

HIV TREATMENT OPTIMISM AND SEXUAL RISK BEHAVIORS AMONG HIV POSITIVE AFRICAN AMERICAN MEN WHO HAVE SEX WITH MEN

John L. Peterson, Michael H. Miner, David J. Brennan,
and B. R. Simon Rosser

The association between HIV treatment optimism—beliefs about susceptibility to transmit HIV, motivation to use condoms, and severity of HIV—and sexual risk behavior was examined among HIV-positive African American men who have sex with men (MSM). Participants were 174 men recruited in four major metropolitan areas of the United States to participate in a weekend HIV risk reduction intervention. Baseline results revealed that beliefs in less susceptibility to transmit HIV and less motivation to use condoms were significantly associated with more unprotected anal intercourse among serodiscordant casual partners. Less motivation to use condoms also predicted more unprotected insertive and receptive anal sex and was more important than susceptibility beliefs in predicting these behaviors. Suggestions are offered of ways to better inform HIV-positive African American MSM about their misperceptions about HIV treatment and how their level of optimism about HIV treatment may diminish or encourage condom use.

The HIV epidemic has exacted an overwhelming toll on African American men who have sex with men (MSM) in the United States. HIV prevalence and incidence rates in African American MSM remain disproportionately higher than among other ra-

John L. Peterson is with the Department of Psychology at Georgia State University in Atlanta. Michael H. Miner is with the Department of Family Medicine and Community Health at the University of Minnesota, Twin Cities. B. R. Simon Rosser is with the School of Public Health at the University of Minnesota, Twin Cities. David J. Brennan is with the Factor-Inwentash Faculty of Social Work at the University of Toronto, Ontario, Canada.

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Address correspondence to John L. Peterson, Department of Psychology, Georgia State University, P O. Box 5010, Atlanta, GA 30302-5010; E-mail: jpeterson@gsu.edu

cial or ethnic groups of MSM in the United States (CDC, 2006, 2007, 2008a, 2009; Hall, Byers, Ling, & Espinoza, 2007). Nationally, Black MSM account for over half (55%) of infections attributed to male-to-male sexual transmission (CDC, 2007) and experience a high rate (46%) of HIV prevalence (CDC, 2008b), which equal rates in the developing world (CDC, 2005). Also, African American MSM have higher rates of unrecognized HIV infection than White MSM, which may contribute to the disproportionate infection rates between African American and White MSM (MacKellar et al., 2005; Marks, Crepaz & Janssen, 2006). Given the severe impact of HIV on African American MSM, research is needed to reduce the excessive HIV infection rates in African American MSM.

One prominent line of prevention research has focused on the association between HIV treatment optimism and sexual risk behaviors in MSM. Since the advent of combination antiretroviral therapies, known as highly active antiretroviral therapy (HAART), there have been major improvements in the health and survival of people living with HIV/AIDS. Increased availability of HAART may affect beliefs about AIDS that can similarly influence sexual risk behaviors. Treatment optimism broadly reflects favorable feelings about the multiple outcomes from the use of HIV treatments (e.g., beliefs regarding less severity of AIDS, reduced risks of HIV transmission, and less need to use condoms). The widespread access to HAART has coincided with the resurgence in sexual risk behaviors and sexually transmitted infections in MSM. Considerable evidence supports the possible association between HIV treatment beliefs and risky sexual behavior in MSM populations.

Studies have shown that HIV treatment optimism may be associated with increased sexual risk behaviors in largely White samples of MSM in the United States. In a meta-analysis of such studies, it was found that unprotected sex was higher in those men who held beliefs that receiving highly active antiretroviral therapy (HAART), or having an undetectable viral load, protected against HIV transmission (Crepaz, Hart, & Marks, 2004). HIV-positive MSM appear more likely to report an increased sense of treatment optimism than HIV-negative MSM (Elford, Bolding, Maguire, & Sherr, 2000; Huebner & Gerend, 2001; Kalichman et al., 2007; Kelly, Hoffmann, Rompa, & Gray, 1998; Knox et al., 2001; Misovich, Fisher, & Fisher, 1999; Vanable et al., 2000), which is especially true for those men specifically on HIV treatment (Huebner & Gerend, 2001; Kalichman et al., 2007; Vanable et al., 2000). However, results have been contradictory for HIV-positive men in which treatment optimism has been associated with sexual risks. Some studies have reported no association between treatment optimism and sexual risk (Dukers et al., 2001; Kalichman et al., 2007; Ostrow et al., 2002; Vanable et al., 2000). Other studies found an association with greater sexual risks (Cox, Beauchemin, & Allard, 2004; Remien, Halkitis, O'Leary, Wolitski, & Gomez, 2005; Vanable, Ostrow & McKirnan, 2003), and in still one other an association was found with reduced sexual risks (Nollen et al., 2002). A limitation is that most of these studies were conducted with predominantly White samples and, even when diverse recruitment was employed, rarely provided results separately for White and nonwhite MSM. However, one study (Kalichman et al., 2007) found that more African American MSM than White MSM held the belief that HIV treatments were protective against HIV transmission and that HIV treatment optimism was associated with greater unprotected sex for both White and African American MSM.

Taken together, studies that neglect to examine effects of treatment optimism separately for White and nonwhite men may greatly reduce the availability of evidence needed to understand if HIV treatment optimism is associated with the risky

sexual behaviors of nonwhite MSM, especially African American men. Moreover, the contradictory results for HIV-positive MSM may be attributed to different measures used across studies and the lack of a measure of treatment optimism developed for HIV-positive MSM (Brennan et al., 2009). Therefore, the current study was intended to extend the prior research on treatment optimism and HIV sexual risk behavior to HIV-positive African American MSM. We examined the association of HIV treatment optimism and recent sexual risk behavior exclusively in African American MSM who reported they were HIV-positive. We examined whether beliefs regarding treatment optimism—beliefs about the susceptibility to transmit HIV, motivation to use condoms, and severity of HIV—given current HIV treatment, may be associated with unprotected sex in HIV-positive African American MSM. Specifically, we hypothesized that those HIV-positive men who felt less susceptible to transmit HIV, given current HIV treatments, would report greater unprotected sexual behavior than those HIV-positive men who felt more susceptible to transmit HIV given current HIV treatments. Similarly, we expected that those HIV-positive men who felt less motivation to use condoms, given current HIV treatments, would report greater unprotected sexual behavior than those HIV-positive men who felt more motivation to use condoms given current HIV treatments. Finally, we expected that those HIV-positive men who felt HIV was less severe, given current HIV treatments, would report greater unprotected sexual behavior than those HIV-positive men who felt greater severity of HIV given current HIV treatments.

METHOD

PARTICIPANTS

The sample comprised 174 HIV-positive African American men receiving antiretroviral treatment recruited in four major metropolitan areas across the United States (Boston, New York, Los Angeles, and Houston) to participate in a weekend seminar-based intervention: Boston ($n = 18$), New York ($n = 75$), Los Angeles ($n = 39$), and Houston ($n = 42$). Participants were eligible if they reported being HIV-positive, were at least 18 years of age, had sex with at least one man in their lifetime, and had anal sex without a condom at least once in the past 12 months. Of 335 eligible African American men, 297 (88%) chose to register to participate in the intervention, of which 229 (77%) provided sufficiently valid pre-test survey data for inclusion in this study, and of whom 174 reported currently being on antiretroviral treatment.

PROCEDURE

Participants were recruited and screened for eligibility by collaborating HIV community organizations in each city. These organizations employed a variety of recruitment methods, including publicity to agency clients, print advertising, and Internet- or venue-based outreach to MSM. The data presented are baseline data collected between January 29, 2005, and April 22, 2006, prior to participants' assignment to the intervention condition. Data were collected in group settings, where aid was available from research staff for participants with problems reading or understanding questions. Participants were excluded from the study if they did not speak English. All instruments were self-report inventories. Participants were discouraged from talking with one another during data collection, although there were no attempts to separate participants from one another.

MEASURES

HIV Treatment Optimism Scale. From the research literature and a focus group of 17 HIV-positive gay and bisexual men, 21 potential items to be included in an HIV Treatment Optimism scale were analyzed utilizing Principal Components Analysis with orthogonal rotation and reliability testing. Details of this analysis can be found elsewhere (Brennan et al., 2009). The factor analysis resulted in the development of three separate scales: the Susceptibility scale, the Condom Motivation scale, and the Severity scale.

Susceptibility. This scale included 10 items reflecting beliefs that HIV is less transmissible to others now that we have treatment, that is, "People on combination drug therapy (HAART) are less likely to pass HIV on to an HIV-negative sexual partner through unprotected anal sex." A higher score on this scale indicated a greater belief that HIV is less transmissible now that we have treatment. Reliability coefficients (α) and mean inter-item correlations (M) for the scale were acceptable ($\alpha = .86$, $M = .39$).

Condom Motivation. This scale included five items that reflected any alteration in motivation to use condoms now that we have effective treatment, that is, "Since we have effective treatment for HIV, I feel more motivated to use condoms with secondary partners each time I have insertive anal sex (fucking)." A higher score on this scale indicated greater motivation to use condoms now that we have treatment. Reliability coefficients (α) and mean inter-item correlations (M) for the scale were acceptable ($\alpha = .84$, $M = .50$).

Severity. This scale included four items that reflected any alteration in beliefs about the level of severity of living with HIV now that we have treatment, that is, "My life is much better now that I am on combination drug therapy (HAART)." This scale item was reverse coded to reflect that a lower score indicated a stronger belief that HIV is less severe now that we have treatment. Reliability coefficients (α) and mean inter-item correlations (M) for the scale were acceptable ($\alpha = .71$, $M = .37$).

Unsafe Sex. This outcome or dependent variable is defined in a number of ways. First, we define our dependent measure, serodiscordant unprotected anal intercourse (SDUAI), as having one or more acts of anal intercourse during the past three months in which the HIV-positive respondent did not use a condom with a sexual partner whose HIV status was HIV-negative or unknown. This binary variable was calculated for all sexual partners, primary sexual partners only, and secondary sexual partners only.

Further, we calculated three other measures of unsafe sex: unprotected anal intercourse, (any acts of anal intercourse without a condom over the past three months); unprotected receptive anal intercourse (any acts of anal intercourse without a condom over the past three months where the participant was the receptive partner); and unprotected insertive anal intercourse (any acts of anal intercourse without a condom over the past three months where the participant was the insertive partner). We also calculated abstinence, no reported sexual behavior over the past three months, and any incidents of anal sex.

TABLE 1. Number and Percent of Participants Engaging in Sexual Risk Behaviors or Abstinence in the Past Three Months among African American MSM in 4 U.S. Cities

Sexual Behavior – Past 3 months	Yes	No
Abstinent	25 (14%)	149(86%)
Anal Intercourse	136 (78%)	38 (22%)
Unprotected Receptive Anal Intercourse	76 (44%)	97 (56%)
Unprotected Insertive Anal Intercourse	75 (43%)	98 (57%)
Unprotected Anal Intercourse	105 (61%)	68 (39%)
Serodiscordant Unprotected Anal Intercourse	74 (43%)	100(57%)

Note. Serodiscordant anal intercourse = anal intercourse between an HIV-positive study participant and a sexual partner of HIV-negative or unknown HIV status

RESULTS

DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

There were no significant differences between the four metropolitan areas with respect to any of our independent or dependent variables. Therefore, demographic characteristics will be presented for the entire sample rather than separately by city, and city will not be controlled in our analyses. The men in this sample averaged 43.6 ± 7.4 years of age, with a range of 24 to 69 years. Most of the sample (59%) had attended at least some college, although more than half (55%) were on some form of disability and only 18% were employed either full- or part-time. The median annual income was \$9,100, with three-quarters of the sample earning less than \$14,500 per year. Most of the sample (73%) identified as gay. On average, participants had been diagnosed HIV-positive for 11.8 ± 5.8 years. Fifty-six percent of the participants had a CD4 count of 350 or greater and 55% had an undetectable viral load.

OVERVIEW OF THE STATISTICAL ANALYSES

The distribution of the three treatment optimism scales all diverged from normal; therefore, each scale was transformed to a three-point ordinal scale (low, medium, high) by tertile split. The first step in the analysis was to explore the first-order associations between each treatment optimism scale and unsafe sexual behavior, which was conducted in two ways. First, simple cross-tabulations by each level of the scale were explored using chi-square. Then, first-order associations were calculated using logistic regression. The multiplicative change in odds with each unit change in scale scores and their 95% confidence intervals were estimated as $e\beta$. Those scales that showed significant first-order effects were then entered into a multivariate logistic regression. Odds ratios were estimated as indicated above. Both the univariate and multivariate logistic regression analyses controlled for age and education. However, due to the level of missing data, income could not be controlled in these analyses. Data analysis was conducted using PASW 18.0.

Table 1 provides a breakdown of unsafe sex in the past three months for each definition of unsafe sex. Due to the small number of participants reporting no sexual behavior in the past three months and the small number who had not engaged in any anal intercourse in the past three months, neither of these variables is included in the analyses below. In Table 2, unsafe sex in the past three months is shown for each level of the HIV treatment belief scales. Data reflect unprotected anal intercourse

TABLE 2. Number and Percent of African American Men in 4 U.S. Cities Engaging in Sexual Risk Behavior in the Past Three Months by Level of Treatment Beliefs

	Serodiscordant Anal Intercourse <i>n</i> (%)			Unprotected Anal Intercourse <i>n</i> (%)			Unprotected Receptive Anal Intercourse <i>n</i> (%)			Unprotected Insertive Anal Intercourse <i>n</i> (%)		
	Never	At least once	<i>p</i>	Never	At least once	<i>p</i>	Never	At least once	<i>p</i>	Never	At least once	<i>p</i>
Susceptibility			.05			.12			.09			.04
Low	37 (69)	17 (32)		25 (46)	20 (54)		35 (65)	19 (35)		33 (61)	21 (39)	
Moderate	36 (60)	24 (40)		25 (42)	35 (58)		35 (58)	25 (42)		39 (65)	21 (35)	
High	25 (45)	30 (56)		15 (28)	39 (61)		24 (44)	30 (56)		23 (43)	31 (57)	
Motivation			.03			.03			.03			.009
Low	29 (47)	33 (53)		17 (28)	44 (72)		26 (43)	35 (57)		28 (46)	33 (54)	
Moderate	28 (57)	21 (43)		18 (37)	31 (63)		30 (61)	19 (38)		25 (51)	24 (49)	
High	41 (71)	17 (29)		30 (52)	28 (48)		38 (65)	20 (35)		42 (72)	16 (28)	
Severity			.48			.46			.22			.87
Low	24 (67)	12 (33)		17 (47)	19 (58)		23 (64)	13 (36)		21 (58)	15 (42)	
Moderate	39 (56)	30 (44)		24 (35)	45 (65)		41 (59)	28 (41)		40 (58)	29 (42)	
High	35 (55)	20 (45)		24 (38)	39 (62)		30 (48)	33 (52)		34 (54)	29 (46)	

Note. Susceptibility = belief in HIV transmission to others, given treatment now available; Motivation = belief of motivation to use condoms, given treatment now available; Severity = belief in severity of living with HIV, given treatment now available. Serodiscordant anal intercourse = anal intercourse between an HIV-positive study participant and a sexual partner of HIV-negative or unknown HIV status.

with both main and casual serodiscordant (e.g., dissimilar HIV status) sexual partners, in which 40% of the total sample engaged in such risky sexual activity. Moreover, as shown, results revealed significant differences in this risk behavior between men who differed in beliefs regarding susceptibility to transmit HIV and motivation to use condoms, given current HIV treatments. Overall, men who differed in beliefs about severity of living with HIV, given HIV treatments, did not significantly differ in unprotected anal intercourse with serodiscordant partners. This pattern of results is consistent across the different definitions of unsafe sex, with motivation to use condoms associated with less unsafe sex and no association between severity beliefs and unsafe sex. The impact of treatment beliefs regarding HIV transmission susceptibility differs across definitions, with significant effects for serodiscordant unprotected anal intercourse (SDUAI) and unprotected insertive anal sex.

The first step in exploring the effects of treatment optimism is to determine that these factors are directly related to engaging in, or failing to engage in, SDUAI. Table 3 presents the first-order associations (as measured by relative odds ratios) between each scale and any incident of unprotected anal sex with a serodiscordant partner in the past 3 months, after controlling for age and education. As can be seen, susceptibility of transmission beliefs, $\chi^2 = 5.77$, $df = 1$, $p = .016$, and motivation to use condom beliefs, $\chi^2 = 6.20$, $df = 1$, $p < .013$, were significantly associated with unsafe sex. Individuals who believed that HAART reduced susceptibility to transmit HIV infection were more likely to engage in unsafe sex, while those reporting higher motivation to use condoms were less likely to engage in unsafe sex. Severity belief had no significant association with unsafe sex.

A multivariate logistical regression was conducted entering the susceptibility and motivation scales after controlling for age and education. The model was significant, $\chi^2 = 13.5$, $df = 4$, $p < .009$, and indicates that greater unsafe sex is associated

TABLE 3. Relative Odds Ratios for Unprotected Anal Sex among African American MSM with Serodiscordant Partners in 4 U.S. Cities for Treatment Beliefs

Variable	All Partners				Secondary Partners			
	First-Order Association		Multivariate Association		First-Order Association		Multivariate Association	
	Relative Odds Ratio	95% CI	Relative Odds Ratio	95% CI	Relative Odds Ratio	95% CI	Relative Odds Ratio	95% CI
Susceptibility	1.62**	1.09, 2.41	1.59*	1.06, 2.38	1.34	0.86, 2.10	—	—
Motivation	0.62**	0.43, 0.91	0.63**	0.43, .0.93	0.50***	0.32, 0.78	—	—
Severity	1.25	0.82, 1.87	—	—	1.10	0.75, 1.60	—	—

Note. Susceptibility = belief in HIV transmission to others, given treatment now available; Motivation = belief of motivation to use condoms, given treatment now available; Severity = belief in severity of living with HIV, given treatment now available. Serodiscordant partners = anal intercourse between an HIV-positive study participant and a sexual partner of HIV-negative or unknown HIV status. * $p < .05$, ** $p < .02$, *** $p < .002$

with beliefs that susceptibility to HIV transmission is reduced by HIV treatments and by lower motivation to use condoms due to HIV treatments.

It has been suggested that partner type, that is primary partner or secondary partner, affects the behavior of HIV-positive men and thus would affect the association between treatment optimism and unsafe sexual behavior. Our definition of unprotected sex takes into account the serostatus of partners, and there was very little serodiscordant unprotected anal intercourse (SDUAI) among primary partners ($n = 20$); thus, analyses of associations within primary relationships were not conducted. However, the last four columns in Table 3 show the pattern of associations between Susceptibility, Motivation, and Severity Treatment beliefs and unsafe sex with secondary, casual partners. There were no significant effects for either susceptibility beliefs or severity beliefs. There was, however, a significant effect of motivation to use condoms, $\chi^2 = 9.8$, $df = 1$, $p = .002$.

It may be that our contextual variables are obscuring relationships with other forms of unsafe sexual behavior. Thus, we conducted similar analyses with three other forms of sexual behavior: unprotected anal intercourse, unprotected receptive anal intercourse, and unprotected insertive anal intercourse. We did not explore abstinence, since so few of our sample reported no sexual behavior in the past 3 months (see Table 1).

The first-order association between unprotected anal intercourse and susceptibility of transmission beliefs approached significance after controlling for age and education, $\chi^2 = 3.7$, $df = 1$, $p = .054$, while condom motivation was significant, $\chi^2 = 6.2$, $df = 1$, $p = .013$. Severity beliefs were not associated with unprotected anal intercourse. Since susceptibility approached significance, it was included in the multivariate analysis along with motivation. These variables were significant after controlling for age and education, $\chi^2 = 6.5$, $df = 2$, $p < .009$. In the final model, motivation remained significant, OR = 0.52, 95% CI = 0.42, 0.92, and the magnitude of the association between susceptibility and unprotected anal sex did not change substantially, OR = 1.45, 95% CI = 0.97, 2.18, although it is not significant in the multivariate model. Table 4 shows the results of analyses of receptive and insertive anal intercourse. The results for both of these analyses are similar, with motivation remaining a significant predictor in both univariate and multivariate analysis, while a significant first-order association for susceptibility did not change much in magnitude but shows a probability level that indicates a trend.

TABLE 4. Relative Odds Ratios for Unprotected Receptive and Insertive Anal Intercourse for Treatment Beliefs among African American MSM in 4 U.S. Cities

Variable	Receptive Anal Sex				Insertive Anal Sex			
	First-Order Association		Multivariate Association		First-Order Association		Multivariate Association	
	Relative Odds Ratio	95% CI	Relative Odds Ratio	95% CI	Relative Odds Ratio	95% CI	Relative Odds Ratio	95% CI
Susceptibility	1.49*	1.004, 2.21	1.46 [†]	0.98, 2.19	1.50*	1.01, 2.24	1.48 [†]	0.99, 2.22
Motivation	0.64*	0.44, 0.94	0.52*	0.35, 0.77	0.59***	0.40, 0.86	0.60**	0.40, 0.88
Severity	1.41	0.93, 2.13	—	—	1.11	0.74, 1.68	—	—

Note. Susceptibility = belief in HIV transmission to others, given treatment now available; Motivation = belief of motivation to use condoms, given treatment now available; Severity = belief in severity of living with HIV, given treatment now available. [†] $p < .06$, * $p < .05$, ** $p < .01$, *** $p < .005$

DISCUSSION

The current study advances our understanding of the association between HIV treatment optimism and serodiscordant unprotected anal intercourse among HIV-positive African American MSM. We found that HIV-positive African American MSM who reported being less motivated to use condoms because of HIV treatment were more likely to engage in unsafe sex than those who reported more motivation to use condoms in spite of HIV treatment. Motivation to use condoms with serodiscordant partners may be undermined if HIV-positive men feel that efforts to use condoms are unnecessary because HIV transmission is less likely if they are on retroviral therapy. Men may endorse the belief that HIV treatment sufficiently reduces HIV transmissibility because they are less likely to be infectious.

Similarly, in comparison with HIV-positive men who feel more susceptible to transmitting HIV, those HIV-positive men who feel less susceptible to transmitting HIV were more likely to engage in unprotected anal intercourse, although the effect was not quite significant in the multivariate model. This trend toward somewhat lower susceptibility to transmitting HIV was largely attributed to men's perceptions that unprotected anal intercourse posed less risk of infecting their sexual partners because HIV treatments lower the possibility of transmission. For example, men may perceive there is less risk of infection due to undetectable viral loads from treatment (Cohen & Hosseinipour, 2005; Gray et al., 2001; Wawer et al., 2005) or from use of antiretroviral medications before or immediately after exposure to HIV (CDC, 2005). Therefore, if HIV-positive African American MSM feel that they are less susceptible to transmit HIV to their sexual partners when on treatment, then they may feel less need to still use condoms during anal intercourse.

The insignificant association between the severity of HIV, given current treatments, and unprotected sex with serodiscordant partners may possibly reflect more diverse experiences with an HIV diagnosis since retroviral treatment was initially available. HIV-positive African American MSM may have such wide individual experiences with HIV treatments that may or may not affect their beliefs about the severity of HIV to sufficiently influence their condom use. Various consequences of medical treatment (e.g., adherence fatigue, resistant viral strains, drug toxicity, side effects, etc.) may differ greatly across individuals, such that the perception of the severity of HIV, while on HIV treatment, may be sufficiently varied to significantly confound the effect on their use of condoms. Thus, men's treatment optimism about the severity of HIV, such as the quality of life if HIV infected, may substantially depend on their positive or negative experiences with HIV treatment. Future research

should examine the effects of positive and negative treatment outcomes as moderators of the association between perceived severity of HIV and unprotected sex.

The three findings, when considered together, clarify the relationship between treatment optimism and unsafe sexual behavior. The results of this study suggest that overall optimism that more effective treatments render HIV a chronic manageable illness do not appear to increase risk behavior. Rather, it is the specific beliefs about how treatment alters a participant's infectiousness and about the need to use condoms that distinguished men engaging in risk from those not engaging in risk.

Despite the importance of these findings, in that the majority of new HIV infections occur in African American MSM, several caveats of our study should be noted. The generalizability of our findings is limited by the use of cross-sectional surveys, reliance on self-report for HIV status, and possible social desirability bias, which may be somewhat reduced by our use of confidential surveys. Recruitment of our sample from several large urban cities increases support in our findings across geographic areas.

Our findings extend prior results regarding the effects of HIV treatment beliefs on high-risk sexual behavior in mostly white MSM (Crepaz, Hart, & Marks, 2004) to the effects of HIV treatment beliefs in HIV-positive African American MSM. Given the greater HIV seroprevalence in African American MSM, it is necessary to provide warnings about the problems with such beliefs in order to further prevent HIV transmission among African American MSM. Specifically, HIV prevention for African American HIV-positive MSM needs to reinforce that while HIV has become a more manageable, less severe illness because of advances in treatment, HIV-positive men on treatment remain infectious and need to continue to use condoms.

Greater efforts are needed to promote safer sex in African American MSM, especially those with serodiscordant sexual partners. In addition to HIV prevention campaigns targeting African American MSM, our results have important implications for HIV testing and ongoing care. HIV testing presents a natural opportunity to address and, if necessary, confront beliefs about HIV optimism. Since individual beliefs vary widely but predict risk, it seems critical for HIV care providers to sustain, and possibly intensify, their efforts to educate and encourage safer sex practices while raising the implications of HIV transmission surrounding treatment optimism. For newly diagnosed men and men currently taking HAART, it appears important to balance statements about HIV being a more manageable illness with confronting beliefs that being on treatment renders transmission more difficult or obviates the need to use condoms. Similarly, for African American MSM testing HIV-negative, since they are more likely to be partners of African American HIV-positive MSM, it would appear prudent post-test education to emphasize that HIV-positive partners, even on treatment, are still at high risk of transmitting HIV so condoms remain recommended.

Also, post-test counseling will need to provide better information about the potential of seroconversion from unprotected intercourse, regardless of current HIV treatments. It seems critical for HIV care providers to sustain and possibly intensify their efforts to educate and encourage safer sex practices while raising the implications of HIV transmission surrounding treatment optimism (CDC, 2003; 2004; Parsons et al., 2003). HIV transmission is not eliminated for African American MSM who know they are HIV-positive, even though the risk of transmitting HIV has been found to be 50% lower among those aware of their HIV infection than among those unaware (Marks et al., 2009). Therefore, prevention efforts are still warranted for African American MSM aware of their HIV diagnosis, particularly those who have

high optimism about HIV treatments, since their sexual partners are more likely of their same race (Raymond & McFarland, 2009), which disproportionately elevates the risk of HIV exposure more for African American MSM than White MSM (Millett, Flores, Peterson & Bakeman, 2007).

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