

Risk Factors for Bacterial Vaginosis Among Women Who Have Sex with Women

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BACKGROUND

Women who have sex with women (WSW) have a higher burden of bacterial vaginosis (BV) than heterosexual women (WSM) in Western countries¹ but studies of risk factors specific to this population are limited.

We summarised knowledge of BV risk factors in WSW by systematic review.

METHODS

This systematic review was conducted according to the PRISMA statement.² PUBMED, EMBASE, Web of Science and The Cochrane Library were searched to 24/02/2014 with the following search criteria:

((Bacterial vaginosis) OR (vaginosis, bacterial) OR (bacterial infections and vaginitis) OR (vaginosis) OR (gardnerella)) AND (WSW) OR (“women who have sex with women”) OR (lesbian) OR (female homosexual) OR (homosexuality, female)) AND Language = (English)

Inclusion criteria:

- WSW included in study population
 - Studies including WSM eligible if ≥1 variable investigated for WSW alone
- Accepted BV diagnostic method
- Investigated/ could extrapolate factors associated with BV prevalence, incidence, persistence or recurrence
- Comparison of BV-positive to BV-negative women

Abstracts of identified studies were reviewed and citation lists were manually searched for additional references.

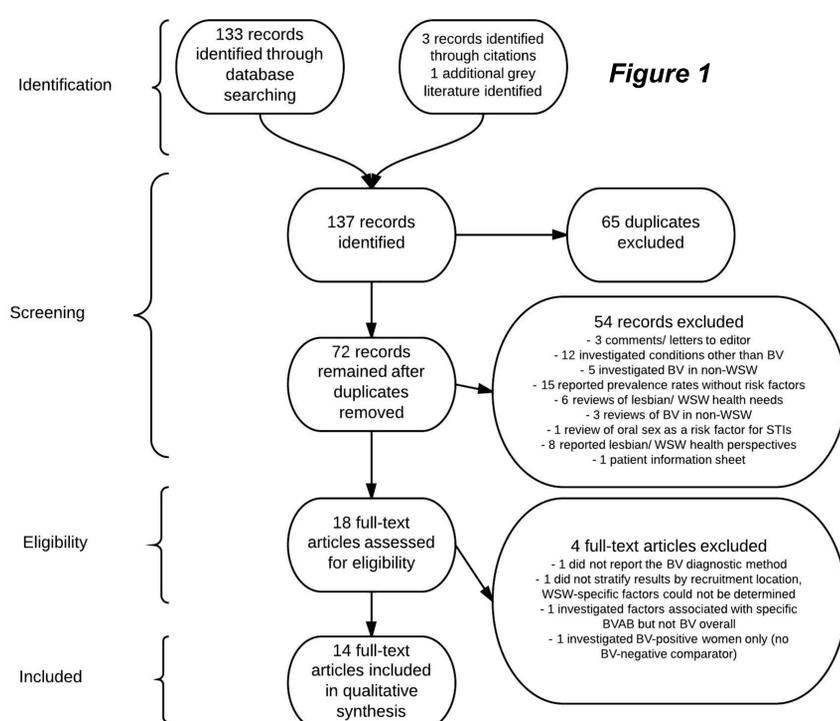
Systematic review registration number: CRD42014009536 (PROSPERO).

RESULTS

133 studies were identified from initial searches, three studies were identified from reviewing citation lists and one piece of grey literature was identified.

72 unique references were reviewed and 14 were eligible for inclusion for review.

Figure 1 (below)



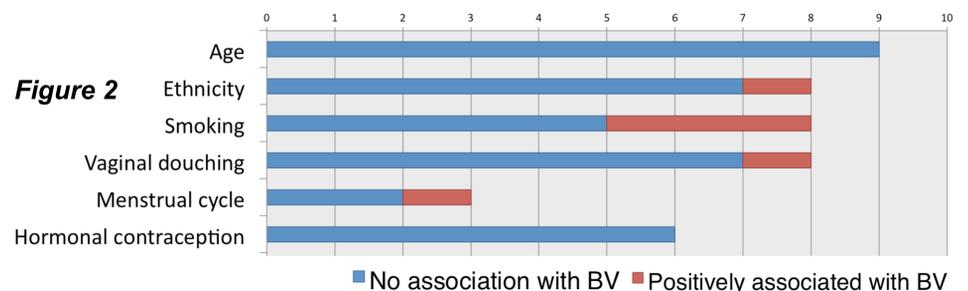
Eight studies were from the USA, three each from Australia and the UK.

Recent sexual contact with a female was an inclusion criteria in 10 of the 14 studies.

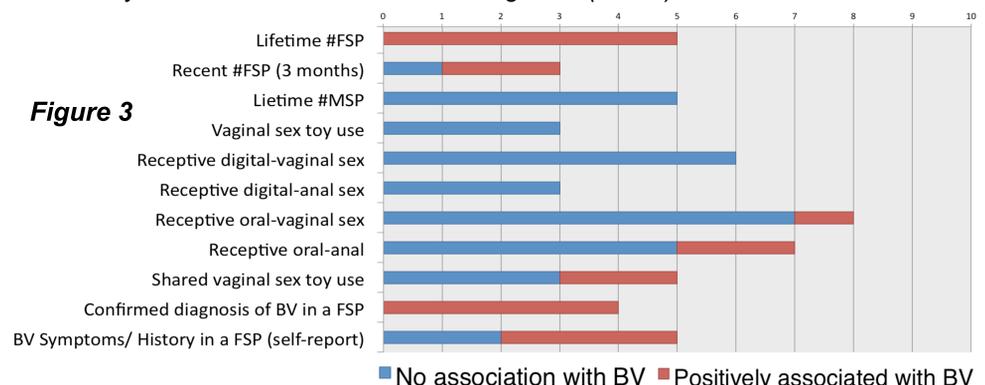
Others recruited from lesbian/ bisexual sexual health centres, self-identifying WSW or included women with a female sexual partner in their lifetime. Five studies reported internal controls for diagnostic uncertainty.

RESULTS, cont.

No demographic variables were consistently associated with BV. Age and hormonal contraception use were consistently not associated with BV. One study found increased odds of BV among Asian women. Three studies found increased odds of BV among smokers. One study found that vaginal douching was associated with ‘abnormal’ vaginal flora (Nugent Score 4-10) and one study found that <14 days since menses increased the odds of incident BV. Figure 2 displays the number of studies that investigated each variable.



Of the sexual variables investigated, lifetime number of female sexual partners (FSP) and diagnosed BV in a FSP using an established method were consistently associated with BV in WSW; self-reported BV symptoms or history in a FSP were less reliably associated with BV in study participants. Lifetime number of male sexual partners (MSP) was not associated with BV in WSW. No sexual behaviours were consistently associated with BV in WSW. Figure 3 (below)



CONCLUSION

The majority of BV research has focused on heterosexual women. There is a lack of research of specific risk factors for BV in WSW despite their high burden of disease.

We found that BV in WSW was positively associated with:

- Increased number of lifetime female partners
- BV diagnosed in a female sexual partner

We did not find consistent associations between BV and with other traditional risk factors such as smoking and douching that have been associated with BV in heterosexual populations.

- Importantly, these data indicate that exposure to greater numbers of female partners and a partner with BV increase a females risk of BV and contribute to the body of evidence that is emerging to support sexual transmission of BV.
- These findings highlight the need for further research in WSW populations who are disproportionately affected by BV.
- Female partner treatment trials for BV may be an important area of future investigation.

REFERENCES

- ¹Morris M, Rogers P, Kinghorn G. Is bacterial vaginosis a sexually transmitted infection? *Sexually transmitted infections*, 2001;77(1):63-8
- ²Moher D, Liberati A, Tetzlaff J, Altman DG, Preferred reporting items for systematic reviews and meta-analyses: the PRISMA Statement, *Int J Surg*, 2010;8(5):336-41