

Ethnic differences in HIV-disclosure and sexual risk

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Abstract

Little is known about ethnic differences in HIV-disclosure to sexual partners or the relationship between HIV-disclosure and sexual risk. Differences in HIV-disclosure rates between African American and White men who have sex with men (MSM) were analyzed using data from the Treatment Advocacy Program. In general, the findings suggest that African Americans are less likely than Whites to disclose their HIV-status to sexual partners. The findings also suggest that the African American participants who disclosed to HIV-negative partners were significantly less likely to engage in unprotected anal sex with HIV-negative partners and partners whose HIV status was unknown than those participants who did not disclose to HIV-negative partners. Although HIV-disclosure appears to be an important factor to consider in HIV-prevention efforts, there are unique factors that influence HIV-disclosure decisions for African American MSM. Interventions should consider these unique challenges before focusing on HIV-disclosure as a primary tool for reducing the transmission of HIV.

Background/Significance

Racial disparities in new HIV infections have become increasingly pronounced, with African Americans accounting for over 50% of all newly diagnosed HIV/AIDS cases in 2007 (CDC, August 2009). Moreover, African American men who have sex with men (MSM) are a highly vulnerable subgroup with epidemiological data showing they are twice as likely as White MSM to become infected with HIV (CDC, August 2009). In response to these rising infection rates, prevention efforts have shifted towards more routine testing and a greater emphasis on prevention interventions with HIV-positive individuals (CDC, August 2009; Crepaz & Marks, 2003; Gorbach et al., 2004; Sullivan, 2005). These intervention shifts will inevitably fuel the debate regarding the relationship between HIV-disclosure and sexual risk. Given the racial differences in HIV transmission rates, it is possible that HIV related behavior, such as HIV status disclosure, will show similar disparities and this study seeks to explicitly examine what racial differences in HIV-disclosure to sexual partners might exist.

Debate continues regarding the cause of racial disparities in the rates of HIV-infection. Research shows that African American MSM are not more sexually risky and do not have significantly more sexual partners than their White counterparts (Millet, Flores, Peterson, & Bakeman, 2007; Millett, Peterson, Wolitski, & Stall, 2006). Recent data does suggest, however, that riskier sexual networks may be responsible for higher infection rates for African American MSM (Friedman, Cooper, & Osborne, 2009; Kissinger & Malebranche, 2007). In other words, although African American MSM do not appear to engage in significantly more unprotected sex, the sexual networks in which they engage contain more infected individuals. Therefore, when unprotected sex occurs, there is a greater likelihood their partner will be HIV-infected, increasing

the probability of HIV exposure and infection (Friedman et al., 2009; Kissinger & Malebranche, 2007).

To complicate matters, despite public health messages that have urged people to treat all casual or anonymous sexual partners as though they are potentially infected with HIV, evidence suggests this does not occur in practice (Klitzman et al., 2007; Simoni & Pantalone, 2004). In fact, research suggests that safer sex decisions, such as using a condom, is influenced by the assessments, or assumptions, an individual makes about their partners' HIV status and the specific risk inherent in the particular encounter (Golden, Brewer, Kurth, Holmes, & Handsfield, 2004; Klitzman et al., 2007; Simoni & Pantalone, 2004). Consequently, a dependence on condom use as the sole avenue for decreasing HIV-infection rates runs the risk of creating a culture of sexual silence that discounts the important role that both direct and indirect communication, such as HIV-disclosure, play on sexual risk decisions (Klitzman et al., 2007).

Although there is little consensus regarding the connection between HIV-disclosure and sexual risk (Marks & Crepaz, 2001; Simoni & Pantalone, 2004; Sullivan, 2005), there is some research that suggests that HIV-disclosure is associated with decreased sexual risk with HIV-negative partners or partners whose HIV status is unknown (Chen, Gibson, Weide, & McFarland, 2003; Golden et al., 2004; Klitzman et al., 2007; Simoni & Pantalone, 2004). This may be particularly true for HIV-negative men, where data suggests that non-HIV infected MSM are more likely to use a condom with a partner who is known to be HIV-positive (Golden et al., 2004). Likewise, many argue that HIV-disclosure is an important part of sexual negotiation in that it allows all parties to make informed decisions about with whom and how a sexual encounter occurs (Gorbach et al., 2004; Palmer, 2004). Therefore, HIV-disclosure appears to be

an important factor to consider and may prove an important avenue through which to alter sexual risk taking (Klitzman et al., 2007).

Several possible factors may influence rates of HIV-disclosure, including time since diagnosis, age, education, economic status, HIV-related stigma, and race/ethnicity. Research indicates that time since diagnosis is related to the rate of disclosure, with the lowest rates occurring for individuals who have had their HIV diagnosis for fewer than 3 years (Crepaz & Marks, 2003; Klitzman, 1999; Sullivan, 2005). However, as Sullivan (2005) found in a meta-review of seventeen articles regarding HIV-disclosure published between 1996 and 2004, age, education, and economic status are generally unrelated to HIV-disclosure.

Researchers have also looked at situational factors to HIV-disclosure such as sexual venue, assumed partner HIV-status, and type of relationship (i.e., anonymous, casual, or long-term) (Courtenay-Quirk, Wolitski, Parsons, & Gomez, 2006; Gorbach et al., 2004; Klitzman & Bayer, 2003; Klitzman, 1999; Marks & Crepaz, 2001; Simoni & Pantalone, 2004). Yet, there has been very little research on the role of HIV-related stigma on disclosure, which could be a fundamental barrier to disclosing one's HIV status (Bird & Voisin, in press). For example, one might choose to not disclose to certain types of partners or in certain sexual settings for fear of the potential negative repercussions related to HIV-related stigma. Whereas research has shown that African American MSM are less likely to disclose their same-sex sexual behavior than Whites in general (Millett et al., 2006), little is known about whether there are ethnic differences in HIV-disclosure to sexual partners. Furthermore, there is no research investigating the relationship between disclosure and HIV transmission risk among African American MSM. Therefore, this paper describes ethnic differences in HIV-disclosure, sexual risk-taking behavior,

and the relationship between HIV-disclosure and sexual risk in a sample of African American and White participants.

Methods

The data analyzed for this paper was derived from baseline interview data from The Treatment Advocacy Program, a CDC-funded behavioral intervention for 317, ethnically diverse, HIV-positive MSM, conducted through Howard Brown Health Center, The University of Illinois at Chicago, the Chicago Department of Public Health, and Saint Joseph Hospital. For this analysis, *HIV-disclosure* was defined as disclosing one's HIV-positive status to 90% or more of their sexual partners, which represents a conservative threshold for identifying patterns of disclosure versus non-disclosure. We also used two measures of sexual behavior, *sexual risk*, which was defined as any unprotected anal sex regardless of the partners' HIV status, and *transmission risk*, which was defined as any unprotected anal sex with an HIV-negative partner or a partner whose HIV-status was unknown.

Data Analyses

We conducted two levels of analyses in this paper. First, we examined the sample characteristics for differences across ethnicity. Next, we examined rates of sexual risk, transmission risk, and HIV-disclosure by ethnicity using a univariate analysis of variance (ANOVA). We chose to conduct an ANOVA to control for important factors known or suspected to relate to disclosure. For all ANOVA analyses, we entered age, time since diagnosis, income, and education as covariates. We also analyzed ethnic differences in HIV-disclosure to sexual partners on three separate levels based on their partners' known or perceived HIV-status, (i.e., HIV-positive, HIV-negative, and HIV-unknown). Finally, we examined the relationship between HIV-disclosure and transmission risk.

Results

Sample Characteristics

African American MSM represented 32% ($N = 101$) and White MSM represented 47% ($N = 150$) of the sample of 317 HIV-positive participants in the Treatment Advocacy Program. There were no statistically significant differences between the African American and White participants in age and number of sexual partners; however the sample differed on education (earned at least a Bachelor's degree: [AA vs. White] 19.8% vs. 44.7%, $p < .001$), income (annual income $< \$10,000$: [AA vs. White] 50% vs. 17.4%, $p < .001$), and years since HIV diagnosis ([AA vs. White] 9.5 vs. 7.6, $p < .05$).

Sexual Risk / Transmission Risk

Controlling for age, income, education, and time since an HIV diagnosis, we found that African American participants were significantly less likely than White participants to engage in sexual risk $F(1, 238) = 4.95$, $p < .05$. However, we found no differences in HIV transmission risk by ethnicity; in other words, the African American and White participants engaged in behavior likely to transmit HIV at similar rates.

Disclosure

We analyzed HIV-disclosure for three levels of sexual partners' serostatus: HIV-positive, HIV-negative and unknown HIV status. For each ANOVA conducted, we entered age, income, education, and time since HIV diagnosis, as covariates. On the whole, African American participants were significantly less likely to disclose their HIV status to partners compared to White participants as demonstrated in Figure 1. Specifically, African American participants were less likely to disclose their status to HIV-positive partners, $F(1, 213) = 12.51$, $p < .001$, HIV-

negative partners, $F(1, 209) = 14.88, p < .001$, and partners whose HIV status was unknown, $F(1, 212) = 5.46, p < .05$.

Disclosure and Transmission Risk

When we analyzed a subsample of participants, again controlling for age, income, education and time since HIV diagnosis, we found that African American participants who disclosed to 90% or more of their HIV-negative sexual partners had significantly less transmission risk than the White participants who disclosed to 90% of their HIV-negative partners, $F(1, 107) = 4.87, p < .05$. More importantly, those African American participants who disclosed to 90% or more of their HIV- negative partners reported significantly less transmission risk than those African American participants who did not disclose at the 90% level, $F(1,89) = 5.57, p < .05$. However, this pattern was not replicated with 90% disclosure to those sexual partners whose HIV-status was unknown.

Conclusion / Discussion

Overall, HIV-disclosure and sexual risk taking among the African American and White participants in this study followed unique patterns. Although the African American participants were less likely than the White participants to report engaging in sexual risk activities (i.e., unprotected anal sex with a sexual partner), there were no significant differences between the two cohorts in HIV transmission risk behavior (i.e., unprotected anal sex with a known HIV-negative partner or a partner whose HIV status was unknown). In general, African American participants were significantly less likely to disclose to their sexual partners regardless of their partners' HIV status. Yet, those African American participants who did disclose at the 90% level to their HIV-negative sexual partners were significantly less likely to engage in transmission risk than those African American or White participants who did not disclose to their HIV-negative

sexual partners at the 90% level. Therefore, disclosure to HIV-negative partners appears to have an important protective relationship to decreasing transmission risk.

If the hypothesis is that African American MSM are engaged in more risky sexual networks (with a greater probability of encountering an HIV-infected partner), then the fact that the participants reported engaging in *less* overall sexual risk is unlikely to significantly decrease their exposure to HIV. The fact that there were no significant differences between the African American and White participants in *transmission risk* behavior suggests that decreasing overall risk may not be sufficient in decreasing the rate of HIV-infection; to significantly impact the transmission of HIV, it is essential that *transmission risk* be reduced. In this sample, disclosure to HIV-negative partners appears to be one effective tool in accomplishing this important goal. However, the fact that the African American participants were significantly less likely to disclose to their HIV-negative partners or those partners whose HIV-status was unknown complicates the usefulness of disclosure as a prevention tool.

To effectively leverage HIV-disclosure in prevention interventions, the challenges must be fully understood and addressed. Previous predictors of disclosure did not seem to apply to this subset of men. For example, the African American MSM were more likely to have been diagnosed with HIV for a longer period of time than the White MSM, a factor that has generally been associated with increased HIV-disclosure. This suggests that disclosure patterns for African American MSM may be influenced by unique factors that are different than those identified in the general literature. One hypothesis is that African American MSM experience more HIV-related stigma than White MSM and that this HIV-related stigma serves as a primary and fundamental barrier to disclosure. Goffman (1963) describes stigma as an intensely discrediting attribute, general knowledge of which can interfere with an individual's ability to successfully

function within their community and society. HIV-infection, which is often interpreted as a reflection of an individuals' poor moral and deviant character and a signifier of disease and death, can stimulate intense stigmatization. This stigmatization extends into the gay community, where the potential negative consequences of disclosure can result in social isolation and rejection from friends, community, and sexual networks (Courtenay-Quirk et al., 2006). If this hypothesis is accurate, then it illuminates a fundamental obstacle that must be addressed to understand individuals' motivations to disclose or not to disclose their HIV status.

One response to HIV-related stigma may be that some participants choose to avoid sexual risk instead of disclosing, thereby avoiding the stigma and negative social consequences that might be associated with HIV-disclosure. However, this strategy is not effective if not practiced consistently. Furthermore, the data presented here suggest that decreased transmission risk is not related to non-disclosure; therefore, it does not appear that using condoms represents an alternative strategy to HIV-disclosure.

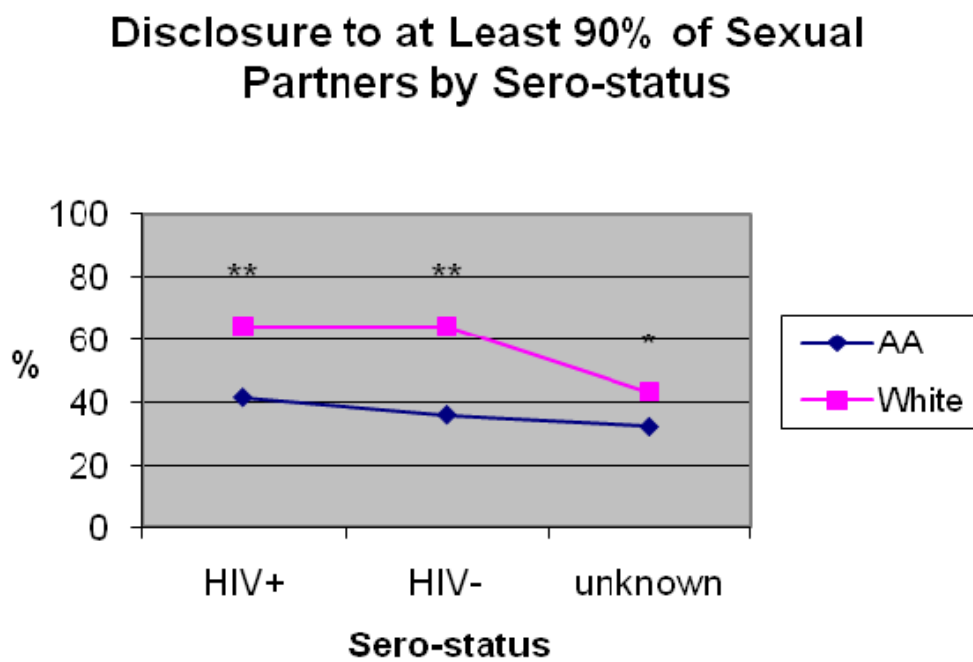
It is also important to note that, although disclosure to HIV-negative partners was associated with less transmission risk, disclosure to sexual partners' whose HIV status was unknown did not appear to have any significant impact on transmission risk. The data available in this study is not sufficient for explaining why these patterns exist. One possible hypothesis is that an individual may be willing to engage in sexual risk with a partner whose HIV-status is unknown once they have disclosed because there is a sense that they have fulfilled their responsibility and that their partner is making an informed decision about engaging in risk. However, the fact that they do not know their partner's HIV-status suggests that the communication occurring around HIV is unequal. This could be problematic if the participant is choosing to use non-direct strategies to disclose (i.e., hinting about their status or leaving HIV-specific magazines or medications in

plain sight), which could potentially lead to a misunderstanding or inaccurate understanding about his HIV-status. Ultimately, it does not appear that non-mutual HIV-disclosure was sufficient for decreasing transmission risk in this sample.

Overall, the data show that in addition to a continuing need for culturally tailored HIV prevention interventions that target sexual risk taking behavior, focusing on issues of HIV-disclosure may be an important avenue for decreasing transmission risk. However, the data also suggests that interventions specifically targeting disclosure must take into account ethnic differences in disclosure patterns, the unique population-level barriers to disclosure, and the primary goals for targeting disclosure. For example, focusing on disclosure with African American MSM may be one avenue for decreasing transmission risk, at least with known HIV-negative partners. However, it must also be acknowledged that there are unique barriers to HIV-disclosure for African American MSM that must be explored and understood if there is an expectation that HIV-disclosure should occur. Focusing on disclosure without regard to these unique challenges could be counterproductive, exacerbating the barriers to disclosure rather than diminishing them.

While these findings highlight important points for future intervention, there were limitations to this study. First, the disclosure data is partner based rather than incident or episode based, which could have resulted in under-reporting in non-disclosure. For example, if an individual did not disclose with one sexual partner until the third sexual encounter, this partner may be classified as someone to whom they disclosed, even though non-disclosure also occurred. Second, we did not collect demographic information about the participants' sexual partners, such as age or race. Therefore, we are unable to examine whether partner-level characteristics influenced disclosure decisions such as concordant race.

Finally, data from the Treatment Advocacy Program cannot fully evaluate the reasons why these risk and disclosure patterns are different between African American and White participants; however, they highlight the need for greater quantitative and qualitative research regarding these group differences. It is important to examine issues of HIV-disclosure and the relationship between disclosure and risk through future studies to more clearly define the particular patterns of sexual risk and HIV-disclosure for African American MSM. Additionally, a particular focus on the role of HIV-related stigma would increase our understanding of the challenges and barriers associated with disclosure. This type of information will be essential to accurately assess the impact of interpersonal communication in HIV interventions, safer sex negotiation, and HIV-disclosure among groups at high risk for HIV infection.

Figure 1*Disclosure to at Least 90% of Sexual Partners*

Note: * $p < .05$, ** $p < .01$

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