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Perceived Risk of HIV Infection among Drug-Using African American Male Prisoners: One Year after Community Re-entry

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Abstract

Background—African Americans represent 13% of the U.S. population but 46% of people living with HIV and nearly 40% of state and federal prisoners. Disproportionate rates of HIV among African American males involved in the criminal justice system have been associated with risk factors, including: contracting sexually transmitted infections (STIs), substance misuse, and inconsistent condom use. However, many African American males may not perceive an elevated risk of HIV upon re-entering the community.

Objective—The current study examines correlates of perceived HIV risk among incarcerated African American drug-using males about one year after release from prison.

Methods—Derived from a larger Health Services Utilization study, interviewing ($N = 661$) incarcerated men at baseline with a 92% follow-up rate approximately one year after community re-entry, the current study is a secondary data analyses from self-identified African American men ($N = 250$). After list-wise deletion, the total $N = 221$ for the final study results.

Results—An ordered logistic regression model examining perceived risk of HIV as the dependent variable found age, cocaine use before sex, and condom use were significant correlates in the model. Alcohol use before sex mediated the relationship between cocaine use before sex and perceived HIV risk.

Conclusions—Results suggest men in this study are engaged in HIV risk behaviors and risk perception varies. Implications for individual-level, community-level and policy interventions are discussed.

Keywords

Drug Use; African American; Men; Prison; HIV risk

Introduction

The United States has the highest rate of incarceration in the world (Walmsley, 2013). At the end of 2015, over 6.8 million individuals were under correctional supervision, including

probation or parole (Kaeble, Glaze, Tsoutis & Minton, 2015). African American males are disproportionately represented among incarcerated groups compared to White males (Carson, 2014). According to the United States Census Bureau (2014), African Americans represent 13% of the United States population, but comprise nearly 40% of state or federal prisoners (Carson, 2014). African American men with a history of incarceration are particularly at risk for acquiring HIV (Center on Disease Control and Prevention [CDC], 2012). In fact, African American men comprise the largest group of newly infected HIV cases in the United States when compared to men and women of all races (CDC, 2014). Specifically, African American men make up 70% of newly infected cases of HIV with younger men (e.g. between ages 13–24) being disproportionately represented among recent cases of HIV and incarcerations (Carson, 2014; CDC, 2014).

The disproportionate rates of HIV among criminal justice-involved African American men has been largely attributed to self-reported substance use and high-risk sexual behaviors (Adams, Kendall, Smith, Quigley, Stuewig, & Tangney, 2013; CDC, 2012; Rowell, Wu, Hart, Haile, & El-Bassel, 2012; Stein et al., 2013). Research suggests examining HIV risk among incarcerated African American men returning to the community is important (CDC, 2012; Lichtenstein, 2009). Specifically, health-related behaviors of formerly incarcerated African American men have implications for public health (Dumont, Gjelsvik, Redmond, & Rich, 2013) and reducing HIV in African American communities. The purpose of the current study is to examine self-reported HIV risk behaviors: engaging in unprotected sex with other men, using drugs before sex, inconsistently using condoms, as well as demographics and sociocultural factors that are associated with perceived risk of contracting HIV among African American men one-year after community re-entry from state prison. The current study addresses a gap in the literature as the results can be used to inform individual, community, and policy-level HIV interventions for African American men.

Perceived Risk of HIV among African American Men

The theoretical framework guiding this study is Weinstein's (1984) conceptualization of perceived risk. Individuals tend to incorporate intrinsic and extrinsic factors in assessing risk perception (Weinstein, 1984). Despite engaging in risky sexual behaviors and the high prevalence of HIV infection, research suggests that actual perceived risk of HIV is low among incarcerated African American men (Khawcharoenporn, Kendrick, & Smith, 2012; Morrow & The Project START Study Group, 2009). Perceived risk has been examined as a cognitive representation of the likelihood of experiencing a negative event and has been considered a motivating force toward changing risky behaviors (Weinstein, 1984). Therefore, if an individual accurately perceives himself as being at high risk for contracting HIV, he is more likely to take action such as HIV testing, communicating openly with partners about HIV status, and/or engaging in safe sex practices. However, the discrepancy between actual behavior and perceived risk among African American males may be a lack awareness of how their own individual sexual behavior patterns (e.g., drug use before sex and having unprotected sex) increase their risk for contracting HIV (Carey, Sen, Seward, & Vanable, 2010). Even when perceived risk is acknowledged, this typically occurs infrequently and only by a few members of a high risk group (Weinstein, 1984). Therefore,

many formerly incarcerated African American drug-using males may be less likely to perceive a high risk of HIV and may be more prone to seeing themselves as an exception.

Drug Use, Inconsistent Condom Use and HIV Risk

There are discrepancies in the extant literature regarding African American males' perceived risk and actual risk of contracting HIV. Among incarcerated groups, African American men are five times more likely than White men, and twice as likely as Hispanic/Latino men to be diagnosed with HIV (CDC, 2015a). Drug and alcohol use lowers inhibitions and increases engagement in high-risk sexual behavior, and HIV risk (Wilton, 2008). For example, alcohol use before sex has been associated with having more sex partners and contracting a sexually transmitted infection (STI) (Wilton, 2008). Recreational drug use before sex increases the likelihood of contracting HIV, engaging in sex with casual partners, and unprotected anal intercourse with male partners (Wilton, 2008). Some scholars suggest the impact of intoxication supersedes knowledge of safe sex practices, despite receipt of HIV education and acknowledgement of the importance of condom use (Ayanwale et al., 2008).

Drug-using African American men re-entering the community from prison may be less likely to use condoms consistently, may engage in risky sexual behavior with uncommitted and multiple partners, and may use drugs before or during sex (Abiona, Adefuye, & Balogun, & Sloan, 2009; Adams et al., 2013; Belenko, Langley, Crummins, & Chaple, 2004; Morrow and the Project START Study Group, 2009). There is also an increased HIV risk with intravenous drug use and unprotected anal sex with male partners among non-gay identified African American men with histories of incarceration (Bland et al., 2012; CDC, 2014). While drug use and sex during incarceration does occur (e.g. Abiona et al., 2009), the majority of prisoners with HIV acquire the virus in the community prior to being incarcerated (CDC, 2015a). Collectively, these findings suggest many incarcerated African American men may resume pre-incarceration patterns of drug use and risky sexual behavior after community re-entry (Ayanwale et al., 2008; Seal et al., 2007), which place them and their partners at risk for HIV (Uhrig, Friedman, Poehlman, Scales, & Forsythe, 2014).

The disproportionate rates of HIV among criminal justice-involved African American men are compounded by sociocultural barriers that may be magnified during the re-entry period. For example, African American men involved in the criminal justice system are likely to have fewer financial resources and years of formal education, which are often associated with limited access to quality community healthcare, STI screening, HIV testing, and HIV education and counseling (CDC, 2015b). Further, perceived need for care and HIV risk associated with drug use and sexual behavior may be overshadowed by acute concerns, such as employment and financial resources that are related to re-entry and survival (Taylor et al., 2014).

The purpose of the current study is to examine African American men's self-reported HIV risk behaviors (unprotected sex with other men, drug use before sex, consistency of condom use, and sociodemographic variables) associated with individual perceived risk of HIV/AIDS one year after community re-entry from prison. Grounded in the literature, the hypotheses for the current study are: 1) African American men who are younger and have been in prison longer will perceive themselves to be at a lower HIV risk and 2) African

American men with a STI history, engaging in unprotected sex with other men, using alcohol and drugs before sex, and inconsistently using condoms will report increased perceived risk of contracting HIV. The current study address a significant public health concern and has implications for informing HIV interventions for African American men re-entering the community from prison.

Methods

The current study is part of a larger project that focused on health service utilization among incarcerated drug abusers when they return to the community after incarceration (e.g., Hiller et al., 2009; Leukefeld et al., 2006; Webster, Mateyoke-Scrivner, Stanton, Leukefeld, 2007). Baseline interview data collection was completed in four different Kentucky state correctional facilities when participants were incarcerated (Wave 1) and follow-up data collection interviews were conducted about one-year after participants were released from prison (Wave 2). The current study uses secondary data from the private interviews about one-year after men were released from prison and returned primarily to two urban cities.

The larger project was approved by the university Institutional Review Board and the Department of Corrections. All participants were consented which included an emphasis on the voluntary nature of the study and the protection of confidentiality in the Federal Certificate of Confidentiality. After informed consent, participants were interviewed individually in a private office by trained interviewers and all participants were paid for their time. The study eligibility criteria were as follows: (1) being a drug user, defined as having used drugs at least three times per week during the year before incarceration; (2) not having self-reported prior or current charges of rape or murder; (3) having 3 months or more of not being incarcerated before the current incarceration; and (4) having no more than 3 months before going before the parole board, thereby ensuring community follow-up within the study time period; and (5) having an interest and consenting to participate in the study.

Baseline data were collected from 661 prisoners and follow-up data were collected from 565 of these individuals during the year following their release from prison. Another 35 of the baseline sample were not paroled during the study and were not interviewed and 9 died. Because of their ineligibility, these 44 subjects were not included in the follow-up. The adjusted final percentage was 92% (565 out of 617 eligible for follow-up). Comparisons between the baseline sample and the follow-up sample showed that there was no apparent bias in the composition of the group that was interviewed when compared to the baseline sample.

At the baseline interview, participants consented to be contacted one-year after their release from prison for a follow-up interview. Participants were tracked with the Kentucky Department of Corrections over the course of the year to determine release dates from prison. Ten months after their release date, participants were contacted for follow-up interviews. Subjects were intensively tracked for 10–14 months post-release from prison for a one-year follow-up interview. Locating and tracking methods included regular mailings, phone calls, internet checks, birthday and holiday card mailings, home visits, and Kentucky Department of Corrections system checks.

Only the participants who self-identified as African American men at baseline and completed a follow-up interview ($N = 250$) were included in the current study analyses. Approximately 78% were from urban areas and 84% reported being single or divorced (not having a partner) and 16% reported being married at the time of the 12-month follow-up interview. The average age was 33.81 (Range: 20 – 66 years). Education ranged from a 7th grade to post-college graduate ($M = 11.68$, $SD = 1.49$) with 34% of the sample reporting less than a high school education. The average length of lifetime incarceration was 66 months (Range: 3 to 264 months). Only 1.2% ($N = 3$) reported engaging in sex with another man, which may be an underestimate (Malebranche, Arriola, Jenkins, & Dauria & Patel, 2010). During the baseline interview participants were asked in their lifetime, “How many sex partners were male?” At the follow-up interview after being released from prison, participants were asked since your last interview “How many sex partners were male?” with less than 1% reporting having a male sex partner ($N = 2$). Due to the low frequency of reporting engaging in sex with other men, this variable was not included in the data analyses.

Measures

Dependent variable

Perceived risk of HIV infection: At the 12-month follow-up interview after being released from prison, participants were asked “Which statement best describes your chance of getting HIV/AIDS?” Response options were “no chance = 0%” (0); “some chance = 25%” (1); “half chance = 50%” (2); “high chance = 75%” (3); or “sure chance = 100%” (4). The median response for participants was 1 = “some chance”. This question is part of the initial NIDA Risk Behavior Assessment (U.S. Department of Health and Human Services, 1993).

For our sample, 41.2% of the men reported having a 0% chance, 37.2% reported having a 25% chance, 11.6% reported having a 50% chance, 7.6% reported a 75% chance, and <1% reported having a 100% chance of getting HIV/AIDS. Due to the low percentages of men reporting having a 100% chance of getting HIV/AIDS, the ordinal categories were re-coded as 0 = “0% or no chance”; 1 = “25% or some chance”; 2 = “50% or half chance” and 3 = “75% or 100%, high chance or sure chance”. It should be noted that it was not possible to control for baseline perceived risk and other sexual behaviors because these questions were not part of the baseline interview while men in the study were incarcerated.

Independent variables

History of STI: Participants were asked “Have you ever been told by a doctor or other health care provider that you had syphilis, genital warts (human papillomavirus), chlamydia, gonorrhea, or herpes?” Responses were recoded as a dichotomous variable as 1 = *history of STI infection* (46%) and 0 = *no history of STI infection* (54%).

Drug use before sex: Participants were asked the frequency of alcohol use, marijuana use, and cocaine use before or during sex. Specifically, “How many times in the past 30 days have you used the following drug before or during sex?” Responses for the frequency of alcohol use before sex ranged from 0 to 30 times in the past 30 days ($M = 5.30$, $SD = 8.20$). Responses for the frequency of marijuana use before sex ranged from 0 to 30 times in the

past 30 days ($M = 4.91$, $SD = 9.20$). Responses for the frequency of cocaine use before sex ranged from 0 to 25 times in the past 30 days ($M = 1.54$, $SD = 4.13$).

Condom Use: Participants were asked, “In the past 30 days, how often did you use a condom during vaginal, oral, or and/or anal sex?” Responses were on a five point Likert scale ranging from 0 = *never* to 4 = *always*. The variable was re-coded as a dichotomized variable with 1 = *consistent condom use* which included “all the time”, and 0 = *inconsistent condom use* which included all other responses. Only 33% ($N = 73$) of the sample reported consistent condom use and 67% ($N = 150$) reported inconsistent condom use during the past 30 days.

Control variables: Demographic variables included age, education level, length of lifetime incarceration (in months) and partner status. Participants were asked “What is your marital status?” 84% reported being single or divorced and this was coded as 0 = *no partner* and 16% reported being married at the time of the 12-month follow-up interview which was coded as 1 = *partnered*. Descriptions of the control variables are provided in the participant demographic information.

Analytic Approach

Initial bivariate correlations examined the relationship between the independent variables and control variables with the dependent variable. Results are presented in Table 1. Spearman rho correlation coefficients are reported for dichotomous variable analyses. Length of incarceration, years of education, partner status, and marijuana use before sex in the past 30 days were not significantly related to perceived risk of HIV infection at the bivariate level and were not included in further analyses. Frequency of cocaine use before sex over the past 30 days was slightly positively skewed and was transformed using a square root transformation. Tolerance and variance inflation statistics were within acceptable ranges and did not indicate multicollinearity between independent variables. The data met the proportional odds assumption. Therefore, a step-wise ordered logistic regression using Stata 12 was used to examine the relationship between age, STI history, alcohol use before sex, cocaine use before sex, and consistent condom use on perceived risk of HIV. Ordered logistic regression was used since the dependent variable, perceived HIV risk, has four ordered response categories and estimates of the log (odds) that a person will fall in the “next highest” category of the dependent variable (Long & Freese, 2012). List-wise deletion was used for missing data with the final model of 221 African American men.

Results

Bivariate results indicate that age ($r = -0.17$, $p < .01$) and consistent condom use ($r = -0.22$, $p < .01$) were significantly negatively correlated with a higher perceived risk for contracting HIV. Alcohol use before sex ($r = 0.23$, $p < .01$), cocaine use before sex ($r = .19$, $p < .01$), and a history of STI diagnoses ($r = .19$, $p < .01$) were all positively correlated with a higher perceived risk for HIV. The ordered logistic regression model (*ologit*) was an overall better fit ($\text{Log Likelihood} = -131.39$; $BIC = 527.48$) compared to the full multinomial (*mlogit*)

regression model ($\text{Log Likelihood} = -237.26$; $\text{BIC} = 663.92$) that did not take into consideration the ordering of the dependent variable.

Ordered regression results (see Table 2) indicate in Model 1, that for every one year increase in age, men in our sample were 4% less likely to be in a higher HIV risk perception category than a lower HIV risk perception category. In Model 2, older men were 5% less likely to be in a higher HIV risk perception category, and men with a history of STI infection were 2.28 times more likely to be in a higher risk category. In Model 3, older men were 4% less likely to be in a higher HIV risk perception category, men with a history of STI infection were 2.13 times more likely to be in a higher category, and for every one unit increase in times alcohol was used before or during sex within the past 30 days, the men increased their odds of being in a higher HIV risk perception category by 4%. In Model 4, age and having a history of STI infection remained significant, similar to previous models. However, past 30 day alcohol use before or during sex was no longer significant when past 30 day cocaine use before or during sex was examined. For every one unit increase in the number of times participants used cocaine before sex, men in this sample were 1.37 times more likely to be in a higher HIV risk perception category.

In the final model, age, history of STI infection and cocaine use before or during sex in the past 30 days remained significant. Men who reported consistent condom use over the past 30 days were 60% less likely to be in a higher HIV risk perception category, as compared to the lower risk perception categories. Based on the non-significance of alcohol use before or during sex when cocaine use was entered into Model 4, a follow-up Sobel-Goodman test for mediation was used. Standardized coefficients were utilized in the mediation model (MacKinnon, Fairchild, & Fritz, 2007) followed by bootstrapping and examining the confidence intervals for the predicted probabilities (Long & Freese, 2012). Results indicate that the mediation effect of alcohol use before or during sex was statistically significant with 0.45 of the proportion of the total effect of cocaine use before or during sex, and being in a higher category of perceived HIV risk (results not shown).

Discussion

More than one-third of the African American men (41.2%) in this study perceived themselves as having “no chance” of contracting HIV, although almost half of the men (47.5%) reported “never” or “rarely” using condoms during vaginal, anal or oral sex. Risk perception has been identified as a motivating factor in behavior change (Weinstein, 1984). However, building awareness around risk perception and HIV protective behaviors has been difficult, particularly among African Americans (Morrow & The Project START Study Group, 2009; Younge, Salem, & Bybee, 2010). Due to the disproportionate rates of HIV in the African American community and the limited research available among prison samples, the current study contributes to the literature on perceived risk among African American male drug-users.

The men in this study with a history of STI infections as well as those who reported using cocaine before or during sex perceived themselves at a greater risk of HIV infection. Research suggests cocaine use is associated with high-risk sexual behaviors, including

engaging in sex work, having sex with drug-using partners who engage in the sex trade (Djumaieva, Imamshah, Wagner, & Razum, 2002; Khan et al., 2008), or engaging in unprotected sex with other men (Buttram, Kurtz, & Surratt, 2013). Therefore, men who use cocaine may be more likely to have higher perceptions of HIV risk due to their risky sexual and drug use behaviors (Khawcharoenporn, Kendrick, & Smith, 2012). Furthermore, cocaine use impairs judgement and decision-making with additional risky sexual behavior and increased perceptions of acquiring HIV (Djumaieva et al., 2002).

Study results suggest that alcohol use before or during sex mediated the relationship between cocaine use before or during sex and perceived risk of HIV. This is consistent with the literature that alcohol is often used in conjunction with cocaine to increase the euphoria, known as cocaethylene (McCance-Katz et al., 1993). Alcohol use exacerbates impaired functioning and decision-making already commonly associated with cocaine use (Pennings, Leccese, & Wolff, 2002). For example, in a sample of African American crack cocaine users, Rasch and colleagues (2000) found that crack-impaired sex was significantly positively associated with increased alcohol use. Using alcohol and crack 15–30 days in one month was associated with increased risky sexual behavior including sex without a condom, multiple sexual partners, and alcohol and crack impaired sex (Rasch et al., 2000). African American men in our sample may be more likely to engage in high-risk behavior while under the influence of alcohol and cocaine. Therefore, they may be more likely to perceive a greater risk of acquiring HIV.

As expected, consistent condom use was associated with a lower risk perception. However, drug-users may be less likely to consistently use condoms. For example, Schonnesson and colleagues (2008) found HIV positive African American crack cocaine users were less likely to consistently use condoms during sex with HIV sero-discordant sex partners. Situational factors such as “being high” has also been consistently related to decreased condom use (Bland et al., 2012; Braithwaite & Stephens, 2005; Malebranche et al., 2010; Ramaswamy & Freudenberg, 2010) as well as trading sex for drugs with other men (Hammett, 2006; Seal et al., 2004). However, examining unprotected sexual activity with other men was not possible due to the low number of study participants who reported engaging in sex with men.

The current study findings, particularly regarding age and STI history, are consistent with previous research with community samples of African American men (Browne, Clubb, Wang, & Wagner, 2009). Older African American men perceive themselves to be at a lower risk for HIV, when in fact, data suggest infection rates are disproportionately higher for this group (CDC, 2015c). In 2013, for example, African Americans over the age of 50 were diagnosed with HIV at an estimated rate of 59.3/per 100,000 compared to a rate of 23.3 for Latinos and 8.7 for Whites (CDC, 2015c). Further, a longitudinal study of CDC national surveillance data collected from 2005 to 2008 found that the racial disparities of newly diagnosed HIV was most prominent among older Blacks (Linley, Prejean, An, Chen, & Hall, 2012) when compared to other race/ethnicities. Several factors may be attributed to these findings including a greater prevalence of concurrent partnerships, more “sexual bridging” between high-risk groups and the general population, and cultural issues such as stigma, less awareness of HIV risk possibly leading to a lower risk perception (Linley, Prejean, An, Chen, & Hall, 2012, p. 1530).

Implications for HIV Interventions

The results of the current study can help to better inform interventions targeting the complex needs of drug-using African American males with histories of incarceration. Individual interventions should include increased accessibility to health promotion services such as, effective drug treatment programming and HIV testing/counseling. Alcohol and drug treatment may be especially effective in disrupting the association between using cocaine before sex acts, potential for condom nonuse, and reducing HIV risk-related behaviors. Additionally, HIV counseling also addresses the social-contextual behaviors (e.g. alcohol or drug use before or during sex) may be effective (CDC, 2015d) in undermining faulty perceptions of risk.

Community-based interventions may include support from community leaders to promote STI and HIV testing (Berkley-Patton et al., 2010). Furthermore, integrating family and friend participation in drug treatment and HIV prevention may reduce stigma surrounding HIV and enhance treatment utilization (Arnold, Rebchook, & Kegeles, 2014). Social support may be associated with an increase abstinence from drugs (Riehman, Wechsburg, Zule, Lam, & Levine, 2008), which in turn could reduce the likelihood of using drugs before sex, condom nonuse (Schonnesson et al., 2008), and contraction of STIs and HIV (Uhrig et al., 2014).

Policy-level interventions could focus on systemic issues that further maintain the HIV epidemic in African American communities (CDC, 2015b). The criminalization of drug use has led to mass rates of incarceration (National Institute of Drug Abuse, 2014), disproportionately impacting African American males (United States Department of Justice, 2013). Therefore, treating drug dependence as a medical problem, coupled with healthcare accessibility with the Affordable Care Act may be a first step in reducing structural barriers (Cheatham et al., 2008). Furthermore, states vary with regard to HIV testing in prison. Policy-level changes requiring HIV testing in prison would help prisoners to learn about their HIV status and promote prevention.

Limitations

There are several limitations. First, the data was cross-sectional. Therefore, causal inference cannot be drawn from the study. Second, social desirability and response bias may have impacted the responses. Given the content of the study involved sensitive topics such as current drug use and sexual behaviors, accuracy of self-report is a limitation. In addition, due to the possibility of the men in the study under-reporting engaging in unprotected sex with other men, we were unable to incorporate this important HIV risk factor in the multivariate models. Finally, the current study sample was purposeful in that only drug-using African American male prisoners from one southern state were included, whereby limiting the generalizability of the study findings.

Conclusion

The limited literature on drug-using African American males highlights the importance of and need for additional research. The current study fills a gap in the literature by examining perception of HIV risk among African American male prisoners one-year after community

re-entry. The study highlights the unique needs and patterns of both alcohol and drug use as well as sexual risk behaviors of drug-using men within a context of challenges and stressors related to community re-entry after prison. Furthermore, barriers such as less education, felony offender status, and often limited employment histories add to the complex sociocultural factors related to risky behaviors, individual perception of HIV risk, and HIV-related racial health disparities. In summary, HIV continues to impact African Americans at a deleterious rate. This study contributes to the literature to better understand alcohol and drug use patterns and risky sexual behaviors among African American males that may inform multilevel interventions.

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Table 1
Descriptive Statistics and Bivariate Correlations Among Formerly Incarcerated African American Men (N=250).

	Range	M	(SD)	1	2	3	4	5	6	7	8	9
1. Age	20–66	33.81		–								
2. Length of Lifetime Incarceration (months)	3–264	65.95	(51.67)	.50**	–							
3. Years of Education	7–17	11.68	(1.49)	.21**	.14*	–						
4. Partner Status ^a	0–1	–	–	–.02	.09	–.00	–					
5. Alcohol Use Before Sex	0–30	5.30	(8.20)	–.20**	–.22**	–.16*	.12	–				
6. Marijuana Use Before Sex	0–30	4.91	(9.20)	–.36**	–.22**	–.08	.25**	–.09	–			
7. Cocaine Use Before Sex	0–25	1.54	(4.13)	.03	–.07	–.02	.05	.41**	.03	–		
8. Lifetime STI History ^a	0–1	–	–	.13*	.10	.02	–.10	.15*	.08	.12	–	
9. Consistent Condom Use ^a	0–1	–	–	–.01	–.04	–.08	–.14*	–.12	–.00	–.05	–.07	–
10. Perceived HIV Risk	0–3	0.86	(0.92)	–.17**	–.03	.05	–.04	.23**	.02	.19**	.19**	–.22**

Note:

^a = Spearman Rho coefficients reported;

* $p < .05$,

** $p < .01$

Table 2
Ordered Logistic Regression - Perceived Risk of HIV Infection Among Formerly Incarcerated African American Men, (N =221)

	Model 1			Model 2			Model 3			Model 4			Model 5			
	OR(SE)	95%CI		OR(SE)	95%CI		OR(SE)	95%CI		OR(SE)	95%CI		OR(SE)	95%CI		
Age	0.96(.01)	**	[0.94,0.99]	0.95(0.01)	***	[0.93,0.98]	0.96(0.02)	**	[0.93,0.99]	0.95(0.16)	**	[0.92,0.98]	0.95(0.02)	***	[0.92,0.98]	
Lifetime STI History				2.28(0.57)	***	[1.40,3.71]	2.13(0.56)	**	[1.27,3.58]	2.16(0.57)	**	[1.28,3.63]	2.18(0.58)	**	[1.28,3.68]	
Alcohol Use Before Sex							1.04(0.02)	**	[1.01,1.07]	1.02(0.02)		[0.98,1.06]	1.01(0.02)		[0.98,1.05]	
Cocaine Use Before Sex										1.37(0.17)	**	[1.08,1.74]	1.41(0.17)	**	[1.11,1.79]	
Consistent Condom Use													0.40(0.12)	***	[0.22,0.70]	
Model $LR\chi^2$	8.10	**			19.96	***			24.18	***		30.99	***		33.72	***
Nagelkerle R^2	.04				.09				.12			.15			.19	

Note. CI = confidence interval for odds ratio (OR)

* $p < .05$,

** $p < .01$,

*** $p < .001$