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Research Article

Types of Sex Practiced among Selected Communities in Tanzania: Implications to HIV and AIDS Interventions

Switbert R Kamazima[1*], Deodatus CV Kakoko[1], and Idda H Mosha[1]

[1]Behavioral Sciences Department, School of Public Health and Social Sciences, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Abstract

Human beings express their sexuality in different ways. However, some of the practices may pose health risks including high risk to HIV and AIDS. The objective of the study was to document types of sex and sex practices common among selected communities in Tanzania so as to expand an understanding of sexual practices that have implications to HIV and AIDS. We re-analyzed data from a previous formative qualitative study we conducted in 2012 that involved 8 brothel and street-based female sex workers from Dar es Salaam as well as 16 key informants from the rural general population and 16 key informants from the urban general population from Tanga Region. Data were analyzed using content analysis approach. Participants mentioned and explained different sex types that they considered to be common. The major types of sex practiced in their areas were penile-vagina penetration, heterosexual anal intercourse and breast sex. Other types reported included masturbation, telephone sex and rubbing penis in folding/folded body parts like armpits, between buttocks and behind the knee. Our paper reveals numerous sexual practices. Such findings are important in the context of HIV and AIDS as they provide information for interventions that consider variance of sexual practices that exist in communities. Nevertheless, it may still be vital to carry out studies that disentangle specific context and drivers for different sexual practices in Tanzanian communities.

Keywords: Sexual Practices; Types of Sex; Sexology; Public Health Interventions; Qualitative Study; Tanzania

Introduction

Human sexual practices are normal, healthy part of life [1]. Accordingly, people engage in a variety of sexual acts. On the one hand, sexual activity can be classified in a number of ways: acts which involve one person normally called autoeroticism, for example, practicing masturbation [2]. This can involve use of dildos, vibrators, anal beads, and other sex toys, though these devices can also be used with a partner [3]. On the other hand, sexual practice can involve two or more people such as vaginal sex, anal sex, oral sex or mutual masturbation [2,4]. If there are more than two participants in the sex act, it may be referred to as group sex.

There are also sexual practices which are intended to arouse the sexual interest of another or enhance the sex life of another person, for example, hugging, petting, fondling of breasts or genitals which result in sexual fantasy [5]. Such practices take place in varying patterns of frequency, for a wide variety of reasons.

In both solitary and socio-sexual behavior there may be activities that are sufficiently unusual to warrant the label deviant sexual behaviors, that is, sexual activities that are not common in the society. For example, in most communities sexual behaviors including fetishism (the object of sexual desire is either an inanimate object or a non-genital part of the human anatomy), voyeurism (the covert viewing of other individuals who are naked, undressing, or engaged in sexual activity) and chronophilia (the primary sexual attraction is to a particular age group) are considered deviant [6].

***Corresponding Author:** Switbert R Kamazima, Behavioral Sciences Department, School of Public Health and Social Sciences, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania, E-mail: skamazima@gmail.com

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Moreover, some sexual practices are considered illegal. An example of a criminal offence in most jurisdictions is sexual activity with a person below age of consent [5]. Also, in many countries particularly in sub-Saharan Africa, sexual activity between two consenting adults of the same sex is punishable. For instance, Tanzania criminalizes homosexual acts and an attempt to commit sodomy is punishable [7].

The current study set out to fill a gap in knowledge regarding sex practices in Tanzania. The objective of this study was to document types of sex and sex behaviors and practices common among selected communities to expand our understanding of sexual behaviors and practices that have implications to HIV and AIDS and sexuality research and interventions in Tanzania.

Materials and Methods

We re-analyzed data from a previous formative qualitative study we conducted in 2012 to examine heterosexual anal intercourse (HAI) within the context of increased risk of HIV infection in Tanzania. A full presentation of methodology used for that formative study is presented in [8,9,10]. In that study, we used four sites: Tanga, Morogoro, Mwanza and Dar-es-Salaam regions. We targeted rural and urban general population in Tanga region; truck drivers in Morogoro town and a rural general population in Ifakara, Morogoro region; females in food and recreational facilities (FRFs), men and females in fishing industry in Mwanza region and brothel and street-based female sex workers (FSWs) in Dar-es-Salaam. However, for the purpose of this paper, findings from Dar-es-Salaam (FSWs) and Tanga (general urban and rural populations) sites are presented. Our key informants included eight FSWs from Dar es Salaam; 16 (8 males, 8 females) from rural general population and 16 (8 males, 8 females) from urban general population from Tanga Region. The key informants were selected from focus group discussion (FGD) participants who demonstrated high knowledge of issues under the study. In order to clarify concepts and reported experiences, each key informant was interviewed more than once.

During the in-depth interviews (IDIs), the study participants were asked to report on the types of sex and sex practices common among their community members.

The Tanzania national language, Kiswahili, was used in data collection and then results were translated into English. Data were analyzed in three stages. In the first stage, researchers read through the IDI and FGD transcripts and developed broad codes. These codes were both a priori as well as grounded in the data. In the second stage, finer codes were developed from further reading of the transcripts and discussions among the researchers across the collaborating institutions and researchers. All data collected was entered in NVivo 10 software for coding. In the third stage, we examined the individual codes for emerging patterns with regard to the connection between concepts related to participants' awareness of types and sex behaviors and practices common in their areas.

We only sought consent of parents or legal guardians for participants less than 18 years (16-17 years) from the general population. However, we sought a waiver on parental consent for the key population groups, the FSWs and women working in FRFs, because such women were considered 'independent minors' and in most cases, it was not possible to identify their parents or legal guardians in the areas where they were recruited for this study.

The Ifakara Health Institute Review Board and the Medical Research Coordinating Committee of the Tanzania National Institute for Medical Research (NIMR) granted ethical clearance for this study. We provided information about the study to the participants in Kiswahili using the approved consent forms. We read the consent form to illiterate or vision impaired study participants. Given the sensitive nature of the HAI/anal sex topic being studied, verbal consent was sought and obtained from each study participant.

Results

Study participants were asked to mention different sex types common among their community members. The main objective was to document types of sex and sex behaviors and practices common among selected communities to expand our understanding of sexual behaviors and practices that have implications to HIV and AIDS and sexuality research and interventions in Tanzania. Table 1 presents a summary of findings.

The study participants identified penile-vagina penetration or *kutombana,* oral or *kunyonya* (vaginal, anus, penis or groins sucking), HAI (male on female)/anal sex (male on male, female on female and female on male) or kufira and breast sex as the major types of sex practiced in their areas. Other types reported included masturbation or *punyeto*, telephone sex and rubbing penis in folding/folded body parts like armpits, between buttocks and behind the knee [posterior of the knee or popliteal] or *kupiga brashi* (IDI, FSW, Dar-es-Salaam). A male interviewee in Tanga and a FSW interviewed in Dar-es-Salaam, for example, noted, "There are four main types of sex practiced in this area… penile-vagina penetration, oral (vagina, anus, penis or groins sucking), anal and breast sex… However, the majority prefer the first three types than the latter (IDI, FSW, Dar-es-Salaam; IDI, Male, Tanga Urban). Another male aged 28 in Tanga added, "I know four types of sex practiced in our area … Penile-vagina penetration, anal sex, oral sex and breast sex" (IDI, Male, Tanga Rural).

Table 1: Reported sex types practiced among studied communities

Type of sex	General population		FSWs	Interpretation
	Men	Women		
Penile-vaginal intercourse	√	√	√	Heterosexual/penis-vagina penetration.
Oral sex	√	√	√	Sucking a vagina, anus, penis or groins sucking.
Anal intercourse/sex	√	√	√	Penis-anal penetration: male to female (HAI), male to male (homosexual).
Breast sex	√	√	√	Rub the penis tightly between breasts until the male partner ejaculates; lubricants used.
Masturbation	√	√	√	Rub penis in ones lubricated hand(s) till ejaculation; females sponging/ douching vagina/clitoris with cold/warm water or lubricants or touching sexually sensitive body parts to cool down sexual arousal.
Telephone sex	√		√	Sexually stimulate a partner over the phone (verbally/use of sexual stories or sounds) until climax/best moment.
Folded parts of the body sex	√	√	√	Male rubbing the penis between female's body folds till orgasm; lubricants used.
Toy sex	√		√	Both males and females use toys to quench sex lust.
Dry sex		√	√	Sexual practice of having sexual intercourse without vaginal lubrication or vaginal drying by using various substances including herbs.

Penile-Vagina Intercourse

Penile-vagina intercourse was considered a common sexual practice. One of the male participants aged 25 contented this type of sex is the most gratifying and that it leads to psychological wellbeing. He said, "Majority [youth and adults] prefers penile-vagina penetration because it grants psychological gratification … Releases tension from the brain allowing smooth functioning of the body, brain and soul" (IDI, Male, Tanga Rural). Besides being common, penile-vagina sex was regarded moral, traditionally appropriate, legally and religiously acceptable (IDI, Male, Tanga Urban; IDI, Male, Tanga Rural). However, one of the participants observed the importance of fore-play before penetrative vaginal intercourse to facilitate each partner's sexual satisfaction (IDI, Female, Tanga Urban).

Brothel-based FSWs in Dar-es-Salaam reported douching when serving their clients. A FSW in her late 30s reported cleaning her vagina after serving each client with a liquid from herbs soaked in water that she believes kills microorganisms and makes the vagina quite clean for the next round. She stated, "I use medicinal water [from herbs obtained from her home region soaked in water] to clean my vagina after serving every client … It protects me from infections and keeps my vagina clean and tight" (IDI, FSW, Dar-es-Salaam). Street-based FSWs reported using pieces of cloth (underwear, handkerchiefs or *khanga* kept in their working small bags) to clean/dry their vaginas after serving short-time clients; failure of which they wait until they get home to clean up. FSWs offering dry sex reported, "Some of our clients demand dry sex and are ready to pay dearly for it … To satisfy their sexual needs, we use ashes, locally available herbs or lemon juice to dry our vaginas" (IDIs, FSWs, Dar-es-Salaam).

Oral Sex

Oral sex was mentioned as one of sex types practiced among the studied community members and perceived most gratifying because a woman sucks the penis (with her mouth) leading to partner's ejaculation. A male interviewee aged 28 in Tanga narrated, "A woman squeezes and sucks the penis until the partner ejaculates [in the mouth or withdraws] … It is like 'sodomizing' her through the mouth…" (IDI, Male, Tanga Rural). He further observed, "We never use condoms during anal or oral sex… If a partner is [HIV] positive and you get bruises in the anus, mouth or on the penis, you may get infected" (IDI, Male, Tanga Rural).

Another male interviewee in Tanga observed "Primary school pupils and secondary school students that are under tight social control prefer oral sex because it is fast [compared to penile-vaginal sex] and free of unwanted pregnancies and infections" (IDI, Male, Tanga Urban). A female aged 24 in Tanga reported intergenerational sex has encouraged oral sex saying, "Older male partners have made it [oral sex] a fashion … They need or demand sucking their penises, groins or anus to sexually stimulate them or ejaculate" (IDI, Female, Tanga Urban). A male in Tanga reported, "My two girlfriends [one young and one older lady] are fond of oral sex … They usually ask me to suck their vaginas before intercourse … We all enjoy it" (IDI, Male, Tanga Urban).

A FSW aged 32 in Dar-es-Salaam reported, "Older men fear contracting HIV and other STIs … Others are partially impotent; hence, prefer oral sex … sucking their penises, groins or anus … for which they pay dearly …" (IDI, FSW, Dar-es-Salaam). Referring to their own experiences, a female interviewee in Tanga aged 30 and a FSW in Dar-es-salaam aged 32 noted,

"Menstruating women offer oral sex to [sexually] satisfy their partners … You know, a female has to satisfy her partner anyhow whenever he wants it" (IDI, Female, Tanga Urban; IDI, FSW, Dar-es-Salaam).

Anal Sex/Intercourse

Study participants reported that HAI is commonly practiced among their community members of all generations. Menstruating women would offer HAI to satisfy their partners; females (married an unmarried) would offer HAI to avoid unwanted pregnancies or maintaining/protecting their relationships; unmarried females would offer HAI to protect virginity; males would demand or force anal intercourse in order to show/exercise 'manhood' and 'control' over the partner and some women in need of money opt offering HAI because it pays dearly compared to other types of sex. Majority of the participants commented that HAI is increasingly becoming accepted and practiced as a result of (broadly defined) globalization.

Two FSWs in Dar-es-Salaam stated that some clients prefer inserting fingers in the anus as they have vaginal intercourse (IDIs, FSWs, Dar-es-Salaam). A male aged 29 in Tanga reported, "My girlfriend is never sexually satisfied until I insert my figure in her anus as we have [vaginal] intercourse" (IDI, Male, Tanga Urban). A FSW who reported enjoying having HAI with clients and a permanent partner stated, "In my case, I really enjoy it anally than vaginally ... Whenever I am high [after drug use] or drunk [from alcohol taking] I find it difficult reaching orgasm from vaginal penetration … Unlocking the back door [anal penetration] will do it all … I get multiple orgasms every time" (IDI, FSW, Dar-es-Salaam).

Participants from the two communities reported that lubricants like saliva, jelly or lotion, soap foam, honey or vaginal fluids are used during HAI and anal intercourse among MSMs. A male in his late 20s engaged in HAI reported,

"*To avoid bruises, I smear lubricants like cooking oil [Korie], coconut oil or soap foam on my penis before penetrating my partner's anus … If I feel it getting dry and increasing friction, I withdraw, re-smear and then continue until I ejaculate ... Mashoga too [or MSMs] use the same lubricants*" (IDI, Male, Tanga Urban).

Some FSWs recalled, "Some HAI clients would start with vagina penetration … Once the penis is wet [from vaginal fluids] they turn to the anus … They may repeat the same until they ejaculate in the vagina or anus" (IDIs, FSWs, Dar-es-Salaam). A brothel-based FSW claimed, "I serve one HAI client who sticks to the anus all the time we have the intercourse … I am used to it … I like and enjoy it … So, we do not use lubricants or a condom because HAI has low health risks (IDIs, FSW, Dar-es-Salaam). A HAI practicing male aged 33 interviewed in Tanga explained, "My [male] colleagues and I like anal sex because the anus feels tighter and affectionate for many of us … We prefer to have our penises feeling a grip … Not just like levitating in a fluid ... Moreover, it is incredibly gratifying for both partners" (IDI, Male, Tanga Urban).

Study participants were asked to mention perceived reasons why some members of their communities practice HAI and or anal intercourse. Reported reasons are summarized in Table 2.

Table 2: Reported reasons for practicing in HAI

Reason	General population		FSWs	Interpretation
	Men	women		
a) **For men**				
Attraction to females morphology especially big buttocks	√			Some males perceive big buttocks a sign of good anus to penetrate.
Longing for dry sex	√		√	The anus is not as wet as the vagina hence preferred for dry sex
Seduced by partner	√	√	√	Some females trick their partners to have HAI by offering styles that make it easy for penile-anal penetration or a female holds the penis leading it into her anus.
Sadism	√		√	Punish or show manhood over a perceived boasting female.
b) **For women**				
Poverty	√	√	√	Forces one to offer any type and style of sex to make ends meet.

Lust for money and material things (clothes, jewelry)	√	√	√	Females desiring 'high class' life that they cannot afford would offer HAI to get money or siphon money for their partners.
Desire to have huge buttocks	√	√		Some females believe anal intercourse increases buttocks size.
Protecting relationships	√	√	√	Females in relationship consider offering HAI to their partners a protection from intruders who would be ready for it if a male asks/wants HAI.
Preserving virginity	√	√	√	Unmarried girls and women in societies where virginity is valued at marriage would offer HAI to preserve it till marriage time.
Avoid pregnancy	√	√	√	Known that HAI cannot result in pregnancy.
Itchy/irritating anus	√	√		Penile penetration helps scratching inner parts in the anus.
c) **For both men and women**				
Substance use and abuse (alcohol and drugs)	√	√	√	Substance use impairs/influences decision making.
Ignorance of HAI effects	√	√	√	Majority perceive anal sex with low risk levels.
Watching ponographic videos/movies and pictures (impact of globalization)	√	√	√	Pornographic material viewers usually end up practicing what they watch/view.
Peer pressure	√	√	√	Forces group members engage in behaviors that otherwise they would not practice; often for maintaining group membership.
Personal interest	√	√	√	Interested feeling/testing HAI menu.
Experience/habits	√	√	√	Some individuals are born inquisitive and would try what they see or hear.
Lured by older partner	√	√		Older partners seduce young partners to practice different types and styles of sex.
Sign of 'true love' to the partner	√	√	√	Some males and females perceive receiving and offering anal intercourse a sign of real love.
Desire for a different sexual feeling/ experience – a grip and warmth	√	√		Have anal sex experience compared to vagina penetration.

Longing for dry sex, sadism, seduced by partner and being attracted by a female's shape especially big buttocks were reported key reasons why males engage in HAI. Poverty, lust for money and other material things like clothes and jewelry, preserving sexual/marital relationships or virginity and avoiding unwanted/unplanned pregnancies were reported main reasons why females engage in HAI. In addition, substance use and abuse, watching pornographic materials, peer group pressure, personal interest, seduced by older partner and a sign of 'true love' were reported drivers for HAI among males and females in the study areas.

Study participants reported anal sex was common among men-who-have-sex-with-men (MSM) or *mashoga*. A FSW in Dar-es-Salaam reported existence of male sex workers (MSWs) in the city saying, "There are men and boys who walk along some streets or seek and meet male clients in some recreational places … Certainly, they offer anal sex to their clients" (IDI, FSW, Dar-es-Salaam). In Tanga, majority of the participants knew MSM in their communities. A male aged 30 interviewed stated, "There are a lot of *wasenge* [or receptive] and *mabasha* or [insertive] in this town … They operate openly on streets like [names] and recreational areas like [names] ... I can take you there if you are interested witnessing what goes on there" (IDI, Male, Tanga Urban).

Breast Sex

Participants reported that some men get sexually satisfied (ejaculate) by rubbing their penises between or under the partner's breasts commonly known as '*kupiga brashi kwenye maziwa.*' A young FSW aged 24 claimed "Males who cannot attain total erection prefer oral sex or brushing their penis between breasts until they ejaculate" (IDI, FSW, Dar-es-Salaam). A male youth interviewed in Tanga reported, "Schools girls prefer breast sex because it is free from pregnancy or STIs including HIV infection" (IDI, Male, Tanga Urban). A FSW in Dar-es-Salaam commented, "Menstruating females would offer breast or oral sex to cool down their partners' sexual desire [ejaculation]" (IDI, FSW, Dar-es-Salaam). A brothel-based FSW in Dar-es-Salaam reported, "I never have sex [vaginal penetration] without a condom [male or female] … If I do not have one I advise my clients *'kupiga brashi'* … Many clients like it because all they want is '*kushusha mzigo*' [ejaculation] (IDI, FSW, Dar-es-Salaam). A female in Tanga aged 32 who reported offering breast sex attested,

"*Many of my clients get attracted by my big breasts and ask for breast sex … I smear a lubricant like saliva, soap foam, jelly or honey allover the breasts [the chest] … I gently press the penis between or under the breasts and let him go rubbing until he ejaculates … Some would go for three to four rounds … It [breast sex] is safe, free from infections and not physically [in terms of energy] or psychologically [in terms of intercourse outcome] demanding like HAI or vaginal sex*" (IDI, Female, Tanga Urban).

A male aged 28 interviewed in Tanga stated, "Women with huge breasts rub the penis in between them until the partner ejaculates" (IDI, Male, Tanga Urban).

Rubbing penis in folded parts of the body: buttocks, armpits, stomach, behind the knee (posterior of the knee or popliteal)

Several members of the general population in Tanga and FSWs in Dar-es-Salaam observed that older men and males in fear of HIV infection prefer rubbing their penises in folded parts of the body like armpits, between the thighs or buttocks, between the belly and groin, folds on the stomach and behind the knee [posterior of the knee or popliteal]. A FSW interviewed in Dar-es-Salaam reported, "Some men do not want vaginal intercourse but rubbing their penises in folded parts of the body like buttocks, stomach or armpits … As you can see, I am so fat with several folds on my body that clients enjoy rubbing their penises to reach orgasm" (IDI, FSW, Dar-es-Salaam). Another FSW in Dar-es-Salaam reported, "My clients like it [breast sex or rubbing] and pay dearly for these services I offer" (IDI, FSW, Dar-es-Salaam).

Participants experienced in this type of sex reported often using/applying lubricants like saliva, soap foam, jelly or honey to increase sexual arousal. A male in Tanga observed, "Rubbing my penis in a lubricated folded part of the female's body makes me feel like having vaginal intercourse" (IDI, Male, Tanga Urban).

Masturbation

Masturbation or *punyeto* in Kiswahili was mentioned as one form of sex engaging both men and women. One of the participants, a male aged 25, considered masturbation to be easy to practice, cheap and less time-consuming stating, "The males rub their penises in their hands smeared with lubricants like soap foam, oil or jerry until they ejaculate [masturbate] … The women sponge their vaginas with warm or cold water to cool down their sexual desire (IDI, Male, Tanga Urban). A FSW in Dar-es-Salaam considered masturbation free of infections and one does not need a partner to enjoy it saying, "Masturbation is convenient, glorifying and risk free" (IDI, FSW, Dar-es-Salaam). A male youth interviewed in Tanga narrated, "Masturbation plays a role of self-stimulation in form of imagination ... It is also meant to bring sexual gratification to the person performing it" (IDI, Male, Tanga Urban).

Telephone Sex/Phone Sex

Our study participants observed that increased ownership of and access to handsets or mobile phones has facilitated use of phones to sexually stimulate a partner at a distant location till climax/best moments or masturbation. A FSW interviewed in Dar-es-Salaam stated, "Many people of all generations have now turned to phone sex where they remotely and verbally stimulate the partner till one or both reach mind-orgasm [masturbate]" (IDI, FSW, Dar-es-Salaam). A male in his late 20s and a businessman reported, "I have a girlfriend who recently moved to Mwanza with her parents … We can no longer have sex … However, we converse [at night] over the phone in lovely tone … Sometimes I or both of us reach orgasm [masturbate] … Thanks to this technology" (IDI, Male, Tanga Urban).

A brothel-based FSW in Dar-es-salaam with a long-distance truck driver permanent (sexual) partner reported,

"*My husband [permanent/longtime partner] oriented me to having sex over the phone two years ago … Since then, we do not miss sex … Whenever he is away, we talk over the phone about memorable sexual and lovely moments we have had together … In the beginning it was difficult for me to reach orgasm [masturbate] … I am now used to it and I enjoy it that I hit climax after a few minutes of a lovely conversation … [adding] Thanks to technology … We may start by sending each other nude pictures … Sometimes we have it live over the phone*" (IDI, FSW, Dar-es-Salaam).

Discussion

Our study findings indicate that members of studied communities engage in different types of sex and different sex behaviors and practices: penile-vaginal intercourse, oral sex (anilingus and cunnilingus), anal intercourse/ sex, breast sex, masturbation, telephone sex, folded parts of the body sex, toy sex and dry sex. With the exception of penile-vaginal intercourse, the rest were perceived and reported as 'new' attributed to increased globalization and its discontents. Access to uncontrolled pornographic materials on the internet and mobile phones, partial impotence, fear of contracting STIs including HIV, avoiding unwanted/unplanned pregnancies, curiosity, maintaining relationship/ virginity, substance use and abuse, unawareness of health consequences and a sign of true love were reportedly key predisposing factors for this change (IDIs, Tanga and Dar-es-Salaam).

The risks of HIV transmission and sexual and reproductive health education have influenced a number of research studies on sex types, behaviors and practices worldwide. In Tanzania, for instance, such researches focus on vaginal intercourse, anal-penis penetration (or the insertion and thrusting of the erect penis into a person's anus, or anus and rectum, for sexual pleasure) and oral sex (vagina or penis sucking) as isolated practices. However, as [11,12,13] and our findings show, partners would engage in different types of sex, behaviors and practices simultaneously. For example, as part of foreplay, couples or partners would engage in oral sex for sexual arousal: vagina, anus and penis sucking or fingering, use of a dildo or other sex toys [14] or could engage in breast sex or rubbing. At full erection, they may switch to vaginal intercourse. Once the penis gets wet/lubricated (from vaginal fluids) the male would insert and thrust it into a partner's/spouse's anus, or anus and rectum. The male may switch between anal and vaginal intercrosses until he ejaculates (IDIS, Tanga and Dar-es-Salaam).

Several studies have shown that unprotected penile-anal penetration or anal intercourse (male to male; male to female), carries a higher HIV risk higher than penile-vaginal intercourse [15,16]. The risk estimates of HIV infection through unsafe anal sex range from 10 times [17,18] to 18 times [19] to as high as 20-fold [20]. Voeller [21] reported that anal penetration carries HIV risk for women higher than that of penile-vaginal intercourse just as receptive anal intercourse carries a high risk for males. Unsafe receptive anal intercourse carries a risk of 0.5% to 3.38% [20,22] and insertive anal intercourse has a risk estimate of 0.06% and 0.16% [17,20]. Reporting on risks of HAI, Adams [23] noted,

"A related and in my opinion pretty stupid risk is when the sex starts in the back [anus or anus and rectum] and winds up in the front [vagina] … Unless the man rinses himself off [his penis] first, or swaps the dirty condom for a clean one, he could transfer fecal matter and bacteria into the woman's vagina".

Other infections that can be transmitted by unprotected anal sex include human papillomavirus (HPV), which can increase risk of anal cancer; typhoid fever; amoebiasis; Chlamydia; cryptosporidiosis; E. coli infections; giardiasis, gonorrhea; hepatitis A, hepatitis B, hepatitis C, herpes simplex; Kaposi's sarcoma-associated herpesvirus (HHV-8); lymphogranuloma venereum; *Mycoplasma hominis, Mycoplasma genitalium*, pubic lice; salmonellosis; shigella, syphilis, tuberculosis and *Ureaplasma urealyticum* [24].

Breslaw and Smothers [25] observed, "Most STIs are transferrable through the anus (chlamydia, gonorrhea, infectious hepatitis and HIV) ... Some even more so, because the lining of the anus is much more thin and can be broken more easily if too much dry friction occurs". The Center for Disease Control and Prevention (CDC) [26] warned, "Anal sex is the riskiest sexual behavior for getting and transmitting HIV for men and women." Moreover, receptive anal intercourse even carries a risk 2 times greater than that of needle-sharing during injection drug use.

Oral sex has low but non-zero risk. However, Varghese, et al., [15] observed,

"*Although oral sex has a lower risk of transmitting HIV than vaginal or anal sex, the behavior is not without any risk … Oral sex can transmit HIV and other STIs (e.g., syphilis, gonorrhea, chlamydia) … Recently, oral sex and human papillomavirus have been associated with oropharyngeal cancer … A review of oral sex and nonviral STI transmission identified fellatio (oral-penile sex) as a risk factor for STI transmission for the oral sex partner; however, the same risk was not evident for an oral sex partner engaging in cunnilingus (oral-vaginal sex)".*

According to Wikpeia.org [14]

"Masturbation is the sexual stimulation one's own genitals for sexual arousal or other sexual pleasure, usually to the point of orgasm" The stimulation may involve hands, fingers, everyday objects, sex toys such as vibrators, or combinations of these … Manual stimulation of a partner, such as fingering, a handjob or mutual masturbation, is a common sexual act and can be a substitute for penetration. Studies have found that masturbation is frequent in humans of both sexes and all ages, although there is variation. Various medical and psychological benefits have been attributed to a healthy attitude toward sexual activity in general and to masturbation in particular. No causal relationship is known between masturbation and any form of mental or physical disorder".

Studies show that regular ejaculation, at least 21 times a month [27,28] lowers risk of prostate cancer and that mutual masturbation (masturbation involving both a man and a woman) can result in pregnancy only if semen contacts the vulva [14]. Other studies, however, have concluded that excessive masturbation has some side effects. Masturbation can increase chances of labor, hence, is not safe for women with high-risk pregnancies [27]. Scaccia,[28] observed that due to religious (dirty), cultural (shame) and spiritual beliefs, some persons may feel guilty about masturbating and spending too much time masturbating can and develop addiction that could harm their relationships and other parts of their lives.

Masturbation probably has a bad reputation because it is an intensely private sexual behavior, which no one discusses even with the closest of friends [27]. The implication is that with increased medicalization, doctors, nurses and counselors in resource scarce countries like Tanzania, would be compelled to provide talk therapy to masturbation addicts, which might have not been part of their training.

FSWs reported using medicinal water (from soaked herbs obtained from home regions) for douching between intercourses and using ashes, locally available herbs or lemon juice to dry their vaginas and get their vaginas tight and clean before the next round or offering dry sex, which they claimed had no side effects. Without any study on these substances' effects to the users' health in this country, we could not conclude any from this study. However, studies from other parts of the globe have suggested that douching (the washing or cleaning out the inside of the vagina with water or other fluids) is common among young and old women. van Zyl, [29] reported "Women make their own douching concoctions using water, vinegar, baking soda, yoghurt, cinnamon, milk, Stoney, Lemon Twist or iodine". Scientifically, the vagina is self-cleaning organ that does not need assistance in the cleaning process. Douching, therefore, strips the vagina the bacteria that help it clean, which could lead to severe dangers [28] like bacterial vaginosis (watery or milky vaginal discharge with very fishy smell), vaginal thrush and pelvic inflammatory diseases (PID); STIs including human papillomavirus, genital herpes, gonorrhea and chlamydia. The medical consequence and public health importance of STIs is that infected persons may have no symptoms; they do not have regular check-ups, thus unaware of their ability to pass the infections to their partners. If left untreated "they can cause serious health problems including cervical cancer, liver cancer, PIDs, infertility and pregnancy problems" [29].

According to Women Voices [30], modern lubes have side effects too rising concerns including: the pH (acidic or alkaline) should range 3.8-4.5 above which increases risk of bacterial vaginosis; osmolality and toxic chemicals found in them such as chlorhexidine gluconate, parabeans (methylparabean and/or propylparabean), cyclomethicone, cyclopentasiloxane and cyclotetrasiloxane and undisclosed flavors or fragments. The implication is that ignorance and unawareness of lubricants' side effects, illiteracy and poor handling of products could have more health complications in countries with limited resources and poor product quality control.

Lesbianism, the homosexual relationship between women or the preference that a woman shows for sexual relationships with women was not well captured in this study but not nullifying it exists. According to Wickpedia [24], "Prior to colonization and the spread of Christianity and Islam in Tanzania, homosexuality and same-sex sexual acts were accepted and commonplace among numerous modern-day Tanzanians ethnic groups, including the Swahili people [along the East Coast] the Maasai people and the Kuria people, among others". Some of our study participants in Tanga mentioned lesbian practices are surfacing in the region and could not associated these practices with any health problem. However, studies from other parts of the globe provide a light on lesbians' sexual risk behaviors. Eowyn [31] for example, reported an Australian study did find,

"*Lesbians to be more promiscuous than straight women … Lesbian relationship is short lived (17.3% of lesbians had relationships that lasted more than 3 years) ... 93% of lesbians reported having had sex with men ... Other studies similarly show that 75-90% of women who have sex with women have also had sex with men ... Lesbians were 4.5 times more likely than heterosexual women (9% of lesbians vs. 2% of heterosexual women) to have had more than 50 lifetime male sex partners. In addition to diseases that may be transmitted during lesbian sex, a study at an Australian STD clinic found that lesbians were 3 to 4 times more likely than heterosexual women to have sex with men who were high-risk for HIV*".

The public health importance and medical consequence of this promiscuity is that lesbians have a likelihood of contracting HIV and AIDS, syphilis and other STIs from high risk and the general populations. Certainly, this finding suggests that because lesbians have sexual partners in the highest-risk groups and other partners; they are another 'bridge population' [32] forming a transmission bridge from the highest-risk groups (HRG) to the general population.

Despite available evidence that penile- anal penetration and oral sex have high risks of transmitting HIV and STIs, many people engaged in these behaviors and practices think that because there is no pregnancy risk they do not need to use a condom [25]. As a result, studies have documented low and inconsistent condom use among samples studied. A Cross-sectional survey on a convenience sample of 5,037 patrons in a peri-urban township of Cape Town, South Africa, for instance, found that 15% of men and 11% of women reported anal intercourse in the previous month, with 8% of men and 7% of women practicing any unprotected anal intercourse [34]. A HIV behavioral and biological surveillance survey among female

sex workers in Dar-es-Salaam, 2010, reported that only 18.3% of the 357 sample had ever used a condom [33]. Wikipedia [24] asserts,

"Although anal sex alone does not lead to pregnancy, pregnancy can still occur with anal sex or other forms of sexual activity if the penis is near the vagina (such as during intercrural sex or other genital-genital rubbing) and its sperm is deposited near the vagina's entrance and travels along the vagina's lubricating fluids … The risk of pregnancy can also occur without the penis being near the vagina because sperm may be transported to the vaginal opening by the vagina coming in contact with fingers or other non-genital body parts that have come in contact with semen".

Similarly, CDC [26] reported that using condoms consistently reduced the risk of acquiring HIV on an average of 63% for insertive anal intercourse and 72% for receptive anal intercourse with an HIV-positive partner. But because "condoms are not 100% effective" the CDC (2016) advises that "consider using other prevention methods to further reduce your risk." That would require taking a medication, pre-exposure prophylaxis (PrEP), which has to be taken consistently.

We have no evidence of health consequences associated with breast sex, telephone sex and folded parts of the body sex. However, behaviors and practices around them could have social and policy implications. Experience of engaging in low risk sexual behaviors and practices coupled with peer pressure, substance use and abuse (alcohol and drugs), ignorance of risks involved, watching ponographic materials (videos/movies and pictures), personal interest, desire for a different sexual feeling/experience or being lured by an older and experienced partner could persuade participation in risky sex behaviors. Discussing pros and cons (health concerns) of phone sex, Fernandes [35] wrote,

"Phone sex is usually practiced between couples, mainly distance relationship … It has its positive and negative impact on your mind and body ... Maybe it is fun and a temporary time pass of having a good time. Phone sex also relieves stress and gives relaxation. The relationship grows closer than ever before ... But the true fact is that you can't ignore the negative effects on your health, mainly on your mind. Phone sex can be very dangerous today; it can be recorded and you can be at risk ... Technology can bring a big trouble and your personal life can be exposed ... It is dangerous when you get addicted and suffer. You can be a strong addict of phone sex which is very tough to quit".

The implication is that young and adult Tanzanians engaging in low risk sexual behaviors and practices may become addicted, which could be difficult to avoid and thus need medical attention from already over burdened healthcare providers: counselors, nurses and doctors.

Policy/Legal Implications

Our study findings have policy and legal implications too. Although anal sex is somehow becoming tolerable among some groups and communities in the country [8,9,10,13] it is still largely socially and culturally a taboo, unaccepted and illegal in Tanzania. The Penal Code Cap. 16 (RE of 2002) Unnatural Offence Contrary to Section 154 of the Penal Code states,

(1) Any person who – (a) has carnal knowledge of any person against the order of nature; or (b) has carnal knowledge of an animal; or (c) permits a male person to have carnal knowledge of him or her against the order of nature, commits an offence, and is liable to imprisonment for life and in any case to imprisonment for a term of not less than thirty years. (2) Where the offence, under subsection (1) of this section is committed to a child under the age of ten years the offender shall be sentenced to life imprisonment.

Section 155 reads, "*Any person who attempts to commit any offences specified under 154, commits an offence and shall on conviction be sentenced to imprisonment for a term not less than twenty years.*" The implication is that Tanzanians and foreigners engaging in anal sex if convicted and found guilty could face imprisonment for life or imprisonment for a term of not less than thirty years irrespective of their motives to practice anal sex.

Similarly, Part II Section 14 of The Cybercrimes Act, 2015 states,

(1) A person shall not publish or cause to be published through a computer system or through any other information and communication technology:

(a) pornography; or

(b) pornography which is lascivious or obscene.

(2) A person who contravenes subsection (1) commits an offence and is liable on conviction, in the case of publication of-

(a) pornography, to a fine of not less than twenty million shillings or to imprisonment for a term of not less than seven years or to both; and

(b) pornography which is lascivious or obscene, to a fine of not less than thirty million shillings or to imprisonment for a term of not less than ten years or to both.

The implication is that individuals engaging in telephone sex, for example,

may be ignorant of The Cybercrimes Act, 2015 thus getting into trouble with the law reinforcement machinery by sending pornographic materials on video call. Ignorantly, they would face a fine of not less than twenty million shillings or to imprisonment for a term of not less than seven years or to both a fine of not less than thirty million shillings or to imprisonment for a term of not less than ten years or to both.

Conclusion and Recommendations

This paper documents common sexual practices in selected communities of Tanzania. Importantly, the paper reveals that sexual practices are wide in range. The findings of the present paper are important in the context of HIV and AIDS as they provide information for a wide range of HIV prevention interventions that consider variance of sexual practices that exist in communities. While the present study uncovers different kinds of sexual behaviors, it is recommended to carry out studies that disentangle specific context and drivers for different sexual practices that are common in the communities.

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References

1. WHO (2006) Defining sexual health: report of a technical consultation on sexual health, 28–31 January 2002, Geneva

2. Kazaura MR, Masatu MC (2009) Sexual practices among unmarried adolescents in Tanzania. BMC Public Health 9: 373. doi: 10.1186/1471-2458-9-373

3. Wikipedia, the free encyclopedia. Toy sex.

4. Bakarouds M (2014) Outercourse: Exploring Non-penetrative Forms of Pleasurable Safer Sex. American Journal of Sexuality Education 9: 381–397.

5. McCrann D (2017) An exploratory study of child sexual abuse in Tanzania. Doctoral thesis, 2017.

6. Gavin, Helen (2009) The Psychology of Sexual Deviance. In: The [British Psychological Society] North East of England Branch 2nd Annual Conference, 26-27 June 2009.

7. The Law Library of Congress (2014) Criminal Laws on Homosexuality in African Nations. Global Legal Research Center.

8. Wamoyi J, Aika M, Mtenga S, Kakoko D, Donat S, et al. (2015) A qualitative study of discourses on heterosexual anal sexual practice among key, and general populations in Tanzania: Implications for HIV prevention. BMC Public Health 15: 417.

9. Mtenga S, Shamba D, Wamoyi J, Kakoko D, Haafkens J, et al. (2015) How long-distance truck drivers and villagers in rural southeastern Tanzania think about heterosexual anal sex: A qualitative study. Sex Transm Infec 91(8): 576-580.

10. Kamazima SR, Kakoko DVC (2017) Terms around heterosexual anal intercourse: Resources for behavior change communication in Tanzania. JSD 1(1): 80-95.

11. Leichliter JS, Chandra A, Liddon N, Fenton KA, Aral SO (2007) Prevalence and Correlates of Heterosexual Anal and Oral Sex in Adolescents and Adults in the United States. J Infect Dis 196(12): 1852–1859.

12. Tian LH, Tao G, Peterman TA, Brooks LC, Metcalf C, et al. (2008) Heterosexual anal sex activity in the year after an STD clinic visit. 35(11): 905-909.

13. Kamazima SR, Kazaura MR, Kakoko DVC (2018) Heterosexual anal intercourse causes obstetric fistula": implications for promoting timely obstetric fistula care seeking behavior in Tanzania. BAOJ HIV 4: 039.

14. Wikipedia, the free encyclopedia. Anal sex.

15. Varghese B, Maher J, Peterman T, Branson B, Steketee R (2002) Reducing the risk of sexual HIV transmission: quantifying the per-act risk for HIV on the basis of choice of partner, sex act, and condom use. Sex Transm Dis 29(1): 38-43.

16. Kelly-Hanku A, Andrew V, Wing Y, Nicola M, David W, et al. (2013) A systematic review of heterosexual anal intercourse and its role in the transmission of HIV and other sexually transmitted infections in Papua New Guinea. BMC Public Health 13: 1108.

17. Vittinghoff E, Douglas J, Judson F, McKirnan D, MacQueen K, et al. (1999) Per-contact risk of Human Immunodeficiency Virus transmission between male sexual partners. Am J Epidemiol 150(3): 306-311.

18. Gray RH, Wawer MJ, Brookmeyer R, Sewankambo NK, Serwadda D, et al. (2001) Probability of HIV-1 transmission per coital act in monogamous, heterosexual, HIV-1-discordant couples in Rakai, Uganda. Lancet 357(9263): 1149-1153.

19. Pebody R (2010) HIV transmission risk during anal sex 18 times higher than during vaginal sex.

20. Boily MC, Baggaley RF, Wang L, Masse B, White RG, et al. (2009) Heterosexual risk of HIV-1 infection per sexual act: Systematic review and meta-analysis of observational studies. Lancet Infect Dis 9(2): 118-129.

21. Voeller B (1991) AIDS and heterosexual anal intercourse. Arch Sex Behav 20(3): 233-276.

22. Public Health Agency of Canada (2012) HIV transmission risk: A review of the evidence. Ottawa: Government of Canada.

23. Adams C. (nd). What are the risks of heterosexual anal sex?

24. Wikipedia, (nd. a). LGBT rights in Tanzania. The free encyclopedia.

25. Breslaw A, Smothers H (2018) The14 Biggest Misconceptions About Anal Sex: Two sexologists debunk the myths around anal sex that it's time to ditch, once and for all.

26. The Center for Disease Control and Prevention (CDC) (2016). "Anal Sex and HIV Risk" Fact Sheet.

27. Practo, (nd). (2018) Male Masturbation: Side Effects, Benefits, and Risks.

28. Scaccia A (2017) Masturbation Effects on Your Health: Side Effects and Benefits. Healthline.

29. van Zyl, S. 2018. The dangers of vaginal douching. Spotlight.

30. Women Voices (2017) Potential hazards of Lubricants for Women. Slipery Slope- Fact Sheet.

31. Eowyn Dr (2011) What They'll Never Tell You In "Homosexual Education."

32. NACP, India (nd.). The Operational Guidelines for Targeted Interventions for High Risk Groups (HRGs). New Delhi.

33. Ministry of Health and Social Welfare/National AIDS Control Program (MoHSW/NACP) (2012) HIV behavioral and biological surveillance survey among FSWs in Dar-es-Salaam, 2010. Dar-es- Salaam.

34. Kalichman SC, Pinkerton SD, Carey MP, Cain D, Mehlomakulu V, et al. (2011) Heterosexual anal intercourse and HIV infection risks in the context of alcohol serving venues, Cape Town, South Africa. BMC Public Health 11: 807.

35. Fernandes S (2018) Phone Sex: Pros and Cons. Practo.