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HIV-RISK BEHAVIORS AMONG PSYCHIATRICALLY HOSPITALIZED ADOLESCENTS WITH AND WITHOUT COMORBID SUD

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Abstract

OBJECTIVE—The purpose of this study was to examine HIV-risk behaviors among a sample of psychiatric inpatient adolescents with and without comorbid SUD.

METHOD—239 adolescents (60.7% female; mean age=15.3) were interviewed while hospitalized in a psychiatric inpatient treatment facility. Adolescents with and without substance use disorder (SUD) were compared on a number of HIV-risk behaviors and the association between HIV-risk behaviors and other types of mental health problems were examined.

RESULTS—Compared to those without SUD, adolescents with SUD, after controlling for age, gender, and other psychiatric disorders, were at an increased risk for being currently sexually active (AOR=2.01, CI=1.00-4.04, $p<.05$) and for having used alcohol or drugs prior to last sexual intercourse (AOR=5.48, CI=1.91-15.72, $p<.01$). HIV-risk behaviors were more evident among adolescents with externalizing disorders and those with higher levels of self-reported distress.

CONCLUSION—Adolescents in psychiatric settings, especially those with substance use disorders and/or externalizing problems, are an important population for whom prevention efforts are needed to reduce the risk of HIV infection.

Keywords

HIV-risk; adolescents; substance abuse; psychiatric comorbidity

INTRODUCTION

By 2003, 5,038 adolescents in the U.S. had been diagnosed with AIDS, and many more had been infected with HIV (CDC, 2004). Approximately 40,000 new HIV infections occur each year in the United States. Of these newly infected people, half are younger than 25 years of age. Adolescence is a critical developmental period and adolescents are an important population to include in the study of HIV-risk behaviors and HIV prevention efforts. Because it takes an average of 10 years for an HIV infection to develop into AIDS, a substantial number of young adults with AIDS were infected with HIV during adolescence.

For many adolescents, an increase in exploration, risk taking and independence often leads to feelings of invulnerability and experimentation with different lifestyles (Quadrel, Fischhoff, & Davis, 1993). During this stage, as youth typically seek autonomy and independence from their parents, many begin to experiment and engage in two of the riskiest behaviors for HIV infection: substance use and sexual involvement. Further, adolescents typically underestimate their risk for HIV infection (Walter, Vaughn, & Cohall, 1991). As a result, adolescent populations have increasingly become an important focus of HIV prevention efforts.

Associations between substance use and risky sexual behaviors are hypothesized to result in increased risk for HIV infection. Several researchers (e.g., Rotheram-Borus, O'Keefe, Kracker, & Foo, 2000; Siegal et al., 1999) have posited that alcohol and drug use, because they interfere with judgment and decision-making, may produce a disinhibiting effect that results in higher engagement in risky sexual behaviors. Substance abusing adolescents have been found to engage in unsafe sexual behaviors and have adverse consequences when compared to similar youth with no substance abuse history (Bailey, Pollock, Martin, & Lynch 1999; Deas-Nesmith, Brady, White, & Campbell, 1999; Otto-Salaj, Gore-Felton, McGarvey, & Canterbury, 2002; Tapert, Aarons, Sedlar, & Brown, 2001). For example, Tapert and colleagues (2001) found that when compared to sociodemographically similar community youth, adolescents with substance use disorders reported more sexual partners, less consistent use of condoms, and more sexually transmitted diseases in the 6 years after inpatient treatment.

However, most of the previous work examining HIV-risk behaviors among adolescents has been conducted with community samples or those from substance abuse treatment programs. There are relatively few studies that have examined HIV-risk behaviors among substance abusing adolescent with comorbid psychiatric disorders. Several studies (e.g., Aruffo & Gottlieb, 1994; Brown, Danovksy, Lourie, DiClemente, & Ponto, 1997; Deas-Nesmith et al., 1999; DiClemente & Ponton, 1993) have found that psychopathology poses an increased risk for HIV risk-behaviors among adolescents. For example, in a literature review conducted by Brown and colleagues (1997), they found that adolescents with psychiatric disorders are at greater risk for unsafe sexual practices in comparison to their peers. Further, psychiatrically hospitalized adolescents appeared to be at an increased risk for engaging in HIV-risk behaviors such as engaging in unprotected sex, having multiple partners, and injecting drugs (DiClemente & Ponton, 1993).

Therefore, it is possible that among adolescents with psychiatric disorders, comorbid substance use disorders may exacerbate psychiatric symptoms resulting in the increased likelihood of engaging in risky sexual behaviors. For example, based on studies with adults, the risk for HIV infection appears to be greater among substance abusing populations with comorbid psychopathology. Dausey and colleagues (2003) conducted a cross-sectional study comparing comorbid versus noncomorbid adult substance abusers in substance abuse treatment on rates of HIV prevalence and high-risk behaviors. They found that comorbid participants were much more likely to engage in HIV high-risk factors such as sharing a needle, having sex for money or gifts, having sex with an IV drug user, and report being raped. In a study conducted with adolescent psychiatric inpatients, a significant association was found for drinking alcohol and subsequent unplanned sexual intercourse (Aruffo et al., 1994). Similarly, Otto-Salaj and colleagues (2002) found that higher levels of alcohol use among incarcerated adolescents with emotional and behavioral difficulties were associated with HIV-risk behavior. Therefore, adolescent substance abusers with comorbid psychopathology may be at an increased risk for engaging in HIV-related behaviors.

The purpose of this study is to examine HIV-risk behaviors among a sample of psychiatric inpatient adolescents with and without comorbid SUD. More specifically, we will compare adolescents with and without SUD on a number of HIV-risk behaviors such as: age of first

sexual intercourse, number of lifetime partners, condom use, alcohol and drug use prior to intercourse, pregnancy, and injection drug use. In addition, we will explore the relationship between HIV-risk behaviors and other psychiatric diagnostic categories.

METHODS

Participants

Interview data were collected from 239 adolescents who were hospitalized at a private psychiatric hospital located in northeastern United States. Participants were adolescents (13-17 years of age). The sample was 60.7% (n=147) female and 93.7% (n=224) Caucasian. The mean age of the sample was 15.3 years ($SD=1.3$). The mean Hollingshead Socioeconomic Status index score was 41.1 ($SD=12.4$). The average length of inpatient stay was 9.11 ($SD=7.1$) days. The sample was recruited within two protocols (see below), which were approved by the hospital's Institutional Review Board. In both cases, prior to participation in the study, written assent was obtained from the adolescent, and written informed consent was obtained from a parent or guardian.

Procedure

From February 1998 to April 2001, all patients admitted to the adolescent inpatient unit of the hospital were approached regarding participation in a teen smoking study. Patients aged 13-17 years who smoked at least one cigarette per week in the month before hospitalization were eligible to participate and a total of 191 smokers enrolled (R.A. Brown, et al., 2003 for details of the study). Beginning March 2000 until June 2001, non-smokers also began being enrolled as a comparison group (n=48), generating the sample of 239 adolescents in this study. Due to the acute nature of psychiatric problems in this inpatient setting, patients who met Diagnostic and Statistical Manual, 4th edition (DSM-IV) criteria (APA, 1994) for current psychotic disorder were excluded from either study. Across both studies, 1220 adolescents were screened and 570 did not meet the smoking inclusion criteria. Additional patients were excluded because of recent violent behavior (n=51), current psychotic disorders (n=63), current participation in another study (n=35), uncertain guardianship status (n=22), language incompatibility (n=16), having a sibling in the study (n=11), significant cognitive impairment (n=9), residing too far away to complete follow-up assessments (n=6), or for hearing impairment (n=4). Further, 194 adolescents refused participation in the study once approached. A comparison of substance use and diagnostic characteristics between smokers and non-smokers in this sample has been conducted (Ramsey et al., 2003). A trained research assistant administered each of the measures described below to the adolescents during their inpatient hospital stay.

Measures

Socioeconomic Status (SES)—The Hollingshead Socioeconomic Status index (1975) was utilized to obtain an estimate of participant SES. SES was calculated based on a composite of occupational and educational status. Occupation was coded from 1 (farm laborers/service workers) to 9 (major professionals, higher executives, large business owners). Education was coded from 1 (less than 7th grade) to 7 (graduate professional training). The occupation code was multiplied by 5 and the education code was multiplied by 3 then the two scores were summed. In cases where both parents worked, the two SES scores were averaged to obtain one score per family. The range of possible SES scores was from 8 to 66 with higher numbers reflecting higher socioeconomic status.

High-Risk Sexual Behaviors—The Youth Risk Behavior Survey (YRBS; Kolbe, Kann, & Collins, 1993) was developed by the Centers for Disease Control and Prevention (CDC) to monitor health risk behaviors that contribute to morbidity and social problems among youth. Selected sections of the YRBS were administered to participants to assess 7 high-risk sexual

behaviors. Good 2-week test-retest reliability have been demonstrated for the sexual behavior items from the YRBS with a mean Kappa of 62.7% (Brener, Kann, McManus, Kinchen, Sundberg, & Ross, 2002).

The following seven questions were asked to assess for each of the high-risk sexual behaviors: 1) How old were you when you had sexual intercourse for the first time? 2) During your life, with how many people did you have sexual intercourse? 3) During the past 3 months, with how many people did you have sexual intercourse? 4) Did you drink alcohol or use drugs before you had sexual intercourse the last time? 5) The last time you had sexual intercourse, did you or your partner use a condom? 6) How many times have you been pregnant or gotten some one pregnant? 7) During your life, how many times have you used a needle to inject any illegal drug into your body?

Psychiatric Disorders and Level of Distress—The Columbia-Diagnostic Interview Schedule for Children (C-DISC; Costello, Edelbrock, Duncan, Kalas, & Klaric, 1984) was administered to each participant in order to obtain current (last month), last year, and lifetime DSM-IV Axis I diagnoses. The diagnoses assessed in this study were grouped into diagnostic categories that included anxiety (social phobia, generalized anxiety disorder, panic disorder, agoraphobia, obsessive compulsive disorder) affective (major depressive disorder and dysthymia), substance use (alcohol and other drugs), conduct disorder, and attention deficit/hyperactivity disorder. Psychosis was also assessed in order to exclude participants from the study. The C-DISC is a highly structured interview that can be administered by a trained lay interviewer. The C-DISC has been found to be a valid and reliable instrument (Weinstein, Noam, Grimes, Stone, & Schwab-Stone 1990).

As a measure of current (i.e. last week) level of distress, the Brief Symptom Inventory (BSI) was administered to each participant. The BSI is a 53-item self-report inventory of psychological symptoms that has been used with both adult and adolescent populations. Further, the BSI has shown good test-retest and internal consistency reliabilities (Derogatis & Melisaratos, 1983) as well as convergent, construct, and concurrent validities (Morlan & Tan, 1998).

RESULTS

Demographic and Diagnostic Characteristics

See Table 1 for a list of demographic and diagnostic characteristics of this sample. There were high rates of substance use disorders among adolescents in this sample with 59.2% reporting a lifetime diagnosis of an alcohol or drug use disorder, with the average age of onset of 14.1 ($SD=1.6$) years. Of those meeting criteria for a substance use disorder, 31% met abuse criteria, 46% met dependence criteria, and 23% met abuse and dependence criteria (for 2 different drugs). Among adolescents with a history of substance use, the following percentage reported using each of these substances regularly (i.e., once/week): alcohol (50%), marijuana (66%), amphetamines (8%), barbiturates (6%), hallucinogens (14%), cocaine (11%), and inhalants (8%). There were no differences in rates of Caucasians and non-Caucasian ($\chi^2=2.46$, $df=1$, $p>.05$) or males and females ($\chi^2=.46$, $df=1$, $p>.05$) among adolescents with and without SUD. However, adolescents with SUD were more likely to be older than non-SUD youth (15.6 vs. 14.9 years; $t=4.21$, $df=236$, $p<.001$).

In addition, there were high rates of other mental health problems such as: anxiety disorders (54.2%; age of onset= 10.3, $SD=3.6$), affective disorders (44.5%; age of onset=11.6, $SD=3.0$), conduct disorder (43.7%; age of onset=11.5, $SD=2.9$), and attention deficit/hyperactivity disorder (25.6%; age of onset=5.1, $SD=1.0$). While there were no gender differences in rates of ADHD and SUD, there were high rates of affective disorder ($\chi^2=16.09$, $df=1$, $p<.001$) and

anxiety disorders ($\chi^2=4.42$, $df=1$, $p<.05$) among females and conduct disorder ($\chi^2=10.03$, $df=1$, $p<.01$) among males. In addition, adolescents with a SUD were more likely to meet criteria for an anxiety disorder ($\chi^2=4.02$, $df=1$, $p<.05$) and conduct disorder ($\chi^2=21.38$, $df=1$, $p<.001$).

HIV-Risk Behaviors

A majority of inpatient adolescents reported having had sexual intercourse (66.5%) with 13.6 years being the mean age of first sexual intercourse. Among those who reported having had sexual intercourse, the mean number of lifetime sexual partners was 3.3, while 28.6% reported greater than or equal to 4 lifetime sexual partners. Over half of the sample (52.1%) reported having been sexually active in the last 3 months. In addition, among inpatient adolescents who reported sexual involvement in the last 3 months, 45% reported having had multiple partners. Fifty percent of the sample reported not using a condom during their last sexual intercourse and almost half (41.9%) stated they had engaged in alcohol or drug use prior to sex. Males and females did not differ in the rates of these HIV-risk behaviors. The rates of these HIV-risk behaviors in this psychiatric sample are much higher than those reported with high school samples. For example, see Table 2 for the odds ratios of reporting HIV-risk behaviors in this total sample of psychiatric inpatients compared to a normative sample of high school students using data from the Youth Risk Behavior Surveillance (Grunbaum et al., 2002).

HIV-risk behaviors among adolescents with and without a SUD

To assess the relationship between SUD and HIV-risk behaviors, 2 X 2 contingency tables and logistic regression were conducted. Table 3 displays odds ratios of the relative strength of association between SUD and HIV-risk behaviors. We then used logistic regression to test the association between SUD and each HIV-risk behavior while adjusting for demographic characteristics (i.e., age and gender) and each of the other psychiatric disorders. Interactions between SUD and other psychiatric disorders, as well as gender and SUD were tested in each model by entering the twoway interaction terms after all other terms. Relative to non-SUD youth, SUD adolescents had significantly elevated rates of ever having sexual intercourse ($p<.001$), 4 or more lifetime sexual partners ($p<.001$), being currently sexually active ($p<.001$), and using alcohol or drugs during their last intercourse ($p<.001$). After controlling for age, gender, and other psychiatric disorders, SUD adolescents were still at an increased risk for being currently sexually active ($p<.05$) and for using substances at last sexual encounter ($p<.01$). There were no significant interactions between gender and SUD in any of the analyses. Similarly, there were no significant interactions between SUD and the different psychiatric disorders in predicting HIV-risk behaviors other than substance abusing adolescents with comorbid anxiety disorders were at an elevated risk for not using a condom during their last sexual encounter ($\beta=-4.52$, $df=1$, $p<.05$).

Associations between HIV-risk behaviors and other psychopathology

To assess the relationship between other psychiatric disorders and HIV-risk behaviors, 2 X 2 contingency tables and logistic regression were conducted. While affective disorders were not associated with any high-risk sexual behaviors, adolescents with an anxiety disorder were 5 times ($OR=5.05$, $CI=1.68-15.23$, $p<.01$) more likely to have gotten pregnant or gotten someone pregnant than youth without an anxiety disorder. Adolescents with ADHD, compared to youth without ADHD, were two times ($OR=2.03$, $CI=1.00-4.12$, $p=.05$) more likely to drink or use drugs prior to their last sexual intercourse and almost 3 times ($OR=2.99$, $CI=1.40-6.37$, $p<.01$) less likely to use a condom during their last sexual intercourse. Conduct disordered youth, compared to those without the disorder, were almost 2 times ($OR=1.71$, $CI=1.02-2.88$, $p<.05$) more likely to be currently sexually active and over 2 times ($OR=2.21$, $CI=1.17-4.19$, $p>.05$) less likely to use a condom during last sexual intercourse. These findings continued to be statistically significant even after controlling for age, gender, and other psychiatric disorders

(including SUD). Interactions between gender and other psychiatric disorders were tested in each model by entering the two-way interaction terms after all other terms. The only significant interaction consisted of females with conduct disorder being at increased risk for pregnancy (OR=11.86, CI=(1.55-90.5, $p<.05$). Lastly, adolescents reporting higher levels of overall distress on the BSI also reported lower rates of condom use ($r=.233$, $p<.01$) and higher rates of pregnancy or getting someone pregnant ($r=.172$, $p<.01$).

DISCUSSION

There were high rates of HIV-risk behaviors in this psychiatric sample in comparison to those reported with national samples of adolescents. Adolescents with comorbid substance use disorders, in particular, were at increased risk for being sexually active and for drinking or using drugs during their last sexual encounter. HIV-risk behaviors were also more evident among adolescents with externalizing disorders (i.e., ADHD and conduct disorder), as opposed to internalizing disorders (i.e., anxiety and depression), and among those with self-reported elevated levels of distress upon admission to the hospital. As a result, adolescents in psychiatric settings, especially those with comorbid substance use and externalizing disorders, are an important population with whom to address risk for HIV and AIDS.

Consistent with previous studies (e.g., L.K. Brown et al., 1997), the findings from this study appear to show an increased risk for adolescents in an inpatient psychiatric setting to engage in HIV-risk behaviors when compared to a normative sample of high school students. It appears that, among adolescents with psychiatric disorders, those youth with substance use disorders and/or externalizing disorders are at an increased risk for engaging in HIV-risk behaviors. We found that substance use disorders, ADHD, and CD each independently contributed to engaging in these risky behaviors while the interaction between SUD and externalizing disorders was not statistically significant. Although we were not able to further explore this finding in this study, it is possible that there exists a common underlying factor that mediates the relationship between SUD and/or externalizing disorders and HIV-risk behaviors.

Both externalizing disorders and SUDs are characterized by behavioral disinhibition and personality traits such as impulsivity, sensation-seeking, poor judgment, and inattention (Brady & Sinha, 2005). In turn, these characteristics have been shown to contribute to engaging in HIV-risk behaviors (Donenberg & Pao, 2005). For example, in a study of 9th grade students, Ebreo et al (2002) found that adolescents with higher levels of sensation-seeking were more likely to report drinking before having sex and express intention to have sex before the end of the 9th grade. Further, previous research have examined the relationship between impulsivity and HIV-risk behaviors and found that highly impulsive adolescents reported greater substance involvement and higher rates of unprotected sex (Devieux et al., 2002). Understanding the mediating relationships between SUD and/or externalizing disorders and HIV-risk behaviors is potentially important because it may help to inform AIDS prevention efforts.

The lack of associations between internalizing disorders and HIV-risk behaviors found in this study was consistent with previous findings among adolescents in psychiatric care (Donenberg, et al., 2001). However, in this study, we found that HIV-risk behaviors, more specifically condom use during last intercourse and history of pregnancy, were associated with more general levels of distress. It is possible that a continuous and global measure of distress would be more sensitive than dichotomous disorders in detecting a relationship between psychopathology and HIV-risk behaviors. Future studies should include assessment batteries that incorporate multiple indicators of mental health symptomatology.

Psychiatric comorbidity among youth may pose particular challenges in developing efficacious HIV prevention and intervention programs. An earlier pilot study, L. K. Brown and colleagues (1997) found that an HIV prevention program for adolescents in a psychiatric hospital was

initially beneficial in increasing HIV knowledge and self-efficacy for safe-sex behaviors but did not result in sustained effects over a 3-month follow-up period. Effective sustained prevention programs may need to incorporate increased substance use information as mental health problems may directly and indirectly influence HIV-risk behaviors through their association with substance use problems. For example, both internalizing and externalizing symptomatology have been found to elevate the risk of more severe substance involvement among youth (Abrantes, Brown, & Tomlinson, 2003). On the other hand, conduct disorder and other mental health problems may also develop secondary to extensive substance involvement (Novins, Beals, Shore, & Manson 1996; Brown, Gleghorn, Schuckit, Myers, & Mott 1996). As a result, it may be difficult to determine a focal point when intervening with comorbid youth. Future research is necessary to understand the interrelationships between substance use, mental health problems, and the subsequent engagement in HIV-risk behaviors in order to more effectively develop treatment interventions for this population.

There are several limitations to this study that merit discussion. First, the participants in the study were all psychiatrically hospitalized inpatients in a private institution. The results of this study may not generalize to other psychiatric populations such as those in outpatient settings or in community mental health centers. The generalizability of this study's findings is also limited by the ethnic composition of the sample, which was predominately Caucasian. In addition, this sample consisted of primarily smokers and would thus limit generalizability to other inpatient adolescent psychiatric populations. We have found, however, that the majority (60%) of adolescents admitted to this study's psychiatric inpatient unit are smokers (Ramsey et al., 2002). Given the small sample size of nonsmokers in this study, we did not compare smokers and nonsmokers on HIV-risk behaviors. Indeed, future research of cigarette smoking and other health risk behaviors in relation HIV-risk taking may contribute to our understanding of these relationships among adolescents with mental health problems. Lastly, this was a cross-sectional study that examined only a limited number of predictors of HIV-risk behaviors in youth with psychiatric problems. The examination of multidimensional predictors that provide greater detail about sexual activity, including a more extensive query of condom use and same sex contacts, are needed to greatly benefit our understanding of high-risk sexual behavior among these psychiatrically-hospitalized adolescents with and without comorbid SUD.

The results of this study suggest that adolescents in inpatient psychiatric settings are at an increased risk for engaging in HIV-risk behaviors compared to normative peers. Substance abuse and externalizing problems, in particular, may be predictive of HIV-risk behaviors among these adolescents. It may be common underlying factors, associated with both substance use and externalizing problems, that result in higher engagement in risky sexual behaviors. As a result, these findings highlight the need to thoroughly assess HIV-risk behaviors among adolescents in psychiatric settings. Further, given the extent of HIV-risk involvement among youth in this setting, well-designed, tailored interventions are necessary to decrease HIV infection and transmission among adolescents with mental health problems. Given the short duration of stay in inpatient settings, the use of brief, motivational interventions directed toward inducing change in substance use and HIV-risk behaviors may be particularly relevant (Brown & Lourie, 2001). Lastly, examinations of the mechanisms by which mental health problems and substance involvement are related to HIV-risk behaviors are necessary to inform effective prevention and intervention efforts. These efforts could, in turn, substantially contribute to reducing HIV-risk behaviors in adolescents and thus the incidence of HIV infected youth in the US.

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Table 1

Demographic and Diagnostic Characteristics

Background Characteristics	% of Sample
Age ^a	15.3 (± 1.3)
Gender	
Females	60.7%
Ethnicity	
Caucasian	93.7%
African-American	1%
Hispanic	2%
Asian or Pacific Islander	1%
Other	3%
Any Psychiatric Diagnosis	100%
Anxiety Disorder	54.2%
Affective Disorder	44.5%
Conduct Disorder	43.7%
Attention Deficit Hyperactivity/Impulsivity Disorder	25.6%
Any Substance Use Disorder	59.2%
Marijuana Abuse or Dependence	49.0%
Alcohol Abuse or Dependence	42.3%
Other Substance Abuse or Dependence	20.9%
Days of Inpatient Stay ^a	9.1 (± 7.1)

^a Mean (± SD)

Table 2

Comparison of HIV-risk behaviors among psychiatric inpatients and a National Sample of High School Students

Risk Behavior	Inpatient Psychiatric Sample (N=239)	National Comparison Sample of High School Students ^a (N=13,601)	Odds Ratios
Ever had sexual intercourse	66.5%	45.6%	2.34
First sexual intercourse before age 13	15.0%	6.6%	2.57
≥ 4 sex partners during lifetime	28.6%	14.2%	2.35
Sexually active in last 3 months	52.1%	33.4%	2.18
Condom use during last sexual intercourse ^b	50.0%	57.9%	0.74
Alcohol or drug use at last sexual intercourse ^b	41.9%	25.6%	2.11
Have been or gotten someone pregnant	10.5%	4.7%	2.40
Lifetime injection drug use	3.8%	2.3%	2.00

^a This data was obtained from the Youth Risk Behavior Surveillance – United States, 2001 (Grunbaum et al., 2002).

^b Among those currently (last 3 months) sexually active

Table 3

Relationship between SUD and HIV-risk behaviors

HIV-Risk Behavior	SUD (%) (n=141)	Non-SUD (%) (n=98)	Unadjusted		Adjusted ^a	
			OR	(95% CI)	OR	(95% CI)
Ever Had Sexual Intercourse	79.4%	48.5%	4.11***	(2.32-7.27)	1.86	(0.85-4.08)
First Sexual Intercourse before age 13	18.4%	10.3%	1.97***	(0.90-4.29)	1.86	(0.68-5.12)
≥ 4 sex partners during lifetime	38.3%	14.4%	3.68***	(1.90-7.12)	1.78	(0.83-3.82)
Sexually Active in last 3 months	65.3%	33.0%	3.81***	(2.20-6.59)	2.01*	(1.00-4.04)
Condom use during last sexual intercourse ^c	48.9%	53.1%	1.19	(0.60-2.37)	.98	(0.40-2.42)
Alcohol or Drug Use at last sexual intercourse ^b	52.2%	12.9%	7.60***	(2.99-19.32)	5.48**	(1.91-15.72)
Have been or gotten someone pregnant	13.8%	6.2%	2.42	(0.93-6.31)	1.01	(0.32-3.17)

^a = Adjusted for age, gender, and other psychiatric diagnoses

* = p<.05

** = p<.01

*** = p<.001