

Original Article

PREVALENCE OF HIV AND PATTERN OF SEXUAL PRACTICES AMONG MSM: A CROSS-SECTIONAL STUDY IN CALABAR, NIGERIA

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Abstract

Background: The pandemic of HIV has persisted for over three decades now, without a definite cure or vaccine. Sub-populations at higher risk of infection, such as Men who Sleep with Men (MSM), may be constituting a nidus for disease transmission, posing difficulty in its sustainable containment. Socioculturally-mediated fear, stigma and discrimination associated with their constitutionally illegal status in many settings, may have contributed to the current state of paucity of literature on the epidemiology of STDs among MSM in many settings. This study was therefore aimed at assessing prevalence of HIV and pattern of sexual practices among MSM in Calabar, Nigeria.

Methods: Snow-ball sampling technique was used to recruit subjects, with researcher administration of structured questionnaire to obtain quantitative data. Ethical approval was obtained from the UCTH ethical committee.

Results: Fifty-two (52) respondents were surveyed, with mean age of 22.4 ± 3.17 years, ranging from 17 to 31 years. Twenty seven subjects (51.9%) were bisexual, and the commonest MSM type was inserter only (27, 51.9%). Seven (7) subjects had positive on-the-spot HIV test result, yielding a prevalence rate of 13.5%. Fourteen (26.9%) and nine (17.3%) subjects, were consistent with use of condom, and use of lubricant during sexual intercourse, respectively. Forty-four subjects (84.6%) admitted ever having casual sexual intercourse.

Conclusion: There is high prevalence of HIV and risky sexual practices among MSM in Nigeria. There is need to redouble our effort at accessing MSM for consistent provision of health education and other HIV prevention services.

Keywords: Human Immunodeficiency Virus, Men who Sleep with Men, Calabar, Nigeria

Introduction

Globally, an estimated 36.7 million people were infected with HIV in 2016, most of whom are in sub-Saharan Africa¹. In the past 30 years, over 35 million deaths have occurred due to infection with Human Immunodeficiency Virus (HIV), which has remained a public health threat especially among developing countries with fragile health systems¹. At least 3.2 million people comprising 2.9% of adults are infected with HIV in Nigeria, which has the second largest HIV epidemic in the world⁽¹⁾. Subpopulations at higher risk if HIV infection include men who have sex with men (MSM), brothel based female who sale sex (BBFWSS), non-brothel based female who sell sex (NBBFWS), people who inject drugs (PWID), road transport workers and uniform service men⁽²⁾. Despite decrease in HIV prevalence among many of these Most at Risk Populations (MARPS), there has been increased prevalence among

MSM from 13.5% in 2007, to 17.2% in 2010 and recently 22.9% in 2014²⁻⁵. Individual-level risks for HIV acquisition in MSM have been well documented. These include unprotected receptive anal intercourse, multiple male sexual partners, injection and non-injection drug use, and high viral load^(6,7). Unfortunately, little is known about the prevalence and drivers of the infection in many developing countries where homosexual practice is constitutionally illegal^(8,9). This study was therefore aimed at assessing prevalence of HIV and pattern of sexual practices among MSM in Calabar, a city in Southern Nigeria, where high-risk homosexual practices have been reported.

Methodology

Study design was cross-sectional descriptive, and recruitment of subjects was by snowball sampling technique, with use of self-administered semi-structured pretested questionnaire. Questionnaire consisted of

sociodemographic characteristics (including type and sexual orientation of MSM and sexual orientation), sexual practices and result of on-the-spot HIV testing. Blood samples were tested with HIV rapid tests using the serial algorithm for the detection of HIV antibodies in accordance with Nigeria's HIV counseling and testing national guidelines. Participants received pre-test counseling, test result and post-test counseling within 30 minutes. Participants who tested positive were referred to University of Calabar Teaching Hospital HIV clinics for confirmation and further management. Data was obtained from consenting MSM subjects, following ethical approval from the University of Calabar Teaching Hospital (UCTH) ethical review committee. Data was entered and analyzed using SPSS version 21.0. Chi-square and Fisher's Exact were used for inferential statistics. P-value was set at 0.05.

Results

Fifty-two (52) out of sixty-five (65) subjects who were approached gave consent to participate, provided sufficient data and consented to HIV testing, yielding a response rate of 80%. Mean age of subjects was 22.4 ± 3.17 years, ranging from 17 to 31 years. Most subjects were younger than 25 years old (39, 75%), had at least secondary level of education (51, 98.1%), were students (33, 63.5%) and single (49, 94.2%) (table 1). Inserter only (27, 51.9%) was the commonest MSM type, while twelve subjects (23.1%) were receivers only, and a quarter (13, 25.0%) were both receivers and inserters. Twenty seven subjects (51.9%) were bisexual, and mean number of female partners was 1.65 ± 1.20, ranging from 0 to 6.

Table 1: Sociodemographic characteristics of respondents (N=52)

| Variable | Frequency | Percentage |
|-----------------------------------|-----------|------------|
| Age groups (in years) | | |
| ≤ 19 | 10 | 19.2 |
| 20-24 | 29 | 55.8 |
| 25-29 | 11 | 21.2 |
| ≥30 | 2 | 3.8 |
| Total | 52 | 100 |
| Highest level of education | | |
| Primary | 1 | 1.9 |
| Secondary | 27 | 51.9 |
| Tertiary | 24 | 46.2 |
| Total | 52 | 100 |
| Occupation | | |
| Student | 33 | 63.5 |
| Apprentice | 5 | 9.6 |
| Trader | 4 | 7.7 |
| Others | 1 | 1.9 |
| Unemployed | 9 | 17.3 |
| Total | 52 | 100 |
| Marital status | | |
| Married | 2 | 3.8 |
| Single (living alone) | 22 | 42.3 |
| Single (living with guardian) | 23 | 44.2 |
| Single (living with friend) | 4 | 7.7 |
| Divorced | 1 | 1.9 |
| Total | 52 | 100 |
| MSM type | | |
| Inserter | 27 | 51.9 |
| Receiver | 12 | 23.1 |
| Both | 13 | 25.0 |
| Total | 52 | 100 |
| Sexual orientation | | |
| Strictly homosexual | 25 | 48.1 |
| Bisexual | 27 | 51.9 |
| Total | 52 | 100 |

Four (4) subjects had positive HIV test result, yielding a prevalence rate of 7.7% (table 2).

Table 2: Prevalence of HIV among respondents (n=52)

| HIV test result | Frequency | Percentage |
|-----------------|-----------|------------|
| Positive | 7 | 13.5 |
| Negative | 45 | 86.5 |
| Total | 52 | 100 |

Fourteen subjects (26.9%) were consistent with use of condom, and approximately four-fifth (42, 80.8%) reported using condom during their last sexual intercourse (table 3). Nine subjects (17.3%) were consistent with use of lubricant during anal sexual intercourse, and approximately two-thirds (35, 67.3%) reported using lubricant during their last anal sexual intercourse. Forty-four subjects (84.6%) admitted ever having anal sexual intercourse with a stranger.

Table 3: Sexual practices of respondents (N=52)

| Variable | Frequency | Percentage |
|--|-----------|------------|
| Always use condom during intercourse | | |
| Yes | 14 | 26.9 |
| No | 38 | 73.1 |
| Total | 52 | 100 |
| Used condom during last intercourse | | |
| Yes | 42 | 80.8 |
| No | 10 | 19.2 |
| Total | 52 | 100 |
| Always use lubricant during intercourse | | |
| Yes | 9 | 17.3 |
| No | 43 | 82.7 |
| Total | 52 | 100 |
| Used lubricant during last intercourse | | |
| Yes | 35 | 67.3 |
| No | 17 | 32.7 |
| Total | 52 | 100 |
| Ever had anal intercourse with stranger | | |
| Yes | 44 | 84.6 |
| No | 8 | 15.4 |
| Total | 52 | 100 |

Higher proportion of subjects that used condom consistently were younger than 25 years old (78.6% vs. 21.4%), had tertiary level of education (64.3 vs. 35.7%), were bisexual (64.3% vs. 35.7%), ever had anal sex with stranger (71.4% vs. 28.6%), and were HIV negative (92.9 vs. 7.1%), though these differences were not statistically significant (p>0.05, table 4).

Table 4: Factors associated with use of condom among MSM (N=52)

| Variable | Condom use | | Total n (%) | Chi-square | p-value |
|-----------------------------------|------------|-----------|-------------|------------|---------|
| | Yes n (%) | No n (%) | | | |
| Age group (in years) | | | | | |
| <25 | 11 (78.6) | 34 (89.5) | 45 (86.5) | Fisher's | 0.31 |
| ≥25 | 3 (21.4) | 4 (10.5) | 7 (13.5) | Exact | |
| Total | 14 (100) | 38 (100) | 52 (100) | | |
| Level of education | | | | | |
| Secondary or less | 5 (35.7) | 23 (60.5) | 28 (53.8) | 2.53 | 0.11 |
| Tertiary | 9 (64.3) | 15 (39.5) | 24 (46.2) | | |
| Total | 14 (100) | 38 (100) | 52 (100) | | |
| Occupation | | | | | |
| Student | 7 (50.0) | 26 (68.4) | 33 (63.5) | 1.5 | 0.22 |
| Other occupations | 7 (50.0) | 12 (31.6) | 19 (36.5) | | |
| Total | 14 (100) | 38 (100) | 52 (100) | | |
| Sexual orientation | | | | | |
| Strictly homosexual | 5 (35.7) | 20 (52.6) | 25 (48.1) | 1.17 | 0.28 |
| Bisexual | 9 (64.3) | 18 (47.4) | 27 (51.9) | | |
| Total | 14 (100) | 38 (100) | 52 (100) | | |
| MSM type | | | | | |
| Insertor only | 6 (42.9) | 21 (55.3) | 27 (51.9) | Fisher's | 0.55 |
| Receiver only | 3 (21.4) | 9 (23.7) | 12 (23.1) | Exact | |
| Both insertor and receiver | 5 (35.7) | 8 (21.1) | 13 (25.0) | | |
| Total | 14 (100) | 38 (100) | 52 (100) | | |
| Ever had sex with stranger | | | | | |
| Yes | 10 (71.4) | 33 (89.2) | 43 (84.3) | Fisher's | 0.12 |
| No | 4 (28.6) | 4 (10.8) | 8 (15.7) | Exact | |
| Total | 14 (100) | 38 (100) | 52 (100) | | |
| HIV status | | | | | |
| Positive | 2 (14.3) | 5 (13.2) | 7 (13.5) | Fisher's | 0.93 |
| Negative | 12 (85.7) | 33 (86.8) | 45 (86.5) | Exact | |
| Total | 14 (100) | 38 (100) | 52 (100) | | |

Discussion

This study assessed prevalence of HIV and pattern of sexual practices among MSM in Calabar, Nigeria. A mean age of 22.4 years, suggest a young population of MSM in the study setting. Due to use of peer-driven non-probability snowball sampling technique for subject recruitment, this age distribution may not be a fair representation of the MSM subpopulation in the study setting. There is potential for older MSM who may have been reluctant to participate in the study, owing to associated social stigma and illegal status of homosexual practices in Nigeria(1,8).

In this study the prevalence of HIV/AIDS was 13.5%. This is comparable with similar studies in Nigeria where the national prevalence of HIV among MSM was more than 10% and, 11.3% for Cross River State 3-5. This slightly higher prevalence compared with previous studies may however be an early signal of a rising trend, and need for investigation of the possible drivers of disease transmission within and without the MSM subpopulation. Frequency of consistent use of condom was 26.9% in this study. This is much lower than 56.6% reported in similar study in India¹. Lower rates of consistent condom use may increase risk of HIV and other sexually transmitted disease transmission. This may contribute to making the MSM subpopulation a nidus or reservoir of infection of the general population. Also, only about 17.3% of respondents in this study used lubricants consistently. This rate is however higher than 12% reported in similar study in India¹⁰. Non-use of lubricants increases risk of abrasion of the rectal mucosa as well as injury to the penile shaft, thereby increasing risk of HIV transmission.

In this study, 84.6% of the respondent had engaged in casual sex. This is a much higher compared with rates obtained from multicenter studies in Nigeria, which reported rates of 31.4 % to 43.3%¹¹. Tourism popularity of the study setting, including the annual Calabar Carnival may have contributed to higher prevalence of frequency casual sex. However, most of the respondents in this study, used condom consistently when having sexual intercourse with strangers. This may be due to high levels of perception of risk of HIV transmission when having intercourse with strangers. High perception of risk may increase chance of practice of HIV prevention measures such as use of condom.

Conclusion

There his high prevalence of HIV and practice of risky sexual behavior among MSM in the study setting. These findings suggest need to redouble our effort at accessing MSM for consistent provision of health education and other HIV prevention services. Further research with larger sample of MSM in other settings is recommended.

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