

Do Sexual Minorities Receive Appropriate Sexual and Reproductive Health Care and Counseling?

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Abstract

Context: Sexual minority women (SMW) are less likely to use sexual and reproductive health care services and receive contraceptive counseling than their heterosexual peers. The role of recent sexual partners and the type of information provided when SMW access health services are unclear.

Methods: The National Survey of Family Growth 2006–2015 was used to document sexual orientation disparities in the use of sexual and reproductive health services and counseling in clinical settings among 20,703 women. We incorporate data on sexual partners in the past 12 months to investigate whether recent sex with men was associated with health care seeking behavior and reproductive counseling.

Results: Eighty-seven percent of the sample reported a male partner in the past 12 months, including 83% of bisexual women and 17% of lesbian women. In clinical settings, 48% of women reported birth control counseling at pregnancy or Pap tests, 49% reported a condom consult at an sexually transmitted diseases (STD) screening, and 9% reported emergency contraception counseling at a Pap test. Logistic regression models show that lesbian women were less likely than heterosexual women to have been given a contraceptive prescription or received contraceptive counseling, but were more likely to have received an STD test. In clinical settings, lesbian women were less likely to receive contraceptive counseling at pregnancy tests, and lesbian women without male partners were less likely to have a counseling about condom use at STD-related visits compared with heterosexual women.

Conclusions: At least some women and providers adjust health care seeking behaviors and information provided to women based upon recent sexual behavior histories. More work is needed to understand why disparities in reproductive health services and contraceptive use persist among SMW who engage in sex with men.

Keywords: sexual orientation, sexual minority women, health care, health disparities

Introduction

A GROWING BODY of literature has found that sexual minority women (SMW) (*i.e.*, women who do not identify as exclusively heterosexual and/or engage in same-sex romantic or sexual relationships [SMW]) have an increased risk of reporting sexually transmitted diseases (STD) and unintended pregnancy compared with their heterosexual peers.^{1–4} This disparity may be due, in part, to less frequent use of sexual and reproductive health services among SMW including Pap tests, STD screening, and contraceptive use,^{1,5–9} in addition to the types of health care counseling that occurs in the settings.

Previous research has documented multiple factors that contribute to SMW's lower utilization of sexual and reproductive health services, including decreased access to insurance¹⁰ and avoidance of health care settings due to experiences of discrimination in these settings. Discriminatory experiences in clinical settings range from providers' difficulty with eye contact, lack of provider comfort with same-sex partners in the clinical setting, intake forms that ask exclusively about opposite sex romantic partners, to overt homophobic slurs or comments.^{11–14} Awkwardness surrounding candid conversations about sexuality and lack of inclusive language leave some SMW feeling isolated and serve as a barrier to communication.^{15,16} Further, medical education programs provide

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limited opportunities for health practitioners to gain training on Lesbian, Bisexual, Gay, and Transgendered (LBGT) health issues.¹⁷

SMW are also less likely to have sexual education in classroom settings that includes LGBT-specific information¹⁸ and more likely to use the internet for sexual health information than heterosexual youth^{19,20} leaving them vulnerable to misinformation or a lack of accurate sexual health information.^{21,22} Perhaps relatedly, SMW are also less likely to perceive themselves as being at risk for an STD or pregnancy, especially those who identify as gay or lesbian,²³ which is associated with less frequent use of sexual and reproductive health services.^{23,24} While women who are exclusively engaged in same-sex sexual relationships are indeed not at risk for an unintended pregnancy and do not need contraception for the explicit purpose of preventing an unplanned pregnancy, STD transmission is possible.^{25,26} Recently, Charlton et al.²⁷ found that health beliefs explained 19% of the disparity in intention to have a Pap test between lesbian and heterosexual women: lesbian-identified women in their study did not believe that they were as susceptible to cervical cancer as heterosexual women. The perception of decreased sexual health risks has been found in other studies as well.^{28–30}

Research shows, however, that sexual relationships with men are not uncommon among SMW.^{31–33} Using nationally representative data of adult women, Xu et al. showed that 10% of lesbian women reported a male partner in the past 12 months, and 84% reported a male partner in their lifetime, while 79% of bisexual women reported a male partner in the past 12 months and 100% reported a male partner in their lifetime in these data.³⁴ Using National Survey of Family Growth (NSFG) data, Tornello et al. showed that among women ages 15–20, lesbian women reported an average of 3.7 and bisexual women reported 4.4 lifetime male partners, compared with 1.7 lifetime male partners reported by heterosexual women.³⁵ These data suggest that SMW may be as likely to benefit from sexual and reproductive health services, contraceptive counseling, and discussions of safe sex as heterosexual women.

Sexual orientation disparities in sexual and reproductive health service use and the barriers to care, however, are not yet fully understood. This lack of clarity is in part because, depending on the mode of measurement—sexual identity or sexual behavior—a different portrait of health disparity landscape emerges. For example, Agénor et al. used the 2011–2013 and 2013–2015 NSFG data to examine disparities in sexual and reproductive health care use by identity and behavior separately.⁸ They found that behaviorally bisexual women were more likely to use screening services than behaviorally heterosexual women. Their results by identity revealed that lesbian-identified women were less likely to have STD testing and Pap testing compared with heterosexual-identified women; bisexual-identified women were more likely to have an STD test, but less likely to have a recent Pap test.⁸ These results provide a mixed portrait of sexual health care use among SMW. They suggest that depending on the mode of measurement (identity vs. behavior), inferences about reproductive health needs of the SM population may vary. It is unclear, however, whether recent sexual behaviors and relationships influence the use of sexual and reproductive health services or the types of information women are provided in these settings. Increasingly, researchers have argued

that indicators of both sexual identity and behavior must be incorporated in research to understand how risk is distributed across sexual orientations.^{2,36}

We propose that one underexplored mechanism that may influence SMW's use of sexual and reproductive health services is sex with men. While sex with men is fairly common among SMW,^{3,34,35} it is unclear if it influences whether SMW seek care or the type of care they receive in clinical settings. This study uses the NSFG 2006–2015 to investigate sexual orientation disparities in the use of contraception and reproductive health services, and the types of counseling provided in health care settings. Finally, we explore interactions between sexual identity and recent sex with men to determine whether sexual relationships with men influence SMW's use of sexual and reproductive health services, but also the types of sexual health information they receive.

Specifically, we hypothesize that (1) lesbian and bisexual women will be less likely to use all forms of sexual and reproductive health services compared with heterosexual women, but these disparities will be reduced after adjusting for male partners in the past 12 months; (2) lesbian and bisexual women will be less likely to receive contraceptive and STD counseling in health care settings compared with heterosexual women, but these disparities will decrease after adjusting for male partners in the past 12 months.

Materials and Methods

Data

Data for this study come from the NSFG 2006–2015 surveys. NSFG is a cross-sectional, nationally representative probability sample of the U.S. household population between the ages of 15 and 44.³⁷ Data are collected during face-to-face interviews with female interviewers; however, sensitive data are collected using audio computer assisted self-interview software (ACASI). Response rates for the NSFG data are around 73%. Our sample is restricted to women age 18 or over ($n=21,071$). We focus our study on adult women because this population is less likely to be living at home with parents and seeking reproductive care under parental supervision, which may affect both the type of care sought and the discussions that occur in health care settings. Women who did not answer or answered “don't know” to the sexual identity or behavior questions were excluded ($n=314$). We also eliminated women who were missing on other variables included in the analysis ($n=54$). For all outcome variables, missing data accounted for less than 0.5% of the sample. Our final total sample size is 20,703 respondents.

In June 2012, American College of Obstetricians and Gynecologists (ACOG) changed its Pap test guidelines in a way that both the recommended first age and frequency of Pap testing decreased such that women ages 21–30 receive Pap tests every 3 years, and after age 30 testing occurs every 5 years. Thus, we used two samples for our Pap test analysis, one for participants interviewed before or during June 2012 ($n=8,022$), and one for participants ages 21–30 interviewed after June 2012 ($n=5,214$).

The second part of the analysis focuses on the types of sexual health-related information provided in health care settings. Thus, the sample across these outcomes varies depending upon whether a woman received a specific type of care. Sample sizes are provided in Tables.

Measures

Sexual orientation identity. Respondents were asked, "Do you think of yourself as: heterosexual or straight (referent); homosexual, gay, or lesbian (referred to as "lesbian" from here on); bisexual; or other?" As noted in the sample description, respondents who answered "other" or "don't know" were removed from the sample.

Sexual partners in the past 12 months. Respondents were asked, "Thinking about the last 12 months, how many male sex partners have you had? Please count every partner, even those you had sex with only once in those 12 months." And "Thinking about the last 12 months, how many female sex partners have you had? Please count every partner, even those you had sex with only once in those 12 months." Two variables were created one that captured male partners in the past 12 months (1 = yes, 0 = no) and one that captured female partners in the past 12 months (1 = yes, 0 = no).

Services used past 12 months. *Birth control prescription* is a dichotomous measure of whether a participant reported receiving a method of birth control or a prescription for a method (1 = yes, 0 = no). *Birth control counseling* is a dichotomous measure of whether a participant reported receiving counseling or information about birth control in the past 12 months (1 = yes, 0 = no).

Pap test in the past 12 months was derived from the following question: "In the past 12 months have you received a Pap test, where a doctor or nurse put an instrument in the vagina and took a sample to check for abnormal cells that could turn into cervical cancer?" (1 = yes, 0 = no).

STD screening was coded as a dichotomous measure that captures whether participants reported having received counseling for, or been tested or treated for a sexually transmitted disease (1 = yes, 0 = no).

Counseling in health care settings. The next set of measures is specifically focused on information conferred in medical settings. The responses are restricted to participants who reported having received the specific health care service noted in the survey question.

Birth control counseling at pregnancy test was measured using an item that asked women who reported receiving a pregnancy test from a medical provider in the past 12 months: "During your visit in the past 12 months when you received a pregnancy test, did a doctor or medical provider talk to you about using birth control?" (1 = yes, 0 = no).

Birth control counseling at Pap Smear or Pelvic Exam was coded as a dichotomous variable derived from the survey item "when you received a Pap test or pelvic exam in the past 12 months, did a doctor or medical provider talk to you about using birth control?" (1 = yes, 0 = no).

Emergency Contraceptive (EC) counseling at Pap Test or Pelvic Exam was measured using the following survey item, which is administered to women who reported having a Pap smear or pelvic exam in the last 12 months: "During your visit when you received a Pap test or a pelvic exam, did a doctor or medical provider talk to you about using EC, also known as "Plan B" or the "morning after pill?" (1 = yes, 0 = no).

Condom consult at STD Testing/Treatment was measured using a survey item that asks women who received STD

testing or treatment in the past 12 months, "when you received STD testing or treatment, did a doctor or medical provider talk to you about using condoms to prevent disease?" (1 = yes, 0 = no).

Covariates. *Age* was coded as a continuous variable that ranges from 20 to 45. We also include a logged-term for age to account for nonlinearity in our results. *Race/Ethnicity* was assessed using two survey items that asked participants (1) "Are you Hispanic, Latina, or of Spanish origin; and (2) "Which of these groups (American Indian of Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Black or African American, or White) best describes your racial background?" We created a series of four dummy variables: non-Hispanic white (referent), non-Hispanic Black, Hispanic, and other.

Education was coded as a series of dummy variables using the following two survey items: (1) "What is the highest grade or year of school you have ever attended"; and (2) "Do you have any college or university degree?" From these two items, education was coded into three dummy variables that capture whether respondents reported having a high school degree or fewer years of education, some college, or having received a college degree (referent).

Individuals were coded as having received *public assistance* if they responded yes that they have used any form of public assistance program such as cash welfare, SNAP (Supplemental Nutritional Assistance Program), or WIC in the past year.

Insurance status was measured using a series of dummy variables that capture whether participants were covered by private insurance or Medi-Gap (referent); Medicaid, CHIP, or state-sponsored health plan; Medicare, military, or other government health insurance; or covered only by a single service plan, only the Indian Health Service, or not insured.

Relationship Status was derived from a survey item that asks participants about their current relationship status. Respondents who reported they were "married to the someone of the opposite sex" or "not married by living together with a partner of the opposite sex" were coded as 1, all others (*i.e.*, never been married, divorced) were coded as 0 (referent).¹

Parity was measured using a continuous variable that capture the number of pregnancies a woman has experienced at the time of interview and ranges from 0 to 10. We additionally measured whether a woman reported a *pregnancy ending in the past 12 months* (1 = yes, 0 = no). We also measured whether a participant reported that she was *currently pregnant* (1 = yes, 0 = no). For our analysis of Pap test in the past 12 months, we also adjusted for *abnormal Pap test* in the past 3 years (1 = yes, 0 = no).

Intrauterine device (IUD) or Implant use in the past year was derived from measures that asked respondents to list all the forms of birth control they had used in the past year with their three most recent partners. Participants who reported implant or IUD use were coded as yes (1) or no (0). *Sterilization* was derived from the same series of measures and measures whether a participant reported relying on female sterilization for birth control (1 = yes, 0 = no).

¹NSFG relationship measures explicitly refer to the "opposite sex"; thus, we are unable to determine whether women are in same-sex relationships.

Data of Interview were measured in century months. Century months is a continuous measure used in demographic and health surveys and begins at 1 for January 1900 and increases one-unit for each month following. Century months in this survey ranges from 1,278 (July, 2006) to 1,389 (October, 2015).

Analytic plan

We first present descriptive statistics for the total population and then stratified by sexual identity. Chi-square tests were performed for all categorical variables. Paired *t*-test were performed for continuous variables that compared means of bisexual women to heterosexual women, and lesbian women to heterosexual women. Table 2 presents the results from logistic regression multivariate models. For all dependent variables, Model 1 adjusted for sexual identity, age, race/ethnicity, education level, insurance status, whether they received public assistance in the past 12 months, parity, whether they had a pregnancy end in the past 12 months, whether they are currently pregnant, IUD or implant use in the past 12-months, female sterilization in the past 12-months, and the century month of the interview. Model 2 additionally adjusted for sexual partners in the past 12 months. For the Pap tests analyses, we also included a control measure in Models 1 and 2 for abnormal Pap test in the past 3 years. Interactions that yielded significant results are also presented in the tables and are presented in figures. All models satisfied the assumptions of logistic regression.

Results

Descriptive and bivariate statistics

Table 1 presents the descriptive and bivariate statistics for the total sample and by sexual orientation identity. In total, our sample was 92.6% heterosexual, 5.6% bisexual, and 1.8% lesbian. The sample was 60.9% white, 14.6% black, and 17.5% Hispanic and the mean age was 30.9.

Looking at sexual and reproductive history items by sexual orientation, important difference emerged across groups. Only 2% of lesbian women reported a pregnancy ending in the past 12 months compared with 10% for both bisexual and heterosexual women, and only 0.7% of lesbian women reported using an IUD or implant in the past 12 months compared with 7% of both heterosexual and bisexual women. Importantly, there were not differences detected in the prevalence of abnormal Pap tests across sexual identities. Differences in male partners in the past 12 months also emerged: 17% of lesbian-identified women reported a male partner in the past 12 months compared with 88% of heterosexual women and 83% of bisexual women.

Turning to our outcome variables, lesbians reported a lower prevalence of birth control prescriptions, contraceptive counseling, and Pap test use compared with heterosexual women. Bisexual women had similar prevalence rates of birth control prescriptions and counseling as heterosexual women, but higher rates of STD screening. In clinical settings, only 22% of lesbians reported receiving birth control counseling at the time of a pregnancy test and 34% at a Pap test or pelvic exam compared with 48% of heterosexual women at both. Most striking, perhaps, is that only 24% of lesbians reported being counseled about condom use at an

STD screening compared with 49% of heterosexual women. Bisexual women, however, had a higher prevalence of EC counseling (15%) and condom counseling at STD screenings (58%) compared with heterosexual women (8.6% and 48.7%, respectively).

Multivariate results

Table 2 presents the results for sexual and reproductive health services used in the past 12 months. Panel A, Model 1 shows lesbian women were significantly less likely to be prescribed a birth control method in the past 12 months (OR=0.16, 95% CI=0.09–0.25) compared with heterosexual women. After adjusting for sexual partners in the past 12 months in Model 2, there was no difference between lesbian and heterosexual women's odds of having been prescribed birth control in the past 12 months. No differences in birth control prescriptions were detected between bisexual and heterosexual women. Panel B presents results for birth control counseling in the past 12 months. In Model 1, lesbian women were less likely to report receiving birth control counseling (OR=0.26, 95% CI=0.14–0.48) than heterosexual women. After controlling for male partners in Model 2, the relationship between a lesbian identity and birth control counseling was no longer significant.

Panels C and D present the results for Pap tests. Panel C shows the results for women interviewed before June 2012. In Model 1, lesbian identified women were less likely to report having a Pap test (OR=0.39, 95% CI=0.12–1.21) compared with heterosexual women. After adjusting for sexual partners in the past 12 months, however, this relationship was no longer significant. Panel D presents results for Pap tests post-2012 for women ages 21–30 where no significant differences were detected, however, for both samples for the Pap test analyses, sex with a male partner was associated with increased odds of having a Pap test in the past 12 months.

The results for STI testing, counseling, and treatment in Panel E showed no disparity in Model 1. However, after adjusting for partners in the past 12 months, lesbian women were more likely to receive STI-related care compared to heterosexual women (OR=1.95, 95% CI=1.29–2.94). Having a male partner was associated with an increase in the odds of seeking STI-related care (OR=6.00, 95% CI=3.69–9.78) as was having a female partner (OR=1.33, 95% CI=1.10–1.63). Interactions between identity and behavior were not significant for any of our health care use variables.

Table 3 presents the results for types of counseling offered if a woman received a particular service. Panel A shows that lesbian women were less likely to receive birth control counseling if they received a pregnancy test (OR=0.19, 95% CI=0.05–0.72), which persisted in Model 2 after the inclusion of sexual partners in the past 12 months (OR=0.14, 95% CI=0.04–0.51).²

²Forty-eight women who had a pregnancy test reported that they did not have a male partner in the past 12 months. These may be women who were receiving pregnancy tests before IUD insertion or who had used assisted reproductive services to become pregnant.

TABLE 2. ODDS RATIOS FROM LOGISTIC REGRESSION ANALYSES ASSESSING SEXUAL ORIENTATION DISPARITIES IN SELECTED SEXUAL AND REPRODUCTIVE HEALTH OUTCOMES

	<i>Panel A: birth control prescription (n=20,703)</i>		<i>Panel B: birth control counseling (n=20,703)</i>	
	<i>Model 1 OR (95% CI)</i>	<i>Model 2 OR (95% CI)</i>	<i>Model 1 OR (95% CI)</i>	<i>Model 2 OR (95% CI)</i>
Sexual orientation identity				
Heterosexual (referent)				
Bisexual	0.83 (0.65–1.06) ^a	0.92 (0.73–1.15)	1.11 (0.75–1.64)	1.17 (0.83–1.64)
Gay/Lesbian	0.16 (0.09–0.25) ^b	0.45 (0.15–1.33)	0.26 (0.14–0.48) ^c	0.56 (0.24–1.31)
Sex with a man, past 12 months		5.39 (4.15–6.99) ^b		3.48 (1.68–7.17) ^d
Sex with a woman, past 12 months		0.70 (0.43–1.15)		0.85 (0.49–1.47)
	<i>Panel C: Pap test, pre June-2012, ages 18–45 (n=8,022)</i>		<i>Panel D: Pap test, post June 2012, ages 21–30 (n=5,214)</i>	
	<i>Model 1 OR (95% CI)</i>	<i>Model 2 OR (95% CI)</i>	<i>Model 1 OR (95% CI)</i>	<i>Model 2 OR (95% CI)</i>
Sexual orientation identity				
Heterosexual (referent)				
Bisexual	0.89 (0.49–1.60)	0.83 (0.46–1.48)	1.10 (0.61–2.01)	1.19 (0.56–2.54)
Gay/Lesbian	0.39 (0.12–1.21) ^a	0.51 (0.08–3.13)	0.31 (0.06–1.57)	0.87 (0.11–6.77)
Sex with a man, past 12 months		2.21 (1.31–3.73) ^d		4.89 (2.55–9.37) ^c
Sex with a woman, past 12 months		1.24 (0.70–2.19)		0.78 (0.30–2.02)
	<i>Panel E: STD testing/counseling/treatment (n=20,703)</i>			
	<i>Model 1 OR (95% CI)</i>	<i>Model 2 OR (95% CI)</i>		
Sexual orientation identity				
Heterosexual (referent)				
Bisexual	1.38 (0.89–2.12)	1.31 (0.76–2.27)		
Gay/Lesbian	0.86 (0.87–2.21)	1.95 (1.29–2.94) ^d		
Date of Interview	1.01 (1.01–1.02) ^c	1.01 (1.01–1.02) ^c		
Sex with a man, past 12 months		6.00 (3.69–9.78) ^b		
Sex with a woman, past 12 months		1.33 (1.10–1.63) ^d		

Source: National Survey of Family Growth 2006–2015.

All models adjust for age, race/ethnicity, education, relationship status, insurance status, IUD or sterilization use, parity, pregnancy ended in the past 12 months, currently pregnancy; Pap tests analyses also adjust for abnormal Pap test in past 3 years.

^a $p < 0.10$.

^b $p < 0.001$.

^c $p < 0.01$.

^d $p < 0.05$.

CI, confidence interval; OR, odds ratio; STD, sexually transmitted disease.

The results show no sexual identity differences in receiving counseling about EC if they received a Pap test in the past 12 months in Panel B. However, lesbian women were significantly less likely to receive counseling about birth control at a Pap test than heterosexual women in Panel C, Model 1 (OR = 0.43, 95% CI = 0.26–0.69). After adjusting for sex with a male partner in the past 12 months, no differences were found by sexual identity.

Panel D presents the results for condom consult at an STD-related visit and show that lesbian women were less likely to receive information about condom use at a consultation while

seeking STI-related care (OR = 0.17, 95% CI = 0.10–0.30), a disparity that persisted after adjusting for sexual partners in the past 12 months in Model 2 (OR = 0.17, 95% CI = 0.10–0.31). The only significant interaction detected in any of our models was between lesbian women and recent sex with men for a condom consult at an STD-related visit (Fig. 1). Figure one shows that lesbian women who had not had sex with a man were less likely to receive a condom consult at an STI-related service, but no differences were detected by sexual orientation among women who had sex with a man in the past 12 months.

TABLE 3. ODDS RATIOS FROM LOGISTIC REGRESSION ANALYSES ASSESSING SEXUAL ORIENTATION DISPARITIES IN COUNSELING THAT OCCURRED IN CLINICAL SETTING

	Panel A: birth control counseling at pregnancy test (n=4,802)		Panel B: emergency contraception counseling at Pap test (n=13,829)	
	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)
Sexual orientation identity				
Heterosexual (referent)				
Bisexual	0.85 (0.44–1.65)	0.79 (0.50–1.24)	1.29 (0.81–2.07)	1.30 (0.77–2.20)
Gay/Lesbian	0.19 (0.05, 0.72) ^a	0.14 (0.04, 0.51) ^a	0.78 (0.22, 2.85)	1.05 (0.77, 2.20)
Sex with a man, past 12 months		0.74 (0.40–1.38)		1.54 (0.72–3.26)
Sex with a woman, past 12 months		1.25 (0.54–2.90)		0.98 (0.52–1.87)

	Panel C: birth control counseling at Pap test (n=13,826)		Panel D: condom consult at STI testing/counseling/treatment (n=5,072)		
	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)
Sexual orientation identity					
Heterosexual (referent)					
Bisexual	1.09 (0.64–1.87)	1.18 (0.72–1.95)	1.06 (0.80–1.40)	1.09 (0.83–1.43)	0.50 (0.10–2.34)
Gay/Lesbian	0.43 (0.26–0.69) ^b	0.84 (0.36–1.98)	0.17 (0.10–0.30) ^b	0.17 (0.10–0.31) ^c	0.09 (0.04–0.20) ^c
Sex with a man, past 12 months		2.13 (1.15–3.95) ^b		1.87 (0.92–3.81) ^a	1.54 (0.80–2.98)
Sex with a woman, past 12 months		0.79 (0.45–1.39)		1.28 (0.57–2.91)	1.34 (0.60–3.04)
Sex with a man × Bisexual					2.22 (0.56–8.88)
Sex with a man × Gay/Lesbian					5.83 (1.13–30.01) ^b

Source: National Survey of Family Growth 2006–2015.

All models adjust for age, race/ethnicity, education, relationship status, insurance status, IUD or sterilization use, parity, pregnancy ended in the past 12 months, currently pregnancy.

^ap < 0.10.

^bp < 0.05.

^cp < 0.01.

Discussion

By including both sexual identity and recent sexual behavior measures, this analysis fills an important gap in our understanding of the relationship between sexual orientation and sexual and reproductive health service use. In particular,

our work adds new knowledge on the types of information that providers communicate to patients in sexual and reproductive health care settings. Recently, Agénor et al. showed that behaviorally bisexual women were more likely to use screening services than behaviorally heterosexual women and lesbian women were less likely to use services than heterosexual women. Agénor et al., however, used a lifetime measure of sexual partners, which may include sexual partners from many years prior who have little or no impact on current sexual behaviors.

By restricting our analysis to partners in the past 12 months, our results show that in many of our outcomes (*i.e.*, birth control prescriptions, birth control counseling, Pap test pre-June 2012, and birth control counseling at Pap test), sexual orientation disparities were contingent upon recent sexual relationships with men. Further, in the case of STD screening, lesbian women may be more proactive in seeking care. Increased use of STD-related services among lesbian women with recent male partners may mean that STD screening may be an ideal time to have discussion around contraceptive counseling for women who may otherwise avoid sexual and reproductive health settings. Our results also demonstrate that disparities in sexual and reproductive health outcomes may not be entirely driven by lower sexual and reproductive health service use, but also by the types of

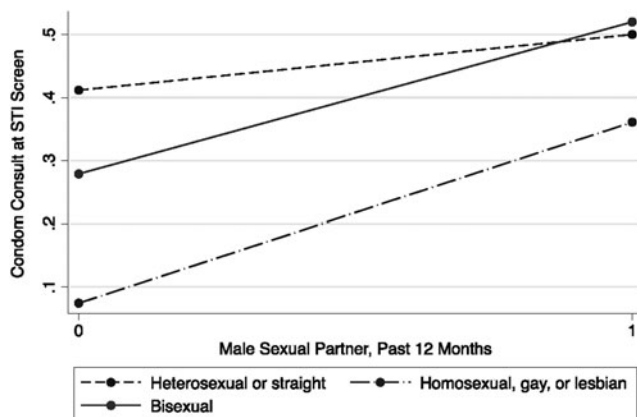


FIG. 1. Probability of Receiving a Condom Consult at an STI Screen.

information that are communicated in clinical settings to SMW. The fact that lesbian women are less likely to be consulted about birth control during visits for pregnancy tests suggests that these interactions are a missed opportunity for contraceptive counseling.

Our results also show that in at least some cases, patients and providers are able to adjust counseling scripts based upon behavior: that is, women, providers, or both, may work together to communicate health needs during interactions. However, more work is needed to understand why sexual orientation disparities in STDs and unintended pregnancy persist if providers *are* communicating pertinent sexual health information to SMW who engage in heterosexual sex. It may be that manner in which the information is communicated is not very effective; multiple studies have documented that SMW experience high rates of discrimination in clinical settings.^{14,38,39}

Alternatively, it may be that SMW, even those who have recently had sex with a man, do not anticipate such encounters in the future and are therefore less likely to be receptive to using contraception. Further, if a woman is in a same-sex relationship, or primarily dates women, using a form of contraception may be seen as stigmatizing, or signal a lack of commitment to a lesbian identity or a same-sex partner. Indeed, it remains that lesbian women in clinical settings are not reporting contraceptive counseling at pregnancy tests and lesbian women who have not had sex with a man in the past 12 months are largely not being provided with sexual health information related to condom use at STD-related visits. Given that SMW are more likely to turn to internet sources,^{19,20} which may be inaccurate or focus almost exclusively on HIV-prevention,^{21,22} these interactions are a missed opportunity for accessing medically accurate and inclusive sexual health information. These missed opportunities for sexual health information are particularly troubling in light of research that has shown an increased risk for STDs among SMW compared with heterosexuals.²

This study has several limitations. First, while we attempted to correctly time order our variables by restricting recent sexual partners to the past 12 months, it is possible because the data are cross-sectional and that interactions with providers happened before the sexual interaction. Second, although we attempted to address the effect of changes in Pap test guidelines in our analysis, it is possible that some women had not received a Pap test in the past year as they may have had a Pap test in the recent past in-line with current recommendations. It is also possible that some women did not receive a birth control method or a prescription for one in the past year because they were using a long-term form of contraception. While we controlled for reported IUD and implant use, in addition to sterilization, in the past year, it is possible that some of these methods have been in use for a long period of time. Fourth, the survey did not include other indicators of patient-provider discussion around safe sex except for consultation about condom use at STD-related screenings. A condom consult does not address many facets of safe sex for SMW. Fifth, we do not have measures of discrimination in medical settings, patient-provider trust, sexual orientation disclosure, or detailed measures of the content of information provided in medical settings, nor the providers' communication style. All of

these factors may influence how patients receive medical information and are able to translate it into health behaviors. We also lack data on gender identity for our sample and their sexual partners. Simple measures of "sex with men" do not capture important nuances and differences in sexual health risks between cisgender and transmen. Finally, our data are all self-reported. While we limited our outcomes and behaviors to the past year to reduce recall bias, because of the sensitive nature of some of the outcome variables, it is possible that data suffer from underreporting. Future research will benefit from the use of longitudinal data, incorporation of electronic medical records, and a broader spectrum of safe-sex behaviors more inclusive of the LGBT population, including the assessment of both participant and their sexual partners' gender identity.

Despite these limitations, our research emphasizes the importance of addressing the sexual health needs of SMW in sexual and reproductive care settings and the need to look at both identity and recent sexual behaviors. Our results highlight the role sexual relationships with men play in women's use of sexual and reproductive health services, but also the types of counseling they receive in these settings. The delivery of important sexual health information, including contraceptive counseling and information about safe-sex practices, however, should not be contingent on whether a woman has had a recent sexual relationship with a man. SMW may benefit from learning about noncontraceptive benefits of birth control, a broader spectrum of safe-sex sexual behaviors, and given the documented high rates of sexual fluidity among women,^{31,33,40} many SMW may benefit from some information on contraception and STD prevention even if they have not recently had a male sexual partner. Likewise, an LGBTQ-inclusive, non-judgmental sexual health counseling script may serve as an important opportunity to address gaps in knowledge around safe sex in same-sex relationships and in relationships with trans-partners for all woman. Simply asking women about their sexual orientation may facilitate patient-provider trust and improve care.¹⁶ More research is needed to develop sexual and reproductive health counseling scripts that are informative and inclusive, but avoid assumptions about who may benefit from what information based upon sexual identities or behaviors.

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References

1. Charlton BM, Corliss HL, Missmer SA, Rosario M, Spiegelman D, Austin SB. Sexual orientation differences in teen pregnancy and hormonal contraceptive use: An examination across 2 generations. *Am J Obstet Gynecol* 2013;209:204.e1–e204.e8.
2. Everett BG. Sexual orientation disparities in sexually transmitted infections: Examining the intersection between

- sexual identity and sexual behavior. *Arch Sex Behav* 2013; 42:225–236.
3. Goldberg SK, Reese BM, Halpern CT. Teen pregnancy among sexual minority women: Results from the National Longitudinal Study of Adolescent to Adult Health. *J Adolesc Health* 2016;59:429–437.
 4. Saewyc EM. Adolescent pregnancy among lesbian, gay, and bisexual teens. In: Cherry AL, Dillon ME, eds. *International Handbook of Adolescent Pregnancy*. US: Springer, 2014:159–169.
 5. Kerker BD, Mostashari F, Thorpe L. Health care access and utilization among women who have sex with women: Sexual behavior and identity. *J Urban Health Bull N Y Acad Med* 2006;83:970–979.
 6. Marrazzo JM, Koutsky LA, Kiviat NB, Kuypers JM, Stine K. Papanicolaou test screening and prevalence of genital human papillomavirus among women who have sex with women. *Am J Public Health* 2001;91:947.
 7. Matthews AK, Brandenburg DL, Johnson TP, Hughes TL. Correlates of underutilization of gynecological cancer screening among lesbian and heterosexual women. *Prev Med* 2004;38:105–113.
 8. Agénor M, Muzny CA, Schick V, Austin EL, Potter J. Sexual orientation and sexual health services utilization among women in the United States. *Prev Med* 2017;95:74–81.
 9. Aaron DJ, Hughes TL. Association of childhood sexual abuse with obesity in a community sample of lesbians. *Obesity* 2007;15:1023–1028.
 10. Buchmueller T, Carpenter CS. Disparities in health insurance coverage, access, and outcomes for individuals in same-sex versus different-sex relationships, 2000–2007. *Am J Pub Health* 2010;100:489–495.
 11. Agénor M, Bailey Z, Krieger N, Austin SB, Gottlieb BR. Exploring the cervical cancer screening experiences of black lesbian, bisexual, and queer women: The role of patient-provider communication. *Women Health* 2015;55:717–736.
 12. Alpert AB, Cichoski Kelly EM, Fox AD. What lesbian, gay, bisexual, transgender, queer, and intersex patients say doctors should know and do: A qualitative study. *J Homosex* 2017;64:1368–1389.
 13. Baker K, Beagan B. Making assumptions, making space: An anthropological critique of cultural competency and its relevance to queer patients. *Med Anthropol Q* 2014;28:578–598.
 14. Trettin S, Moses-Kolko EL, Wisner KL. Lesbian perinatal depression and the heterosexism that affects knowledge about this minority population. *Arch Womens Ment Health* 2006;9:67–73.
 15. Fuzzell L, Fedesco HN, Alexander SC, Fortenberry JD, Shields CG. “I just think that doctors need to ask more questions”: Sexual minority and majority adolescents’ experiences talking about sexuality with healthcare providers. *Patient Educ Couns* 2016;99:1467–1472.
 16. Seaver MR, Freund KM, Wright LM, Tjia J, Frayne SM. Healthcare preferences among lesbians: A focus group analysis. *J Womens Health* 2008;17:215–225.
 17. Abdessamad HM, Yudin MH, Tarasoff LA, Radford KD, Ross LE. Attitudes and knowledge among obstetrician-gynecologists regarding lesbian patients and their health. *J Womens Health* 2013;22:85–93.
 18. Mustanski B, Greene GJ, Ryan D, Whitton SW. Feasibility, acceptability, and initial efficacy of an online sexual health promotion program for LGBT youth: The queer sex ed intervention. *J Sex Res* 2015;52:220–230.
 19. Mitchell KJ, Ybarra ML, Korchmaros JD, Kosciw JG. Accessing sexual health information online: Use, motivations and consequences for youth with different sexual orientations. *Health Educ Res* 2014;29:147–157.
 20. Flanders CE, Pragg L, Dobinson C, Logie C. Young sexual minority women’s use of the internet and other digital technologies for sexual health information seeking. *Can J Hum Sex* 2017;26:17–25.
 21. Magee JC, Bigelow L, DeHaan S, Mustanski BS. Sexual health information seeking online: A mixed-methods study among lesbian, gay, bisexual, and transgender young people. *Health Educ Behav* 2012;39:276–289.
 22. Lindley LL, Friedman DB, Struble C. Becoming Visible: Assessing the availability of online sexual health information for lesbians. *Health Promot Pract* 2012;13:472–480.
 23. Power J, McNair R, Carr S. Absent sexual scripts: Lesbian and bisexual women’s knowledge, attitudes and action regarding safer sex and sexual health information. *Cult Health Sex* 2009;11:67–81.
 24. Curmi C, Peters K, Salamonsen Y. Lesbians’ attitudes and practices of cervical cancer screening: A qualitative study. *BMC Womens Health* 2014;14:2.
 25. Bailey JV, Farquhar C, Owen C, Mangtani P. Sexually transmitted infections in women who have sex with women. *Sex Transm Infect* 2004;80:244–246.
 26. Marrazzo JM, Coffey P, Bingham A. Sexual Practices, Risk Perception and Knowledge Of Sexually Transmitted Disease Risk Among Lesbian and Bisexual Women. *Perspect Sex Reprod Health* 2005;37:6–12.
 27. Charlton BM, Corliss HL, Missmer SA, et al. Influence of hormonal contraceptive use and health beliefs on sexual orientation disparities in Papanicolaou test use. *Am J Public Health* 2013;104:319–325.
 28. Marrazzo JM. Barriers to infectious disease care among lesbians. *Emerg Infect Dis* 2004;10:1974–1978.
 29. O’Hanlan KA, Crum CP. Human papillomavirus-associated cervical intraepithelial neoplasia following lesbian sex. *Obstet Gynecol* 1996;88:702–703.
 30. Price JH, Easton AN, Telljohann SK, Wallace PB. Perceptions of cervical cancer and Pap smear screening behavior by women’s sexual orientation. *J Community Health* 1996;21:89–105.
 31. Diamond LM. Sexual fluidity in male and females. *Curr Sex Health Rep* 2016;8:249–256.
 32. Diamond LM. A new view of lesbian subtypes: Stable versus fluid identity trajectories over an 8-year period. *Psychol Women Q* 2005;29:119–128.
 33. Diamond LM. Female bisexuality from adolescence to adulthood: Results from a 10-year longitudinal study. *Dev Psychol* 2008;44:5–14.
 34. Xu F, Sternberg MR, Markowitz LE. Women who have sex with women in the United States: Prevalence, sexual behavior and prevalence of herpes simplex virus type 2 infection—results from national health and nutrition examination survey 2001–2006. *Sex Transm Dis* 2010;37:407–413.
 35. Tornello SL, Riskind RG, Patterson CJ. Sexual orientation and sexual and reproductive health among adolescent young women in the United States. *J Adolesc Health* 2014; 54:160–168.
 36. Young RM, Meyer IH. The trouble with “MSM” and “WSW”: Erasure of the sexual-minority person in

- public health discourse. *Am J Pub Health* 2005;95: 1144–1149.
37. Lepkowski JM, Mosher WD, Davis KE, Groves RM, Van Hoewyk J. The 2006–2010 National Survey of Family Growth: Sample design and analysis of a continuous survey. *Vital Health Stat* 2. 2010;150:1–36.
38. Sinding C, Barnoff L, Grassau P. Homophobia and Heterosexism in Cancer Care: The Experiences of Lesbians. *Can J Nurs Res* 2004;36:170–188.
39. Mosack KE, Brouwer AM, Petroll AE. Sexual identity, identity disclosure, and health care experiences: Is there evidence for differential homophobia in primary care practice? *Womens Health Issues* 2013;23: e341–e346.
40. Everett BG, Talley AE, Hughes TL, Wilsnack SC, Johnson TP. Sexual identity mobility and depressive symptoms: A longitudinal analysis of moderating factors among sexual minority women. *Arch Sex Behav* 2016; 45:1731–1744.

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