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THE REPORTED INCIDENCE OF SEXUALLY TRANSMITTED INFECTIONS (STIS) AMONG MEN ENGAGED IN SEXUAL ACTIVITY WITH OTHER MEN

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Abstract

Same sex behaviour is a piece of the considerable decent variety of human sexuality. MSM constitute a high risk group for sexually transmitted contaminations including HIV in numerous parts of the world and they stay at disproportionate risk for HIV infection and transmission. Since STD can encourage HIV transmission, an increase in STD among MSM might be related with an increment in HIV occurrence. Syphilis occurrence among men who engage in sexual relations with men (MSM) has been on the increase universally amid the most recent years. It is in light of this that this study went for researching the self-reported prevalence of STI among MSM, while evaluating their knowledge of STI and treatment seeking behaviour.

The study was carried out in Oyo state, south west Nigeria Oyo State, Adeoyo Maternal hospital among men who engaged in oral or anal sexual activities with other men 12 months preceding the study. Respondent-driven sampling (RDS) method was used to select the MSM. A semi-structured interviewer administered questionnaire was used for the MSM respondents. Data collected was analysed using SPSS version 21, level of significance was given at 5% (0.05) for all tests.

There were 282 respondents for the study with ages between the range of 18 years old and 39 years, the mean age was determined to be 27.72 ± 5.845. Majority of the respondents (79.4%) identified as male while ten (10) respondents identified as transgender. A higher proportion of the respondents (45.4%) were found to be bisexual, 38.3% (108) were homosexual while a smaller percentage of 7.1% were found to be heterosexual. The self-reported lifetime prevalence of STI was found to be at 22%, this was found to be higher among respondent who travel once in three (3) months (67.7%), among homosexual respondents (58.1%), among respondents of Igbo ethnicity (53.2%), among students (79%) and among respondents who live alone (64.5%). Respondents' level of knowledge of STI was adjudged to be poor with a mean score 5.81 ± 2.88 from a possible 15. Furthermore, it was revealed that there was significant difference in the level of knowledge on STI across respondents' sexual orientation ($F = 16.397$; $df = 9$; $P < 0.05$), respondents highest level of education ($F = 6.219$; $df = 9$; $P < 0.05$), respondents' religion ($F = 5.869$; $df = 9$; $P < 0.05$), respondents' occupation ($F = 55.375$; $df = 9$; $P < 0.05$). There were 92 respondents (32.6%) who obtained treatment for STI compared to the 67.4% who did not obtain treatment, most respondents who sought treatment (62.1%) preferred going to Patent Medicine Vendor (PMV) shops.

Exploring the MSM (men who have sex with men) community in Nigeria is crucial given the rising prevalence of STIs. However, due to strong cultural and religious beliefs in Nigeria, these individuals are often less visible due to the fear of discrimination and social unacceptability. Additionally, engaging in same-sex relationships is illegal in Nigeria, as it is in 85 other countries, leading to under-representation in HIV surveillance systems and exclusion from prevention and care programs This oversight poses a threat to an increased burden of STIs in the country. There is an urgent need for comprehensive STI prevention and care programs tailored to the MSM communities in Nigeria to mitigate the prevalence of the STI epidemic nationwide.

Key words: *The prevalence of STI, MSM, knowledge of STI, and treatment seeking behaviour, Oyo state.*

Background of the study

Engaging in same-sex activity is a diverse aspect of human sexuality (Brown, Duby, Scheibe, and Sanders, 2011). Despite the persistent risk of HIV infection and other sexually transmitted diseases, many men who engage in same-sex relationships continue to practice unsafe sexual behaviors (Cook, George, Silvestre, Riddler, Lassak, and Rinaldo, 2002). MSM are recognized as a high-risk group for sexually transmitted infections, including HIV, across various regions worldwide, maintaining a disproportionate vulnerability to HIV infection and transmission (CDC, 2015; Patil, Naik, Narasannavar, Banjade, and Shrestha, 2015). As noted by Scheib, Brown, Duby, and Bekker (2011), the prevalence of HIV among MSM is observed to be five times higher than among other men in the general population. Men who engage in same-sex relationships constitute a susceptible population that necessitates special attention in the global

efforts against the HIV/AIDS pandemic (Gupta, Mehta, Godbole, Sahay, Walshe, Reynolds et al., 2006).

The presence of sexually transmitted diseases (STDs) has the potential to facilitate HIV transmission, and a rise in STDs among MSM may be associated with an increase in HIV cases (Tai, Sanchez, Lansky, Mahle, Heffelfinger, and Workowski, 2008). Furthermore, STDs like syphilis, gonorrhea, and chlamydia complicate the clinical course of HIV by increasing viral load, contributing to significant global morbidity and mortality (Buchacz, Patel, Taylor, Kemdt, Byers, Holmberg et al., 2004; Taylor, Newman, Schillinger, Lewis, Furness, Brainstein et al., 2015; Kim, Hladik, Barker, Lubwama, Sendagala, Ssenkusu et al., 2016).

According to Zahn, Dominguez, Sanchez, Phaswana-Mafuya, Bekker, Baral et al. (2016), individuals living with HIV are more likely to have had syphilis. The transmission of sexually transmitted infections (STIs) among MSM continues to be a significant public health concern (Tai et al., 2008). Kim et al. (2016) highlight that men who have sex with men are recognized as a key population at a higher risk for HIV and STIs, yet few studies have been conducted in Africa to assess the prevalence of STIs and associated risk factors among MSM.

Research indicates that MSM not only face a substantially higher risk of HIV infection compared to men in the general population but also that MSM behavior significantly contributes to sustaining the recorded high number of new infections (Smith, Tapsoba, Peshu, Sanders, and Gaffe, 2009; Imrie, Hoddinott, Fuller, Oliver, and Newell, 2013).

Globally, men who have sex with men (MSM) bear a disproportionate burden of syphilis infections, with the highest prevalence rates of primary and secondary syphilis observed among MSM in the United States, particularly among young and minority MSM (CDC, 2014). In Western Europe, MSM also constitute the majority of cases for primary and secondary syphilis, making them the group most vulnerable to acquiring syphilis (Fenton, Breban, Vardavas, Okano, Martin, Aral et al., 2008).

In recent years, there has been a global increase in the prevalence of syphilis among men who have sex with men (MSM). The annual number of cases rose between 11% and 22% from 2010 to 2014 (Jansen, Schmidt, Drewes, Bremer, and Marcus, 2016). These outbreaks were specifically observed within the MSM community and were associated with a rise in high-risk sexual behaviors, such as engaging in condomless anal sex (CAS), transactional sex, drug use before sexual activity, having multiple sexual partners, and participating in high-risk anonymous sexual encounters (Peterman and Furness, 2007).

Dunkie's 2013 report revealed that 85.0% of men with a history of consensual sex with men reported having a current female partner. Among this group, 80.6% also acknowledged having a female partner, indicating that female partners are susceptible to sexually transmitted infections (STIs). Beyrer, Baral, Griensven, Goodreau, Chariyalertsak, Wirtz, and Brookmeyer (2012) confirmed that by the end of 2011, only 103 out of 196 countries had reported HIV prevalence among MSM in the past five years, underscoring the challenging situation faced by MSM populations. In response to these concerns, the current study aims to investigate

Objective of the study

The main objective of this study is to determine the reported incidence of sexually transmitted infections (STIs) among men engaged in sexual activity with other men.

The specific objectives are to:

1. Determined to prevalence of reported incidence sexual transmitted infections among men having sex with other men.
2. Determine the knowledge of sexual transmitted infections among men having sex with other men.
3. To examine the treatment seeking behaviour among men having sex with other men who engaged in oral and anal sexual activities.

Research Questions

1. What is the prevalence of reported incidence sexual transmitted infections among men having sex with other men?
2. What is the knowledge of sexual transmitted infections among men having sex with other men?
3. What is the treatment seeking behaviour among men having sex with other men who engaged in oral and anal sexual activities?

Research Hypothesis

H0: There is no significant relationships between knowledge of the respondent on sexual transmitted infections among men having sex with other men.

H0: There is no significant relationships between knowledge of sexual transmitted infections among men having sex with other men and respondents level of education.

H0: There is no significant relationships between knowledge of sexual transmitted infections among men having sex with other men and respondent's religion.

H0: There is no significant relationships between knowledge of sexual transmitted infections among men having sex with other men and respondent's occupation.

Methodology

An hospital based cross-sectional study design was used to determine the reported incidence of STI among men having sex with other men. The study was carried out in Adeoyo Maternal hospital Oyo state. Men aged 18 years and above, who engaged in oral or anal sexual activities with other men 12 months preceding the study were recruited for this study. Also recruited are bisexual men who are romantically and sexually attracted to both males and females. Respondent-driven sampling (RDS) method was used to select the MSM, the RDS combines snowball sampling with a mathematical model that weights the sample to compensate for the fact that the sample was collected in a non-random way. Seven seed participants was selected from the MSM community. Each seed was recruit not more than 3 of his peers to allow a large number of subjects the opportunity to recruits members. The peers were linked to each other using a number coupon, these coupons will permit later link to referral chains which are cycles of recruitment related to socio-demographic characteristics and sexual behaviors among MSM. A semi-structured interviewer administered questionnaire was used for the MSM respondents. Data collected was analysed using SPSS version 21, means and standard deviation were determined, also frequency tables, pie chart will be produced for socio-demographics while statistical analysis of bivariate correlation and ANOVA (Analysis of variance) with independents sample t-test was used in assessing variables. Level of significance was given at 5% (0.05) for all tests.

RESULTS

There were 282 respondents for the study with ages between the range of 18 years old and 39 years, the mean age was determined to be 27.72 ± 5.845. Majority of the respondents (79.4%) identified as male while ten (10) respondents identified as transgender. A higher proportion of the respondents (45.4%) were found to be bisexual, 38.3% (108) were homosexual while a smaller percentage of 7.1% were found to be heterosexual, indicating that more than 90% of the respondents have sexual orientation reflecting sexual act between men and men. Majority of the respondents were born in Oyo and Lagos state at 46.5% and 33.3% respectively, this is attributable to the geographical location of the study area as it is within and in close proximity to these states. All respondents were of Nigerian origin. A larger percentage of the respondents (75.2%) were Igbo, while the remaining 24.8% were Yoruba. Also, more than half of the respondents (86.2%) have tertiary education, this was reflected in the occupation of the respondents as half (51.8%) were students, 27.7% health workers and 1.8% civil servants. More

than half of the respondents (64.6%) have lived in Ibadan for 5 or more years with majority (45%) living alone and a significant amount (25.9%) living with their spouse. There were 22.7% of the respondents who have been away from home for a month at a time, this can be said to reflect in the pattern of travel of respondents as 37.2% of the respondents travel monthly while 21.6% travel once in every 3 months. Data showed that more than half of the respondents (64.2%) of respondents earn above the minimum wage of N20,000, with 5.3% earning as much as N100,000 and above monthly. Respondents were predominately Christians (96.5%) with more than half (53.2%) circumcised.

The self-reported lifetime prevalence of STI was found to be at 22%, among sixty-two (62) respondents. While a significant proportion of the respondents (33%) did not give response, a total of 77 respondents (27.3%) did not know if they had ever been infected with STI before. Furthermore, this was found to be higher among respondent who travel once in three (3) months (67.7%), among homosexual respondents (58.1%), among respondents of Igbo ethnicity (53.2%), among students (79%) and among respondents who live alone (64.5%) (Table 1).

Respondents' level of knowledge of STI was adjudged to be poor with a mean score 5.81 ± 2.88 from a possible 15, it was further found that majority of the respondents (69.5%) had a score below seven (<7) while 35.14% had a good knowledge of STI with score equal and more than seven (7) but less than 12 (≥ 7 < 12). However, there were no respondents with very good knowledge of STI

Table 1: Self-reported lifetime STI prevalence

		Self-reported STI
Travels	Weekly	10
	Monthly	10
	Once in 3 months	**42**
	Once a year	0
Sexual Orientation	**Homosexual**	**36**
	Bisexual	6
	Heterosexual	20
	Gay	0
Ethnicity	Yoruba	29
	Igbo	**33**

Occupation	Health worker	0
	Civil servant	0
	Student	**49**
	Artisan	10
	Business	3
Living arrangement	With parents	0
	With spouse	0
	With friend	22
	With siblings	0
	Alone	**40**

Furthermore, it was revealed that there was significant difference in the level of knowledge on STI across respondents' sexual orientation ($F = 16.397$; $df = 9$; $P < 0.05$), respondents highest level of education ($F = 6.219$; $df = 9$; $P < 0.05$), respondents' religion ($F = 5.869$; $df = 9$; $P < 0.05$), respondents' occupation ($F = 55.375$; $df = 9$; $P < 0.05$). Also, there appeared to be significant relationship between respondent self-reported lifetime STI prevalence and their level of knowledge on STI ($r = 0.288$; $P < 0.05$).

Table 2: Level of knowledge of respondents on STI

Level of knowledge	N	%
Very Good		
Good	86	30.5%
Poor	196	69.5%
Mean = 5.81 ± 2.88		

There were 92 respondents (32.6%) who obtained treatment for STI compared to the 67.4% who did not obtain treatment. Furthermore, it was found that most respondents who sought treatment (62.1%) preferred going to Patent Medicine Vendor (PMV) shops while 33.3% preferred pharmacy for treatment of STI and eleven (11) respondents went to clinic for STI treatment (Fig. 1).

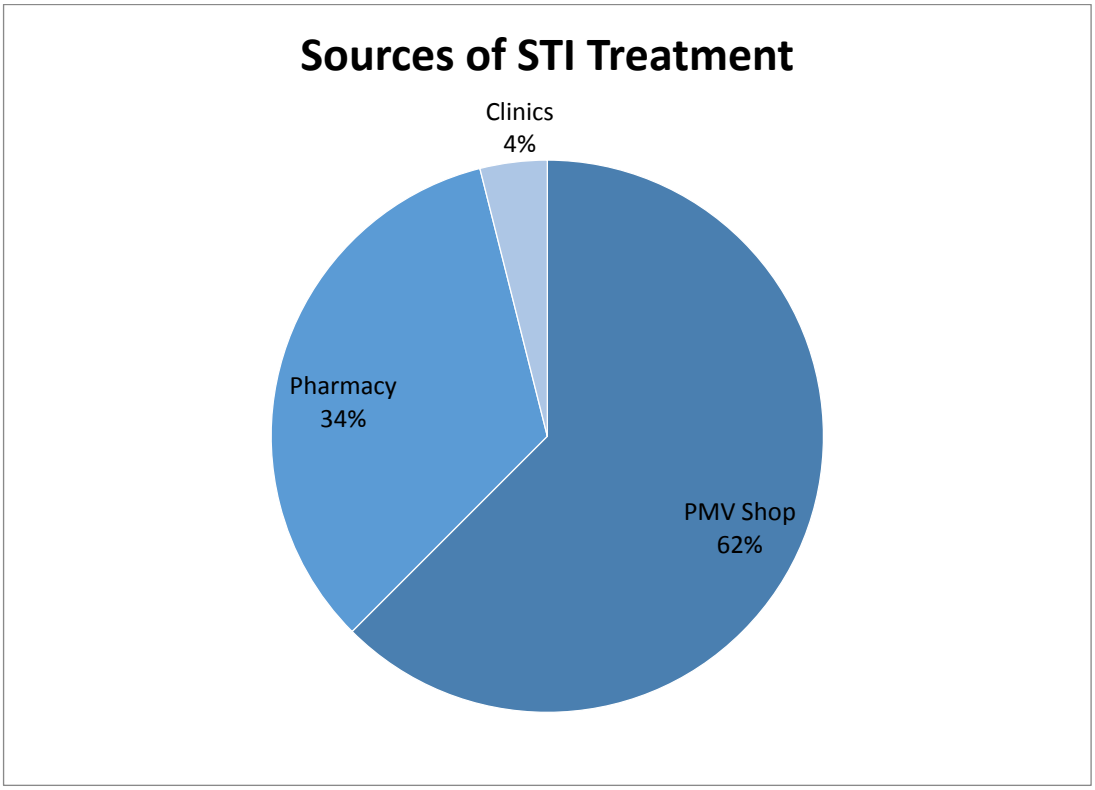

Fig 1: Sources of STI treatment among respondents

Discussion

Reported incidence lifetime prevalence of STI among respondents was given at 22%, this was like discoveries of Tai et al. (2008) who out of 10,030 MSM, discovered 39% and 36% of them reported having been tested for syphilis and gonorrhoea in the earlier year respectively, likewise Zahn et al. (2016) where 124 members (42%) had any sort of STI. Besides, STI prevalence was observed to be more predominant among respondents who recognized as gay people (men who engage in sexual relations with men), information from most African nations is constrained to little cross-sectional studies; be that as it may, current information from all parts of Africa demonstrates a HIV prevalence going from 6 to 37% among MSM (Senior, 2010). This fits in to Scheib, et al (2011) affirming that MSM have a higher HIV predominance than among men as a general populace.

An investigation directed by Kim et al. (2016), half of MSM (47.3%) reported STI signs and symptoms over the most recent 6 months and 12.9% tested HIV-positive. The investigation discovered high rates of unprotected anal intercourse and transactional sex. Combined with other sexual dangerous practices, when compared with the individuals who had never been paid for sex, the individuals who had been paid will probably have a sexually transmitted disease, a risk behaviour tantamount with MSM (Solomon, Nurena, Tanur, Montoya, Grant and McConnell, 2015).

Knowledge of STI was low among respondents, in any case, as opposed to this was discoveries of Patil et al. (2015) where majority of MSM had great knowledge of methods of transmission of HIV(90.38%), its prevention (98.09%) and accessibility of treatment (89.66%). Treatment seeking behaviour was however not determined to be safe and prescribed. Findings uncovered that the greater part of respondents favored going to Patent Medicine Vendor (PMV) shops to look for treatment as opposed to facilities. The poor level of knowledge may be inferable with this. Since chlamydial and gonorrhea contaminations are frequently asymptomatic, it has been recommended that normal screening for these contaminations ought to be performed among MSM to forestall illness complications and to lessen the danger of HIV transmission (Cook et al., 2002). However from an investigation by Tai et al. (2008), it was found that Syphilis and gonorrhea testing among MSM was low. Beyrer, et al. (2012) lamented that just a single in each 10 MSM can get to prevention services.

CONCLUSION AND RECOMMENDATIONS

The 2006 STD treatment guidelines suggest yearly serological testing for syphilis and HIV contamination, and chlamydia and gonorrhea tests at anatomical sites of exposure. More continuous testing (eg, at 3– 6-month interims) is suggested for MSM who have various or unknown sex accomplices, have intercourse in conjunction with illegal medication utilize, utilize methamphetamines, or engage in sexual relations accomplices who take an interest in these exercises (Workowski and Berman, 2006). Responsible for the low safe treatment seeking behaviour is that MSM are regularly covered up, stigmatized and oppressed. As Caceres, Konda, Segura and Lyria (2008) bring up the resultant lower access to sufficient prevention and care services and the expanding susceptibility to HIV disease, nonattendance of projects and administrations particularly expected to address health challenges experienced by MSM does not make access to health care any simpler.

- There is need for exploration of the MSM community in the increasing prevalence of STIs in Nigeria, however, due to Nigeria cultural and religious strong beliefs, these communities of individuals are much less visible because they fear discrimination, stigmatization (being considerable socially unacceptable) and as sex between men is illegal in Nigeria like other 85 countries, they are often under-represented in HIV surveillance systems and in prevention and care programs (Deb, Dutta, Dasgupta and Biswas, 2009; Lau, Siah & Tsui, 2002). Their neglect poses a threat to increased disease burden of STI in the country, there is need for a comprehensive health STI prevention and care for the MSM communities in the country, enabling a reduction in the prevalence of an epidemic of STI nationwide. It is also recommended that annual routine STI screening including HIV testing is recommended for all sexually active MSM. Screening every 3-6 months has been advised for those at highest risk i.e. men with

multiple partners, those using alcohol and drugs in conjunction with sex and those travelling to high risk cities for sex encounters. Sexually active HIV-positive MSM should have an STI screening including rectal palpation and anoscopy at least annually. We think that there is a strong need for specialist departments aimed at MSM where patients can feel secure, with a team that is up to date on the continuously changing STI epidemic situation. In such an environment important data can be collected and research stimulated.

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