

ORIGINAL ARTICLE

Sexual behaviour of lesbians and bisexual women

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Objectives: To provide data about the sexual histories of a large sample of lesbians and bisexual women, to inform those who provide health care or carry out research with women who may be sexually active with other women.

Design: Cross sectional survey.

Setting/subjects: 803 lesbians and bisexual women attending, as new patients, lesbian sexual health clinics, and 415 lesbians and bisexual women from a community sample.

Main outcome measures: Self reported sexual history and sexual practice with both male and female partners.

Results: 98% of the whole sample gave a history of sexual activity with women, 83% within the past year, with a median of one female partner in that year. 85% of the sample reported sexual activity with men; for most (70%) this was 4 or more years ago. First sexual experience tended to be with a man (median 18 years old), with first sexual experience with a woman a few years later (median 21 years). Oral sex, vaginal penetration with fingers, and mutual masturbation were the most commonly reported sexual practices between women. Vaginal penetration with penis or fingers and mutual masturbation were the most commonly reported sexual activities with men.

Conclusions: These data from the largest UK survey of sexual behaviour between women to date demonstrate that lesbians and bisexual women may have varied sexual histories with both male and female partners. A non-judgmental manner and careful sexual history taking without making assumptions should help clinicians to avoid misunderstandings, and to offer appropriate sexual health advice to lesbians and bisexual women.

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It is estimated that at least 4.9% of women aged 16–44 years in Britain have had one or more female sexual partners at some point in their lives, rising to 6.9% in Greater London.¹ An equivalent estimate in the United States is 4.1% for women aged 18–59, with 6.2% in the USA's largest cities.² Lesbians and bisexual women may be invisible within health services if health carers assume heterosexual sexual orientation^{3,4} and if mistrust or other factors lead lesbians and bisexual women to avoid disclosing their sexual orientation.^{5,6} Studies from the United Kingdom,^{7,8} United States,⁹ and Canada¹⁰ describe prejudiced attitudes of health carers and fear of this may lead to delay in seeking medical care or to seeking health care from alternative sources.¹¹ Clinicians' assumptions of heterosexuality or incomplete sexual histories from lesbians and bisexual women may lead to inappropriate advice or treatment being offered.⁴

London's two lesbian sexual health clinics were established by a doctor working in genitourinary services who had observed that lesbians and bisexual women were not well served by existing services. The first clinic, the Sandra Bernhard, was established in 1992 at Charing Cross Hospital in west London.³ The demand for appointments at this clinic led to the opening of a second in 1993, the Audre Lorde at the Royal London Hospital in east London. These clinics were set in genitourinary departments with female staff, offering sexual health services to lesbians and bisexual women.

We present survey data from these two clinics as well as from lesbian and bisexual women's community groups and snowball contacts across the United Kingdom. This detailed information about the sexual histories and practices of well over 1000 lesbians and bisexual women is intended to inform those who provide health care or carry out research with women who may be sexually active with other women.

METHOD

In the period 1992–5 a numbered questionnaire for self completion was offered to all new patients attending either the

Glossary

Bisexual: in this article used to represent women who identify themselves as bisexual
Dental dam: a square of latex which may be placed over the vulva as a safer sex barrier in oral-vaginal sex
Fisting: vaginal or anal penetration with the whole hand
Khush: signifying Asian lesbians or homosexual men
Lesbian: in this article used to represent women who identify themselves as lesbian, gay, dyke, khush, or zami
Sado-masochism: a form of consenting sexual practice in which participants eroticise power, control, and/or the endurance of physical pain
Zami: a word used by lesbians of the African diaspora, meaning women who work together as friends and lovers

Bernhard or the Audre Lorde lesbian sexual health clinics in London (clinic sample n=803). In addition to the clinic sample, a community sample was purposively selected¹² to include those who were diverse in terms of geography, race, class, and disability. Groups or organisations were identified through listings in the lesbian and gay press and respondents were recruited from across England and Scotland by distributing a questionnaire after focus group sessions concerning general or sexual health and at conferences (n=415).³ A snowballing method¹² was used to disseminate further questionnaires to contacts of the focus group attenders.

All female respondents who reported past or present sexual activity with women were included as well as women who gave no history of same sex sexual activity, but who defined their sexual orientation as lesbian, bisexual, gay, dyke, khush, or zami. Those who described themselves as heterosexual, with no history of sexual activity with women, were excluded from the study.

The questionnaire gathered demographic data, sexual history with both men and women, and sexual practice with

Table 1 Description of the sample

	Clinic sample (n=803)	Community sample (n=415)
Age:		
Mean (SD)	31.2 (6.4)	34.4 (9.8)
Residence:		
London	91%	32%
Other England and Scotland	9%	68%
Sexual identity:		
Lesbian	92%	86%
Bisexual	7%	11%
Other	1%	2%
Employment:		
Employed	65%	64%
Unemployed	21%	15%
Student	10%	16%
Other	4%	5%

female partners. In addition, most of the community sample were asked questions about sexual practice with men and safer sex (n=328).

Data were entered into a statistical analysis package (SPSS Version 10) and analysed using simple proportions, correlation coefficients, and χ^2 tests of significance.

RESULTS

Response rates

Exact response rates are not known; questionnaires were offered to approximately 1000 new attenders to the two London sexual health clinics; 803 clinic responses were received and analysed. In all, 1136 questionnaires were given to community groups (some of which may not have been distributed); 415 of these were received and analysed.

Response rates to individual questions varied; there was a good response to demographic questions (96.2–99.8%), with a poorer response to questions addressing anal sex (77.2–79.7%). Where questions were asked only of the community subgroup, this is indicated in the results.

Description of sample

Table 1 shows demographic features of the sample.

Ethnicity

Eighty eight per cent of respondents categorised themselves as white (white British, Irish, European, white other), 4% black (black Caribbean, black African, black British, black other), 2% Asian (Indian, Pakistani, Chinese, Asian British), and 5% "other."

Sexual identity

Ninety per cent of the whole sample described themselves in the following terms: lesbian, gay, dyke, khush, or zami. Eight per cent identified themselves as bisexual and 2% "other" sexual orientation.

Eighty two per cent (887/1085) of lesbians had a history of sex with men, 5% within the past year. Virtually all (98/101, 97%) bisexual women had a history of sex with men, 50% within the past year. Women aged 30 and under were more likely to describe themselves as bisexual (63/567, 11%) than those over 30 years old (39/625, 6%) ($p<0.01$).

Sexual history

Female sexual partners

Virtually all (98%) of the whole sample reported past or present sexual activity with women, 83% within the last year. The median number of female partners in the past year was one (interquartile range 1–2), and median age of first sexual experience with a woman was 21 (interquartile range 18–25).

Table 2 Lifetime sexual partnerships with women and men

Number of sexual partners ever	Female partners	Male partners
	No (%)	No (%)
None	24 (2)	183 (15)
One	134 (11)	155 (13)
2–5	438 (36)	414 (34)
6–10	341 (28)	238 (20)
>10	280 (23)	228 (19)

Male sexual partners

Eighty five per cent of the whole sample reported past or present sexual activity with men. Of these, 12% had been sexually active with men within the past year, 18% 1–3 years ago, 42% 4–10 years ago, and 28% more than 10 years ago. Younger women were more likely to report sex with men within the past year (23% of those under 25 compared with 7% of those 36 or over, $p<0.0001$). The median number of male partners in the past year was one (interquartile range 1–2), and median age of first sexual experience with men was 18 years (interquartile range 16–21).

Table 2 shows the distribution of lifetime sexual partnerships with women and men.

The number of female sexual partners does not correlate with number of male sexual partners (correlation coefficient 0.094); for example, women with a history of larger numbers of male partners do not also have a history of larger numbers of female partners, and vice versa.

Table 3 shows the frequency of different sexual practices with women and men.

Pregnancy history

Twenty six per cent reported a history of pregnancy; 13.5% reported one or more live births, 0.3% reported stillbirths, 5.8% had miscarried, and 13.5% had undergone termination of pregnancy. There was no difference in pregnancy rates by

Table 3 Sexual practice with male and female partners

	Occasionally (%)	Often (%)
Sexual practice with women ever (n=1218)		
Oral sex (mouth-vagina)	25	72
Vaginal penetration with fingers	13	84
Mutual masturbation	24	71
Genital-genital contact	42	50
Anal penetration with fingers	42	13
Vaginal penetration with sex toy	37	16
Fisting (hand-vagina) (n=415)	17	16
Rimming (mouth-anus)	29	10
Sado-masochistic activity	19	5
Anal penetration with sex toy	12	4
Fisting (hand-anus) (n=415)	3	2
Sexual practice with men in past 10 years (n=328)		
Vaginal penetration with penis	32	53
Mutual masturbation	38	40
Vaginal penetration with fingers	39	39
Receiving oral sex (mouth-vagina)	46	31
Giving oral sex (mouth-penis)	48	25
Anal penetration with penis	24	4
Anal penetration with fingers	14	5
Vaginal penetration with sex toy	16	4
Sado-masochistic activity	6	2
Fisting (hand-vagina)	2	1
Fisting (hand-anus)	1	0

sexual identity; 26% (274/1069) of lesbians had been pregnant compared with 29% (29/99) of bisexual women ($p=0.27$).

Use of barriers in sex (safer sex)

Three hundred and twenty eight women were asked questions about safer sex with women and men in the past 10 years.

With women

Eighty six per cent of those who reported oral sex with women ($n=296$) had never used dental dams; 13% used them occasionally or often and 1% always used them. Of those who reported sharing sex toys with women ($n=127$), 22% never washed them before sharing, 31% washed them occasionally or often, with 47% always washing them. In addition, 22% of those sharing sex toys used condoms occasionally or often when sharing, and 26% always did.

With men

Of those who reported penetrative sex with men (penis-vagina) ($n=170$), 32% had never used condoms or femidoms, 45% used them occasionally or often, and 23% always did. Of those who reported anal penetration with a penis ($n=35$), 42% had never used a condom or femidom, 29% used them occasionally or often, and 29% always did. Of the 128 women who reported oral sex with men, 80% never used condoms, 16% occasionally or often, and 4% always used them.

DISCUSSION

Critique of methodology

Sample selection and response rates

Sexual orientation can be defined by sexual identity, sexual attraction, or sexual behaviour.¹³ These definitions are not necessarily congruent, and are likely to differ in degree and over time. We selected subjects on the basis of both sexual identity and sexual behaviour. We used convenience sampling (selected by virtue of attendance at lesbian clinics or through lesbian and bisexual women's community groups) since lesbian and bisexual sexual orientation is stigmatised and subjects hard to reach for research.¹⁴ The clinics were advertised as lesbian sexual health clinics, and the survey described as a survey of lesbian sexual health, so bisexual women are likely to be under-represented. While the community sample was purposively selected to reflect demographic diversity, the results presented may not be directly generalisable to lesbians and bisexual women in other settings. These data are not intended to represent all lesbians and bisexual women, but instead to describe diversity of sexual history and practice in a large sample of women who have sex with women.

Survey methods

Surveys of sexual health are inevitably vulnerable to inaccuracies such as recall bias and social desirability bias.^{15 16} In addition, questions about sexual behaviour are liable to be interpreted in subtly different ways by respondents depending upon what is considered "sex" or a "partner" by respondents. For example, while 85% reported past sex with men, 82% reported having had one or more male sexual partner.

The survey used a structure with mainly closed questions and predetermined response categories. The true diversity of sexual history and practice is therefore likely to be under-represented by these results. We have noted differing response rates to different individual questions; the poorest response rates were for questions about anal sex and this may introduce response bias.

Discussion of results

This survey constitutes the largest data set of lesbian and bisexual women's sexual behaviour in the United Kingdom. Direct comparisons of our results with other surveys are difficult because of differences in sampling methods, definitions of

sexual orientation, formulation of questions, or descriptive statistics. Comparisons can be made with six surveys of sexual behaviour which were carried out during the 1990s. Two are British: (a) the Pride Survey,¹⁷ a convenience sample of 278 lesbians at London's annual Pride festival, and (b) the National Survey of Sexual Attitudes and Lifestyles 1990-1 (NATSAL),¹⁸ a probability sample of 18 876 of which 178 women reported same sex genital contact. Three surveys are American: (c) a national postal survey included in the magazine *The Advocate*, which recruited 6935 lesbians,¹⁹ (d) the Boston Lesbian Health Project, a national survey of 1633 lesbians recruited by snowballed sampling,²⁰ and (e) the National Health and Social Life Survey (NHLS),² a probability sample of 3432, of which 140 women reported same sex partners. The last is Australian: (f) a survey of 1408 women who have sex with women attending a genitourinary clinic in Sydney.²¹

The comparisons outlined below indicate a relatively high level of consistency between survey results.

In our survey, vaginal stimulation through oral sex or penetration with fingers was almost universally reported in sex between women. The use of sex toys and anal stimulation were less commonly reported. Similar preferences were recorded in the Pride Survey and the Boston Lesbian Health Project. The two national probability surveys (NATSAL in the United Kingdom, NHLS in the United States) give details only about passive or active oral sex between women.

Differences in sampling methods are likely to account for differing proportions of subjects reporting sexual activity with men. Subjects in *The Advocate*, Boston Lesbian Health, and Pride surveys were defined by lesbian or bisexual identities; 77%, 77%, and 87% of respondents reported sexual activity with men. NATSAL and NHLS were random population samples and the Sydney STI survey was a clinic population which included 22% who were sex workers; 96%, 98.8%, and 93% of these respondents reported sexual activity with men. Data in other surveys are consistent with our finding that lesbian and bisexual women's first sexual experience tends to be heterosexual, followed a few years later by first same sex sexual experience.

Lesbians and bisexual women may have reproductive health needs²²; in our survey 13.8% had given birth and 5.8% reported miscarriage. An appreciable proportion had undergone termination (13.5%); this is similar to the reported rate in NATSAL of 15.1% for all women aged 25-44. Lesbians and bisexual women may seek advice about conception by donor insemination.²³ It is not known what proportion of our sample are non-biological parents.

Case studies and clinic based surveys indicate that woman to woman transmission of infection is possible for trichomoniasis,²⁴ genital herpes,²⁵ vulval and cervical human papillomavirus,²⁶ hepatitis A,²⁷ syphilis,²⁸ and HIV;²⁹ as well as bacterial vaginosis.³⁰ Woman to woman transmission of chlamydia or gonorrhoea has not been documented. The relative rarity of most of these STI diagnoses in lesbians or bisexual clinic attenders means that analysis of risks of particular sexual practices is difficult. Our data demonstrate a range of sexual practice in sex between women, and counter assumptions that a lesbian sexual orientation precludes sexual activity with men; this information is intended to guide appropriate screening, diagnosis, treatment, and prevention advice for STIs in lesbians and bisexual women.

A sizeable proportion of lesbians and bisexual women in our survey with a history of sexual activity with men had never used condoms for vaginal or anal penetrative sex (although the numbers in this subgroup were small). A large proportion of those who shared sex toys did not wash them or use condoms on toys before use on another woman. Dental dams were rarely used in sex between women. These data on use of barriers in sexual activity seem to imply that lesbians are at risk of STI transmission from men or women, although safer sex may be negotiated in ways other than through the use of

Key messages

- Most lesbians and bisexual women (60%) in this sample had one female partner in the past year; 87% reported two or more female sexual partners ever
- Most lesbians and bisexual women (85%) reported sexual activity with men, most commonly 4 or more years ago; 26% had been pregnant
- First sexual experience tended to be with a man (median 18 years), with first experience with a woman a few years later (median 21 years)
- Sexual practice between women includes oral sex, vaginal or anal penetration with fingers or sex toys, and mutual masturbation
- Careful history taking without making assumptions should help clinicians to avoid misunderstandings and offer appropriate sexual health advice to lesbians and bisexual women

condoms or dental dams. Lesbians in the Pride survey negotiated reduced risk of HIV infection between women by avoiding certain acts (38%) and washing hands and sex toys (17%) as well as by using latex gloves (17%) or dental dams (15%).

The demand for specially targeted lesbian sexual health services in London and other cities in the United Kingdom seems to indicate that mainstream sexual health or primary care services are not meeting lesbian and bisexual women's needs.^{3,22} A large proportion are overdue for cervical cytology,³¹ and in a UK survey 54% of lesbians agreed with the statement that "it did not feel safe enough to discuss my sexuality properly on visits to general practitioners"; 31% felt this about sexual health clinics.³² Most lesbians and bisexual women will receive sexual health care in mainstream settings; educational materials are available for health carers.³³⁻³⁵ However, Bell suggests that physicians who are uncomfortable with the issues of gay sex and relationships should refer the patient on to someone else.³⁶ Stevens and Hall found that "The most dominant feature of positive health care experiences . . . was the perception that providers accepted the knowledge of their clients' lesbian identity as a matter of routine. Lesbians wanted to feel accepted, respected, and welcomed by healthcare providers."¹¹

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