

Women Who Have Sex with Women in Kenya and Their Sexual and Reproductive Health

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Abstract

Purpose: To describe sexual and reproductive health characteristics of women who have sex with women (WSW) in Kenya's three most populous cities: Kisumu, Mombasa, and Nairobi. Although the last decade has shown an upsurge of health-related research studies in African sexual minority populations, these studies have generally concentrated on the health status of men who have sex with men to the exclusion of WSW. This study presents the first findings on Kenyan WSW's sexual and reproductive health.

Methods: A community-based, cross-sectional survey was conducted among 280 women who were at least 18 years old, had at least one female sexual partner in the past three years, and were Kenyan residents.

Results: A significant proportion of participants reported that they had at least one male sexual partner in the past three years (38.9%), ever had an abortion (13.2%), been infected with at least one sexually transmitted infection (STI) in the past three years (33.9%), and been tested for HIV at least once (88.9%). Of the women who reported having been tested for HIV, 9.4% (7.5% of the total sample) received a positive test result. Some women noted that they were open with their doctors about their sexual orientation, and that their doctors had not reacted negatively to this information.

Conclusion: WSW in Kenya are at risk for negative sexual and reproductive health outcomes, including HIV, STIs, unplanned pregnancy, and unsafe abortion, positioning these women as a critical population for public health efforts. Some WSW actively exercise their agency in making important health decisions. Therefore, this study indicates a need to incorporate WSW's health concerns within Kenyan national health policy programming.

Key words: abortion, Africa, lesbians, women who have sex with women (WSW), sexual and reproductive health, HIV.

Introduction

STUDIES OF WOMEN WHO HAVE SEX WITH WOMEN (WSW) in Africa are rare and in Kenya they are nonexistent. To date, available public health literature on gays and lesbians in Kenya has focused exclusively on men who have sex with men (MSM) to the exclusion of WSW.¹⁻⁷ Data on HIV and sexually transmitted infection (STI) transmission in Kenya have included only MSM and heterosexuals.⁸⁻¹⁰ Lack of research on WSW in comparison to heterosexual men and women, as well as MSM, in general, can be attributed to perceived lower-risk of HIV infection or STIs among WSW.¹¹⁻¹³

Evidence suggests, however, that WSW around the globe are, in fact, at risk for negative sexual and reproductive health outcomes, including HIV and STIs. According to one global public health literature review, WSW in East Asia and Pacific, Latin America, and sub-Saharan Africa

have reported sexual behaviors that increase their risk of HIV/AIDS and STI transmission.¹⁴ Risk factors included unprotected sex with male partners and men who have sex with men, as well as transactional sex and forced sex. Additional findings have demonstrated that bacterial vaginosis was significantly more common in WSW than in women who denied ever having had sex with women.¹⁵ Studies have also shown that human papillomavirus (HPV) transmission can occur between female sex partners.¹⁶⁻¹⁸ Forced sex with men has also been identified as a risk factor for self-reported HIV infection among WSW in southern Africa.¹⁹

Moreover, restrictive legal environments for WSW and MSM may detrimentally impact health outcomes in these populations. In particular, criminalization of homosexuality may deter these populations from seeking preventive medical care or openly discussing their sexual health with their physicians.^{4,5}

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The socio-political and legal landscape in Kenya is generally intolerant toward WSW and MSM. Kenya's Penal Code criminalizes consensual same-sex sexual conduct among adults with a penalty of up to 14 years in prison.²⁰ Furthermore, in August 2014, the Republican Liberty Party introduced a bill in the Kenyan National Assembly that would increase the maximum sentence for consensual same-sex sexual conduct to life imprisonment, or even death.²¹

Factors such as low-income and religious conservatism in Kenya can explain why widespread discrimination against gays and lesbians appears to exist. According to survey data, Kenyans overwhelmingly disapprove of homosexuality.²² There is also a significant association in Kenya, as well as other poorer countries, between high levels of religiosity and low acceptance of homosexuality.²² Extensive censure against WSW and MSM in Kenya is, therefore, a potential contributing factor to poorer health outcomes in WSW and MSM.

Kenyan WSW, however, in comparison to MSM, may be especially vulnerable to poorer health because of entrenched gender inequality. The United Nations Development Program's 2013 Gender Inequality Index (GII), for example, ranked Kenya 122 out of 187 countries for gender-based inequality in relation to reproductive health outcomes and other factors, including attainment in secondary education and labor force participation.²³

Low acceptance of gays and lesbians, criminalization of homosexuality, and acute gender inequality thus firmly place Kenyan WSW as a particular at-risk group. As a first attempt to address current gaps in knowledge about the health of WSW in Kenya, this study presents original findings from a community-based survey of lesbian and bisexual women in Kenya's three most populous cities: Kisumu, Mombasa, and Nairobi.

Methods

The study utilized a community-based cross-sectional survey. Women were allowed to participate if they: a) were at least 18 years old; b) had at least one female sexual partner in the past three years; and c) were residents of Kenya. WSW were recruited in Kisumu, Mombasa, and Nairobi—Kenya's three most populous cities—through snowball sampling using local lesbian and bisexual women community organizations (in Kisumu: Women Working with Women; in Mombasa: Persons Marginalized and Aggrieved [PEMA] Kenya; and in Nairobi: Minority Women in Action). Interviews were conducted in English only. Women who were unable to communicate in English were excluded from participating (there was no budget for translation and back-translation of the questionnaire). Two hundred and eighty WSW participated in the study. The sample size was determined by the project budget (30,000 Kenyan Shillings [KSh], or \$350 USD). The data were collected between June and November 2012.

Interviews were conducted in private, using a semi-structured questionnaire with both open and closed-ended questions. Participants' answers were recorded by the interviewers in individual questionnaires. All interviewers, recruited from the respective cities, were Kenyan WSW who had prior experience with basic research methods. In addition, interviewers had received training on sexual orientation sensitivity, as well as privacy, confidentiality, and

security issues surrounding data collection. Study facilitators also briefed interviewers on sensitivity and privacy concerns before interviews took place. Trained research assistants later transcribed data into an Excel sheet, which was then imported into SPSS.

Before each interview, interviewers obtained written consent by presenting a consent form that explained survey respondents' voluntary participation and their right to withdraw at any time; the study's purpose; survey procedures; potential risks and benefits for participation; investigators' contact information; and information regarding privacy, confidentiality, and data storage. Moreover, interviewers verbally explained each of these components to participants and answered any questions. All survey respondents agreed to participate by signing the consent form. Participants were not compensated for their time.

The structured questionnaire included closed questions, as well as a few open questions. Closed questions were used to assess demographic information and topics related to sexual and reproductive health, such as number of female and male sexual partners; experiences with abortion; experiences with STIs and HIV testing and diagnoses; and disclosure of same-sex sexual practices to healthcare providers. Open questions were used to ask questions for which no precoded answers were available. For example, participants were asked to describe reasons for disclosing or not disclosing their sexuality to health care providers. The questionnaire was pretested with a few Kenyan WSW.

In addition to descriptive statistics, we used the Chi-square to test differences in participants' responses in relation to the following variables: age; level of education; employment status; monthly income; city of residence; number of female sexual partners in the past three years (categorized as 1 to 2; 3 to 6; and more than 6); having had any male sexual partners in the past three years; ever having procured an abortion; having an STI infection in the past three years; and ever having been tested for HIV. We used the same approach for exploring associations between health outcomes. Differences in variables with more than two categories were interpreted using standardized adjusted residuals (values greater than $|1.96|$ indicate that a proportion deviates significantly from what would be expected based on the marginal totals with a significance level of .05). All statistical analyses were conducted using IBM SPSS version 22. For our qualitative data analysis, we looked for general patterns in responses and selected illustrative quotations. (No formal analysis was conducted).

No approval for the conduct of this study was sought from an ethical review board because there are no legal requirements in Kenya to obtain approval for survey studies with a cross-sectional design.

Results

Most of the 280 women who participated in the study (80.1%) were between 18 to 29 years old, while 19.9% were aged between 30 to 55 years (see Table 1). Half of the women (52.2%) were in a relationship, 42.7% were single, and a minority (6.2%) was married. Of the total sample, 36.7% had completed primary and secondary schooling only; 44.6% had completed college, or the equivalent of an associate's degree in Kenya; and 18.7% had completed either a Bachelor's or Master's degree. Although all women had

TABLE 1. DEMOGRAPHIC CHARACTERISTICS BY RESIDENCE (N = 280)¹

		Residence			Pearson χ^2 (df)
		Kisumu	Mombasa	Nairobi	
Age					
18–29	221 (80.1%)	64 (80.0%)	84 (82.4%)	73 (77.7%)	.68 (2)
30–55	55 (19.9%)	16 (20.0%)	18 (17.6%)	21 (22.3%)	
Education					
Primary/Secondary	102 (36.7%)	44 (55.7%)	36 (34.3%)	22 (23.4%)	30.93 (4)**
College	124 (44.6%)	25 (31.6%)	57 (54.3%)	42 (44.7%)	
Bachelor's/Master's	52 (18.7%)	10 (12.7%)	12 (11.4%)	30 (31.9%)	
Employment					
Formally Employed ²	82 (30.3%)	30 (38.0%)	19 (19.6%)	33 (34.7%)	12.00 (4)*
Self-Employed	53 (19.6%)	11 (13.9%)	19 (19.6%)	23 (24.2%)	
Unemployed	136 (50.2%)	38 (48.1%)	59 (60.8%)	39 (41.1%)	
Income ³					
0–10,000	112 (47.9%)	25 (33.8%)	42 (57.5%)	45 (51.7%)	23.28 (4)**
10,001–25,000	56 (23.9%)	15 (20.3%)	23 (31.5%)	18 (20.7%)	
25,001–85,000	66 (28.2%)	34 (45.9%)	8 (11.0%)	24 (27.6%)	

* $P < .05$; ** $P < .001$.

¹Due to missing values, not all numbers add up to 280.

²“Formally employed” denotes being employed outside of the home.

³In Kenyan Shillings, per month and before taxes.

completed some form of education, half of them (50.2%) were unemployed, the remaining half were either employed outside of the home (30.3%) or self-employed (19.6%). Of all WSW, 47.9% earned between 0 to 10,000 Kenyan shillings, 23.9% earned between 10,001–25,000 Kenyan shillings, and 28.2% earned between 25,001–85,000 Kenyan shillings (all amounts per month and before taxes). Almost half of WSW surveyed fell into income brackets associated with urban poverty in Kenya (the monthly average household income among urban slum dwellers in Kenya ranged between 7,232 and 13,767 Kenyan shillings).²⁴

The three cities were relatively equally represented: Kisumu (28.6%); Mombasa (36.4%); and Nairobi (33.6%). However, there were some differences between women based on where they lived (Table 1). Compared to women from Nairobi and Mombasa, women from Kisumu were more likely to have completed primary and secondary education only, while women from Nairobi were more likely to have completed a Bachelor's or Master's degree. Women living in Mombasa were most likely to be unemployed compared to women in Kisumu and Nairobi. Women with the lowest level of income were most likely to live in Mombasa, whereas women with the highest level of income were more likely to live in Kisumu.

While all 280 women reported having at least one female sexual partner in the past three years, 37.1% had one to two female sexual partners in this period; 38.9% had three to six partners; and 23.9% had over six partners. The number of female sex partners women had was not related to age, level of education, employment status, or income (Table 2). Women living in Nairobi were the least likely to indicate one or two female partners and were most likely to report more than six female partners, while women living in Mombasa were the least likely to have had more than six female partners, $\chi^2 = 23.39$ (4), $P < .001$.

One hundred and nine women (38.9%) had any male sexual partners in the past three years. Whether women had sex with male partners in the preceding three years was not re-

lated to age or employment status. Having any male sexual partners was also related to level of income, $\chi^2 = 10.32$ (2), $P < .01$, and residence, $\chi^2 = 6.16$ (2), $P < .05$. Women with the middle-income level were the most likely to report a male sexual partner in the preceding three years compared to the other income levels. Women living in Kisumu were less likely to have engaged in sex with men in the preceding three years compared to women from Mombasa and Nairobi.

Some women reported past experiences with abortion (13.2%). Whether women ever had an abortion was not related to age, level of education, or employment status. Ever having an abortion was related to level of income, $\chi^2 = 15.59$ (2), $P < .001$, and residence, $\chi^2 = 8.92$ (2), $P < .05$. Women in the middle-income level were the most likely to report a previous abortion compared to the other income levels. Women from Mombasa were more likely than women from Nairobi and Kisumu to report having ever procured an abortion.

About a third of the women (33.9%) reported that they had at least one STI in the past three years and 11.8% reported that they had more than one STI. Having one or more STIs in the past three years was associated with age, $\chi^2 = 6.01$ (1), $P < .05$, level of education, $\chi^2 = 7.17$ (2), $P < .05$, and employment status, $\chi^2 = 8.43$ (2), $P < .05$, but not with income and place of residence. Women who reported one or more STIs in the past three years were older, had a higher level of education, and were the least likely to be unemployed. Women who reported any male sexual partners in the past three years were also more likely to have experienced an STI in the same time period: 64.2% versus 14.6% of the women who reported no sex with male partners in the past three years, $\chi^2 = 73.06$ (1), $P < .001$. Having at least one STI in the past three years was associated with ever having procured an abortion, $\chi^2 = 15.16$ (1), $P < .001$. Of the women who reported having at least one STI in the past three years, 24.2% reported ever having procured an abortion compared to 7.6% of the women who reporting having no STIs in the past three years.

TABLE 2. DEMOGRAPHIC CHARACTERISTICS BY SEXUAL BEHAVIOR AND EXPERIENCES WITH ABORTION, STIs, AND HIV TESTING¹

	Female Sexual						Any Male Partners (Past 3 yrs) (n = 109/280)	Ever Had Abortion (n = 37/280)	Any STI (past 3 yrs) (n = 95/280)	Never (n = 31)	HIV Test	
	Partners (Past 3 yrs)			More Than 6 (n = 67)	1 Year Ago (n = 58)	Past Year (n = 190)						
	1 to 2 (n = 104)	3 to 6 (n = 109)										
(Total n = 280)												
Age												
18-29	77 (76.2%)	86 (79.6%)	58 (86.6%)	79/221 (35.7%)	25/221 (11.3%)	66/221 (29.9%)	25 (80.6%)	40 (69.0%)	155 (83.3%)			
30-55	24 (23.8%)	22 (20.4%)	9 (13.4%)	27/55 (49.1%)	9/55 (16.4%)	26/55 (47.3%)	6 (19.4%)	18 (31.0%)	31 (16.7%)			
Education												
Primary/Secondary	42 (40.4%)	43 (39.4%)	17 (26.2%)	38/102 (37.3%)	10/102 (9.8%)	27/102 (26.5%)	21 (70.0%)	25 (43.1%)	55 (29.1%)			
College	40 (38.5%)	48 (44.0%)	36 (55.4%)	47/124 (37.9%)	22/124 (17.7%)	43/124 (34.7%)	7 (23.3%)	26 (44.8%)	91 (48.1%)			
Bachelor's/Master's	22 (21.2%)	18 (16.5%)	12 (18.5%)	24/52 (46.2%)	5/52 (9.6%)	25/52 (48.1%)	2 (6.7%)	7 (12.1%)	43 (22.8%)			
Employment												
Employed	26 (26.3%)	29 (27.6%)	27 (40.3%)	30/82 (36.6%)	13/82 (15.9%)	35/82 (42.7%)	1 (3.3%)	13 (23.6%)	67 (36.2%)			
Self-Employed	19 (19.2%)	24 (22.9%)	10 (14.9%)	26/53 (49.1%)	9/53 (17.0%)	21/53 (39.6%)	4 (13.3%)	14 (25.5%)	35 (18.9%)			
Unemployed	54 (54.5%)	52 (49.5%)	30 (44.8%)	47/136 (34.6%)	11/136 (8.1%)	34/136 (25.0%)	25 (83.3%)	28 (50.9%)	83 (44.9%)			
Income ²												
0-10,000	40 (49.4%)	45 (48.9%)	27 (44.3%)	40/112 (35.7%)	13/112 (11.6%)	36/112 (32.1%)	11 (73.3%)	23 (51.1%)	78 (45.1%)			
10,001-25,000	15 (18.5%)	25 (27.2%)	16 (26.2%)	32/56 (57.1%)	16/56 (28.6%)	26/56 (46.4%)	2 (13.3%)	11 (24.4%)	42 (24.3%)			
25,001-85,000	26 (32.1%)	22 (23.9%)	18 (29.5%)	20/66 (30.3%)	3/66 (4.5%)	25/66 (37.9%)	2 (13.3%)	11 (24.4%)	53 (30.6%)			
Residence												
Kisumu	35 (33.7%)	27 (24.8%)	18 (26.9%)	22/80 (27.5%)	6/80 (7.5%)	22/80 (27.5%)	4 (12.9%)	18 (31.0%)	57 (30.0%)			
Mombasa	45 (43.3%)	48 (44.0%)	12 (17.9%)	46/105 (43.8%)	22/105 (21.0%)	36/105 (34.3%)	18 (58.15)	24 (41.4%)	63 (33.2%)			
Nairobi	24 (23.1%)	34 (31.2%)	37 (55.2%)	41/95 (43.2%)	9/95 (9.5%)	37/95 (38.9%)	9 (29.0%)	16 (27.6%)	70 (36.8%)			

¹Due to missing values, not all numbers add up to 280.

²In Kenyan Shillings, per month and before taxes.

Most women (88.9%) had been tested for HIV at least once. The vast majority of women (68.1%) had been tested for HIV in the preceding 12 months and 20.8% had been tested more than a year ago; 11.1% had never been tested for HIV. Both ever having been tested for HIV, and recency of testing were associated with level of education, $\chi^2 = 21.65$ (4), $P < .001$, and employment status, $\chi^2 = 19.43$ (4), $P < .001$, but not with age, income and place of residence. Women with the lowest level of education were the least likely to have ever been tested for HIV, while women with the highest level of education were the most likely to have been tested in the past year. Unemployed women were the least likely to have been tested, while employed women were the most likely to have been tested in the past year. Women who had recently been tested for HIV (within the past year) were also more likely to have ever procured abortions, $\chi^2 = 9.57$ (2), $P < .01$; women who had never been tested for HIV had also never procured an abortion, whereas 17.4% of the women who had been tested in the preceding year had procured an abortion.

Twenty-one women (7.5% of the total sample; 9.4% of the women who ever tested for HIV) reported a positive HIV test result. Self-reporting an HIV positive test result was associated with certain factors, including number of female partners, having any male sexual partners, income, past abortions, and past STIs. Reporting an HIV positive test result was not related to age, level of education, employment status and place of residence. Women who reported an HIV-positive test result were more likely to have a middle (rather than high) income level, $\chi^2 = 7.01$ (2), $P < .05$ (15.1% of the women with a middle income level reported an HIV positive test result compared to 1.6% of the women with a high income level). Over 14% of the women with three to six female sexual partners reported testing positive for HIV, compared to 6.3% of the women who reported one or two partners and 1.9% of the women with more than six partners, $\chi^2 = 7.73$ (2), $P < .05$. Women who reported any male sexual partners in the preceding three years were more likely to report an HIV positive test result, 18.8% versus 1.4% of the women who reported no male sexual partners, $\chi^2 = 32.52$ (1), $P < .001$. Women who reported experiencing any STI in the preceding three years were more likely to self-report an HIV positive test result compared to women who reported having no STIs in the past three years, 14.4% versus 5.1%, $\chi^2 = 6.51$ (1), $P < .05$.

One-fifth of the women said that they had been able to talk with their doctor as an open lesbian or bisexual woman. In response to an open question, some women mentioned that the reason for being open with their doctors was that they had specific sexual health issues. One woman, for example, stated that she “had a problem in her mouth, tongue, and private parts,” and therefore felt it was necessary to inform the doctor that she was lesbian. Another woman described that she once had a “weird” STI and that she had to tell the doctor that she got it from a woman. Other women claimed that doctors’ positive attitudes prompted them to be open about their sexuality. Speaking about her physician, one woman said, “She did not seem to care or mind. She even found (my sexual orientation) amusing.” Another woman stated that she felt comfortable telling her doctor that she was gay because the doctor was also a lesbian. Some women said the primary reason they were out to their physicians was because they wanted to receive adequate medical care.

Most women who were not open about their sexuality during a doctor’s visit explained that being lesbian or bisexual was irrelevant to the purpose of their visit. Some women, for example, reported that they were seeking treatment for malaria. One woman said she was having an abortion. However, other women chose to not disclose their sexualities for fear of potential negative social repercussions: “I was afraid of the treatment I would get from the hospital staff;” “I don’t think they would have accepted to treat me due to my sexuality.” One woman was concerned that physicians would not respect her confidentiality: “I am afraid of my doctor telling my parents because we all go to the same hospital.”

Discussion

This is the first study to report on sexual and reproductive health issues among WSW living in Kenya. As was found in other studies among WSW in Africa,^{14,19} women who have sex with women seldom do so exclusively: a substantial proportion of women had sex with men as well, exposing them to all risks associated with heterosexual sex. One out of seven women reported ever having an abortion and one out of three women reported having had at least one STI. Almost all women had ever been tested for HIV. Almost one in ten women who had ever received an HIV test reported a positive status. These findings indicate that WSW in Kenya are an important population for public health efforts.

The results of this study, moreover, indicate that Kenyan WSW, in comparison to heterosexual women in Kenya, may similarly be at risk for developing post-abortion complications, including mortality and morbidity, as a result of widespread prevalence of unsafe abortion. The estimated rate of induced abortion in Kenya is 48 induced abortions per 1000 women of reproductive age (15–49 years); there is strong evidence that the majority of these induced abortions in Kenya are unsafe.²⁵

In addition, Kenyan WSW may be at higher risk of contracting HIV than the general population. Kenyan WSW participating in this study had a higher HIV prevalence (7.5% of the total sample) than the national average for both men and women. In 2012, the year data were collected for this study, 6.9% of women aged 15–64 in Kenya were living with HIV, compared to 4.2% of men.²⁶ National HIV prevalence for that year was estimated to be 5.6% among Kenyans, aged 15–64 years.²⁶ Moreover, among persons aged 15–49, from 2007 to 2012, HIV prevalence among women in Kenya declined significantly (8.5% vs. 6.2 percent).²⁶ The fact that Kenyan WSW could be a risk group for HIV, as well as STIs, indicates a need for global, regional, and domestic stakeholders to acknowledge WSW’s sexual and reproductive health in national health programs and policies.

Yet, although Kenyan WSW’s health concerns are not explicitly mentioned in public health strategies, including national HIV-prevention strategies, the recent success of national HIV testing campaigns may explain why a significant proportion of the sample (88.9%) had sought HIV testing. Public outreach may also explain why most of these women reported that they had been tested for HIV between 2011 and 2012. At the time that this study was conducted, one of Kenya’s national public health goals was to reach 80% HIV testing coverage by 2013; in 2012, among adults

and adolescents aged 15–64 in Kenya, 71.3% had tested for HIV at least once and had received a result.²⁶

One important finding from this study's qualitative data was that many WSW actively exercised their agency in seeking health care. In addition, some of them were open about their sexuality with their doctors. Moreover, according to some WSW, doctors did not always react negatively to this information.

Limitations to this study include that all data are self-reported. Furthermore, it is not clear whether the findings are generalizable to all Kenyan WSW (subject recruitment occurred through community organizations; women who could not communicate in English were excluded from participating; and sampling was not random and only took place in the three biggest cities in Kenya). The fact that most women in this study were young (18–29) suggests that the representativeness of the sample is, indeed, limited.

The strengths of this study are that, to our knowledge, it is the first conducted among Kenyan WSW, and the size and diversity of the sample. In addition, the sample population contrasts with most studies on WSW, in general, that tend to focus on White and highly educated women.

Conclusion

Our findings indicate that Kenyan WSW are at-risk for negative sexual and reproductive health outcomes, including HIV, STIs, and potentially unsafe abortions. Kenya's strategic health plans and policies have so far not acknowledged the particular health needs of WSW, as well as how these needs may be affected by discrimination and violence. The development of effective health programs and policies requires local, national, and global stakeholders to consider and include Kenyan WSW's sexual and reproductive health needs within strategic health planning. Because WSW should not be seen as passive victims, stakeholders should pay attention to how these women employ their agency to shape their lives in a generally non-accepting climate.

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Author Disclosure Statement

No competing financial interests exist.

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