HOW DO THE SEXUAL NETWORKS OF MEN WHO HAVE SEX WITH MEN (MSM) IN ONE MID-ATLANTIC CITY DIFFER BY RACE/ETHNICITY?

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Background The HIV epidemic disproportionately affects black men who have sex with men (BMSM). Individual-level sexual risk behaviors fail to explain observed racial disparities in HIV acquisition rates. Research suggests that the sexual networks and their associated characteristics of BMSM (versus non-BMSM) contribute to increased risk for HIV. The objective of this analysis was to compare sexual network characteristics by race in one mid-Atlantic U.S. city with an established HIV epidemic.

Methods Data came from the Understanding Sexual Health in Networks Study (USHINE), an ongoing egocentric cohort study enrolling MSM between the ages of 18-45. Participants completed an egocentric sexual network survey with questions about sex partners in the past 3 months. Summary statistics, chi-squared tests, and t-tests were used to compare sexual network characteristics by race.

Results 163 men completed the sexual network survey and nominated 692 sex partners. The mean age of participants was 29.4 (±5.96) and 63.2%(103) identified as black. 28.8%(47), 69.9%(114) and 1.2%(2) were HIV-positive, HIV-negative, and unknown-HIV status respectively. The mean sexual network size was 4.3 (±5.29) and did not significantly differ by race. Using partner-level data, BMSM were more likely to report condom use at last sex, compared to non-black MSM (40.53% vs. 27.34%, p-value =0.013). BMSM had more HIV-positive partners (23.56% vs. 11.51%, p-value<0.001) and unknown-status partners (24.0% vs. 5.76%, p-value<0.001), compared to non-BMSM. While not statistically significant, higher proportions of BMSM reported not knowing if HIV-positive partners were on ARTs (31.1% vs. 6.3%, p-value = 0.09) and if HIV-negative partners were taking PrEP (43.0% vs. 33.9%, p-value =0.08).

Conclusion HIV status of sex partners differed significantly by race, with BMSM reporting more HIV-positive and status-unknown partners. These findings highlight the importance of network factors in racial disparities in HIV transmission and suggest the need to develop interventions that perpetuate condom use and encourage discussion of HIV status and PrEP use among BMSM.

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