

Considerations for partner therapy in patients with bacterial vaginosis

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The author describes the relatively increased prevalence of bacterial vaginosis (BV) among women who have sex with women (WSW) and the concordance of vaginal flora between monogamous sexual partners. She suggests that these findings may represent sexual transmission of BV from one woman to another, not merely an association. She reports on the evidence for BV as a sexually transmitted infection, and suggests that more research is needed to determine whether treatment of asymptomatic but affected female partners might reduce BV recurrence in WSW.

KEY WORDS: bacterial vaginosis, partner therapy, WSW, women who have sex with women, sexually transmitted infection

Bacterial vaginosis (BV), a common disruption of the vaginal microflora and the leading cause of vaginal discharge and malodor, has many earmarks of a sexually transmitted infection (STI). Yet BV is not classified by the CDC as an STI; instead, it is considered a sexually associated infection. With regard to BV treatment, the CDC recommends it for symptomatic women, but not for asymptomatic women.¹ Although current guidelines do not support treating sexual partners of women with BV, healthcare providers (HCPs) should be aware of the existing relevant data and the needs of specific patient populations in order to make informed treatment decisions in this regard.

Prevalence by sexual behavior and identity

Bacterial vaginosis is prevalent among all sexually active women and is even more commonly seen in women who have sex with women (WSW). BV also has been diagnosed in women reporting sexual inexperience, albeit at lower rates than in women reporting sexual experience.² An analysis of data from the 2001-2004 National Health and Nutrition Examination Survey (NHANES) showed that overall BV prevalence among women aged 14-49 years was 29%.³ For women who reported a history of having a female sexual partner, the prevalence jumped to almost 45.2%.³

In a systematic review and meta-

analysis of 43 studies, Fethers et al.⁴ identified a 1.6 relative risk for BV among women with new or multiple male partners and a 2.0 relative risk among women with one or more female partners during their lifetimes. Evans et al.⁵ conducted a cross-sectional BV prevalence study of 171 women who identified as lesbian and 189 women who identified as heterosexual in a community setting in the United Kingdom; 354 of the participants had gradable flora. BV was identified in a significantly greater proportion of lesbian women than heterosexual women (25.7% vs 14.4%; adjusted odds ratio, 2.45; 95% confidence interval [CI], 1.25-4.82; $P = .009$). Concordance of vaginal flora within lesbian sexual partnerships was significantly greater than expected (27/31 couples, or 87%; kappa = 0.63; $P < .001$). Another recent systematic review of 22 studies of BV and STIs in WSW found that the most frequently reported condition was BV, with a prevalence ranging from 26% to 43%.⁶

Some data suggest that the rate of BV recurrence may also be higher in WSW than in women who do not have sex with women. In a study on BV recurrence rates over 12 months after treatment, Bradshaw et al.⁷





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found that having female sexual partners was significantly associated with BV recurrence. In another study by Bradshaw and colleagues⁸ on recurrence of BV and post-treatment sexual activity, data showed that risk for BV recurrence was significantly increased by having the same pre-/post-treatment sexual partner. Additional data are needed to more definitively determine BV recurrence rates among WSW.

Healthcare providers should keep in mind that sexual identity (e.g., lesbian, bisexual, straight) is not always in synch with sexual behavior. Results from the 2011-2013 National Survey of Family Growth revealed that among 55,271 women aged 18-44 years who were interviewed, 17.4% reported lifetime same-sex sexual behavior.⁹ And yet, in this same group, only 1.3% described themselves as lesbian and 5.5% as bisexual. The incomplete concordance between reported same-sex sexual behavior and sexual identity is important for HCPs to consider when discussing sexual health concerns such as BV with their patients. Specific sexual behaviors that place women at risk for BV should be included in the sexual history, regardless of sexual identity.

Risk factors for BV

Among all women, risk factors for BV include having new or multiple male sex partners, nonuse of condoms with male partners, having female sex partners, douching, a lack of vaginal lactobacilli, and a history of STIs.^{5,10} Among WSW, additional risk factors for BV include a higher number of sexual partners, having a female partner with BV, use of a vaginal lubricant, sharing sex toys, a history of forced vaginal penetration, and engaging in digital-vaginal sex and/or digital-anal sex.^{6,11-13}

Support for bacterial vaginosis as a sexually transmitted infection

The CDC does not classify BV as an STI.¹ However, for WSW, BV meets the basic definition of an STI based on the transfer of bodily fluid during sex that contains BV-associated bacteria. Whether or not BV is classified as an STI, it is clearly associated with sexual behavior, and evidence for sexual transmission is growing. In a study of 21 pairs of monogamous female sexual partners, of 11 index women who had BV, 8 (72.7%) had sexual partners who also had BV.¹⁴ By contrast, of

10 index women who did not have BV, 1 (10%) had a sexual partner with BV. The probability of a partner having BV if the index case also had BV was 19.7 times higher ($P < .008$).

In another study of 36 WSW who reported one or more female sexual partners within the prior year, the likelihood of a female sexual partner having BV was 11.4 times greater if the index case had BV (95% CI, 2.9-44.3; $P < .0001$).¹³ In a longitudinal study of 298 WSW, if a female sexual partner had BV symptoms, subjects had a 3.99-fold increased risk for BV (95% CI, 1.39-11.45).¹⁵ An 8-fold increased risk of incident BV (95% CI, 2.89-19.95) was identified among women with a new female sexual partner within 90 days. Risk of BV incidence was greatly reduced among WSW with a monogamous female sexual partner and/or a BV-negative partner.¹⁵

Finally, although a single pathogen for transmission has not been isolated, a high level of concordance of BV-associated pathogens is observed in monogamous lesbian couples with BV.^{10,12,16,17}

Women who have sex with women may hesitate to disclose their same-sex sexual attraction, behaviors, and/or identities to their healthcare provider, which can inhibit healthcare providers' ability to offer nonjudgmental communication, counseling, and appropriate treatment.



Unmet healthcare needs among women who have sex with women

On the basis of six studies conducted in the 1980s and 1990s that failed to show partner treatment was beneficial, the CDC advises against treating sex partners of women diagnosed with BV.¹⁰ However, these studies focused on treatment of male sexual partners, had methodologic limitations, and utilized suboptimal treatments. Research needs to be updated utilizing treatment regimens consistent with the current standard of care.¹⁰

No current guidelines specifically address treatment of BV in WSW. Even among women who have biologic evidence of BV, current guidelines recommend treatment only for those who are symptomatic.¹ Transmission of infection from asymptomatic women with BV to female sexual partners may be a factor in

the higher BV prevalence and high recurrence rate among WSW.^{3,7} The effectiveness of strategies to reduce transference of vaginal secretions between female sexual partners, as well as treatment of female sexual partners of infected individuals, has not been adequately studied. This information is key to the development of evidence-based guidelines for treatment of BV in WSW.¹⁸

Research on general gynecologic healthcare needs of WSW is also lacking, resulting in suboptimal understanding among HCPs about how to communicate with WSW about sexual health. Lack of access, discrimination, and stigma persist against sexual minority women despite greater societal openness about sexual diversity. In addition, some HCPs may not fully recognize the potential health risks for WSW. Diagnostic missteps, including erroneous patient self-diagnosis, are likely occurring, leading to inappropriate treatment and recurrence.^{6,19}

Many WSW lack knowledge about the risk of BV and STIs, their symptoms and transmission, and their treatment.²⁰ For example, myths about oral or intravaginal probiotics curing BV still exist. In

addition, WSW may hesitate to disclose their same-sex sexual attraction, behaviors, and/or identities to their HCPs, which can inhibit HCPs' ability to offer nonjudgmental communication, counseling, and appropriate treatment.⁵

Addressing unmet needs

In addition to improving awareness of WSW's healthcare needs and educating HCPs about how to effectively communicate with WSW, WSW need additional education about BV risk factors, symptoms, and means of transmission. For instance, WSW should be counseled about the use of barrier devices such as dental dams and female condoms; hygienic practices for the use of sex toys, including anything used for vaginal penetration; signs and symptoms of STIs and BV; and avoiding contact with a sexual partner's menstrual blood or genital lesions.⁶

Conclusion

Healthcare providers should consider whether BV should be classified as an STI, which carries an inherent stigma, when discussing

the condition with WSW. More important is for HCPs to discuss what is known and not known about transmission of BV between female sexual partners, along with risks and benefits of specific treatment regimens. BV has an adverse impact on quality of life and a potentially adverse sequelae. Although no current studies of partner treatment in WSW are available, it seems reasonable to offer treatment to asymptomatic female sexual partners who test positive for BV, especially in cases of recurrent BV. One day, guidelines will evolve to enable better understanding of BV in WSW so that best practices can be implemented. ●

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