were not possible. Efforts should be made to enhance the quantity and quality of multi-site and cross-culture research, particularly evaluation studies.

Conclusions

Adolescent sexuality encompasses a wide variety of health issues that are and should continue to be of concern not only to adolescents, parents, and family life educators but to all Americans. The rapid increase in adolescent AIDS cases and the growing number of teens initiating intercourse at age 14 or younger should not be ignored. Societal discomfort with sexual issues (including that of parents and adolescents), and fear that teaching about sexuality and contraception will promote adolescent sexual activity, have contributed to America’s youth not receiving the education necessary to make informed decisions about sexuality (DHHS, 1995). It is a disservice to adolescents when educators are unwilling to teach these issues or when parents and school administrators serve as barriers to pertinent information.

Fortunately, advances have been made in the knowledge and literature about adolescent sexuality. For the most part, parenting is related to adolescent sexuality outcomes via communication, values, monitoring, and a sense of connection with their teen. However, a lack of developmental insight is found in this literature. Existing longitudinal studies tend to start no earlier than early adolescence, focus primarily on adolescent self-reports, and address a limited number of parent-adolescent processes, thus making it difficult to test interactions and examine how the family processes might have differential effects on adolescent sexuality outcomes.

Despite this gap in the literature, there have been attempts to strengthen parent-adolescent processes in hopes of promoting healthy adolescent sexual behavior. To date, a total of 19 adolescent sexuality programs with a parent component have been located. For the majority of the programs, evaluation results are promising, however, substantial contributions remain to be made in this area. Future studies should address various programming issues including target audiences, degree of parent participation, and evaluation. In addition, the ecological model (Bronfenbrenner, 1979) should be incorporated to a greater degree in program development and evaluation, including community level involvement and cross-cultural comparisons.

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Received 3-23-99

Revised & Resubmitted 9-21-99

Accepted 11-08-99