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## Health and Professional Characteristics of Lesbian and Heterosexual Women Physicians

Donna J. Brogan, PhD; Katherine A. O'Hanlan, MD;  
Lisa Elon, MS, MPH; Erica Frank, MD, MPH

### Objective

To determine whether lesbian and heterosexual female physicians differ on health, professional, and demographic characteristics.

### Methods

The Women Physicians' Health Study (WPHS), a mailed questionnaire sample survey, was completed by 4501 women physicians (59% response rate), of whom 115 were identified as lesbians and 4177 were identified as heterosexuals. Lesbian and heterosexual were defined by response to items about self-identification and sexual behavior. Dependent variables are self-reported health status and behavior and professional characteristics.

### Results

Lesbians weighed more and were more likely to report histories of depression or sexual abuse, family histories of alcoholism, and orientation-related workplace harassment (all  $p = .01$ ). On the other hand, they were more likely to comply with mammogram screening ( $p < .01$ ).

### Conclusions

Many health status and behavior differences found in other studies of lesbian and heterosexual women were less pronounced here. This may be because the population of female physicians is more homogeneous, but perhaps also because the size of our lesbian sample was limited ( $n = 115$ ). However, even with the buffer of high socioeconomic status and medical education, lesbian physicians seem to have a somewhat higher cumulative risk of disease compared to their heterosexual female colleagues. (*JAMWA*. 2003;58:10-19)

The Institute of Medicine (IOM) has identified lesbian health as an important research area.<sup>1,3</sup> Although lesbians make up only a small percentage of American women and, like all women, are a diverse group, they may have some special health needs and concerns that would benefit from focused public health research. Previous research has suggested that lesbians may have a higher prevalence of cigarette smoking,<sup>4,7</sup> alcohol abuse,<sup>4,5, 8-13</sup> high body mass index,<sup>5</sup> breast cancer risk factors,<sup>14-15</sup> mental health disorders,<sup>16-17</sup> and underutilization of preventive and screening services.<sup>18-20</sup>

Prior lesbian health research has been criticized for its use of nonprobability samples, lack of a heterosexual female comparison group, and use of a noncomparable (often on socioeconomic status [SES]) comparison group.<sup>2,10-11,30-32</sup> Two recent national surveys, the National Household Survey on Drug Abuse,<sup>16</sup> with 96 lesbians and 5792 heterosexual women, and the National Comorbidity Study,<sup>17</sup> with 51 lesbians and 2475 heterosexual women, overcame these deficiencies.

Our large national probability sample of female physicians in the United States allowed us to compare lesbians ( $n = 115$ ) and heterosexuals ( $n = 4177$ ) on health status, health behavior, and personal and professional characteristics. We hypothesized that lesbian and heterosexual female physicians are more similar than past studies of lesbians have indicated, because they have comparable (and high) SES.

*Dr. Brogan and Ms. Elon are in the Department of Biostatistics of the Rollins School of Public Health at Emory University in Atlanta, Georgia. Dr. O'Hanlan is at the Stanford Medical Center in Palo Alto, California. Dr. Frank is in the Department of Family and Preventive Medicine of the Emory University School of Medicine in Atlanta.*

**Table 1.** Demographic and Personal Characteristics of US Female Physicians, by Sexual Orientation

Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P
Median age, years (SE)	40.7 (1.0)	39.9 (0.1)	.42
Mean age, years (SE)	42.1 (0.7)	42.1 (0.1)	.95
Race, %			<.001
White non-Hispanic	85.2	75.6	
Black/African American	5.8	4.1	
Asian American/Pacific Island	3.5	12.7	
Hispanic/Latina	4.8	5.0	
Other	0.7	2.6	
US born, %	85.9	76.3	.03
Region of residence, %			.28
East coast	37.6	45.3	
Central	39.2	37.5	
West coast	23.2	17.2	
Location of practice, %			.10
Urban	58.7	55.6	
Suburban	24.6	34.4	
Rural	16.7	10.0	
Religion, %			.016
Christian	45.6	61.7	
Other religion	28.7	24.7	
None/Atheist	25.7	13.6	
Religious fervor, %	37.2	44.4	.20
Political ideology, %			<.001
Conservative	7.6	27.0	
Moderate	25.9	37.1	
Liberal	66.6	35.9	
Mother's education, %			.29
High school degree	38.6	39.3	
Some college or college degree	48.0	41.4	
Graduate or medical school	13.5	19.3	
Father's education, %			.005
High school degree	39.8	27.5	
Some college or college degree	30.2	33.8	
Graduate school	24.4	24.8	
Medical school	5.6	13.9	

## Methods

The Women Physicians' Health Study<sup>33-35</sup> used a stratified random sample<sup>36</sup> of women doctors 30 to 70 years of age, who graduated from medical school between 1950 and 1989, were not medical residents, and lived in the United States or its territories in September 1993. The American Medical Association (AMA) Physician Masterfile, containing both

**Table 2.** Marital/Partner and Reproductive Characteristics of US Female Physicians, by Sexual Orientation, %

Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P
Ever married	32.5	86.8	<.001
Currently coupled	62.1	77.8	.006
Partner education			.007
College degree or less	35.8	23.2	
Graduate school	39.4	33.0	
Medical school	24.9	43.9	
Pregnancies			<.001
None	61.8	22.4	
1	15.5	14.7	
±2	22.8	62.9	
Biological children			<.001
None	73.1	32.9	
1	14.6	17.1	
±2	12.3	50.0	
Children			<.001
None	60.3	28.8	
1	21.9	16.0	
±2	17.9	55.2	
Ever used oral contraceptives	60.0	74.8	.009
Home stress			.001
Severe	1.4	5.9	
Moderate	32.2	42.9	
Light	66.4	51.2	

AMA members and nonmembers, was used to construct the sampling frame (or list) of the approximately 86 000 women in our population of inference. This frame was stratified by decade of graduation, and then a simple random sample of 2500 physicians was selected within each of the 4 decades. The Emory University Institutional Review Board approved the study.

The self-administered questionnaire was mailed up to 4 times to the 10 000 sampled physicians; the final response rate was 59% (n=4501) among physicians eligible to participate (ie, female, age 30-70, graduated with MD in 1950-1989, not in medical residency, and lived in the United States or territories in September 1993). The questionnaire asked about medical training and practice; items on health status, medical history, and health behavior primarily came from the Behavioral Risk Factor Surveillance System (BRFSS).<sup>37</sup> We defined lesbian and heterosexual using questionnaire items on both sexual behavior and orientation self-

identification.<sup>38</sup> Lesbian (n=115) was defined as either: self-identification as lesbian **or** current sexual activity with “women.” Heterosexual (n=4177) was defined as either: 1) self-identification as heterosexual **and** no current sexual activity with “women” or with “both” men and women **or** 2) self-identification as “other” or no response **and** current sexual activity with “men.”

Note that it was not necessary to have a current sexual partner to be classified as heterosexual or lesbian. Sixty-five women who were classified as neither lesbian nor heterosexual and 144 women who could not be classified because they did not respond to the items on orientation self-identification or sexual behavior were excluded from analyses. Too few women were classified as bisexual to include as a separate category. We chose not to combine them with the lesbians and so excluded them from analysis.

SUDAAN<sup>39-40</sup> was used for all statistical analyses. All confidence intervals (CI) are 95%. Lesbians and heterosexuals were compared on continuous variables by linear contrasts<sup>41</sup> and on categorical variables via  $\chi^2$  tests,<sup>42</sup> including the Cochran-Mantel-Haenszel (CMH) test.<sup>39</sup> Because we made many comparisons, we used a 2-sided Type I error rate of .01 to determine whether differences between lesbians and heterosexuals were significant.

## Results

The estimated prevalence of being lesbian among US women physicians was 3.1% (CI 2.4%, 3.7%).

### *Demographic/Personal Characteristics*

Lesbians and heterosexuals were similar in age, region of residence, urban/rural location of practice site, place of birth, religion, and mother's education (Table 1). Lesbians were more likely than heterosexuals to have a liberal political outlook, even after controlling for region (CMH  $p < .001$ ), race (CMH  $p < .001$ ), and birthplace (CMH  $p < .001$ ), and less likely than heterosexuals to have physician fathers, even after controlling for race (CMH  $p = .004$ ) and for birthplace (CMH  $p = .012$ ). Lesbians were less likely to be Asian American/Pacific Islander.

Lesbians and heterosexuals differed in all marital, partner, and reproductive characteristics (Table 2). Lesbians reported less home stress than heterosexuals did, even after control-

ling for whether coupled or not (CMH  $p = .01$ ), but not after controlling for biological children (CMH  $p = .32$ ) or for any children (CMH  $p = .15$ ).

### *Professional Characteristics*

Lesbians were less likely than heterosexuals to be pediatricians, anesthesiologists, pathologists, and radiologists or to work in public health (Table 3). Lesbians were only half as likely as heterosexuals to say they would change their specialties.

Lesbians and heterosexuals did not differ in board certification, type of medical practice, work stress level, work load perception, desire to work fewer hours, and personal income. Similarity in personal income persisted after adjusting for race (CMH  $p = .91$ ), birthplace (CMH  $p = .86$ ), or for whether coupled (CMH  $p = .92$ ). Married or partnered lesbians and heterosexuals did not differ on household income.

Lesbians and heterosexuals were similarly likely to have experienced gender or sexual harassment during their medical careers (including medical school), but lesbians were more likely to report orientation harassment.

Lesbians were less likely to say they would refuse to work with human immunodeficiency virus (HIV) infected people or to allow their children to be in the same classroom with HIV-infected children, although a small percentage of both lesbian and heterosexual physicians reported these views. These differences in HIV attitudes remained after controlling for race (CMH  $p = .002$  for work and CMH  $p = .008$  for child) or for birthplace (CMH  $p < .001$  for work and for child).

### *Health Characteristics*

Lesbians and heterosexuals were equally likely to have regular physicians, but lesbians were more likely to have female physicians. Among those 50 years old or older, lesbians were more likely to have had mammograms in the past 2 years, even after controlling for gender of regular physician (CMH  $p < .001$ ). Lesbians and heterosexuals were comparable on a wide range of preventive, safety, exercise, and nutrition variables (Table 4).

Lesbians and heterosexuals did not differ in health status measures (Table 5), including smoking status and history and alcohol consumption (Table 6).

Lesbians had a higher mean weight and higher estimated

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**In contrast to many prior studies,  
we found no  
statistically significant differences  
between lesbians and heterosexuals  
in current or recent  
consumption of alcohol.**

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**Table 3.** Professional Characteristics of US Female Physicians, by Sexual Orientation, %

Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P	Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P
Medical specialty			.014	Household income*†			.02
Family/general practice	15.2	11.9		≤149K	49.7	41.4	
General internal medicine	14.9	12.5		150-199K	30.5	20.6	
Medicine subspecialty	15.9	8.7		200K+	19.8	37.9	
Psychiatry	20.1	10.8		Satisfied with career			.29
Pediatrics	7.0	16.6		Always/almost always	55.8	48.6	
Gynecology/obstetrics	6.9	8.3		Usually	27.9	35.8	
Surgery/subspecialty	6.0	3.8		Sometime, rarely, never	16.3	15.7	
Anesthesiology, pathology, public health, radiology	6.8	14.4		Become MD again			.30
Dermatology, emergency medicine, neurology, ophthalmology	4.4	8.5		Definitely	44.6	36.0	
Other	2.9	4.5		Probably/maybe	40.2	48.6	
Board certified	62.0	64.9	.66	Probably not or definitely not	15.2	15.4	
Type of practice			.14	Change specialty			.01
Solo or partner	33.6	23.2		Definitely/probably yes	10.7	20.9	
Group	21.0	27.5		Maybe	14.9	17.9	
Hospital	26.4	23.6		Probably/definitely not	74.3	61.2	
Academia, government, other	19.0	25.6		Ever gender harassment	54.7	47.5	.21
Work stress			.14	Ever sexual harassment	40.0	36.9	.57
Severe	22.1	12.9		Ever lifestyle harassment	35.7	9.7	<.001
Moderate	64.3	69.0		Would not work with HIV-infected person	2.0	8.5	<.001
Light	13.6	18.0		Would not allow own child in same classroom as HIV-infected child	2.7	9.0	.002
Work too much or far too much	37.2	44.6	.18	Personal chance of getting HIV is high/ medium (v low/none)	9.2	15.6	.07
Trying to work fewer hours			.25				
Yes, high priority	15.1	15.8					
Yes, low priority	14.6	20.9					
No	70.3	63.3					
Personal income*			.91				
<50K	14.5	14.7					
50-99K	32.4	37.8					
100-149K	32.7	28.3					
150-199K	10.6	9.8					
200K+	9.9	9.4					

\* Item response rate among lesbians and heterosexuals is 81% to 82%.  
† Among those married or partnered.

quartiles of weight, but were similar to heterosexuals in the degree to which they considered themselves overweight or were trying to lose weight.

Lesbians and heterosexuals did not differ in most of the 33 disease history variables reported in Table 7. Lesbians were more likely than heterosexuals to report histories of depression or sexual abuse, even after adjusting for birthplace (CMH  $p=.01$  for both) and for race (CMH  $p=.02$  depression,  $p=.01$  sexual abuse). However, the relationship between sexual orientation and sexual abuse was evident only among whites and those born in the United States.

Lesbians were significantly more likely to report family

histories of alcohol abuse or dependence, even after adjusting for race (CMH  $p=.01$ ), but not after adjusting for birthplace (CMH  $p=.03$ ). The higher prevalence for family history of alcohol abuse/dependence among lesbians occurred only among those born in the United States.

## Discussion

We found that lesbian and heterosexual physicians did not differ significantly (at  $p=.01$ ) on a broad range of health and professional characteristics, which supports our hypothesis. Our study replicated the reproductive and marital differences between lesbians and heterosexual

**Table 4.** Preventive Health Behaviors Among US Female Physicians, by Sexual Orientation, %

Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P	Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P
Have regular personal physician	74.4	76.5	.67	Vegetarian	13.0	8.0	.15
Regular physician is female	67.1	46.5	.003	Trying to change eating habits			.58
Health care quality			.57	Yes, high priority	30.9	27.6	
Excellent	45.2	39.3		Yes, low priority	32.9	38.6	
Very good	34.2	37.1		No	36.2	33.9	
Good	14.8	19.2		Fruits/vegetables per day			.30
Fair or poor	5.9	4.5		0 to <2	28.6	20.9	
Pap test past 3 years (hysterectomy excluded)	78.2	91.1	.02	2 to <3	26.6	29.2	
Pap test past 3 years (hysterectomy included)	71.5	84.1	.02	3 to <5	22.6	30.4	
Breast self-exam, times past year			.96	≥5	22.3	19.5	
Never	6.6	6.5		Fat gram score, by quartiles			.98
1-3	26.7	24.3		1st quartile (lowest)	22.5	21.5	
4-6	27.9	26.7		2nd quartile	30.9	31.3	
7-11	20.6	21.1		3rd quartile	20.4	22.1	
12+	18.2	21.4		4th quartile	26.3	25.1	
Clinical breast exam*	69.4	77.9	.10	Sunscreen use‡			.09
Mammogram past 2 years age 50+	97.2	79.2	<.001	Always	17.4	21.0	
USPSTF†	57.9	67.4	.10	Almost always	20.1	30.1	
Exercise hours/week			.18	Sometimes	30.3	27.2	
0-2	28.0	35.9		Rarely or never	32.2	21.7	
2.1-4.0	25.7	29.9		Use seat belt always/almost always	95.9	96.5	.77
4.1-8.0	23.0	21.6		Gun/firearm in home	19.5	16.4	.45
>8.0	23.4	12.5		Home checked for radon	11.7	17.8	.07
Trying to exercise more			.18				
Yes, high priority	53.8	46.3					
Yes, low priority	30.6	40.6					
No	15.6	13.1					

\* Within 3 years if 30-39, within 1 year if 40.

† Cholesterol, blood pressure, Papanicolaou test, clinical breast exam, mammogram.

‡ Excludes a few subjects who checked "never outside for 1 hour."

women found in other studies, however.<sup>3,15,43</sup> Some of the differences we found, unique perhaps to women physicians, are reported here for the first time (to our knowledge).

It is of interest that lesbians and heterosexuals did not differ significantly in age. One might have expected a higher prevalence of lesbians among the older physicians because they may have been more willing to break out of rigid sex-role stereotypes and enter medicine at a time when it was considered off limits to women. Lesbians were less likely to choose pediatrics, a specialty commonly favored by women physicians, and were more likely to be subspecialists, possibly because they may have felt less bound by gender-based constraints in specialty choices.

Not surprisingly, lesbians were less likely to be politically conservative. Women physicians in general are not politically conservative.<sup>44</sup> In fact, the American Medical Women's Association endorsed marriage, adoption, and other civil rights for lesbians and gays in 1994.<sup>45</sup>

Lesbians were less likely to say that they would refuse to work with HIV-infected people or allow their children to attend school with HIV-infected children. Lesbians may be more aware of the low probability of transmission of HIV by casual social contact because of their familiarity with issues affecting the homosexual community in general.

Lesbians were more likely to report harassment because of sexual orientation, which we have discussed more fully

**Table 5.** Health Status of US Female Physicians, by Sexual Orientation

Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P
Self-rated health, %			.89
Excellent	39.3	42.0	
Very good	40.9	36.6	
Good	16.1	17.3	
Fair or poor	3.6	4.2	
Bad mental health days past month, %			.15
None	34.2	43.7	
1	9.3	13.1	
2-6	40.4	30.5	
>6	16.1	12.7	
Bad mental health days past month, median (SE)	1.4 (.38)	0.5 (.06)	.02
Bad physical health days past month, %			.57
None	52.7	50.2	
1	11.9	17.4	
2-6	27.7	25.8	
>6	7.7	6.6	
Pulse, mean (SE)	69.9 (1.10)	71.7 (0.19)	.10
Systolic blood pressure, mean (SE)	111.9 (1.21)	111.5 (0.25)	.76
Diastolic blood pressure, mean (SE)	69.8 (1.01)	70.3 (0.18)	.62
Total cholesterol, mean (SE)	180.1 (5.11)	179.8 (0.80)	.96

elsewhere.<sup>46</sup> Harassment is often associated with professional dissatisfaction,<sup>46</sup> so it is noteworthy that lesbians reported being equally or more satisfied with their medical careers than heterosexuals did. Prior victimization, low self-esteem, and poor social support have been associated with depression in lesbians and gay men<sup>47-50</sup> as well as in the general population, and our study found that lesbians were more likely to have histories of depression.

Lesbians were more likely to have female regular physicians, consistent with other studies.<sup>51-53</sup> Lesbians 50 years old or older were more likely than heterosexuals to receive the recommended mammography screening. This may be because lesbians are believed to have a stronger risk factor profile for breast cancer.<sup>15</sup> Lesbians and heterosexuals in our study were comparable on other screening procedures, similar to those in Koh's<sup>54</sup> study of urban and highly educated (40% graduate school) lesbians and heterosexual women visiting physicians' offices.

Lesbians did weigh more (about 9 pounds) than their heterosexual counterparts, consistent with other studies.<sup>55</sup> Lesbians in a study of college women identified a signifi-

cantly higher weight as their ideal body weight,<sup>56</sup> suggesting that they do not subscribe to the popular ethic of strictly slender appearances. We were not able to analyze body mass index because some respondents answered the height item incorrectly.

Lesbian and heterosexual women physicians had the same low smoking rate of 4%, compared to 8% for high-SES US women and 19% for US women not of high SES.<sup>35</sup> Twelve percent of lesbians enrolled in the Women's Health Initiative smoked compared to 7% of heterosexual enrollees.<sup>55</sup>

In contrast to many prior studies, we found no statistically significant differences between lesbians and heterosexuals in current or recent consumption of alcohol. Two recent studies with appropriate heterosexual control groups, one of low-income women<sup>15</sup> and one of educated women,<sup>51</sup> also showed no difference in alcohol use by sexual orientation. The latter study,<sup>51</sup> however, found that lesbians had higher rates of past alcohol problems and current participation in Alcoholics Anonymous. Analyses of National Household Survey on Drug Abuse data found that lesbians were more likely to be dependent on alcohol,<sup>16</sup> and the National Comorbidity Study also suggested a higher level of alcohol abuse or dependence among lesbians.<sup>17</sup> Also noteworthy is that alcohol abuse has been correlated with social discrimination or family marginalization among younger gays and lesbians.<sup>57</sup> Inconsistency of alcohol use results may arise from differences in definitions of sexual orientation and alcohol use, in sampling procedures, and in social desirability biases.

Lesbian physicians were more likely to report personal histories of depression and family histories of alcohol abuse or dependence,<sup>12</sup> the latter perhaps contributing to the former. Previous findings on depression among lesbians have been mixed, possibly because of differences in definitions of sexual orientation and depression. Two recent studies found no difference between lesbians and heterosexuals on history of depression<sup>51</sup> and 1-year prevalence of depression.<sup>32</sup> Other studies found that lesbians are much more likely than heterosexuals to have used mental health or substance abuse services,<sup>12,31,58</sup> common reasons being personal relationship problems and depression. Marginalization, other life stressors, and lack of social support may confer higher risk for depressive distress.<sup>59</sup>

Lesbian physicians were 3 times more likely than heterosexual physicians to report histories of sexual abuse, although this relationship appeared only among US-born women or among whites compared to all other races/ethnicities. Other studies have noted a higher prevalence of childhood sexual abuse among lesbians than among heterosexual women.<sup>51,58</sup> In our study the estimated

**Table 6.** Smoking, Alcohol Use, and Weight Among US Female Physicians, by Sexual Orientation

Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P	Characteristic	Lesbians (n=115)	Heterosexuals (n=4177)	P
Smoking history, %			.13	Drink > 2 drinks/day past month, %	2.3	1.1	.45
Never	68.4	78.1		Drink 5 drinks on one occasion past month, %	6.9	4.4	.43
Past	28.7	18.3		Trying to drink less alcohol, %	13.1	12.9	.96
Current	2.8	3.6		Among drinkers only past month			
Years lived with regular smoker as child, mean (SE)	8.5 (0.97)	8.2 (0.17)	.73	Alcohol drinks/week, %			.21
Years lived with regular smoker as adult, mean (SE)	2.6 (0.51)	2.7 (0.10)	.90	< 1	30.0	39.4	
Mean weight, pounds	146.6	138.0	.002	1 to < 4	31.5	34.4	
Weight percentiles, pounds (CI)				4 to < 7	21.5	15.6	
25th percentile	127.7 (122.8, 133.7)	119.7 (119.4, 120.0)		≥ 7	17.0	10.7	
50th percentile	139.1 (134.2, 148.1)	133.4 (132.5, 134.7)		Drinks per week, median n (SE)	1.9 (0.5)	1.2 (0.1)	.23
75th percentile	159.2 (151.5, 164.9)	149.2 (147.1, 149.5)		Days drink/week, %			.36
Consider yourself overweight, %			.43	≤ 2	66.4	72.0	
Yes	36.5	29.4		3-4	13.7	14.6	
Somewhat	26.7	27.6		> 4	20.0	13.4	
No	36.8	43.0		Drink days per week, median n (SE)	1.0 (0.2)	1.0 (0.1)	.97
Trying to lose weight, %			.53	Drinks/drinking day, %			.07
Yes, high priority	21.8	17.4		< 2	59.3	71.6	
Yes, low priority	43.3	42.1		≥ 2	40.7	28.4	
No	35.0	40.5		Drink > 2 drinks/day, %	3.0	1.6	.51
1 or more days drinking alcohol past month, %	80.1	72.5	.11	Drink daily, %	6.3	4.7	.50
Alcohol drinks/week past month, %			.13	Drink 5 drinks on one occasion, %	8.3	5.8	.51
None	21.3	30.1		Trying to drink less alcohol, %	15.7	15.4	.94
< 1	23.6	27.5					
1 to < 4	24.8	24.0					
4 to < 7	16.9	10.9					
≥ 7	13.4	7.5					

prevalences of sexual abuse history among lesbian and heterosexual physicians (15% and 4%, respectively) were lower than those found in the female adult population (20%)<sup>60-61</sup> and much lower than those found in prior studies of lesbians.<sup>51,58</sup> This may reflect the tendency for female physicians to be healthier than women in general.<sup>35</sup> Some researchers posit that a history of sexual abuse may predispose some women to become lesbian,<sup>62</sup> or it may be that men are more likely to abuse girls or women who are not stereotypically heterosexual.<sup>63</sup>

Our finding that 3% of female physicians are lesbian is consistent with other population-based studies using probability sampling<sup>16,43,64</sup> and is within Kinsey's<sup>65</sup> estimate of 2% to 6%.

Our inference population is US female physicians, not US women. This narrow population might be considered a study limitation; however, it is also a strength because of the implicit control on education, occupation, and SES, all known to have impacts on health-related variables.<sup>66</sup> Potential limitations include self-report of sexual orientation

**Table 7.** Personal and Family Disease History of US Female Physicians, by Sexual Orientation, %

Disease	Lesbians (n=115)	Heterosexuals (n=4177)	P
Depression	33.3	19.4	.01
Sexual abuse	14.9	4.3	.01
Alcohol abuse/dependence	8.6	1.4	.03
Substance abuse/dependence	2.5	0.8	.24
Domestic violence	7.1	3.7	.18
Eating disorder	7.9	5.7	.46
Obesity	18.6	9.8	.05
Breast disorder (not cancer)	10.6	6.3	.24
Endometriosis	14.5	5.1	.04
Hysterectomy	8.6	7.6	.71
Bilateral oophorectomy	3.6	3.9	.87
Unilateral oophorectomy	2.3	2.4	.94
Mother depression	26.1	16.6	.07
Mother alcohol abuse/ dependence	8.5	4.2	.26
Mother breast cancer	11.0	5.9	.22
Mother hysterectomy	25.7	20.0	.25
Mother bilateral oophorectomy	15.3	8.0	.17
Father depression	10.3	8.6	.57
Father alcohol abuse/ dependence	24.5	11.1	.02
Father substance abuse/ dependence	3.6	0.4	.12
Sibling depression	22.5	13.0	.06
Sibling alcohol abuse/ dependence	18.9	7.9	.02
Sibling substance abuse/ dependence	13.2	4.9	.05
Sibling sexual abuse	6.3	2.4	.14
Sibling obese	18.9	10.9	.10
Family alcohol abuse/ dependence*	34.5	18.8	.01
Family substance abuse/ dependence*	16.5	6.4	.02
Family sexual abuse*	8.4	3.6	.11
Family domestic violence*	7.9	6.0	.55
Family depression*	39.7	29.6	.08
Family suicide*	12.5	6.5	.11
Family eating disorders*	9.6	7.6	.58
Family other psychiatric*	13.0	6.9	.09

\*Family includes mother, father, sibling, child.

and health variables and the 59% response rate. Physicians, however, may be better reporters than the general public, and the response rate is consistent with other physician surveys and higher than most.<sup>34</sup> Nonresponse bias is likely to be negligible, because respondents and nonrespondents were similar on many variables except for board certification,<sup>34</sup> and sampling weights were adjusted for this variable.<sup>35</sup>

Our sample of lesbians was small compared to the heterosexuals, but still larger than recent probability samples.<sup>16,17</sup> Using an average design effect<sup>67</sup> of 1.6, based on our analyses reported herein, our post hoc calculated power is 0.94 or higher for detecting medium to large effect sizes<sup>68</sup> (ie, differences between lesbians and heterosexuals), with smaller power for small effect sizes.

Many differences in health status and behavior found in other studies of lesbians were less pronounced in our study of lesbian physicians. Medical education and high SES may make female physicians, both lesbians and heterosexuals, more homogeneous in their personal health behavior and status. Notable exceptions, though, include lesbians' higher weight and more frequent history of depression or sexual abuse. Furthermore, lesbians had higher estimated rates for 89% of the 75 disease or poor health indicators in Tables 3 to 7; most of these differences were not statistically significant, however, possibly because of small effect size and low power. However, the preponderance of these higher rates may suggest a broader picture of poorer health among lesbians. Thus, even with the buffer of high SES and medical education, lesbian physicians may have a higher cumulative risk of disease compared to their heterosexual colleagues. Further research specifically aimed at identifying factors contributing to this disparity may result in improved health for American lesbians.

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