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Perception of Eligible Black Men as a Context for HIV Risk Behavior Among Black Women

Danelle Stevens-Watkins, Joi Sheree Knighton, and Nathanael Mitchell
Spalding University

Carrie B. Oser and Carl Leukefeld
University of Kentucky

Abstract

African American women are leading in number of newly diagnosed HIV cases, which is a cause for alarm and has a deleterious impact on families and communities. Research suggests the gender-ratio imbalance as a contextual factor leading to increases in high risk sexual behavior and subsequent increases in the rates of HIV infection among African American women. The current study examines correlates of consistent condom use among 213 single, heterosexual, African American women in the community, on probation, and incarcerated who believe it is difficult to find an eligible Black man. Results of this study reveal that drug using women and incarcerated women were less likely to use condoms consistently. In addition, after controlling for drug use and criminal justice status, age emerged as significant. Specifically, older African American women were less likely to use condoms consistently. Community level implications and targeted prevention efforts are discussed.

Keywords

HIV risk; condom use; African Americans

New cases of HIV infection among African American women are 15 times higher than White women and triple the rates among Latina women (CDC, 2011) which can have a devastating impact on the families and communities. The majority of African American women report that they became infected through heterosexual sex with Black men (CDC, 2011). African American also women report a preference for sexual relationships with African American men, who account for 70% of newly diagnosed HIV cases (CDC, 2011). Consistent condom use during sexual intercourse is one of the primary ways to reduce the spread of HIV (AIDS.org, 2012). In order to add to the limited literature, the purpose of this study is to examine correlates of consistent condom use among single, heterosexual, African American women in the community, on probation, and in prison who perceive it to be difficult to find an eligible Black man. The current study adds to the literature by examining consistent condom use in the context of available Black men among a sample of African American women.

Socio-cultural Risk for HIV Infection in African American Women

African American women face unique social challenges including to their increased risk for HIV infection. Wyatt, Forge, and Guthrie (1998) suggested over a decade ago that the gender-ratio imbalance between Black men and women would increase HIV risk behavior

*Please direct correspondence to the first author, Danelle Stevens-Watkins at: dwatkins@spalding.edu.

among Black women. Recently, in a sample of African American college students, women believed that the disproportionate gender ratio imbalance facilitated compliance with men's preferences to use or not use condoms in order to "secure a sexual partner" (Ferguson, Quinn, Eng, & Sandelowski, 2006).

Other social and structural factors such as concurrent sexual partners and incarceration rates within the African American community help to contribute to the alarming rates of HIV infection. In fact, several studies suggest engaging in concurrent sexual partnerships may be normative within African American communities (Senn, Scott-Sheldon, Seward, Wright, & Carey, 2011; Noar et al., 2012). In addition, there are disproportionate rates of African Americans incarcerated, and prisoners have higher rates of HIV infection than the general public (Gaiter & O'Leary, 2010). Incarceration also disrupts stable partnerships and increases sexual partnership concurrency (Gaiter & O'Leary, 2010). African American men are incarcerated at more than seven times the rate of White men, and African American women are incarcerated three times the rate of White women (Guerino, Harrison, & Sabol, 2012). These incarceration rates among African American men with other factors create a gender ratio imbalance within the African American community.

African Americans tend to become sexually active at earlier ages, and report more sexual partners (CDC, 2009) which increases their risk of contracting HIV and other sexually transmitted infections (STIs). In addition, a history of STI infection (Miller, Liao, Wagner, & Korves, 2008), being a drug user (Miller, Korves, Fernandez; 2007) and having limited knowledge about HIV transmission (Djokic et al., 2009) are related HIV risk factors among African Americans.

The current study adds to the literature by examining correlates of condom use among adult African American women in the community, on probation and in prison. It was hypothesized that consistent condom use would be inversely related to drug use, the number of lifetime male partners and the age of first sexual experience. We also hypothesized that women with a diagnosed history of STI and women with higher HIV knowledge scores would be more likely to report consistent condom use. Lastly, we hypothesized that older African American women in the community with more education were more likely to use condoms consistently.

Methods

The current study uses secondary data to analyze B-WISE (Black Women in a Study of Epidemics) data from a sample of single (not married), heterosexual, African American women living in an urban area in a southern state in the community, in prison, and on probation ($N = 445$). The women were asked "Do you think it is difficult to find an eligible Black man?" women who responded "Yes" ($N = 213$) were selected for the study. When examining differences between groups, more women in the community perceived it was difficult to find an eligible Black compared to the women in prison ($\chi^2 = 4.94, p < .05$). There were not significant differences in between the other groups. Specifically, 53% of the community sample, 46% of the prison sample, and 44% of the probation sample indicated that it was "difficult to find an eligible Black man."

Study participants were recruited from the community, from prison, and from probation offices. A stratified sampling design was used so that half of the participants were self-identified drug users. To determine drug use status, the women in the community and probation were asked "In the last year, did you use any illicit drugs?" and the women in prison were asked "In the year before this incarceration, did you use any illicit drugs?" All participants met four eligibility criteria including: (1) self-identifying as an African

American woman, (2) being at least 18 years of age, (3) speaking English, and (4) being willing to participate. Recruitment differed by criminal justice status. Specifically, community women were recruited by posting flyers in public venues, in woman-specific local magazines, as well as various shops and public transportation access points throughout the targeted urban area. Community women could not currently be involved in the criminal justice system. For the prison sample, all African American women meeting the parole board within 60 days were invited to an information session. If they expressed an interest in the study and met criteria, subsequent appointments for interviews were scheduled in a private room in the prison. For the probation sample, African American women were approached in six district probation offices and invited to participate in the study. Probation and community women were interviewed in private rooms in public location including a university campus, public libraries or a community-based organization.

Informed consent was obtained from all participants before data collection. Data was collected by trained African American female interviewers using the Computer Assisted Personal Interviewing (CAPI) software. The study was approved by the Institutional Review Board and participants received \$20 for their participation. Overall, the African American women reported an average of 12.30 years of education (where 12 years equals a high school diploma or equivalent), and average age of 36.60 years, and a mean annual household income of \$20,850. Descriptive characteristics of the sample and study variables are presented in Table 1.

Measures

Condom Use—The dependent variable of interest was consistent condom use. Participants were asked “How often do you use condoms or other protection during sex with main partners?” Responses were 1 = “Never”, 2 = “Sometimes”, 3 = “Quite a bit” and 4 = “All the time”. The variable was re-coded as a dichotomized variable so that, 1 = “Consistent Condom Use” and included the responses that were originally coded as “All the time” and 0 = “Inconsistent Condom Use” and included all other responses. The dependent variable was selected based on research which suggested that asking about condom use at last intercourse may not accurately capture their pattern of condom use, particularly among African American females (Cantania, Dolcini, Laumann, Osmond, Bolan, & Canchola, 2002).

The control variables in the study were: participant venue, drug use status, age, household income, and education level. Participant venue was dummy coded so that the prison and probation samples were entered in analyses in comparison to the community sample. The independent variables of interest were HIV risk factors conceptualized as: age of first sexual experience, lifetime number of male sexual partners, history of STI infection, and HIV knowledge.

Age of first sexual experience—Participants were asked, “How old were you the first time you had sex?” It should be noted that this question did not focus on capturing age at first consenting sexual experience. Consequently, the age range provided by participants could represent reporting non-consensual sexual experiences.

Lifetime number of male sex partners—Participants were asked “How many male sex partners have you had in your lifetime?” It is not uncommon for self-reported count data to fail to adhere to the assumptions of normality (McDonald, 2009). The range provided by the sample, highlighted in Table 1 was moderately positively skewed. To avoid bias in statistical results a square-root transformation was conducted prior to analyses.

History of STI infection—Participants were asked “In your lifetime, has a doctor, nurse, or other healthcare provider ever told you that you have (Human Papillomavirus, Syphilis, Trichomoniasis, Gonorrhea, and Chlamydia)?” If the participants said “yes” to having ever been diagnosed with any of the infections listed it was coded as a “1”, others were coded as “0”.

HIV Knowledge—Participants were administered a modified version of the HIV Knowledge Questionnaire (Carey, Morrison-Beedy, & Johnson, 1997), a 27-item measure to assess knowledge of HIV prevention practices, transmission, and treatment as well as conspiracy beliefs about HIV. Participants responded to a series of True/False questions. The number of correct answers was summed and the percent of correct responses was used.

Data Analytic Strategy

A series of descriptive, bivariate, and multivariate analyses were performed. Based on the results of the bivariate relationships, variables that were significantly correlated with the dependent variable of interest were retained in further analyses. A step-wise logistic regression analysis was conducted to examine correlates of consistent condom use. Missing data was handled through list-wise deletion and the final multivariate model resulted in a total of 204 participants.

Results

Results from the initial bivariate correlations (see Table 2) revealed that consistent condom use was significantly negatively associated with drug use, being in prison (compared to being in the community), and participant age. Age of first sexual experience was significantly positively related to consistent condom use. In addition, the number of lifetime male sexual partners and having a history of a STI diagnosis was significantly negatively associated with consistent condom use.

The results of the step-wise logistic regression examining correlates of consistent condom use are displayed in Table 3. The final model (Model 3) correctly classified 90% of the cases of consistent condom use ($\chi^2(6) = 29.91, p < .001$). Drug use status was significant in the first model indicating that drug using women in the study were 64% less likely to use condoms consistently. Drug use status, being in prison, and age were all significant in the second model. Drug using women were 65% less likely to use condoms consistently, and compared to the community sample, women in prison were 72% less likely to use condoms consistently. In addition, the older women in the study were 5% less likely to use condoms consistently. In fact, age was the only variable that remained significant in the third model, with older women being 5% less likely to use condoms consistently.

Discussion

The current study adds to the literature on HIV risk behaviors by examining within group differences among African American women who perceived that it is difficult to find an eligible Black man. The findings from the current study are consistent with previous research which indicates that drug use is a risk for inconsistent condom use (Wingood & DiClemente, 1998). Most relevant to understanding African American women and HIV risk is age. Current study findings suggests that after controlling for drug use and criminal justice status, older African American women who believe it is difficult to find an eligible Black man are less likely to protect themselves from HIV infection by using condoms consistently. This finding is consistent with prior research (Corneille, Zyzanski, & Belgrave, 2008) among a community sample of African American women, but differs from other findings of inconsistent condom use among younger African American women (Lewis, Melton, Succop,

& Rosenthal, 2000). A recent longitudinal examination of Centers for Disease Control data suggests that African Americans over the age of 50 were disproportionately diagnosed with HIV when compared to other race/ethnicities (Linley, Prejean, An, Chen, & Hall, 2012). However, women beyond reproductive age are less likely to be tested for HIV, and those tested are consequently diagnosed late in the disease course (Wigfall et al., 2011).

The current study is cross-sectional and results are unable to predict risky behavior. Furthermore, the current study does not assess for concurrent partnerships which is a risk factor among African Americans. However, risk for HIV infection among older African American women pose a detriment to the African American community and seem to be in part related to the gender-ratio imbalance. The results of the current study call for further investigation of HIV risk behaviors among older African American women. Prevention efforts should target this at-risk group who may not be willing to openly discuss sexuality and related behaviors due to historical and cultural norms.

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Table 1

Descriptive sample characteristics
(Single Heterosexual Black Women Who Perceive it is Difficult to Find an Eligible Black Man, N=213)

	<i>M</i>	<i>SD</i>	Range	%
Consistent Condom Use				13
Socio-demographics				
Drug User (1 = Yes, 0 = No)				59
Community Sample				40
Prison Sample				30
Probation Sample				30
Age (years)	36.81	12.56	18.00–68.00	
Education (years)	12.30	2.13	5.00–17.00	
Household income (thousands)	21.06	21.72	2.50–87.50	
Age of First Sexual Experience	14.33	3.48	1.00–25.00	
Number of Male Sexual Partners	25.17	48.73	1.00–400.00	
History of STI Diagnosis (1= Yes, 0 = No)				66
Percent Correct on HIV Knowledge Questionnaire	84.59	9.70	44.44–100.00	

Table 2

Correlation Matrix Among Study Variables (N = 213)

	1	2	3	4	5	6	7	8	9	10
1) Condom Use	–									
2) Drug Use Status	–.18**	–								
3) Prison	–.17*	.18**	–							
4) Probation	–.06	–.06	–.43**	–						
5) Age ^a	–.18**	–.09	.05	.00	–					
6) Education Level ^a	.10	–.06	–.26**	.07	.10	–				
7) Household Income ^a	–.07	–.09	.05	–.04	.10	.32**	–			
8) Age of First Sexual Experience ^a	.19**	–.15*	–.05	–.27**	.12	.08	–.15*	–		
9) Number of Male Sexual Partners ^a	–.20**	.25**	.11	.15*	.01	–.14	.25**	–.23**	–	
10) History of STI Diagnosis	–.19**	.21**	–.02	.18**	.04	–.17*	.21**	–.19**	.50**	–
11) HIV Knowledge ^a	–.06	–.04	.08	–.02	–.09	.08	–.04	–.21**	.10	.05

Note.

^a = Pearson coefficients reported;* = $p < .05$;** = $p = .01$ (two-tailed test)

Table 3

Step-wise Logistic Regression Examining Correlates of Condom Use, (N =209)

	Model 1		Model 2		Model 3	
	OR (SE)	95% CI	OR(SE)	95% CI	OR (SE)	95% CI
Drug User	0.36 (.42)**	[0.16, 0.82]	0.35 (0.44)**	[0.15, 0.82]	0.43 (0.47)	[0.17, 1.07]
Prison			0.28 (0.65)*	[0.08, 0.99]	0.28 (0.66)	[0.08, 1.03]
Age			0.95 (0.18)**	[0.92, 0.98]	0.95 (0.02)**	[0.92, 0.98]
Age of First Sexual Experience					1.13 (0.07)	[0.98, 1.31]
Number of Male Partners					0.99 (0.01)	[0.96, 1.02]
History of STI Diagnosis					0.46 (0.48)	[0.18, 1.12]
Model 2		6.16**		19.14***		29.91***
Nagelkerle R ²		.05		.16		.25

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

* p < .05,

** p < .01,

*** p < .001