

## Original Research Article

# Safe sex practices among women who have sex with women in Tanzania: implications for HIV and STIs control among this group

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## ABSTRACT

**Background:** Women who have sex with women (WSW) are at an increased risk of sexually transmitted infections (STIs) due to engagement in high-risk sexual behaviors. Safe sex practice is hence critical for the WSW. The aim of the study was to assess safe sex health behaviors and practices among WSW to inform sexual and reproductive interventions targeting this group in Tanzania.

**Methods:** This study was cross-sectional descriptive and retrospective conducted in Dar-es-Salaam region, the largest commercial city in Tanzania. Study population included WSW aged 18 years and above who met inclusion criteria. Data was collected using focus group discussions, in-depth interviews, key informant interviews and life stories. Data analysis applied thematic analysis.

**Results:** Few WSW reported practicing safe sex. WSW used condoms only when engaging in sex with men. Some WSW lacked information on availability of protective devices; while some WSW did not use of protection despite having information on availability of protective devices. Majority of WSW used good hygiene practice (cleaning body, vagina, mouth, and sex toys) before and after sex to prevent transmission of infections; and some WSW used pre- and post- exposure prophylaxes. Low access and high cost of protective devices, being in a monogamous relationship, low health risk perception, fear of developing cancer from using lubricants, and advise from health worker against using lubricants, were reasons given by WSW for not practicing safe sex.

**Conclusions:** Given the current evidence of overlap between the homosexual and heterosexual populations in STI transmission, comprehensive education on potential routes of STI transmission among WSW is critical.

**Keywords:** Women who have sex with women, Safe sex, Sexually transmitted infections, Sexuality, HIV, Tanzania

## INTRODUCTION

Women who have sex with women (WSW) are at an increased risk of sexually transmitted infections (STIs)

including bacterial vaginosis, herpes, human papillomavirus (HPV), trichomoniasis and human immunodeficiency virus (HIV), among others.<sup>1-5</sup> WSW engage in risky sexual behaviors and practices that make

them a vulnerable group that needs public health professionals' attention now than before.<sup>6</sup> WSW have sex with two or more sex partners, some of whom do not know their HIV status; engage in anal sex with partners of unknown HIV status; engage in bisexual practices; engage in sex with men who have sex with men (MSM); engage in commercial sex; and are likely to abuse drugs or engage in sexual activities with injecting drug users (IDUs).<sup>1,6</sup>

Safe sex practice is hence critical for the WSW as STI transmission between women can occur through fingering/fisting, oral sex (cunnilingus and anilingus), vaginal grinding or bumping and sharing sex toys.<sup>2</sup> HIV and other STIs can be transmitted through blood, menstrual blood, breast milk and vaginal secretions; but risk varies by the specific STI and sexual practice (for example, oral-genital sex; vaginal or anal sex using hands, fingers, or penetrative sex toys; and oral-anal sex).<sup>5</sup>

Moreover, WSW are another 'bridge population' forming a transmission bridge from the highest-risk groups (MSM, bisexual, IDUs, and FSWs) to the general population.<sup>7</sup> Safe sex practice is important to avoid transmission of STIs by ensuring no fluids enter vagina, mouth, or any cuts. Safe sex can be achieved through use of protective barrier methods such as condoms, use of latex gloves for digital penetration, use of dental dams (a latex sheath (square) that serves as a barrier of protection against STIs during oral sex), and cleaning sex toys before reuse or other partner's use.

The aim of the study was to assess safe sex health behavior and practices among WSW to inform sexual and reproductive interventions targeting this group in Tanzania. Very few studies have been conducted on WSW to date, this study is, therefore, important to appropriately inform policies, strategies, and programs on STIs.

## METHODS

This study was cross-sectional descriptive and retrospective. The formative study was conducted in Ilala, Kinondoni and Temeke districts in Dar-es-Salaam region starting February 2021 to May 2021. Dar-es-Salaam is the largest and commercial city, known harboring persons from different backgrounds and engaging in varied health behaviors and practices thus allowed access to required categories of study participants. Selection criteria for study participants included; WSW aged 18 years and above, who had lived in Dar-es-Salaam for six (6) months or more; had had engaged in same-sex sex in the past year or is in same-sex relationship/s; and had knowledge of WSW's lived experiences and willing to participate in the study. Study participants were recruited from the community using opportunistic sampling in identifying participants. Data was collected using focus group discussions (FGDs), in-depth interviews (IDIs), key informant interviews (KIIs) and life stories. Data collectors were trained on the study objectives and procedures, made aware of the vulnerability of WSW, and exposed to proper interaction and

interviewing procedures/ethics with the study participants. With permission from the participants, FGDs, KIIs, IDIs and life stories were audio-recorded and research assistants took field notes. All tools were administered in Kiswahili; a language that is understood by almost everybody in the study area.

Transcription and translation of data was conducted. Qualitative data analysis applied thematic analysis where open coding approach was used using participants' language and combining emerging emic concepts with preconceived theoretical constructs. Ethical clearance for this study was granted by the Muhimbili University of Health and Allied Sciences (MUHAS) Institutional Review Board (IRB). Participation in the study was voluntary; participants gave a verbal consent for participation.

## RESULTS

The objective of this study was to understand safe sex practices among WSW in Dar-es-Salaam, Tanzania. The study investigated the use of protective devices during sexual activity. A total of 17 WSW agreed to participate in the study. 11 WSW participated in in-depth interviews and 6 WSW participated in focus group discussion (FGD). WSW ages are as shown on Table 1 below.

**Table 1: Participant age groups.**

Age groups (years)	Number
20-29	9
30-39	6
40-50	2
<b>Total</b>	<b>17</b>

Participants reported on the use, types, supply sources, availability, as well as reasons for use or non-use of protective devices. Three main themes emerged from data analysis; safe sex practice among WSW, availability and cost of protective devices, and reasons for not using protective devices. We report these themes in the subsections below.

### *Safe sex practice among WSW*

Participants had varied experiences with regard to safe sex practice. Three broad experiences were reported; non-use of protection with female sex partners (both by those having knowledge on availability of protective devices-including condoms, dental dams and lubricants-, and by those not having knowledge on protective devices); cleaning (body, vagina, mouth, and sex toys) before and after sex to prevent infection; and use of pre- and post-exposure prophylaxes.

Most participants in this study reported non-use of protective devices during sexual activity with fellow women. One of the participants, aged 32, never married, a mother of one child and has sex with men, reported, "We

never use any protective gear when having same sex. Majority of us do not know there are such protective devices or lubricants as you explained to me. We have it (sex) 'nyama kwa nyama' (without protection). However, we thoroughly clean our vaginas after every round (sex) (IDI, H, 32 years, 2021).

Another participant aged 27 years, divorced and has sex with men, stated, "Majority of us do not use protective devices at all. We have it (sex) 'nyama kwa nyama' (unprotected sex). Personally, I never use protection when having sex with a woman. However, we carefully clean and wipe dry our vaginas after sex. Using a male condom when having sex with a male client highly depends on his demand" (IDI, A, 27 years, 2021).

A participant aged 35, started engaging in same sex at the age of 19, divorced and engages in sex work, had this to say, "It is very unfortunate that majority of us don't use any protective device when having sex with other women. We usually clean our vaginas with warm water and soap after sex. Some of us use (male) condoms when having sex with male clients. Not with women partners or clients" (IDI, B, 35 years, 2021).

Another participant aged 28 years, never married, has O-level education and has sex with men, stated, "We never use any protection. There is no condom for the fingers or tongue" (IDI, E, 28 years, 2021).

A participant aged 46, never married, identify a tomboy, mother of two children and has sex with men, reported, "I never use a condom or gloves when having sex with women" (IDI, G, 46 years, 2021). Another participant aged 26 years, identify a tomboy, never married and a university graduate narrated,

"I never use any protective device. I rarely use dildos. I normally use my tongue (to lick vagina or anus) and fingers (fingering). There are no protections to use on the tongue or fingers. I tell you, there is no woman using condoms on a woman. Women using dildos rarely use male condoms on fake penis. They clean them (dildos) after use and can re-use it on another woman" (IDI, F, 26 years, 2021).

Few participants reported using protection. However, most of them used condoms only when engaging in sex with men as opposed to women. A participant aged 46, never married, identify a tomboy, mother of two children and has sex with men, reported, "I usually use lubricants like KY and I have forgotten its name. These lubricants are packed in a sachet or a tube" (IDI, G, 46 years, 2021). One participant in the FGD reported, "Majority of us do not use any protective devices. However, there are a few women using condoms for the tongue or the fingers when having sex with women. Many of us have unprotected sex" (FGD\_1, 2021). Another participant aged 28, never married, has O-level education and has sex with men, stated, "Sometimes, transmen use lubricants when having

sex with gay men. You know, the anus is usually dry compared to the vagina. So, the lubricant is used to reduce friction allowing smooth penetration" (IDI, E, 28 years, 2021).

Another participant reported on some WSW using health facility provided pre- and post-exposure prophylaxes to protect themselves from STIs, stating "Nurses at the health facilities provide women (including WSW) with medicine (tablets), which they take before or after having sex. For effective results of pre-exposure, a woman should take the medicine seven days before (sex). With regard to the post-exposure, a woman should take the tablet within 72 hours after having sex" (IDI, F, 26 years, 2021). Other participants reported; "I only use male condoms with male clients who insist to (use a condom)" (IDI, H, 32 years, 2021).

"We sometimes use male condoms with male clients who insist. Not with women clients" (IDI, B, 35 years, 2021). "I never use a condom or gloves when having sex with women. However, there are some male clients who insist on using a condom. We offer them what they want; as long as they pay for services provided" (IDI, G, 46 years, 2021). "I use a male condom with male clients who demand protected sex" (IDI, E, 28 years, 2021).

Explaining on the use of condoms when a transman has sex with a gay man, a participant reported; "The transmen often have sex with gay men. In this case, they put a condom on the fake penis to penetrate the gay man's anus" (IDI, F, 26 years, 2021).

#### **Availability and cost of protective devices**

On availability and cost, participants reported low access and high cost to some protective devices such as dental dams, lubricants, and mouth wash. Reporting on where the WSW get the protective devices from, a participant in the FGD had this to say; "The dildos, lubricants, dental dams and other devices we need are sold at a few shops and pharmacies (in Dar-es-Salaam) and at high prices that most of us can't afford. Those who have them, import them from either Kenya or South Africa" (FGD\_1, 2021). Another participant in FGD reported, "There are very few shops and pharmacies that carry devices and lubricants we need for our sexual pleasure. We order them online from Kenya or South Africa. They are very expensive such that very few of us can afford importing them. (FGD\_1, 2021). Another participant noted, "The price highly depends on the brand and size. Durex, for example, sells from TShs. 15,000 (approximately \$7) or more depending on the size" (FGD\_1, 2021).

Reporting the price of dildos, another participant in the same FGD, stated, "The price depends on brand, quality and size. Price ranges between TShs 70,000 (approximately \$30) (low quality) to TShs 700,000 (approximately \$304) (high and preferred quality). So, very few of us can afford buying them ... Honestly, we

share them (dildos)” (FGD\_1, 2021). Another participant reported, “Most of the products we need are sold online, specifically on Instagram. Sometimes, sellers offer toll free numbers that you can dial to contact them. Otherwise, we buy them from Kenya and South Africa or we get them for free at LGBT conferences we attend” (FGD\_1, 2021). Another FGD participant reported, “Only women with good income or have attended seminars (in Kenya or South Africa) use protective devices like condoms, dental dams and mouth washing solutions. Majority of us have ‘nyama kwa nyama’ (unprotected sex)” (FGD\_1, 2021).

Due to the reported high cost of protective devices, participants reported using unconventional and potentially unsafe alternatives. A participant aged 35, started engaging in same sex at the age of 19 years, divorced and engages in sex work, had this to say; “As you may be aware, our (Tanzania) government banned importing lubricants. As a result, we use what is available for us. We use Vaseline jelly to avoid bruises from fingering or genital-genital contact. However, our doctor told us that the jelly is harmful to delicate membranes in the vagina. We plead the (Tanzania) government to lift the ban on lubricants importation for our safety” (IDI, B, 35 years, 2021).

Reporting on WSW’s use of lubricants during sex, a participant aged 32, never married, a mother of one child and has sex with men, presented, “Some of our colleagues (WSW) talk about using lubricants (Vaseline jelly) to avoid friction when having sex (fingering or genital-genital contact) that could cause bruises in the vagina” (IDI, A, 27 years, 2021).

A participant aged 35 years, divorced, started engaging in same sex behaviors and practices at the age of 19 and engages in sex work, stated, “As I told you, the (Tanzania) government banned importing lubricants some years ago. As a result, we use petroleum jelly, especially Vaseline jelly or cooking oil. We plead the government to lift this ban” (IDI, B, 35 years, 2021). A participant in the FGD narrated, “We know there are condoms for the fingers and the tongue that we would like to use whenever we have sex. However, they (protective gear) are so expensive and are not available in this country ... You may remember, a few years back the (Tanzania) government banned importation of lubricants claiming their availability could fuel homosexual behaviors and practices among the citizenry. As a result, we have unprotected sex” (FGD\_1, 2021).

Reporting on the lubricant used by fellow WSW, a participant aged 26, identify a tomboy, never married and a university graduate narrated, “I never use any lubricant. However, my colleagues claim using petroleum jelly. Vaseline or baby care. Others use coconut or cooking oil” (IDI, F, 26 years, 2021).

Reporting on the price of lubricants used, a participant aged 46, never married and engages in sex work, stated “Vaseline jelly, cooking oil and coconut oil are sold at retail shops and pharmacies at a price of TShs. 5000

(approximately 2\$)” (IDI, G, 46 years, 2021). Another participant informed, “Coconut oil and baby care are sold at regular shops and pharmacies at affordable prices” (IDI, E, 28 years, 2021). When asked about perceived risks of lubricant use (such as petroleum jelly) a participant aged 35, divorced, started engaging in same sex behaviors and practices at the age of 19 and engages in sex work, stated, “We often use petroleum jelly. However, we know that Vaseline jelly is harmful because it produces heat (from in and out movements of fingers or dildo) in the vagina that could result to bruises ... One can get infected or infect her partner” (IDI, B, 35 years, 2021).

### **Reasons for not using protective devices and lubricants**

Aside from cost and poor availability of protective devices for WSW, participants mentioned other reasons for not using protective devices and lubricants during sex with other women including: preference; being in a monogamous relationship; low health risk perception; fear of developing cancer from using lubricants; client or partner demand; and advice from health workers against using lubricants. A participant in the FGD reported, “Some women do not like using any device or lubricant ... They demand natural sex (without dildos or lubricants)” (FGD\_1, 2021).

Another participant aged 46 years, never married, identify a tomboy, mother of two children and has sex with men, stated, “I am confident, my partner and I are healthy. We are faithful to each other. We do not use condoms or other protective devices. We always go for medical checkup (for HIV and other STIs) every three months” (IDI, G, 36 years, 2021). A participant aged 32 years, never married, a mother of one child and has sex with men, reported, “I never use protective devices or lubricants because I believe I can’t get infected or suffer from any health problem due to my engagement in same sex. I am sure, female same sex is risk free” (IDI, H, 32 years, 2021). Another participant aged 26 years, identify a tomboy, never married and a university graduate, narrated, “Women using lubricants are at risk of infecting their vaginas that could lead to cancer problems” (IDI, F, 26 years, 2021).

Another participant aged 27 years, divorced and has sex with men, stated, “I do not use lubricants because our doctor advised us not to use any substance as the vagina is self-sufficient (self-cleaning). He said many lubricants have harmful chemicals that could interfere with the vagina flora” (IDI, A, 27 years, 2021).

## **DISCUSSION**

Our findings show that many WSW do not practice safe sex. Similar findings have been reported in studies from sub-Saharan African countries and elsewhere, where low use of protection during sexual activity among WSW is common.<sup>1,8,9</sup> As indicated in our findings, non-use of protection during sex is a result of the belief that female same sex practice is of no or low risk in terms of

transmitting STIs between partners. Studies conducted globally have reported that WSW consider sex between women as risk free and, hence, minimize the need to use protection.<sup>7-10</sup> Nonetheless, empirical evidence has shown WSW have increased risk of contracting STIs because of risky sexual behaviors.<sup>7,9,11,12</sup> For example, bisexual behavior is highly common among WSW, with some WSW having concurrent sexual relationships with both men and women.<sup>7</sup>

Many of our participants engage in sex with men and only use condom if the man demands it. Moreover, these women frequently engage in concurrent sexual relationships with both men and women without using any protection. Apart from the bisexual behavior, studies have reported WSW also engage in sex with men who have sex with men (MSM), and with HIV-infected male partners; WSW also engage in transactional sex; and also engage in substance abuse.<sup>7,13</sup> These high-risk sexual behaviors expose WSW to STIs. Research has shown WSW high-risk sexual behaviors practices have increased risk of contracting STIs compared to WSW who report sex exclusively with women.<sup>7</sup>

Another reason for non-use of protection is high cost of the protective devices. WSW reported that protective devices (dental dams, finger condoms and lubricants) are expensive and not available. High cost of the protective devices discourages use among the WSW. As a consequence of scarcity and high cost, some WSW resorted to the use of Vaseline petroleum jelly, coconut oil, and cooking oil as alternatives to lubricants, which may have potential negative health effects on the WSW. Related studies have reported similar experiences among WSW with the belief that dental dams and female condoms are only available in major grocery stores or department store chains.<sup>10</sup> Moreover, some women use hygiene practices as a way of practicing safe sex with their partners. They indicated washing before and after sex, sanitizing sex toys, avoiding oral sex during menstruation to reduce the chances of infection. This practice is recommended as a way to ensure safe sex and is widely practiced among the WSW and other types of sexual relationships.<sup>9</sup>

Again, many WSW in monogamous relationships do not use protection during sex.<sup>11</sup> WSW who reported monogamous relationships with faithful partners that knew their HIV and STIs status did not use protection. Many women believe that WSW is risk free; hence, they do not worry about contracting STIs from monogamous relationships. This finding has also been reported in similar studies where women in relationships require STI screening because they are not using protection during sex.<sup>9</sup> Other reasons for non-use of protection include the belief that use of lubricants may cause vaginal infections and cancer in the long run. While some other women were advised by their doctors against using lubricants because the vagina can self-lubricate and use of artificial lubricants can disturb the natural biology in the vagina. Lack of knowledge on safe sex among the WSW may also

contribute to the non-use of protection during sex. Some WSW in this study lacked information on the availability and use of protective devices. Participants reported being unaware of the existence of protective devices applicable to them (dental dams, finger condoms, gloves and lubricants) and how these devices can be accessed.

This lack of knowledge may be contributed by the invisibility of this key population's existence in the society and misconceptions about their health behaviors and concerns.<sup>5</sup> Because of this invisibility, WSW have not been targeted by sexual behavior campaigns, as compared to the general population or even the other key populations (MSM, FSW, IDUs and the like). Marginalization of WSW continues to fuel the misinformation, confusion and incorrect assumptions regarding STIs risk among the WSW.<sup>5</sup> This population is in need of accurate information with regard to barrier methods availability and use for safer sex. Research studies have suggested the need for accurate information on safer sex options among WSW and that health care providers should assist WSW to apply their existing knowledge of heterosexual STI transmission to WSW relationships.<sup>4,8-10,12</sup>

## CONCLUSION

Given the current evidence of overlap between the homosexual and heterosexual populations in STI transmission, comprehensive education on potential routes of STI transmission in WSW is critical. An understanding of the context surrounding their increased risk for STIs may inform development of appropriate sexual health services tailored to this population. WSW have specific health care needs, but a lack of awareness among health care professionals and false perceptions may lead to ill-informed advice and missed opportunities for the prevention of illness. WSW's lack of access to inclusive prevention and healthcare services and an unwillingness to seek treatment are often fuelled by stigma and discrimination.

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