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Having “The Talk”: Individual, Family, and Partner Factors on Unprotected Sex among Female Adolescent Offenders

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Abstract

This study assessed the influence of individual age and substance use, family support and communication, and partner support and communication on the frequency of unprotected sex among incarcerated adolescent females. Subjects ($n = 273$) completed a survey on psychosocial correlates and risk behaviors for sexually transmitted infections (STI). Communication with male partners and sex while under the influence have a significant impact on condom use. Findings highlight the necessity of providing assertive communication skills training and increasing self-efficacy as STI/HIV prevention components for adolescent females thus empowering their decision-making processes.

FEMALE ADOLESCENT OFFENDERS

One in four young women between the ages of 14 and 19 are infected with a sexually transmitted infection (STI) (Centers for Disease Control and Prevention 2008). Girls involved in the juvenile justice system have even higher rates of STI than any other group of adolescents (Voisin et al. 2006) due to substance abuse (Otto-Salaj et al. 2002; Lederman et al. 2004; Robertson et al. 2004) and unprotected sex (Canterbury et al. 1995; Robertson and Levin 1999; Kalichman et al. 2002). This is especially true regarding rates of chlamydia and gonorrhea (Centers for Disease Control and Prevention 2012). Development of effective STI prevention programs for this population is an urgent public health priority (Teplin et al. 2005; Centers for Disease Control and Prevention 2012). Unfortunately, delinquents and youth who abuse alcohol or drugs present significant challenges to efforts to reduce sexual risk behavior (Malow et al. 2006). Consequently, researchers are encouraged to consider social and contextual (Kotchick et al. 2001), as well as cognitive (Wolff and Crockett 2011), dimensions of risk behavior.

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In addition to individual factors, family and partner factors are associated with adolescent sexual behavior. Both risk and protective factors have been identified within each of these spheres of influence (Andrinopoulos et al. 2006; Wolff and Crockett 2011). Use of condoms by delinquents and individual-level predictors of condom use among this population has been studied by others (see DiClemente et al. 1991; Robertson and Levin 1999; Teplin et al. 2003; Robertson et al. 2006). Few studies, however, have considered partner influences (Magura et al. 1994; Rickman et al. 1994) and only one (St. Lawrence et al. 2008) has examined individual, family, and partner factors simultaneously to determine which has the greatest influence on adolescent condom use. Therefore, the purpose of this study is to assess the influence of individual age and substance use, family support and communication, and partner support and communication on the frequency of unprotected sex among the high-risk population of incarcerated adolescent females.

Individual Factors

Teplin et al. (2003) reports that even among the youngest juvenile detainees (10–13 years of age), just under one-half of the females and nearly two-thirds of the males reported already having engaged in vaginal sex. With continued sexual activity as the youth age comes an increase in STI/HIV exposure due to a decrease in condom use. Specifically, Ku and colleagues (1994) and Edwards (1994) report that young men's condom use tended to decrease with age. For women, Elifson et al. (2010) found that while age was not related to unprotected sex acts, it was related to their attitudes towards condoms with older women expressing more opposition toward the use of condoms. In general, however, Foster et al. (2012) reports no relationship between age and participation in unprotected sex.

Substance use also is an individual-level predictor of risky sexual behavior including unprotected sex (Amaro 1995; Poulin and Graham 2001; Santelli et al. 2001; St. Lawrence et al. 2008; Stoner et al. 2008). The consumption of drugs and alcohol is likely to impede the ability to negotiate sexual behaviors (Amaro 1995). A vast body of research posits that the relationship between substance abuse and risky sexual behavior (Millstein and Moscicki 1995) is due in large part to impaired decision making, and thus places individuals at an increased risk of unprotected sex (DiClemente et al. 2005). Stoner et al. (2008) found that when women are intoxicated, they are less likely to insist on condom usage in part because they tend to dismiss or underestimate potential health consequences.

Family Factors

Findings on the relationship between parent–adolescent communication about sexual behavior and subsequent risky sexual behavior are mixed (Freedman et al. 2005; Wight et al. 2006). Some have found that perceived family support (Crosby and Miller 2002; Voisin 2002) and parent–adolescent (DiClemente et al. 2001) or mother–teen (Miller et al. 1998; Kotchick et al. 1999; Henrich et al. 2006) communication about sex are associated with less risky sexual behavior and increased condom use. Other research indicates that mothers are more likely to communicate about sexual topics with daughters than were fathers (Wyckoff et al. 2008), and it is only the mother's communication about sex, both process and content, that is related to adolescent sexual risk-taking behavior for both males and females (Dutra et al. 1999). While parent connectedness predicted decreased likelihood of sexual risk behavior

(Henrich et al. 2006), the association of parent–teen interaction and adolescent delinquent behavior varies with the quality or warmth of parental relationships (Cauffman et al. 2008). This seems to indicate that parent–teen interaction plays a vital role in reducing the likelihood of teenage sexual risk-taking, which is consistent with other studies insofar as early, open, and receptive parent–teen communication about sex increased condom use (Miller et al. 1998; Kotchick et al. 1999; Udellet al. 2011).

Partner Factors

Many partner factors have been identified as predictors of unprotected sex among adolescents. As Pearson (2006) notes, sexual negotiation may be more important for girls than boys. Female adolescents who have a controlling partner or believe that male control is normative, reported more frequent unprotected sex (Crosby et al. 2000). Less frequent communication with partner about sexually related topics, specifically communication about condom use is associated with more unprotected sex (Grossman et al. 2008). Direct communication and making the request that a condom be used was associated with consistent condom use (Weisman et al. 1991). The perception that the partner does not support using condoms has been associated with a greater likelihood of unprotected sex (Valdiserri et al. 1989; Weisman et al. 1991). Among female adolescents, fear of consequences from negotiating condom use, such as fear of abandonment by partner, was associated with risky sexual behavior and acquiring STIs (Salazar et al. 2007). Others found that a history of intimate partner violence had an effect on sexual assertiveness, which in turn had an effect on the likelihood of condom insistence and unprotected sex (Stoner et al. 2008). It appears that not only is the sexual behavior and health of girls subject to partner influence, but of equal importance is that girls' perceptions of intimate relationships also have a fundamental position in explaining frequency of unprotected sex.

Hypotheses

From the foregoing reviews, several research hypotheses are formulated. First, individual factors will be positively associated with the likelihood of unprotected sex. Specifically, the greater the frequency of sex while under the influence (of drugs or alcohol), the higher the likelihood of unprotected sex. Also, the older the subject, the higher the likelihood of unprotected sex.

Second, family factors will negatively affect the likelihood of unprotected sex. Explicitly, having discussed condom use with a mother or female relative will decrease the likelihood of unprotected sex. In addition, the higher the perceived family support, the lower the likelihood of unprotected sex.

Finally, the effects of partner factors on the likelihood of unprotected sex will be both positively and negatively associated. Having discussions with a partner regarding condom use will decrease the likelihood of unprotected sex. However, any threatening, controlling behavior from the partner, or negative response from the partner regarding condom use will lead to increases in unprotected sex.

METHODS

Data

The data for this study were collected from September 2004 through June 2006, whereby 305 adolescent girls in a state reformatory or training school were recruited into the study. Among the 305 girls, who completed the survey, 275 reported ever having engaged in sexual intercourse. Of the 275 girls, two had missing data on variables of interest, thus reducing the final sample to 273 girls. Participants were asked if they ever had vaginal sex, number of sexual partners in their lifetime, and if they had ever been pregnant. Those who reported never having vaginal sex, no sexual partners in their lifetime, no times or never been pregnant were coded 0 (no), 1 (yes), or 88 for inconsistent reporting. The sample remained at 273 girls who had consistent reporting of having had sex. For this study, all participants were approached by project staff within the first two weeks of their admission and were asked to primarily recall activity from 3 to 6 months prior to incarceration. In this way, all participants are recalling from the same time period give or take two weeks.

Participants completed a survey on alcohol and other drug use, sexual behavior, condom use, and psychosocial correlates of STI/HIV risk behavior. To accommodate the low literacy rates that are typical for this population, the information was collected in a private location using audio computer-administered interview technology. Use of this survey method has been shown to result in higher reporting rates for sensitive sexual and drug-use behavior compared to face-to-face interviews (Des Jarlais et al. 1999). The protocol for this study was approved by the Mississippi State University Institutional Review Board and by the Federal Office of Human Research Protection Panel on Prisoners.

This study principally focuses on individual, family, and partner factors as predictors of frequency of sexual intercourse without a condom. Correlations and multiple linear regression analysis were performed. Following Bohrnstedt and Knoke (1994), multiple linear regression is expressed as:

$$Y_i = \alpha + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_K X_{Ki} + \varepsilon_i$$

$$\kappa = \alpha + \sum \beta_{\varphi} X_{\varphi i} + \varepsilon_i^j = 1$$

where α is the constant or intercept; β_i is the regression coefficient, the effect of independent variable X_j on dependent Y ; and ε_j is the error term, or residual, for the i th case. Analyses were performed using SPSS.

Dependent Variable

With our sample of 273 incarcerated girls who reported ever having engaged in sexual intercourse we assessed the influence of individual, family, and partner variables on the frequency of unprotected vaginal and anal sex during the three months prior to incarceration. Unprotected sex is defined as sex without a condom. Our dependent variable, frequency of unprotected vaginal and anal sex during the three months prior to incarceration, was assessed by asking the following questions, "When you had vaginal [anal] sex, how many times did you use a condom?" This question was predicated by "in the past three months."

Independent Variables

Individual predictors were age in years and frequency of sex while under the influence of alcohol or another drug within the three months prior to incarceration. Participants were asked, “[In the past three months] How many times did you have sex under influence of alcohol?” “[In the past three months] How many times did you have sex under the influence of another drug?” Because the distributions of the dependent variable, frequency of unprotected vaginal and anal sex, as well as one of the independent variables, frequency of sex while under the influence of alcohol or another drug, were highly skewed and kurtotic, we transformed these variables using the natural log plus one.

Two family factors were communication with mother or female relative and family support. Having ever talked with mother or a female relative about sex and condoms was scored 0 (never talked about sex or condoms), 1 (talked about either sex or condoms), or 2 (talked about both sex and condoms). Paternal influence was not assessed as research indicates that it is communication about sex with mother figures that is related to adolescent sexual risk-taking behavior (Dutra et al. 1999). Additionally, a very small percentage (1.5%) of our sample lived with a father only. The Family Social Support scale consisted of four items adapted from measures developed by Zimet and colleagues (1988). The items are “I get the emotional help and support I need from my family,” “My family really tries to help me,” “I can talk about my problems to my family,” “My family is willing to help me make decisions.” Response choices were on a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). Scores ranged from 4 to 20, with higher values representing higher perceptions of support from family members ($\alpha = .93$).

Five partner variables were included in the analysis. The first item assessed whether the partner had threatened physical harm in the previous 6 months (coded = 1 yes, 0 = no). The second item assessed whether the partner pressured her to have unwanted sex in the previous 6 months (coded = 1 yes, 0 = no). The third item consisted of the frequency of discussions with partner in the past 6 months about using condoms and was coded as 0 (never), 1 (1 to 3 times), 2 (4 to 6 times), or 3 (7 or more times). The fourth and fifth items consisted of two partner variables measured with multi-item scales: communication barriers, and partner-related condom barriers. Communication barriers were measured as the frequency of concern about talking with partner due to fear of abuse or abandonment. Participants were asked “How often do you worry about talking to your sex partner because you thought he would: threaten to hit me; threaten to leave me; swear at me, or call me ugly names; hit, push, or kick me; leave me; and go out with other girls.” Response choices included 0 (never), 1 (rarely), 2 (sometimes), 3 (most of the time), and 4 (always). Scores on the communication barriers scale ranged from 0 to 24 ($\alpha = .90$). The partner subscale of the Condom Barriers Scale (Eldridge et al. 1997) includes nine items that assess the participants’ perceptions of partner barriers to using condoms during intercourse. A representative item is “If I asked my partner to use a condom, he might get angry.” Each item is answered on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Responses were summed and scores ranged from 9 to 38 with higher scores representing greater perceptions of partner barriers to condom use ($\alpha = .85$).

RESULTS

Description of the Sample

Slightly over half (51.6%) of the girls reported having unprotected vaginal or anal sex within the three months prior to incarceration. During the three-month report period, participants engaged in unprotected vaginal or anal sex on average 5.3 times ($SD = 12.2$, see Table 1). Participants reported having sex while under the influence of alcohol or another drug an average of three times ($SD = 7.7$). The average age of the female offenders in this study was 15.2.

Most of the girls (81.4%) reported that they had talked with their mother about sex or condom use. Most girls perceived their families to be supportive, in that, the mean score was 15.6 on a scale where scores ranged from 4 to 20, with higher values representing higher perceptions of support from family members. On the other hand, several study participants had a partner who was coercive and potentially abusive: 17.6% reported that their partner has physically threatened them and 28.2% reported that they had been pressured to engage in unwanted sex. Almost half (48.4%) of the girls reported no barriers to communicating with their partners and consequently, 22% said that they had never talked with their partner about condom use. The average score on the frequency of condom use talks with partner indicated that the girls discussed the subject at least once. The mean score on the condom barrier scale was 16.1 from a scale where scores ranged from 9 to 38 with higher scores representing greater perceptions of partner barriers to condom use.

Bivariate correlations indicate that all variables are significantly associated with frequency of unprotected sex. Among protective factors, discussing condom use with partner has the strongest association ($r = -.298, p < .001$). Family support ($r = -.107$) and talks with mom about sex and condoms ($r = -.099$) are also associative protective factors. Amid risk factors, reporting sex after drinking or using drugs has the strongest association for unprotected sex ($r = .269, p < .001$). Older age ($r = .171$), fear of consequences from negotiating condom use ($r = .156$), perceived partner condom barriers ($r = .171$), and having a partner who threatens harm ($r = .184$) or pressures sex ($r = .123$) are also associative risk factors.

Multiple linear regression coefficients are reported in Table 2. Assessment of individual factors revealed that, as hypothesized, greater frequency of sex under the influence was significantly associated with more unprotected sex ($\beta = .8, p = .01$). Age, however, had no effect. Family factors are not significantly associated with unprotected sex contrary to our hypotheses that condom use discussions with a mother or female family member and higher perceived family support would lower levels of unprotected sex. Among partner factors, the variable that is most significantly associated with unprotected vaginal and anal sex is condom use talks with partner ($\beta = -.23, p < .001$). As hypothesized, discussions about condom use with one's sexual partner reduced the likelihood of unprotected sex. However, controlling behavior or negative responses from a partner did not significantly increase participation in unprotected sex as hypothesized. All predictor variables explained 18% of the variance in frequency of unprotected sex.

While the bivariate correlation between talks with mom or female relative is negative ($r = -.099$) and significant ($p = .051$), when partner factors are taken into account, the initial effects of talking with mom or a female relative on unprotected sex are reduced. In other words, among our sample of incarcerated girls, when partner factors are entered into the same equation with family factors, talking with mom or a female relative about sex or condoms is no longer significant. These findings indicate that partner factors have a greater direct effect on the respondent's frequency of unprotected sex, above and beyond the effect from family factors, thus clarifying the mixed results of previous literature.

DISCUSSION

Our findings contribute to a more complex understanding of sexual risk behavior for a high-risk population—incarcerated female adolescents. Although family support and reproductive health discussions between parents and teenagers are important components of STI/HIV prevention among adolescent girls as noted by numerous previous researchers (Miller et al. 1998; Kotchick et al. 1999; DiClemente et al. 2001; Crosby and Miller 2002; Voisin 2002; Henrich et al. 2006; Udell et al. 2011), these protective factors were not significantly associated with condom use among our sample. In our study, incarcerated girls who frequently engage in sex after drinking or using drugs are less likely to use condoms and are at risk for STI/HIV in support of previous finding by Amaro (1995) and Millstein and Moscicki (1995). However, the strongest predictor of condom use was frequency of discussions with partner about using condoms. Frequent communication with partner about sex and condoms promotes successive condom use.

These results indicate that communication with one's partner about condom use showed a strong inverse relationship with having unprotected sex, whereas the effects of communication with one's mother about sex or condom use were not significant. Further, adolescents who frequently talk to their partners about condom use are significantly less likely to engage in unprotected sex, even after accounting for individual effects such as having sex under the influence, thus supporting Weisman and colleague's findings in 1991. Engagement in high risk sexual behaviors pertaining to alcohol and other drug use, age, having a controlling or coercive partner, fear of consequences from negotiating condom use, and perceived partner related condom barriers may increase the frequency of unprotected sex. It appears that to some degree, partner communication counteracts these effects. These findings indicate that within this high-risk population, having sex under the influence and more so, communications with partner exert influence independent of family effects.

Limitations

Findings are limited by the validity of self-reported measures. In addition, the sample was restricted to sexually active incarcerated female adolescents at a state reformatory school and thus may not generalize to other female adolescents or to male juvenile offenders. While the goal of this research was to examine this high-risk population, future research with assorted adolescent populations can validate and extend this study. Regardless of these limitations, our findings have significant implications for STI/HIV prevention.

Implications

Findings highlight the necessity of providing assertive communication skills training and increasing self-efficacy as STI/HIV prevention components for adolescent females. In addition, STI/HIV risk reduction interventions that target adolescent female offenders should address the issues of alcohol and other drug abuse. The ages of the girls in our sample were 12 to 18, indicating that these skills should be taught early. Although we focused on individual, family, and partner factors, other factors, such as peer, community, and societal factors should also be important in deterring unprotected sex. Sex education programs should provide adolescents with assertive communication and self-efficacy skills, which would in turn promote condom use by empowering their decision-making processes in the presence of drugs or alcohol and relative to their relationship with their partner. Intervention for STI/HIV prevention of this high-risk population is critical.

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Biography

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TABLE 1

Bivariate Correlations for All Variables and Descriptive Statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	Mean (SD)/Percent
(1) Frequency of Unprotected Sex	—	.171 (.002)	.269 (.000)	-.107 (.039)	-.099 (.051)	.184 (.001)	.123 (.021)	.156 (.005)	-.298 (.000)	.171 (.002)	5.3 (12.2)
(2) Age		—	.048 (.215)	-.079 (.097)	-.170 (.002)	.047 (.221)	-.025 (.340)	-.022 (.361)	-.188 (.001)	-.011 (.427)	15.2 (1.2)
(3) Sex Under the Influence			—	-.113 (.031)	.031 (.303)	.247 (.000)	.132 (.015)	.159 (.004)	-.182 (.001)	.296 (.000)	3.1 (7.7)
(4) Family Support				—	.260 (.000)	-.054 (.186)	-.073 (.114)	.084 (.084)	.244 (.000)	-.097 (.054)	15.6 (4.4)
(5) Sex/Condom Talks—Mom					—	.055 (.183)	-.053 (.190)	.089 (.072)	.208 (.000)	-.082 (.089)	0–18.7; 1–46.2; 2–35.2%
(6) Partner Threatens Harm						—	.117 (.027)	.339 (.000)	-.015 (.404)	.188 (.001)	17.6%
(7) Any Pressured Sex							—	.106 (.041)	-.018 (.383)	.328 (.000)	28.2%
(8) Fear of Talking—Partner								—	-.033 (.296)	.234 (.000)	3.4 (5.3)
(9) Condom Talks—Partner									—	-.230 (.000)	1.6 (1.2)
(10) Partner Condom Barriers										—	16.1 (6.5)

N = 273 (*p* for one-tailed test in parentheses).

TABLE 2

Effects of Individual, Family, and Partner Factors on Unprotected Sex Among Adolescent Female Offenders

Variable	b	Beta	p
Individual Factors			
Age	1.098	.110	.057
Sex under the influence	.278	.175	.004
Family Factors			
Family support	-.020	-.007	.902
Sex/Condom talks— Mom	-.776	-.046	.445
Partner Factors			
Partner threatens harm	3.072	.096	.117
Any pressured sex	2.038	.075	.206
Fear of talking—Partner	.200	.087	.156
Condom talks—Partner	-2.399	-.228	.000
Partner condom barriers	.001	.000	.996
Constant	-9.081		
<i>N</i>	273		
<i>R</i> ²	.180		
Significance (<i>p</i> value)	.000		