Social Cognitive Correlates of Sexual Experience and Condom Use Among 13- Through 15-Year-Old Adolescents

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Abstract:

Purpose: To examine the role of self-efficacy, outcome expectancies, and perception of peer attitudes in the delay of onset of sexual activity among 13- through 15-year-old adolescents. We also explored the role of self-efficacy, outcome expectancies, and perception of friends' condom use behavior in explaining the use of condoms among sexually active adolescents.

Methods: This study was part of a larger cross-sectional study to evaluate personal characteristics and maternal factors associated with early initiation of sexual intercourse. Mothers and adolescents were recruited from a community-based organization that offered afterschool and summer programs for youth. Enrollment was limited to adolescents aged 13–15 years and their mothers. Mothers and adolescents completed separate interviews. For adolescents, the interviews included the assessment of the variables in the present study. Each interview lasted about 60 min and was conducted by a trained interviewer. Data were analyzed using descriptive statistics and regression analysis. The average age of the 405 adolescent participants was 13.86 years, and approximately 30% of them had engaged in sexual intercourse. Slightly more than half (56%) of participants were male, and 82% were African-American.

Results: Participants who were less likely to believe that their friends favored intercourse for adolescents and who held more favorable attitudes about the personal benefits of abstaining from sex were less likely to have initiated sexual intercourse. Among sexually active adolescents, those who expressed confidence in putting on a condom, and in being able to refuse sex with a sexual partner, and who expressed more favorable outcome expectancies associated with using a condom were more likely to use condoms consistently.

Conclusions: Human immunodeficiency virus and pregnancy prevention programs should emphasize peer influences in both the initiation of sexual intercourse and the use of safer sex practices among sexually active adolescents, as well as personal attitudes about consequences to self and confidence in negotiating safer sex practices with one's partner.

KEY WORDS:

Adolescents Condom use, Self-efficacy, Sexual experience, Social Cognitive Theory

Article:

According to the 1997 National Youth Risk Behavior Survey, 48.4% of all students in Grades 9–12 and 60.9% of 12th-grade students have engaged in sexual intercourse [1]. Early initiation of

sexual intercourse is associated with a variety of health risks such as unwanted pregnancy, sexually transmitted diseases (STDs), and human immunodeficiency virus (HIV). Each year 1 million girls aged 15–19 years become pregnant, and 3 million adolescents acquire STDs [2]. To assist youth in making choices regarding sexual behaviors, numerous local, state, and national organizations have developed and implemented HIV and pregnancy prevention programs [3,4]. One of the more popular theories that underlies these programs is Social Cognitive Theory [5,6], and programs based on this theory have generally been successful in encouraging adolescents to adopt safer sex practices [4].

To continue the development and refinement of successful interventions to prevent the spread of HIV and other STDs among adolescents, program developers must have a thorough understanding of how social cognitive factors influence the adoption of safer sexual behaviors. Few investigators have examined the association between the social cognitive constructs of self-efficacy and outcome expectancies and initiation of sexual intercourse. Of these, BasenEngquist et al. [7] found that both Hispanic and white high school students who had no sexual experience reported more conservative attitudes about adolescents having sex and more positive peer norms for remaining abstinent than did students who were sexually active. The investigators also reported that participants who expressed more conservative attitudes about adolescents having sex were more likely to express intentions to remain abstinent. A belief that one's friends had not initiated sexual intercourse was also found to be important in the delay of the initiation of sexual intercourse among adolescents participating in a national longitudinal study [8].

Investigations of the association between social cognitive factors and condom use are more numerous, but the results are equivocal. Several researchers have observed that adolescents who expressed higher levels of self-efficacy to use condoms or talk to their partner about using condoms were more likely to intend to use condoms [7,9] or actually to use condoms [9–12]. However, other researchers found self-efficacy was not a consistent correlate of condom use [7,13].

Researchers have also found that attitudes about condoms are associated with their use among adolescents [13,14]. Reitman et al. [14] found that African-American adolescents attending a public health clinic who used condoms consistently held more favorable attitudes toward condoms. Likewise, adolescents who reported consistent condom use perceived their friends to have favorable views on using condoms [7,10].

In this study, we were interested in the association of self-efficacy, outcome expectancies, and the perception of peer attitudes with HIV risk-reduction practices. The two practices we assessed were the delay in onset of sexual intercourse and condom use. Because the majority of previous investigators surveyed adolescents who were of high school age or older, one purpose of this study was to assess the association between social cognitive factors and HIV risk practices among younger adolescents. Using Social Cognitive Theory as the basis for the study, we first hypothesized that self-efficacy, outcome expectancies, and the perception of peer attitudes toward adolescents having sex would be correlated with the initiation of sexual intercourse among 13- through 15-year-old adolescents. Thus, we expected that adolescents who had higher levels of self-efficacy to renounce sex, more favorable expectancies related to abstaining from sex, and who perceived their friends to be less in favor of adolescents having sex would be less

likely to have initiated sexual intercourse. We also hypothesized that self-efficacy, outcome expectancies, and perception of friends' condom use behavior would be related to condom use among adolescents who were sexually active. We believed that those who expressed higher levels of self-efficacy to use condoms, more favorable outcome expectancies related to using condoms, and who reported that their friends used condoms would be more likely themselves to use condoms.

METHODS

Procedures

The present study was part of a larger study assessing factors associated with initiation of sexual intercourse and the use of HIV risk-reduction practices among 13- through 15-year-old adolescents. The study was approved by the institutional review board of the researchers' university. In conducting the study, we collaborated with a large community organization whose primary mission is to help youth develop the values and skills necessary to become productive adults, responsible citizens, and community leaders. The community organization provides afterschool and summer programs that include homework assistance, recreational activities, and career development opportunities. The young members of the organization are primarily from disadvantaged economic, social, and family circumstances with over 63% of members from single-parent homes.

Using a list of the names of adolescent members enrolled at the community organization and a list of mothers who responded to poster advertisements, the research team contacted mothers by telephone to determine their interest in the study and to assess eligibility. Eligible mothers and adolescents were those who had lived together for at least 10 years with only brief (<6 months) periods of living apart. An adult female other than the biological mother was eligible if she had been serving as a surrogate mother for the past 10 years. The trained interviewers scheduled in-person standardized interviews which were conducted in private rooms at the data collection site and lasted approximately 1 h. The mother and her adolescent were interviewed at the same time by different interviewers. Mothers gave informed consent for both themselves and their adolescents to participate in the study, and adolescents gave assent. Mothers were paid $25.00 and adolescents $15.00 for completing the interviews.

Data collection occurred over an 11-month period with approximately 38 interviews conducted each month. Membership lists and responses to advertisements provided a total of 452 names. Of 439 mothers contacted, 429 met the eligibility criteria and agreed to participate. Of those, we interviewed 414 adolescents and their mothers. Twenty-three mothers with two adolescent participants were interviewed twice.

Measures

Initiation of sexual intercourse was measured by the item: "Have you ever had sexual intercourse?" We defined sexual intercourse for participants as "when a man or boy inserts his penis into a woman's or girl's vagina." We categorized participants who answered "yes" as having initiated sexual intercourse and asked them additional questions about their use of condoms, and the number of sexual partners they had in their lifetime, in the past 3 months, and in the past month.

Condom use was measured by the item: “How often do you and your current sexual partner use a condom (rubber) when you have sex?” Answer choices are on a 5-point scale ranging from 1 = “never” through 5 = “always.” For the analysis in this study, if participants stated “always,” we classified them as consistent condom users, and anything other than “always” represented inconsistent condom users.

Self-efficacy was measured by two scales: self- efficacy for resisting pressures to have sex and self- efficacy for safer sex behavior. All participants completed the first scale, and only those who reported having had sexual intercourse completed the second scale. The first scale measured the degree of confidence in resisting pressure to have sex (four items, a = .67). The items were phrased so that both adolescents who had already initiated intercourse and those who had not could answer them. An example of an item was, “You can stay away from people who would pressure you into having sex.”

The second self-efficacy scale, which only sexually active participants completed, measured three components of self-efficacy: self efficacy to put a on condom (six items, a = .76), self-efficacy to refuse sex with a partner (three items, a = .73), and self-efficacy to discuss the partner’s sexual history (five items, a = .78). A 10-point scale measured items from 1 = “not sure at all” through 10 = “completely sure.” Responses were summed for the total scores for each scale. Higher scores corresponded to greater confidence in condom use skills.

An outcome expectancy scale to measure perceptions about outcomes associated with not having sex was developed. The scale was designed to measure three aspects of outcome expectancies as suggested by Bandura (1986): self-evaluative, physical, and social. Participants rated each of the nine items (three for each aspect of outcome expectancies) on a 5-point scale from 1 = “strongly disagree” through 5 = “strongly agree.” We coded and summed items so that higher total scores corresponded to more positive expectancies associated with not having sex. Examples of items were: “You will feel more responsible if you do not have sex,” “You will not get AIDS if you do not have sex,” and “Your partner will break up with you if you do not have sex.” Initial reliability analysis showed that the value of the Cronbach alphas for the three items that composed the self- evaluative scale and the three composing the physical scale were under .60. We then conducted a factor analysis to determine the underlying structure of the scale. This analysis revealed that the three physical items and two self-evaluative items formed one factor, and the three social items formed a second factor. The value of Cronbach alpha was .65 for the first factor and .69 for the second factor. We made the decision to use the two factors rather than the original scales in this analysis. We named the first factor personal outcome expectancies, and the second, social outcome expectancies.

A second outcome expectancy scale measured self-evaluative (three items), physical (three items), and social outcome expectancies (three items) for condom use. Examples of items were: “You will feel
safer if you use a condom,” “You will not get HIV if you use condoms,” and “Your partner will get mad at you if you use condoms.” As with the previous outcome expectancies scale, we measured items on a 5-point scale from 1 = “strongly disagree” through 5 = “strongly agree.” We summed responses so that higher total scores corresponded to more favorable expectancies associated with using a condom. A factor analysis confirmed that the scale consisted of three

factors measuring self-evaluative (a = .79), physical (a = .81), and social outcome expectancies (a = .71).

Perception of peer attitudes regarding sexual intercourse for adolescents was measured by a 5-item scale. Again, participants rated each item on a scale from 1 = "strongly disagree" through 5 = "strongly agree." An example of an item on this scale was: "Your friends think it is okay for adolescents your age to have sex." We then summed responses to items with higher total scores corresponding to more favorable attitudes toward adolescents having sex. Internal consistency reliability was .76.

Perception of friends' condom use behavior was measured by the item: "Most of my friends use condoms." This item was rated on a 5-point rating scale ranging from 1 = "none" through 5 = "all."

Data Analysis

We first assessed bivariate correlations among the social cognitive study variables. We then compared mean scores of social cognitive variables using Student's t-test analysis for participants who had initiated sexual intercourse and those who had not and for participants who used condoms consistently and those who had not. Finally, we conducted two logistic regression analyses: one with initiation of sexual intercourse as the dependent variable, and the other with consistent condom use as the dependent variable. Both regression models included age, race, and gender as background variables. We conducted the logistic regression model for initiation of sexual intercourse using data from all participants (n = 405). The analysis included the following variables: self-efficacy for resisting pressures to have sex, personal and social outcome expectancies for not having sex, and perception of peer attitudes toward adolescents having sex. We conducted the logistic regression model for consistent condom use with responses of participants who reported that they had had sexual intercourse (n = 116). The model included self-efficacy to put a on condom, the ability to refuse to have sex with a partner, and discussion of the

Table 1. Demographic Characteristics of Adolescent Participants (N = 405)

Characteristic	Frequency	%
Age (y)		
13	166	41.0
14	129	31.9
15	110	27.2
Gender		
Male	227	56.0
Female	178	44.0
Race		
African-American	329	82.0
White	68	17.0
Other	4	1.0
Lives with		
Biological mother	373	92.8
Grandmother	11	2.7
Aunt	9	2.2
Stepmother	7	1.7
Adoptive	2	0.5
Lives with		
Biological father	129	31.8
Stepfather	82	20.2
Grandfather	2	0.5
Adoptive	1	0.2
No father	191	47.2
Sexual intercourse		
Has not initiated	283	70.4
Has initiated	119	29.6

partner's sexual history; self-evaluative, physical, and social outcome expectancies for using condoms; and a single indicator of the perception of friends' use of condoms. To allow for comparisons among odds ratios, the social cognitive variables used as predictors in the logistic regression models were each standardized to have a mean of 0 and a standard deviation (SD) of 1.

RESULTS

Participants

We limited the analysis to the 405 adolescents who provided complete data on the study variables. Their average age was 13.86 years (SD = 0.84), with 41% being aged 13 years, 31.9% being 14 years, and 27.2% being 15 years (Table 1). Slightly more than one-half (56%) were male and 82% were African-American. Most participants (92.8%) lived with their biological mother. The biological father was present in the home for 31.9% of adolescents, and another 20.2% had a stepfather in the home. Almost 30% of the participants had engaged in sexual intercourse as reported by the adolescents.

Table 2 presents the results of the bivariate anal-

Table 2. Correlations Among Social Cognitive Variables

Social Cognitive Variables	1	2	3	4	5	6	7	8	9	10	11
1. Personal outcome expectancies	1.00										
2. Social outcome expectancies	0.06	1.00									
3. Perception of peer attitudes	0.14	0.11	1.00								
4. Self-efficacy to resist pressure to have sex	0.22	0.21	0.19	1.00							
5. Self-efficacy to put on a condom	0.04	0.13	0.01	0.20	1.00						
6. Self-efficacy to refuse sex	0.11	0.16	−0.12	0.26	0.39	1.00					
7. Self-efficacy to discuss sex history	0.06	0.00	−0.07	0.37	0.51	0.49	1.00				
8. Social outcome expectancies for condom use	−0.18	−0.43	−0.05	−0.16	−0.12	−0.19	−0.05	1.00			
9. Physical outcome expectancies for condom use	0.12	−0.04	−0.09	0.02	0.08	0.05	0.11	0.06	1.00		
10. Self-evaluative outcome expectancies for condom use	0.17	0.04	−0.05	0.05	0.19	0.17	0.11	−0.24	0.30	1.00	
11. Perception of friends' use of condoms	−0.01	0.06	−0.14	−0.04	0.09	0.20	0.14	−0.12	0.02	0.09	1.00

ysis for the social cognitive variables. The highest correlations were among the condom self-efficacy subscales (rs from .39 to .51). Slightly lower correlations were noted between the condom self-evaluative outcome expectancy subscale and the condom social and physical outcome expectancy subscales (rs = —.24 and .30, respectively). The correlations among the other social cognitive variables were relatively weak, ranging from .00 to .26.

Analyses were conducted using Student's t-tests to assess differences in the mean scores of the social cognitive variables for participants who have not initiated sexual intercourse and those who reported initiating sexual intercourse. Significant differences were found between the groups for self-efficacy to resist pressure, personal outcome expectancies, and perception of peer attitudes (Table 3). Participants who reported never having had sex demonstrated higher levels of self-efficacy and more positive personal outcomes and more positive peer attitudes toward not having sex. Student's t-test analysis was also conducted to assess differences in the mean scores of the study variables for participants who consistently use a condom and those who do not. Statistically significant differences in mean scores of study variables were noted between the groups for self-efficacy to put on a condom, self-efficacy to refuse sex with a partner, self-efficacy to discuss partner's sex history, and perception of friend's use of condoms (Table 4). Participants who used condoms consistently demonstrated higher levels of self-efficacy to put on a condom, refuse sex, and discuss sex history, and were more likely to perceive that their friends used condoms.

Table 3. Factors Associated With Initiation of Sexual Intercourse (N = 405)

Variable	Has Not Initiated Sexual Intercourse (%)	Has Initiated Sexual Intercourse (%)	OR	95% CI
Age (y)				
13	86.6	13.4	8.66	4.45, 16.83
14	70.3	29.7	2.50	1.37, 4.58
15	46.4	53.6		
Gender				
Female	84.1	15.9	2.43	1.37, 4.30
Male	59.7	40.3		
Race				
White	67.1	32.9	3.42	1.49, 7.86
African-American	86.8	13.2		
	Means and Standard Deviations			
Self-efficacy to resist pressure	7.27 (2.17)	6.66 (2.19)*	1.22	0.93, 1.59
Personal outcome expectancies	4.03 (0.71)	3.72 (0.78)†	1.52	1.16, 1.98
Social outcome expectancies	3.65 (0.92)	3.65 (0.83)	0.86	0.64, 1.14
Perception of peer attitudes	3.13 (0.81)	2.54 (0.69)†	1.79	1.33, 2.41

* Results of univariate one-tailed Student's *t*-test using raw scores indicate $p < .05$.

Table 4. Factors Associated With Consistent Condom Use (N = 116)

Variable	Consistent Condom Use (%)	Inconsistent Condom Use (%)	OR	95% CI
Age (y)				
13	78.9	21.1	2.06	.48, 8.85
14	64.9	35.1	.49	.16, 1.57
15	65.7	34.3		
Gender				
Male	67.9	32.1	.70	.19, 257
Female	58.3	41.7		
Race				
African-American	65.7	34.3	2.50	.32, 19.29
White	66.7	33.3		
	Means and Standard Deviations			
Self-efficacy to put on a condom	8.68 (1.31)	7.41 (1.92)†	2.20	1.29, 4.41
Self-efficacy ot refuse sex	8.61 (1.97)	6.96 (2.39)†	2.27	1.29, 3.99
Self-efficacy to discuss sex history	8.94 (1.42)	8.36 (1.70)*	.70	.38, 1.30
Self-evaluative outcome expectancies	4.31 (0.59)	4.22 (0.68)	1.31	.62, 2.74
Physical outcome expectancies	3.43 (1.09)	3.59 (0.96)	.70	.39, 1.24
Social outcome expectancies	1.87 (0.71)	1.78 (0.58)	2.14	1.14, 4.04
Perception of friends' use of condoms	3.81 (1.05)	3.32 (0.82)*	1.92	.97, 3.82

* Results of univariate one-tailed Student's *t*-test using raw scores indicate $p < .05$.
† Results of univariate one-tailed Student's *t*-test using raw scores indicate $p < .01$.

To understand the contribution of social cognitive variables to the dependent variables, we conducted logistic regression analyses. With initiation of sexual intercourse as the dependent variable, we entered self-efficacy to resist pressures to have sex, personal and social outcome expectancies for not having sex, and perception of peer attitudes toward adolescents having sex along with age, race, and gender to conduct the analysis. Participants who expressed more favorable personal outcomes for not having sex were less likely to have initiated sexual intercourse than those who held less favorable personal outcome expectancies. Participants who

perceived their friends as holding less favorable views toward adolescents having sex were less likely to have initiated sexual intercourse than those who held more favorable attitudes toward adolescents having sex. Thirteen-year-old participants were 8.6 times less likely and 14-year-old participants were 2.5 times less likely than 15-year-old participants to have initiated sexual intercourse. Female participants were 2.4 times more likely than males not to have initiated sexual intercourse, and white participants were 3.4 times more likely than African-American participants not to have initiated sexual intercourse (Table 3).

We included only the responses of participants who reported initiation of sexual intercourse in the logistic regression analysis to assess the impact of social cognitive variables on condom use. This analysis revealed that participants who expressed higher levels of self-efficacy related to putting on a condom and refusing sex and those who expressed more favorable social outcome expectancies toward using condoms were more likely to use condoms. No other variables were significant (Table 4).

DISCUSSION

In this study, we assessed the role of social cognitive variables in HIV risk-reduction practices of 13- through 15-year-old adolescents. This study was an extension of previous research because it examined the specific aspects of self-efficacy and outcome expectancies related to condom use as well as the social cognitive variables associated with onset of sexual intercourse among young adolescents. Using logistic regression analysis, we found personal outcome expectancies useful in differentiating participants who reported sexual intercourse from those who reported never having had intercourse. Adolescent participants who believed that abstaining from sexual intercourse would benefit them personally were more likely to report never having had sex. In contrast, the perception of social benefits associated with sexual intercourse was not important in explaining initiation of sexual intercourse. One explanation for this finding might be related to the items used to assess social outcome expectancies. For most participants, the items represented hypothetical ("My partner would break up with me") rather than real situations, and it is possible that some participants had difficulty responding accurately to those items.

Despite the failure of social outcome expectancies to differentiate participants who had initiated sexual intercourse from those who had not, social forces on behavior did operate through the adolescents' perceptions of peer attitudes toward adolescents having sex. That is, participants who perceived their peers to be less in favor of adolescents having sex were more likely to report never having had sex. it might be that their friends' behaviors and verbal statements helped them form their own perceptions about adolescents and sex, and subsequently, what the participants believed others thought might have influenced their own behavior. On the other hand, it is possible that the participant's choice of behavior (i.e., to have sex or not to have sex) influenced their attitudes about what others think. it is also possible that participants choose friends and maintain friendships with other adolescents who share similar views. More research is needed to explore the ways in which these variables operate in the context of adolescent sexual behavior. This should include a longitudinal study to examine the directionality of the influence of adolescents and peer sexual behavior.

Self-efficacy, considered a key construct within Social Cognitive Theory, was not instrumental in differentiating participants who had initiated sexual intercourse from those who had not.

Participants who believed they could avoid or deal with situations that pressured them to have sex were not necessarily the participants reporting never having had sex. The lack of significance for self-efficacy was unexpected given the significant bivariate correlations. One possible explanation for the null result is that conceptually self-efficacy overlaps with outcome expectancies, and therefore, the contribution of self- efficacy to the logistic model was subsumed within that of outcome expectancies. Kirsch [15] discussed the conceptual similarity of self-efficacy and outcome expectancy under certain conditions. However, in reviewing the bivariate correlations between the subcomponents of self-efficacy and outcome expectancies for both models, we found only one correlation to be significant. Thus, the failure of self-efficacy to enter into the model cannot be explained by redundancy with the variable of outcome expectancies.

Another possibility for the nonsignificant result is that participants who were sexually active and those who were not equally were confident that they could resist pressures to have sex. However, the frame of reference for refusal (which was not captured in the present study) might vary. For sexually active participants, refusal might apply to unwanted sex, whereas for those who have not initiated sex, refusal might apply to the initiation of sexual intercourse. Further research with more refined measures could examine this possibility.

The logistic regression conducted to determine factors important in condom use revealed that self- efficacy to put on a condom and self-efficacy to refuse sex were important. The importance of self- efficacy in condom use corresponds with the theory of self-efficacy and with empirical evidence from other studies [9,16].

Previous studies revealed that adolescents who hold positive outcome expectancies or positive attitudes about condoms are more likely to use condoms [9,14,17,18]. In this study only social outcome expectancies were important in explaining condom use. Thus, participants who held more favorable views about their partners' attitudes toward using condoms were more likely to use condoms consistently. Social outcome expectancies were more important in explaining condom use than were self-evaluative and physical outcome expectancies. The measures of condom attitudes used in previous studies tend to be composite measures that fail to differentiate between self-evaluative, social, and physical outcomes associated with condom use, making direct comparisons of this study's findings to the results of previous studies impossible. However, given the results of the present study, investigators might consider examining different types of attitudes about condoms. A more refined understanding of the types of attitudes most closely associated with using condoms can help health educators further refine HIV risk-reduction messages and HIV prevention programs.

Limitations

There were several limitations of the study. First, the correlational nature of the study and the cross- sectional design limited the interpretation of the findings. Further empirical work with longitudinal assessments is needed to fully understand the role of self-efficacy, outcome expectancies, and perception of peer attitudes and behaviors on both risky and safer sexual behaviors of adolescents. The study was further limited to a sample of adolescents who are predominantly African-American and who were associated with a community organization that provides services for youth. Not all adolescents have access to such services, and thus, the associations between social cognitive factors and sexual experience variables may differ for a

broader sample of 13- through 15-year-old adolescents. Likewise the sample was composed of adolescents with a stable maternal presence over time. Thus, the findings cannot be generalized to youth from families without a consistent maternal figure. Another limitation of the study was the limited number of variables included in the analysis. Other factors not included in the present study might be associated with both onset of sexual intercourse and condom use. Additional research that includes a larger set of variables is needed to determine the relative importance of the social cognitive variables in understanding risky and safer sexual behaviors of adolescents. Nonetheless, the study did explore key proximal cognitive influences suggested by Social Cognitive Theory. Further research could examine relationships between these cognitions and key factors within the domain of behavior (e.g. substance abuse) and the social environment (e.g., actual attitudes and support of friends and sexual partners) suggested by Social Cognitive Theory to be proximal influences on sexual risk behavior [19]. Furthermore, the relative importance of these domains and key factors within each domain is yet to be identified. An additional limitation is the inclusion of two variables that demonstrated marginal internal consistency reliability. Refinement of those measures is required for continued study in this area. Finally, although the study used procedures to reduce the concern of adolescents that the interviewers might share information with the participants' mothers, some adolescents might have failed to provide accurate information for fear that the information would be shared with others.

Implications

Numerous adolescent pregnancy and HIV prevention programs have used Social Cognitive Theory as their conceptual basis. As noted by Kirby and Di- Clemente [4], these programs have experienced the most success in encouraging both the delay of sexual intercourse and the use of condoms. However, as the field of HIV prevention develops, researchers should examine more closely the components of Social Cognitive Theory that are most effective. The present study would indicate that perceived attitudes and
personal outcome expectancies for not having sex are important factors related to the initiation of vaginal intercourse. Related to consistent condom use with a current partner, confidence in skills as well as social outcome expectancies related to condom use appear to be key factors.

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