

Sexual Orientation and Related Viral Sexually Transmitted Disease Rates Among US Women Aged 15 to 44 Years

Guoyu Tao, PhD

I used data from the 2002 National Survey of Family Growth to measure sexual orientation and viral sexually transmitted disease (STD) rates among US women aged 15 to 44 years. Sexual behavior and sexual identity data indicated that 1.3% to 1.9% of the women were lesbians and 3.1% to 4.8% were bisexual. Self-reported viral STD rates were significantly higher among bisexual women (15.0% to 17.2%) than among lesbians (2.3% to 6.7%). These findings support the need for STD prevention interventions that consider lesbians and bisexual women separately. (*Am J Public Health*. 2008; 98:1007–1009. doi:10.2105/AJPH.2007.112011)

In 1999, the Institute of Medicine proposed to better define lesbian sexual orientation to estimate the lesbian population size more accurately.¹ The Institute of Medicine also recommended funding large-scale probability surveys to determine how lesbian sexual orientation is defined and to examine the prevalence of risks among lesbians.

The proportion of women who are lesbian or bisexual was estimated to be 1.3% to 10%, and sexually transmitted disease (STD) and HIV rates were different between lesbians and bisexual women.^{2–6} However, no study has examined how defining lesbians and bisexual women by their sexual identity, behavior, attraction, or desire, or some combination of these, is associated with their STD rates. I examined how combining sexual behavior and identity to classify women can affect the numbers of

lesbians and bisexual women identified and how self-reported STD rates differ between these 2 populations.

METHODS

The 2002 National Survey of Family Growth was used in this study. Details of the 2002 National Survey of Family Growth have been published previously.⁷ The 2002 National Survey of Family Growth included a nationally representative sample of 7643 women and 4928 men aged 15 to 44 years interviewed between March 2002 and March 2003. The overall response rate was 80% for women and 78% for men.

I included 7643 women in this study. Women were asked questions about their

sexual partners, sexual identity, and history of viral STDs (Figure 1). Four categories of women's sexual orientation were established according to women's responses to those questions. The first category was based on sexual behavior in the past 12 months: women were classified as lesbians if they reported having only female partners and as bisexual if they reported having male and female partners. The second category was based on sexual identity: women were classified as lesbians if they selected being homosexual and as bisexual if they selected being bisexual. The third and fourth categories were based on the combination of sexual behavior and identity.

In the third category, women were classified as lesbians if they (1) selected being

Sexual Behavior

Thinking about your entire life, how many male sex partners have you had? Please count every partner, even those you had sex with only once

Number _____

Thinking about the past 12 months, that is, since (12 months earlier, 2001), how many male sex partners have you had? Please count every partner, even those you had sex with only once

Number _____

Thinking about your entire life, how many female sex partners have you had?

Number _____

Thinking about the past 12 months, that is, since (12 months earlier, 2001), how many female sex partners have you had?

Number _____

Sexual Identity

Do you think of yourself as heterosexual, homosexual, bisexual, or something else?

1. Heterosexual
2. Homosexual
3. Bisexual
4. Something else
5. Don't know

Viral STDs

At any time in your life, have you ever been told by a doctor or other medical care provider that you had genital herpes?

1. Yes
2. No

At any time in your life, have you ever been told by a doctor or other medical care provider that you had genital warts?

1. Yes
2. No

FIGURE 1—Sample questionnaire about sexual behavior, sexual identity, and viral sexually transmitted diseases (STDs): National Survey of Family Growth, 2002.

homosexual by sexual identity or (2) reported having had only female partners in the past 12 months and did not select being bisexual by sexual identity. Women were classified as bisexual if they (1) selected being bisexual by sexual identity or (2) reported having had male and female partners in the past 12 months and did not select being homosexual by sexual identity. Similarly, in the fourth category, women were classified as bisexual if they (1) reported having had male and female partners in the past 12 months or (2) selected being bisexual by sexual identity and did not report having had only female partners in the past 12 months. Women were classified as lesbians if they (1) reported having had only female partners in the past 12 months or (2) selected being homosexual by sexual identity and did not report having had male and female partners in the past 12 months.

Women were classified as having had viral STDs if they reported ever having genital herpes or genital warts.

SUDAAN statistical software, version 9.0 (Research Triangle Institute, Research Triangle Park, North Carolina), was used to account for the complex sampling design of the National Survey of Family Growth. I used bivariate analyses and logistic regressions to examine the significance of association (defined as $P < .05$) between sexual orientation and viral STD rates. In the logistic regressions, age, race/ethnicity, and poverty were adjusted according to the Institute of Medicine's recommendation.¹

RESULTS

For 2002, I estimated that 1.3% to 1.9% of US women aged 15 to 44 years were lesbians

and that 3.1% to 4.8% were bisexual (Table 1). Viral STD rates were significantly higher among bisexual women (15.0% to 17.2%) than among lesbians (2.3% to 6.7%).

Half (49.9%) of the women who had both male and female partners and 10.6% of the women who had only female partners in the past 12 months responded that they were heterosexual. Of the women classified by their sexual identity, 9.1% of the lesbians and 7.5% of the bisexual women reported having had no sexual partner in the past 12 months (including those who reported never having had sexual partners).

DISCUSSION

My results show that 1.3% to 1.9% of US women aged 15 to 44 years were lesbians and 3.1% to 4.8% were bisexual. I also

TABLE 1—Sexual Orientation and Rates of Viral Sexually Transmitted Diseases (STDs) Among US Women Aged 15 to 44 Years (N = 7643): National Survey of Family Growth, 2002

	Proportion of Women, % (SE)	Proportion of Women Who Reported Ever Having Had a Viral STD	
		% (SE)	AOR (95% CI)
Category 1: Sexual orientation on the basis of sexual behavior in the past 12 months			
Lesbian	1.3 (0.2)	6.7** (3.7)	0.62 (0.19, 2.01)
Bisexual	3.1 (0.3)	15.0 (2.6)	2.13* (1.31, 3.46)
Never had sex	9.7 (0.4)	0.3 (0.2)	0.05* (0.02, 0.17)
Had not had sex in the past 12 months	6.0 (0.4)	7.2 (1.3)	0.74 (0.49, 1.11)
Had male partner only in the past 12 months (Ref)	79.9 (0.7)	10.0 (0.7)	1.00
Category 2: Sexual orientation on the basis of sexual identity			
Lesbian	1.3 (0.2)	2.3** (1.2)	0.21* (0.07, 0.62)
Bisexual	3.1 (0.2)	17.2 (2.9)	2.81* (1.85, 4.28)
Heterosexual/others (Ref)	95.6 (0.4)	8.8 (0.6)	1.00
Category 3: Sexual orientation on the basis of sexual behavior in the past 12 months and sexual identity ^a			
Lesbian	1.6 (0.2)	2.6** (1.2)	0.27* (0.10, 0.69)
Bisexual	4.8 (0.4)	16.2 (2.1)	2.66* (1.83, 3.88)
Heterosexual/others (Ref)	93.6 (0.4)	8.7 (0.6)	1.00
Category 4: Sexual orientation on the basis of sexual behavior in the past 12 months and sexual identity ^b			
Lesbian	1.9 (0.2)	5.9** (2.7)	0.63 (0.23, 1.69)
Bisexual	4.5 (0.3)	15.8 (2.1)	2.62* (1.78, 3.87)
Heterosexual/others (Ref)	93.6 (0.4)	8.7 (0.6)	1.00

Note. AOR = adjusted odds ratio; CI = confidence interval.

^aWomen were classified as lesbians if they (1) selected being homosexual by sexual identity or (2) reported having had only female partners in the past 12 months and did not select being bisexual by sexual identity. Women were classified as bisexual if they (1) selected being bisexual by sexual identity or (2) reported having had male and female partners in the past 12 months and did not select being homosexual by sexual identity.

^bWomen were classified as bisexual if they (1) reported having had male and female partners in the past 12 months or (2) selected being bisexual by sexual identity and did not report having had only female partners in the past 12 months. Women were classified as lesbians if they (1) reported having had only female partners in the past 12 months or (2) selected being homosexual by sexual identity and did not report having had male and female partners in the past 12 months.

* $P < .05$ in logistic regression; ** $P < .05$ in bivariate analysis.

documented the challenge of classifying lesbians and bisexual women. For example, half of the women who had sexual intercourse with both male and female partners in the past 12 months identified themselves as heterosexual. The methods used in this study indicated that women's sexual orientation could be classified in many ways according to women's responses to sexual behavior and sexual identity questions.

Both sexual behavior and sexual identity are needed to assess women's sexual orientation and STD-related risk adequately. The finding that self-reported viral STD rates differed significantly between these 2 populations suggests that the public health establishment should consider lesbians and bisexual women as separate populations for STD prevention interventions. ■

About the Author

The author is with the Division of STD Prevention, Centers for Disease Control and Prevention, Atlanta, GA.

Requests for reprints should be sent to Guoyu Tao, PhD, Division of STD Prevention, Centers for Disease Control and Prevention, 1600 Clifton Rd NE, MS-E80, Atlanta, GA 30333 (e-mail: gat3@cdc.gov).

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Note. The findings and conclusions in this brief are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention.

Human Participant Protection

The data set used in this study is a publicly available data set that contains no individually identifiable private information.

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