

Qualitative Analysis of Social and Sexual Network Characteristics of Black Men Who Have Sex with Men in HPTN 061 in NYC

Research Question:

How do the characteristics of the social and sexual networks of Black men who have sex with men (MSM) influence sexual risk behaviors and HIV risk?

Specific Aims:

The aim of this qualitative study is to examine the characteristics of the social and sexual networks of Black MSM that influence sexual risk behaviors and HIV risk. Using a ground theory approach, 26 semi-structured qualitative interview transcripts among HIV-infected and uninfected Black MSM enrolled in the HIV Prevention Trials Network (HPTN) 061 study in NYC (New York Blood Center and Harlem Prevention Center) will be analyzed to generate a theory on what role do social and sexual networks play in influencing Black MSM's sexual risk behaviors and risk for HIV acquisition and transmission. Factors to be examined include the characteristics of the social groups that the men are involved in, the presence or absence of people whom they can rely on for support, venues and contexts in which they meet their sexual partners, sociodemographic characteristics of their sexual partners, and presence or absence of overlap of social and sexual networks.

Background and Significance:

MSM constitute the largest proportion of new HIV infections in the United States (US), accounting for 53% of new HIV cases.¹ In NYC, a city with one of the largest number of AIDS cases in the US, MSM comprise half of all new HIV cases.² Black MSM have been affected by HIV at dramatically disproportionate rates, comprising about a quarter of new HIV infections in the US.^{1, 3-8} Data from the 2004-2005 National HIV Behavioral Surveillance (NHBS) showed a substantially higher HIV prevalence among

Black MSM (46%) compared to White (21%) and Hispanic MSM (17%).⁹ The disproportionate rate of HIV infection in Black MSM is not explained by differences in individual behavioral risk, such as unprotected anal intercourse, number of sexual partners, and substance use.^{4, 10-12} One hypothesis is that the characteristics of sexual networks of Black MSM place them at increased risk of HIV compared to non-Black MSM.^{4, 13, 14} A person's risk of HIV infection is not only dependent on one's risk behaviors, but also on the risk behaviors and HIV prevalence of other partners in one's sexual network.¹⁵⁻¹⁸ There exist only a limited number of studies examining the sexual networks of Black MSM, and they leave several crucial questions unanswered, including the role of age, drug use, and sexual partner characteristics. More data would be critical for understanding the alarming rates of HIV infection among Black MSM and to inform development and testing of sexual network-based intervention strategies to reduce HIV acquisition and transmission. ***The reason that qualitative interview data from only NYC will be analyzed in this study is because of the anticipated differences in the social and sexual networks of Black MSM in NYC compared with other study sites within HPTN 061. This qualitative study will complement the planned baseline quantitative analysis of sexual networks across the six study sites.***

Empirical evidence has shown a strong influence of social and sexual networks on HIV and sexual risk behaviors, but only a limited number of studies have focused on MSM. Factors such as sexual network size, sexual network density, and partner concurrency influence sexual risk behaviors. For example, individuals with large sexual networks have more opportunities to find partners and engage in high-risk sexual behaviors,¹⁹ thereby increasing their risk of acquiring and transmitting HIV and other sexually transmitted infections (STIs).²⁰ In a network study of Chinese MSM, large sexual network size was associated with having unprotected anal or vaginal sex.²¹ A study of predominantly Black MSM and men who have sex with both men and women in

North Carolina colleges found that the sexual networks of 84 newly diagnosed HIV-infected men were broad, linking 21 colleges and 61 students.²² Network density is defined as the proportion of actual connections among people from all possible links.²³⁻²⁵ In a dense sexual network, people within the network have high rates of sexual interactions with one another, thereby facilitating the dissemination of HIV and STIs within the network.^{24, 26} However, not all densely connected networks have been shown to be associated with increased HIV and sexual risk behaviors.^{19, 27} Partner concurrency refers to engaging in sex with 2 or more people within the same or overlapping time period, and enhances the level of connectivity of the sexual network.^{24, 28-30} It has been shown to be a critical factor in the epidemic spread of HIV and STIs among heterosexuals by increasing the rate and efficiency of disease transmission through sexual networks before individuals know they have been infected and/or have been adequately treated.^{26, 29, 31-33} Among MSM, having multiple sex partners is an established risk factor for HIV.¹² However, partner concurrency in this population has rarely been explicitly studied.^{34, 35} In an NHBS study of MSM in San Francisco, the authors noted that, although Black MSM had fewer sexual partners, they were 3 times more likely to report complete concurrency (defined as complete overlap within 3 weeks of the last 5 partnerships) compared with non-Black MSM. Both Black and non-Black MSM who reported complete concurrency were found to have more sexual encounters per partnership and more unprotected sex than men who did not report complete concurrency.³⁵ In addition, the overlap of social and sexual networks influences sexual risk behaviors and risk of STIs and HIV. Persons who have sexual partners who are also part of their social networks may be more likely to adhere to the social norms of their networks (e.g., consistent condom use during sex) and less likely to venture outside of these networks to such venues as the internet or bath houses for potentially riskier sexual encounters. An overlap of social and sexual networks was associated with lower

syphilis risk among MSM in China.²¹ A qualitative study of 21 Black MSM in NYC, of whom 57% were HIV-infected, showed that these men had a significant overlap of social and sexual networks.³⁶

Methods:

Individual qualitative interview transcripts from NYC (NYBC and Harlem) will be coded and analyzed using Atlas.ti. Interview sections coded as “social and sexual networks” will be specifically analyzed. Pertinent sociodemographic information such as age, HIV status, education level, and neighborhood of residence will be obtained from ACASI and case report forms.

The individual qualitative interviews will cover the following aspects of social and sexual networks based on the interview guide: social groups that they are involved in, groups of people whom they rely on for support, places where they meet other men who have sex with men, where they first met their sexual partners, etc.

Intended product:

An abstract submission to the International AIDS Conference 2012

A manuscript in a peer-reviewed scientific journal

Recommendation of writing team members:

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