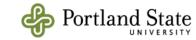# ACCESS TO PRIMARY CARE PHYSICIANS FOR LESBIAN AND GAY PATIENTS

Sarah Tinkler, PhD[1]
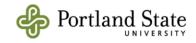Brigham Walker, PhD[1,2]
Julianna Mazziotti, BS[3]
Rajiv Sharma, PhD[1]

1 Department of Economics, Portland State University, Portland, OR
2 Tulane University Celia Scott Weatherhead School of Public Health and Tropical Medicine, New Orleans, LA
3 Oregon Health & Science University, Portland, OR

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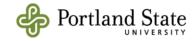Public Health & Tropical Medicine

Background

- In 2022, the proportion of adults identifying as lesbian, gay, bisexual, and transgender (LGBT) was 7.2%, (Jones, 2023); though, this is likely an underestimate (Coffman et al., 2017)

- LGBT individuals face preferences for heterosexual patients on the part of healthcare providers (Sabin et al., 2015) and lower rates of health insurance coverage (Buchmueller & Carpenter, 2010; Dilley et al., 2010)

- LGBTQ patients report discomfort while accessing care; delays to, and avoidance of, care; and concealment of their LGBTQ identity (Dahlhamer et al., 2016; Rossman et al., 2017). These problems lead to unmet healthcare needs and poorer health outcomes for LGBT individuals (Fredriksen-Goldsen et al., 2013; Bränström, 2016).

- Primary care physicians are an important source of preventative care and screening (Starfield et al., 2005); we employ experimental methods to assess whether attitudes in the primary care system affect access for lesbian and gay patients

- Access is defined across three dimensions: (1) the offer of an appointment with the requested physician or a substitute provider; (2) the wait time to an appointment; and (3) whether or not a practice accepts a patient's insurance type.

- To explore the role of intersectionality between several identities, we examine whether physicians' willingness to offer new patient appointments to lesbian and gay patients differs by the patient's race, ethnicity, sex, and insurance type

- This is the first study, to our knowledge, that uses a field experiment to examine access to primary care for lesbian and gay patients

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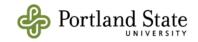Public Health & Tropical Medicine

Data Collection

- We conducted a field experiment in which research assistants (RAs) called offices of primary care physicians on behalf of a purported uncle or aunt to request appointment information for a routine physical

- Each physician was randomly assigned a patient profile comprising an insurance type (private insurance, "traditional" Medicare, Medicaid, and self-pay), a race/ethnicity (Black, White, and Hispanic), a gender (man or woman), and sexual orientation (same sex signal or no signal)

- To examine the effect of sexual orientation on appointment offers in primary care, callers were assigned both scripts which provided no information regarding sexual orientation (likely presumed to be heterosexual by physicians' offices), as well as scripts where the caller indicated that the patient is lesbian or gay

- Calls on behalf of lesbian and gay patients began on June 23rd, 2022 and concluded on March 23rd, 2023. Calls on behalf of control group (i.e., presumed heterosexual) patients began on June 16th, 2022 and concluded on May 23rd, 2023. The order of calls on behalf of lesbian and gay patients by each RA was randomized.

- If the physician's office responded by suggesting an appointment might be available, the RA provided general information about the patient's insurance type (Medicare, Medicaid, private insurance, or no insurance [self-pay]).

- The study used a national random sample of primary care physicians from the American Medical Association's (AMA) Physicians Masterfile. The physician sample comprised active primary care physicians with primary specialties in family medicine, general practice, general practice medicine, urgent care, or internal medicine.

- An appointment was recorded as offered if the physician's office provided a possible appointment date or date range and confirmed that the patient's insurance type was accepted.

Call Script

- **Control group script:** "My aunt [uncle], NAME OF PATIENT, has recently moved to your area, and I am helping my aunt [uncle] find a doctor there. Could you please tell me when the earliest appointment for a physical exam is available with Dr. NAME OF PHYSICIAN?"

- **Treatment group script:** My aunt [uncle], NAME OF PATIENT, and her wife [his husband], have recently moved to your area, and I am helping my aunt [uncle] find a doctor there. Could you please tell me when the earliest appointment for a physical exam is available with Dr. NAME OF PHYSICIAN?

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Empirical Analysis

- $Y_{ijkt} = \alpha + \beta_1 \text{Lesbian}_i + \beta_2 \text{Gay}_i + \lambda \text{ Patient Demographics}_i + \Omega \text{ Physician Covariates}_k + \sigma_i + \varphi_j + \delta \text{ Call}_t + \varepsilon_{ijkt}$

- Y_{ijkt} is the call outcome varying by patient (i) in state (j) with physician (k) across time (t)

- β_1 is the estimate for lesbian patients and β_2 is the estimate for gay patients

- λ covers a vector of patient-level covariates (i.e., Black and Hispanic versus White; female versus male; and Medicaid, Medicare, and self-pay versus private insurance)

- Ω covers a vector of physician-level covariates (i.e., family medicine and internal medicine versus general medicine; female versus male; medical doctor versus doctor of osteopathy; and age)

- Fixed effects are also included for callers (σ_i) and elements of time (i.e., δ, which represents a vector of fixed effects for day of week and month of year for the call), and state (φ_j)

- Standard errors are clustered by caller

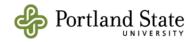- We also interact the lesbian and gay terms with patient and provider demographics

Table 1: Mean values for call outcomes and physician characteristics for the lesbian or gay sample; the heterosexual control group; and all calls*

	Lesbian or Gay Calls	Control Group Calls	All Calls
Call outcomes			
Insurance Accepted	0.57 (0.50)	0.57 (0.50)	0.57 (0.50)
Appointment Offered	0.48 (0.50)	0.44 (0.50)	0.46 (0.50)
Wait to Appointment	46.9 (66.5)	33.6 (48.8)	38.6 (56.3)
Physician characteristics			
General Medicine	0.02 (0.12)	0.02 (0.14)	0.02 (0.14)
Family Medicine	0.60 (0.49)	0.55 (0.50)	0.57 (0.50)
Internal Medicine	0.38 (0.49)	0.43 (0.50)	0.41 (0.49)
Female Doctor	0.41 (0.49)	0.36 (0.48)	0.38 (0.49)
Doctor's Age	53.5 (12.5)	54.9 (10.8)	54.4 (11.5)
Observations	133	236	369

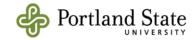*Standard Deviations are in parentheses

Table 2: Call outcomes for lesbian and gay patients versus the heterosexual control group

	Insurance Accepted	Appointment Offered	Wait to Appointment (Days)
Lesbian	0.101 (-0.109 to 0.311) p=0.17 R-W p=0.19	0.125*** (0.049 to 0.201) p=0.02, R-W p<0.01	4.7 (-41.8 to 51.2) p=0.71, R-W p=0.33
Gay	-0.195 (-0.438 to 0.047) p=0.07 R-W p=0.30	-0.118 (-0.269 to 0.034) p=0.08 R-W p=0.30	1.2 (-58.6 to 60.9) p=0.94 R-W p=0.70
Heterosexual Mean (SD)	0.57 (0.50)	0.44 (0.50)	33.6 (48.8)
N	369	369	169

Notes: * p<0.10 ** p<0.05 ***p<0.01. Romano–Wolf (RW) stepdown p-values for multiple hypothesis testing were used, with two estimators and three outcomes, each using 100 bootstrap replications.
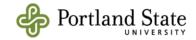
Table 3: Effects by lesbian and gay vs. the heterosexual control group and by race/ethnicity

	Insurance Accepted	Appointment Offer	Wait to Appointment
White * Lesbian	0.027	0.066	16.5
	(-0.107 to 0.162)	(-0.34 to 0.472)	(-31.2 to 64.1)
	p=0.47, R-W p=0.56	p=0.56, R-W p=0.56	p=0.46, R-W p=0.56
White * Gay	-0.039	0.122	24.6
	(-0.323 to 0.246)	(-0.219 to 0.462)	(-4.3 to 53.6)
	p=0.62, R-W p=0.58	p=0.27, R-W p=0.58	p=0.09, R-W p=0.58
Black * Lesbian	0.294	0.305	45.3
	(-0.080 to 0.669)	(0.096 to 0.514)	(17.2 to 73.4)
	p=0.08, R-W p=0.25	p=0.02, R-W p=0.25	p=0.01, R-W p=0.25
Black * Gay	-0.288	-0.229	9.8
	(-0.776 to 0.199)	(-0.457 to 0.000)	(-18.9 to 38.5)
	p=0.13, R-W p=0.23	p=0.05, R-W p=0.13	p=0.46, R-W p=0.23
Hispanic * Lesbian	-0.023	0.002	-10.8
	(-0.308 to 0.263)	(-0.273 to 0.277)	(-28.4 to 6.7)
	p=0.76, R-W p=0.56	p=0.98, R-W p=0.68	p=0.20, R-W p=0.46
Hispanic * Gay	-0.204	-0.178	-5.9
	(-0.353 to -0.055)	(-0.349 to -0.006)	(-26.9 to 15.1)
	p=0.03, R-W p=0.28	p=0.05, R-W p=0.28	p=0.54, R-W p=0.56
Black	0.048	0.025	-0.8
	(-0.097 to 0.193)	(-0.31 to 0.36)	(-17.9 to 16.3)
	p=0.29, R-W p=0.41	p=0.78, R-W p=0.56	p=0.92, R-W p=0.41
Hispanic	0.082	0.089	12
	(-0.016 to 0.181)	(-0.074 to 0.252)	(-13 to 37)
	p=0.07, R-W p=0.19	p=0.14, R-W p=0.19	p=0.31, R-W p=0.19
Heterosexual Mean (SD)	0.57 (0.50)	0.44 (0.50)	33.6 (48.8)
N	369	369	169

Notes: * p<0.10 ** p<0.05 ***p<0.01. Romano–Wolf (RW) stepdown p-values for multiple hypothesis testing were used, with eight estimators and three outcomes, each using 100 bootstrap replications. F-test pertains to the first six estimates contained in the table.

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Table 4: Effects by lesbian and gay vs. the heterosexual control group and physician age

	Insurance Accepted	Appointment Offer	Wait to Appointment
Physician Age * Lesbian	0.001	0.005	0.4
	(-0.024 to 0.025)	(-0.008 to 0.018)	(-2.7 to 3.5)
	p=0.93, R-W p=0.55	p=0.26, R-W p=0.34	p=0.61, R-W p=0.55
Physician Age * Gay	-0.001	-0.008	-0.5
	(-0.020 to 0.018)	(-0.023 to 0.007)	(-1.0 to 0.1)
	p=0.82, R-W p=0.68	p=0.14, R-W p=0.45	p=0.07, R-W p=0.35
Lesbian	0.071	-0.142	-22.1
	(-1.172 to 1.315)	(-0.784 to 0.500)	(-165.1 to 120.9)
	p=0.83, R-W p=0.55	p=0.44, R-W p=0.55	p=0.57, R-W p=0.55
Gay	-0.134	0.307	23.7
	(-1.236 to 0.968)	(-0.326 to 0.941)	(-10.7 to 58.1)
	p=0.65, R-W p=0.68	p=0.17, R-W p=0.35	p=0.10, R-W p=0.35
Physician Age	<0.001	0.002	-0.4
	(-0.024 to 0.025)	(-0.001 to 0.005)	(-1.5 to 0.7)
	p=0.95, R-W p=0.57	p=0.14, R-W p=0.14	p=0.29, R-W p=0.21
Heterosexual Mean (SD)	0.57 (0.50)	0.44 (0.50)	33.6 (48.8)
N	369	369	169

Notes: * p<0.10 ** p<0.05 ***p<0.01. Romano–Wolf (RW) stepdown p-values for multiple hypothesis testing were used, with five estimators and three outcomes, each using 100 bootstrap replications.
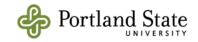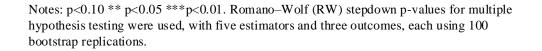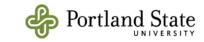
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Table 5: Effects by lesbian and gay versus the heterosexual control group and physician gender

	Insurance Accepted	Appointment Offer	Wait to Appointment
Female Physician * Lesbian	0.122	0.134	-13.1
	(-0.116 to 0.359)	(-0.154 to 0.421)	(-147.1 to 120.9)
	p=0.16, R-W p=0.44	p=0.18, R-W p=0.44	p=0.72, R-W p=0.44
Female Physician * Gay	-0.191	-0.058	-34.1
	(-0.535 to 0.154)	(-0.703 to 0.586)	(-137.0 to 68.9)
	p=0.14, R-W p=0.24	p=0.74, R-W p=0.51	p=0.29, R-W p=0.51
Male Physician * Lesbian	0.090	0.114	21.2
	(-0.166 to 0.345)	(-0.041 to 0.269)	(-3.7 to 46.0)
	p=0.27, R-W p=0.12	p=0.09, R-W p=0.12	p=0.07, R-W p=0.12
Male Physician * Gay	-0.197	-0.165	26.8***
	(-0.832 to 0.438)	(-0.864 to 0.533)	(7.0 to 46.6)
	p=0.31, R-W p=0.49	p=0.42, R-W p=0.49	p=0.03, R-W p<0.01
Female Physician	0.006	-0.072	33.8
	(-0.139 to 0.150)	(-0.442 to 0.297)	(-9.6 to 77.3)
	p=0.88, R-W p=0.49	p=0.49, R-W p=0.27	p=0.08, R-W p=0.15
Heterosexual Mean (SD)	0.57	0.44	33.6
	(0.50)	(0.50)	(48.8)
N	369	369	169

Notes: $p<0.10$ ** $p<0.05$ ***$p<0.01$. Romano–Wolf (RW) stepdown p-values for multiple hypothesis testing were used, with five estimators and three outcomes, each using 100 bootstrap replications.

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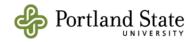Celia Scott Weatherhead School of
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Discussion

- In 2022, 71% of Americans voiced support for gay marriage and believed that lesbian and gay relationships are morally acceptable (McCarthy, 2022); heterosexual women show less bias against lesbian and gay individuals than heterosexual men (Bettinsoli et al., 2020)

- This national study finds some evidence that lesbian patients are more likely to be offered appointments and that male physicians offered gay patients primary care appointments with longer wait times than to presumed heterosexual patients

- Some of the measured effect sizes are relatively large for differences between lesbian and gay patients and the heterosexual control cohort, but not statistically significant, and it is possible that our study was insufficiently powered to detect some effects of lesbian and gay identity on access to primary care

- Limitations: the presumed heterosexual patient script did not reference marital status; if marriage confers an advantage to the gay and lesbian patients, then the effects found here may underestimate disadvantages for lesbian and gay patients due to these countervailing effects

Thank You!

tinkler@pdx.edu