CSIRO PUBLISHING & **MINNIS** COMMUNICATIONS
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Review
Sexual Health, 2005, **2**, 209–217

Risks and prevention of sexually transmissible infections among women who have sex with women

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Abstract. Health care providers working with women who have sex with women (WSW) have been ill-informed about a range of sexual health issues for these women. Pertinent issues include sexual behaviours that carry risks of sexually transmissible infection (STI), prevention strategies for safer sex and understanding experiences of abuse. A relative silence continues in all of these areas within the mainstream medical literature, textbooks, research and policy documents, which perpetuates medical ignorance. There is evidence that the prevalence of STIs among WSW is at least as high as among heterosexual women, if not higher among some sub-groups. Risk factors include the sex and number of sexual partners, minimal use of protected sexual behaviours and low levels of knowledge of STI prevention among WSW. Importantly, marginalisation leading to poorer mental health and experiences of abuse can combine to influence risk taking including substance abuse and risky sexual behaviours. Safe-sex guidelines and the need to recognise the impact of sexual abuse are presented.

Additional keywords: bisexual women, lesbian women, risk factors, safe sex, sexual abuse, sexually transmissible infections.

Introduction

Women who have sex with women (WSW) have significant risks for sexually transmitted infections (STIs) and are more likely than other women to have experienced sexual abuse. These issues require attention by health care professionals. In the present paper, I will argue that the medical system and health care providers have systematically ignored the sexual health needs of WSW. I will present some of the burgeoning literature on the prevalence and risk factors for sexually transmitted infections among WSW, as well as issues pertinent to clinicians related to sexual abuse. This literature shows that the prevalence of STIs among WSW is equivalent to that among heterosexual women and appears to be higher in some sub-groups. The prevalence of a lifetime history of sexual abuse is consistently found to be higher. This paper will be a limited presentation on the sexual health of WSW in order to deal with these issues in enough depth, therefore I will not cover sexual dysfunction, sexual identity issues, reproductive issues or intimate partner abuse for WSW. The literature that I present has a predominantly biomedical focus, and I target my paper towards general practitioners and sexual health physicians.

There are many ways to define women who are not exclusively heterosexual. These include sexual self-identity (such as lesbian, bisexual, gay, queer), which often also implies a community connection with women who similarly identify; sexual attraction; and sexual behaviour.[1] International population-based studies indicate a prevalence of lesbian and bisexual identity of around 1.5%, with up to 8% of women reporting homosexual desire or behaviour.[2,3] Women in particular have been shown to have a very heterogeneous expression of their sexual orientation, in that there can be little congruence between various dimensions, and these inter-relationships can also change over time.[4] For the purposes of this paper, I have chosen to use the behavioural term of women who have sex with women (WSW) when referring to the literature regarding STI transmission and prevalence. I refer to lesbian and bisexual identity where issues of self-identity and community engagement are relevant, such as in describing determinants of risk and protective factors, and psycho-social factors that influence behaviour. Some of the literature in this area is confined to community-based samples of self-identified lesbians (and rarely is also inclusive of bisexual women), although over the last decade population-based studies that contain multiple dimensions of sexual orientation have emerged and these assist in clarifying issues of prevalence.[5]

10.1071/SH04046 1448-5028/05/040209

Medical responsiveness and responsibility towards WSW

I consider that there are two predominant reasons for the poor level of responsiveness among doctors towards this group of women, one relating to heterosexism and the other to poor knowledge. Heterosexism is defined as the assumption of heterosexuality, incorporating mainstream attitudes that value heterosexuality more highly than other sexualities. Repeated consumer research indicates that non-heterosexual women are assumed to be heterosexual by doctors.[6,7] If they do disclose their sexual orientation, these women are often aware that their doctors are ill informed and, at times, uncomfortable when dealing with their issues.[8] This is obvious to them both through individual consultations and through the lack of patient information that is specific to their needs. This leads to a level of dissatisfaction and lack of trust in medical care. Many lesbians avoid mainstream health care as a result of mistrust, fear of homophobic reactions or previous negative experiences.[9]

Doctors have poor knowledge of the sexual health needs of WSW, lesbian and bisexual women.[10] We also share with the community a lack of general knowledge about lesbian sexual behaviour. I have experienced the difficulty of accessing this information when I was a rural GP. It was only after I started working in a general practice specialising in lesbian, gay and sexual health, and had vastly more patients in need of advice and treatment, that I managed to prioritise a search for relevant papers. I found it difficult to find any sexual health text that includes specific information in the area, and few peer-reviewed papers are published that deal with lesbian sexuality. Medical colleges have been slow to produce guidelines for the prevention of STIs for WSW. For example, *the Australasian College of Sexual Health Physicians guidelines*,[11] and the *British Association for Sexual Health and HIV guidelines* on bacterial vaginitis do not refer to WSW at all.[12] The Centre for Disease Control and Prevention (USA) has included information about WSW in their section on HIV/AIDS;[13] however, WSW are not mentioned in their sections on women's health, bacterial vaginosis and STI treatment guidelines.[14]

At times, our medical texts are not silent, but complicit in perpetuating myths of immunity for WSW to STIs. A major review of STIs stated that '. . . homosexual behaviour between women is probably intrinsically safer for most STIs than homosexual behaviour between men, particularly anal sex, but many homosexually active women also report having sex with high-risk men, including homosexually active men or injecting drug users . . .' (page 554).[15] This review failed WSW for three reasons. First, the quotation above was the only reference to WSW in the paper, which was otherwise comprehensive and contained 143 references. More importantly, in suggesting that the risk of transmission for WSW relates to high-risk activities other than sex with women, the author ignored the evidence for transmission of most of the known STIs between women.[16] Further, the paper is totally silent on preventative activities between women.

In failing to fully address their needs, we accentuate the mistrust of the medical profession that exists for many of these women and ultimately we fail to improve their sexual health. The psychiatry field has stated that there is much yet to be done to heal the gulf between lesbian and gay patients and their psychiatrist.[17] This argument relates to the damage done by the pathologising attempts to 'cure' homosexuality that occurred until the mid 1970s. There is also a gulf to be breached for doctors dealing with sexual health, whose silence has been equally damaging.

Prevalence of STIs among WSW, lesbians and bisexual women

A number of population-based and clinic-based studies have demonstrated self-reported lifetime rates of STIs between WSW as being equivalent to those of other women, which are between 10 and 20%.[1,18] For example, in the largest study available to date of 6935 self-identified lesbians from all USA states, 17% reported a diagnosis of one or more STIs over their lifetime.[19] The incidence of self-reported diagnoses were of trichomonas 6.0%, genital human papilloma virus (HPV) 4.8%, chlamydia 4.6%, genital herpes simplex virus (HSV) 3.3%, pelvic inflammatory disease 2.0%, gonorrhoea 1.6%, syphilis 0.3% and HIV 0.1%. Infections that were not included in the survey were candida, bacterial vaginosis (BV), hepatitis B virus (HBV) and hepatitis C virus. Other studies have shown that candida, followed by bacterial vaginosis are the most commonly transmitted conditions between women.[18,20] More detail about the STIs with the strongest evidence for transmission between women will be presented below.

Bacterial vaginosis

Women who have sex with women have a higher prevalence of bacterial vaginosis than exclusively heterosexual women;[21] however, the pathogenesis of bacterial vaginosis (BV) in WSW is not clear. The question of whether sexual transmission of BV between women is possible remains controversial. One study did not find a relationship between BV and any lesbian sexual practice,[22] whereas another supported the possibility that it can be transmitted via vaginal secretions during sexual contact.[23] In the latter study, there was a 95% concordance of BV on vaginal smear between monogamous lesbian couples. Bacterial vaginosis was associated with an increased lifetime number of female sexual partners, failure to always clean sex toys and

oral–anal sex between female partners. It was not associated with recent douching or sex with men. A Sydney case-control study identified having at least one female sexual partner in the past 12 months as being the most strongly associated independent risk factor for BV.[21] At the very least, this evidence points to the concordance of BV status among the majority of lesbian couples and suggests the need to explore symptomatology for BV in the same-sex partner and potentially to offer simultaneous treatment to both women. This is particularly important for the lesbian or WSW who is planning pregnancy.

Herpes simplex virus

Herpes simplex virus (HSV) type 2 sero-prevalence among self-identified lesbians appears equivalent to heterosexual rates and is associated with history of a male sexual partner with herpes.[24] In the same group, the HSV type 1 sero-prevalence rate was 46%, with positivity directly related to the number of female sexual partners. This emerging data suggests higher rates of HSV 1 among WSW than heterosexual women and indicates that it may be an STI between WSW, but is yet to be confirmed in population-based studies. However our WSW patients need to be informed of their potentially higher risk of HSV 1 carriage and of protective strategies during sex.

Blood-borne viruses

Transmission of blood-borne viruses appears to be unusual between women, although there is the potential for increased transmission during menstruation. A fact sheet by the US Center for Disease Control (CDC) on WSW and HIV suggests that vaginal secretions and menstrual blood could be infectious and that '. . .mucus membrane (oral, vaginal) exposure to these secretions have the potential to lead to HIV infection. . .'.[13] It is also possible that the presence of vaginitis could increase the risk of transmission through increased exposure to infected white cells (HIV) or as a result of an increased likelihood of transmission through inflamed vaginal mucosa (similar to the increased risk of transmission of HIV in the presence of proctitis in men).

It appears that transmission of HIV among WSW occurs mostly through non-same-sex behaviours. A study among 498 WSW in San Francisco found a 1.2% sero-prevalence of HIV and 5.4% of HBV.[25] Risk behaviours associated with these infections were high rates of injecting drug use, needle sharing and unprotected sex with men. However, there have been isolated case reports of transmission of HIV via female sexual contact.[26] The CDC in Atlanta has published a series of case studies that confirm the likelihood that HIV can be transmitted between women during sexual contact.[27] The CDC gathered data on 109 311 women with AIDS in the USA, of whom 2220 had had same-sex sexual activity, including 347 who had had exclusively same-sex activity.[13] Two per cent of these HIV infected WSW had no other risk factor.

Cervical HPV and cellular abnormalities

Human papilloma virus infection has been demonstrated in WSW, including in significant numbers of women who have never had sex with men.[28,29] Risk of HPV transmission has been found to be associated with an increased number of male partners and the use of insertive sex toys between women.[29] Rates of abnormal cervical cytology are similar to those of exclusively heterosexual women[30] and yet lesbians have lower cervical screening rates in the USA.[31] In Australia, lesbians have been a target group for specific cervical screening campaigns in several states. A recent Victorian study of 409 lesbians showed that 66% were well screened, 22% were under-screened and 12% had never had a Pap test, although 22% had had an abnormal result.[30] These rates were similar to Victorian population-based screening rates; however, the younger lesbians in the study were more likely to be under-screened. Associations with being well screened were being over 40 years old, having disclosed their lesbian identity to an aware health care provider, and never having been advised not to have a Pap test. Disturbingly, 9% of women had been advised not to have a Pap test, most of these by health care providers.

Determinants of STI risk and protective behaviours among WSW

There are a number of risk factors for STIs among WSW. These relate to the sex and number of sexual partners, low levels of protected sexual behaviours, and low levels of knowledge and awareness of STI prevention among WSW. More broadly, lesbian and bisexual identity can be associated with STI risk due to normative behaviours in these communities. Further, complex links between experiences of marginalisation, poor mental health and experiences of abuse can combine to influence risky substance use and sexual behaviours.

Sex with men

Most studies demonstrate that at least 80% of women who identify as lesbian report having had sex with a man at some time in their lifetime.[20,32] A history of sex with men for WSW attending STI clinics appear to be over 90%.[18,33] Levels of protective behaviour used by WSW during sexual activity with a man may be lower than levels among heterosexual women. For example, studies of young same-sex-attracted women indicate that their knowledge and use of safe-sex strategies for sex with men are lower and this is borne out in higher pregnancy rates among this group than among matched heterosexual peers.[34] An internet-based survey of

1749 (643 women) same-sex-attracted (SSA) Australian people aged 14 to 21 found that SSA youth were more likely to be sexually active earlier than peers and were five times more likely to have been diagnosed with an STI (10% versus 2%).[35] Eleven per cent of the young women who had had sex with men had been pregnant compared with 8% in a national school sample.

Sex with women

There is also evidence that higher numbers of female partners increases the STI risk. Transmission is correlated with an increased number of lifetime female partners (independent of the number of males) and increased number of exposures with women.[16,20] In a USA survey of 6935 lesbian-identified women, any history of an STI was more likely for women with a higher number of female sexual partners over their lifetime, and independently for those with a higher number of male sexual partners.[19] Of the whole group, 22.4% had only ever had female sexual partners, and 6% of these reported at least one STI diagnosis. Importantly, this group demonstrated minimal use of protection, with only 11% having used a barrier during sex with women. Respondents did not use barriers both because they did not believe there was any risk and because they were too embarrassed to buy dams or condoms. In another study of 504 self-identified lesbian and bisexual women, 84% perceived no risk of STIs in the previous year and 61% believed they had no risk over their lifetime.[36] Only 7% had ever used latex dams or gloves during sex and only 21% had ever suggested the use of protection to their sexual partners, although 26% reported a previous STI diagnosis. Morrow and Allsworth (2000) suggested that the low level of risk perception may be due to '. . .the lack of culturally sensitive prevention messages. . .' (page 160).

Lack of protective sexual behaviours for WSW may also relate to the use of other strategies to determine safety. A large ethnographic study involved interviews with 626 lesbian and bisexual women in San Francisco regarding their sexual behaviour.[37] This study showed that these women used various risk-reduction practices including negotiated monogamy and trust, determining sexual behaviours after taking a history from their potential partner, and choosing specific partners. Deciding whether a partner was safe was often based erroneously on that person's identity rather than their behaviour.

Lesbian or bisexual identity as risk factors for increased STIs

In Australia, a lesbian, and particularly a bisexual, identity appears to increase the risk of having had an STI. The *Sex in Australia* study, a comprehensive telephone survey of 9578 women aged 16 to 59, showed a significant difference in STI prevalence according to sexual identity.[38] The overall rate of ever having an STI diagnosis was 16.9%, which is equivalent to international rates. However, according to identity, STI diagnosis was reported by 16.6% of heterosexual women, 23.4% of lesbians and 37.9% of bisexual women. Importantly, in this study, of those reporting any same-sex attraction and experience (15.1% of all women in the sample), only 31% reported a current lesbian or bisexual identity.[39] Unfortunately, self-reported STI rates were not reported for the group of WSW who did not identify as lesbian or bisexual. Bisexual identity was one of the most significant predictors of an STI diagnosis among women ($P < 0.001$), as was being older, being paid for sex and having injected drugs.

It is not entirely clear why lesbians and bisexual women had higher rates of STI than heterosexual women in this study, although it appears partly related to the number of sexual partners of either sex over the previous year, which correlated with the likelihood of having had an STI. Women who identified as lesbian or bisexual reported significantly more sexual partners than heterosexual women.[39] For example, the mean lifetime number of opposite sex partners was 6.5 for heterosexual women, 18.8 for bisexual women and 21.6 for lesbians and, over the previous year, was 1.0 for heterosexual women, 2.2 for bisexual women and 0.1 for lesbians.[40] Condom use for heterosexual activity in the past year was reported by 33.7% of heterosexual women, 15.6% of lesbians and 67.5% of bisexual women.[41] Therefore, although lesbians were less likely to use condoms, bisexuals were more likely, making it unclear why rates of STI were so high among bisexuals.

Intravenous drug use

There is a complex and inter-related range of other risk factors for STIs among these populations, including intravenous drug use (IDU), past history of sexual abuse, and poorer mental health. A USA study of 803 female IDUs compared women who had had sex with women in the previous six months ($n = 274$) with all others.[42] This showed that the WSW had a higher prevalence of HIV and HBV. The WSW displayed several high-risk activities: they were more likely to have had unprotected sex with men (particularly men who have sex with men), to share injecting equipment and to be paid for sex. They were more likely to have been homeless, to have been admitted to a psychiatric institution and been incarcerated, indicating significant psycho-social dislocation.

Risk-taking behaviours, mental health and self-esteem

Lesbian and bisexual women are found to have increased behavioural risk factors including substance use and sexual risk taking. A comparison of licit and illicit substance use in the Australian Longitudinal Women's Health study (ALWHS) showed that non-heterosexual young women were at least twice as likely to smoke, or use harmful levels of alcohol than heterosexual.[43] Illicit drug use (ever) was much higher,

for example 10.8% of non-heterosexual young women had injected drugs compared with 1.2% of heterosexual women. This behaviour is at least partly related to reduced self-esteem and reduced levels of social support owing to the stigmatised nature of non-heterosexuality.[44] A population-based study of 2438 low-income young women showed that women who identified as lesbian or bisexual and women who had had both male and female sexual partners reported higher levels of substance use associated with more experiences of sexual coercion.[45]

Sexuality-based discrimination appears to be a major determinant of increased drug use, increased experiences of abuse, and increased levels of depression and anxiety.[46] Bisexuality is emerging as more stigmatised than lesbian sexuality, with bisexual women having higher rates of depression and lower social support than lesbians or heterosexuals.[47] Reduced levels of mental health will increase many of the risk factors for STIs.

History of sexual abuse

Experiences of all forms of abuse are found to be higher among Australian non-heterosexual women, with over 60% of women in their 20s and over 50% of women in their 50s having experienced any form of abuse compared with 37% of both ages of heterosexual women.[47] International studies confirm that lesbians have experienced high levels of violence and victimisation from strangers and family members, which in turn influences reduced self-esteem and higher rates of depression.[48] Levels of sexual abuse are also higher among lesbians, most of which is perpetrated by a male.[49] No studies to date have determined the reasons underlying the higher prevalence of sexual abuse among non-heterosexual women. Possible reasons include gender-role non-conformity, which can increase the chance of being targeted, rejection by family, increased propensity to risk behaviours associated with sexual abuse, such as substance use, and greater willingness to disclose sexual abuse.[49]

Sexual activity and preventive behaviours between women

Sexual activities between women can expose a female partner to oral, vaginal, cervical and anal secretions and blood, if barriers are not used. To understand how transmission of infection can occur between women, a grasp of the various modes of sexual contact is required. The range of common sexual activities between women is broad, including but not restricted to genital contact. The term 'sexual intercourse' generally implies genital penetrative sex, and is usually regarded by WSW as relating to heterosexual sex; therefore this term is best avoided when referring to sex between women. Lesbian sexual activity provides us with insights into specifically female sexuality traits, with particularly high value placed on intimacy and emotional closeness, as well as whole body experiences, and highlight the legitimacy of non-genital sexual contact and a reduced emphasis on orgasm as the end-point of sexual activity.[51] The following summary of activities is drawn from recent surveys of WSW designed to assess STI risk.[19,25,50] The discussion of risks of transmission of infection with these activities is largely speculative, because very few existing studies exploring STI rates among WSW have gathered precise information about the range of sexual activities.

Non-genital and external genital touch (including tribadism or frottage)

Over 85% of WSW use various whole-body stimulation techniques including holding, massage, kissing, licking and sucking. These activities are integrated within sexual activities rather than solely regarded as foreplay. Mutual masturbation is common, as is tribadism or frottage, which is defined as genital rubbing by any part of the other woman's body, often the thighs, legs or trunk. These activities on the whole are low risk, although it would be feasible for HSV and mites to be transmissible between external genital and other body areas. Forms of prevention possible with this activity are wearing clothes or avoidance of contact when active lesions are present.

Oral–genital activities (cunnilingus and analingus)

Oral to genital sex is common (up to 98% of WSW), whereas oral to anal contact (rimming) is less common (up to one-third). The *Sex in Australia* study showed that 65.8% WSW reported receiving oral sex and 62.1% giving oral sex, whereas oral–anal contact was not asked.[39] Transmission of HSV from oral to vulval mucosa or *vice versa* via oral sex is known to occur. Less certain but possible, is transmission of HPV and vaginal infections including candida and anaerobes from infected vaginal secretions to the mouth, or from there via the mouth to the anus. Transmission of blood-borne viruses from infected menstrual blood to non-intact oral mucosa is also possible. Oral to anal contact is known to facilitate transmission of hepatitis A from anus to the mouth. This is now increasingly understood by gay men, but poorly understood by WSW. Rimming followed by oral–vaginal contact could transmit anaerobes, HSV or HPV from one area to another on the receptive woman or to the mouth of the providing woman.

Prevention of transmission via oral contact can be achieved using two methods. Avoidance of contact during menstruation of the receptive woman will reduce the risk of transmission of blood-borne viruses. Women are shown to be discerning regarding oral sex during menstruation. In one study of 381 self-identified lesbians, 76% gave and 74% received oral sex in general, whereas only 21.6% gave or received during menstruation.[20] The second method

is using a barrier between the mouth and vulva or anus. Latex barriers include dams (previously designed as dental dams for use by dentists), which are rectangular pieces of latex placed over the vulva and/or anus during oral sex. Women can also use a condom or glove by cutting the ends (fingers) off and cutting it down its length to lay it out flat. Lesbian sex manuals recommend applying water-based lubricant to the genital side of the latex barrier to improve sensitivity.[51] The actual use of barriers during oral sex is very low. In one study, despite 40% of WSW being concerned about contracting an STI with new female partners, only 7.8% used protection during oral–genital contact, and 1.7% during oral–anal contact.[37] The Sydney Women and Sexual Health (SWASH) surveys indicate a similarly low rate of use of dams by WSW, with most women not understanding their purpose, and only 9% of women having ever used one.[52]

Manual stimulation and vaginal penetration

Manual stimulation of the clitoris, vulva and vagina is a very common activity among WSW. In the *Sex in Australia* study, 95.1% WSW had received and 90.8% had provided manual stimulation with their partner.[39] A high proportion of WSW engage in digital penetration of the vagina (fingering) (up to 98%) using one to four fingers. Vaginal fisting is less common (25% of WSW) and involves the insertion of the whole hand into the vagina. This usually requires a high level of sexual arousal and lubrication and can cause vaginal trauma if arousal is insufficient. The vaginal use of sex toys including dildos (latex or rubber objects often in the shape of a penis) or vibrators is fairly common (range from 45 to 69%). The use of the dildo has been labelled as the most controversial debate regarding lesbian sex within lesbian communities.[53] Two 'camps' have been described, one of which rejects penetration, particularly by dildos, which are seen to represent the penis; and the other embraces the use of sex toys as part of the lesbian sexual repertoire. Questions of WSW regarding vaginal penetration should therefore be framed carefully by health care providers, so as not to assume that this is, or is not, a practice.

Risks involved with manual stimulation and vaginal penetration relate to transmission of vaginal and cervical fluids between women. Sharing fingers or sex toys between vaginas without washing or without the use of barriers could transmit vaginal organisms including candida, trichomonas and anaerobes, and cervical organisms including HPV, chlamydia, mycoplasma, HSV and gonorrhoea. Penetration can lead to vaginal or cervical abrasion, and therefore could increase the risk of transmission of any STI, including blood-borne viruses. A completely unexplored area is that of female ejaculation. This is the achievement of ejaculation by women through digital massage of the Grafenberg Spot (G-Spot) at the site of the para-urethral gland about one-third of the way along the anterior vagina. At a certain level of stimulation, the gland ejaculates a clear or milky fluid into the urethra, sometimes with some force. This often occurs at a different time to orgasm, although the two can occur simultaneously. Women can be surprised or frightened the first time they or their partner experience ejaculation and may question their health care provider about it. More importantly, it seems possible that female ejaculate could also carry transmissible organisms.

Prevention and safe sex involving these activities includes ensuring adequate lubrication to reduce the chance of mucosal damage, particularly with fisting and the use of sex toys. Cutting fingernails is also advisable. Women can use a variety of methods that add to the their own natural lubrication including saliva, water-based lubricants and oil-based lubricants such as vaseline or vegetable oils. Washing of hands and toys before and after sharing is useful or being careful to use different fingers or hand when moving from site to site or person to person. Barriers can also be used including condoms on sex toys, gloves or finger cots on hands, but these need to be changed between sites. Condoms on sex toys were the most commonly used barrier in one study, but only 12% of women used them regularly.[52] In another study, 56.6% women used dildos; however, 12.2% of these used them without washing.[20]

Anal penetration

Digital insertion of the anus is less common than vaginal (up to 64%) and anal fisting is rare. Some women use anal sex toys such as butt plugs or dildos, but the frequency of use is not known. A certain stigma exists within the WSW communities regarding anal activities, and this is clearly replicated within the research field. For example women were not asked about anal same-sex anal activities in the *Sex in Australia* study. Risks and prevention activities are much the same as listed above for vaginal penetration.

Sado-masochistic (SM) activities

Sado-masochistic (SM) activities, including piercing, cutting, whipping and bondage, are performed by a minority of WSW (15%). The definition of SM appears to be similar to that used in the heterosexual community, namely erotic rituals that involve the consensual exchange of power.[54] The community of WSW engaging with SM has been credited with being at the forefront of promoting safe sex, including emotional as well as physical safety. Risks of SM activities include transmission of blood-borne viruses when 'blood sports' are being used, particularly if cutting or piercing items are shared. Prevention advice involves not sharing equipment and ensuring that communication is maintained throughout, with agreed signals or words that indicate a desire to stop any activity.

Safe-sex guidelines for WSW

Many WSW have difficulty accessing information about safe-sex practices. There are an increasing number of books written by and for lesbian women about sexual practices, which contain guidelines.[51,55] However, simple pamphlets that are available on websites and within the community are required. In Australia, a booklet has been produced by the Aids Council of New South Wales (ACON), which contains a brief discussion of STIs between women and mentions that barriers can help prevent transmission.[56] However, on the ACON website, the safe-sex discussion is very much orientated towards men. The CDC has listed guidelines on their HIV/AIDS and WSW page.[13] These include the use of condoms on sex toys and/or not to share sex toys. They state that no barrier methods during oral sex have been evaluated as effective.

A hierarchy of WSW behaviours related to their STI risk is described by Newman.[51] Risk-free risk activities include frottage (clothed), nipple stimulation and sharing sex toys with a condom. Low-risk activities include cunnilingus with a barrier, hand-to-vulva contact without penetration, vaginal or anal fingering or fisting with a glove, frottage without clothes and wet kissing. Risky behaviours include unprotected cunnilingus, vaginal or anal fisting or fingering without a glove. High-risk activities are unprotected cunnilingus during menstruation, unprotected rimming and sharing sex toys without (changing) a condom. An important consideration is the use of lubricants to reduce mucosal damage (and increase sexual pleasure), but some lubricants can create irritation for women, which may relate to exacerbation of candida. These women can be advised to use lubricants that don't contain glycerin.

Conclusion

The sexual health of WSW, lesbians and bisexual women is an area that has been neglected. Yet, the evidence presented in this paper highlights that these women can be at risk of STIs and have a higher prevalence of sexual abuse. The risk of STI appears to be higher for some groups in these communities including younger same-sex-attracted women, bisexually identified women and injecting drug users. Lesbians and bisexual women are reported to be confused about mixed messages regarding safe sex, with many not knowing whether there is any risk, and if there is, how to practice safe sex with women.[37] This is not helped by the difficulty accessing community-based safe-sex information targeted to WSW. Health care providers working in this area therefore need to be fully informed not only about sexual practices of WSW and advice on how to increase safety, but also be able to explore the health beliefs and other methods of negotiated safety that can be introduced.

There is now enough evidence available to enable us to be at least partly informed regarding WSW and their sexual health needs. The Hon. Justice Michael Kirby has written about the need for us to learn from the errors of the past with regard to our engagement with homosexuality, and he particularly notes the need to demand proof and use empiricism.[57] As a gay man and a senior figure within the legal system in Australia, he has had personal and professional experiences of vilification and mistreatment at the hands of not only the homophobic, but also the unenlightened in medicine, politics, religion and the law. He says '... it is the mark of a true professional that he or she continues to question. Our duty is always to remain sceptical of the orthodoxies and assumptions of our own professions...' (page 32). There have been many erroneous assumptions about WSW within the sexual health field. To date, we have not served these women well in perpetuating these assumptions by accepting the silence within our medical texts. We need to overcome this silence by being willing to generate research in this area, to submit papers for publication, and not least, to generate guidelines for our colleagues and our patients. It is in seeking, creating and disseminating information based in empirical evidence, that this group of women will finally receive care that is enlightened and effective.

Conflicts of interest

None exist.

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Received 22 October 2004, accepted 28 June 2005