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Sexual and Reproductive Health Disparities for LGBTQ+ Patients

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Abstract

As of 2022, 7.1% of Americans identify as LGBTQ+.[1] Members of the LGBTQ community in the United States experience greater health disparities than their heterosexual counterparts due to structural inequity: in addition to having minority status within the United States, there is a lack of education and research about LGBTQ+ health-related issues as well as restrictive policies that limit access to health care and other health benefits. As a result, the LGBTQ+ community is more prone to developing certain conditions, have less access to health care, and have worse health outcomes. However, LGBTQ+ visibility has increased dramatically within the last twenty years, especially after landmark Supreme Court cases such as *Lawrence v. Texas* (2003), which decriminalized consensual, same-sex sexual activity, and *Obergefell v. Hodges* (2015), which legalized same-sex marriage. This study aimed to show changes in LGBTQ+ health disparities, especially in tandem with important U.S. health policy changes during the last twelve years.

Objective

To what extent has LGBTQ+ sexual and reproductive health disparities changed over the last twenty years, especially in alignment with U.S. policy changes? What markers do researchers use to track sexual and reproductive health disparities, and how do these health disparities negatively impact LGBTQ+ communities? To answer these questions, we perform a short scale meta-analysis. This information about these changes can help inform U.S. politicians in writing and passing effective laws to decrease health inequity for the LGBTQ+ community.

[1] Jeffrey M. Jones, "LGBT Identification in U.S. Ticks Up to 7.1%," Gallup.com, February 17, 2022. https://news.gallup.com/poll/389792/lgbt-identification-ticks-up.aspx.

Introduction

LGBTQ patients experience significant sexual and reproductive health disparities in comparison to their cis, heterosexual counterparts. For instance, in "Sexual Orientation Differences in Pregnancy and Abortion Across the Lifecourse," Charlton, ScD, et al. concluded that pregnancy-capable queer patients (except for lesbians) experience unintended pregnancy, pregnancies' when younger than 20, and abortions at higher rates – "a finding that may suggest structural barriers to contraceptive care and a need for LGBTQ-inclusive comprehensive sex education (2019). Furthermore, queer women utilize access to routine preventive screenings for breast and cervical cancer at lesser rates than their straight peers. These disparities have many underlying causes, such as low rates of health insurance (especially when many health insurance policies do not cover unmarried or domestic partners), fear of discrimination, or negative experiences with healthcare providers and so on.

Within the last ten years, U.S. legislation has both aided and complicated health care access for the LGBTQ+ communities, much in accordance with the political alignment of recent U.S. administrations. Section 1557 of the Affordable Care Act (ACA), passed in March 2010, prohibited health care providers and insurance companies from engaging in discrimination based on gender identity and sex stereotypes. Although the Department's Office for Civil Rights (OCR) implemented these regulations upon ACA's enactment, the Department of Health and Human Services's (HHS) finalized ruling on Section 1557 regulation in 2016 did not prohibit discrimination based on sexual orientation, drawing on the Supreme Court's opinion in *Price Waterhouse v. Hopkins*[2] (1989).

[2] Centers for Medicare & Medicaid Services. (2022). "Nondiscrimination in Health Programs and Activities." Federal Register. https://www.federalregister.gov/documents/2022/08/04/2022-16217/nondiscrimination-in-health-programs-and-activities

This 2016 ruling was then challenged under the Administrative Procedure Act (APA) and the Religious Freedom Restoration Act (RFRA), and finally enjoined by both the U.S. District Court for the Northern District of Texas in *Franciscan Alliance v. Burwell* (2016) and another district court in the District of North Dakota in *Christian Employers Alliance v. U.S. Equal Employment Opportunity Commission* et al. from enforcing the "prohibition against discrimination on the basis of gender identity or termination of pregnancy."[3] Four years later, the HHS, under the guidance of the Trump administration, rescinded prohibitions on sexual discrimination on the grounds that the Supreme Court would address the definition of "on the basis of sex" in the *Bostock v. Clayton Country ruling*.

On July 25th, 2022, the HHS issued a Notice of Proposed Rulemaking (NPRM) to revise its Section 1557 regulations such that they solidify protections against discrimination based on sex, including sexual orientation and gender identity. This proposed ruling, influenced by the Biden administration (2021-24) to promote gender and health equity for individuals with multiple identities of difference (race, sexuality, disability, language, etc.), with the U.S. Supreme Court's holding in *Bostock v. Clayton County* (2020). However, if not for the *Bostock v. Clayton County* ruling or the Biden administration's push for closing gender and health inequities, the HHS had the potential to continue regressing nondiscrimination practices in the polarizing policy climate surrounding social issues.

Looking at statistical data from the last ten years, this research will evaluate how access to health services and insurance-status influence sexual health in the LGBTQ+ community. To what extent does HHS legislation impact the gender and health disparities, especially around 2010, 2016, and 2020? The study intends to prove that this legislation has had a significant

[3] Ibid.

impact in health care and insurance companies' attitudes towards treating the LGBTQ+ community, resulting in extreme oscillations between low and high amounts of access and health insurance ownership among LGBTQ+ individuals. Considering the upcoming midterm elections, I hope that addressing the correlation between U.S. policy and healthcare and insurance access for LGBTQ+ individuals will in-state voters with agency at the polls.

Method

Data for this study was collected through meta-analysis. The data below contains research from 25 articles focusing on LGBTQ+ health, all of which are located on well-known, peer-researched websites such as Google Scholar, JSTOR, Lancet, and Pubmed. Search terms used to find articles include: "LGBT," "sexual orientation," "sexual minority," "gender minority," "health disparities," "barriers," and "health services." The results only include articles published within the last ten years, 2012-2022, and those in which the studied demographic was sexual and gender minorities in America. Furthermore, the scope of this research is limited by being a month-long class assignment at the undergraduate level. Therefore, I had to exclude some search results not accessible through DePauw's libraries.

Each of the articles have tags that summarize their areas of inquiry. Then, the top areas of inquiry were examined more closely through table analyses, with special attention to sample age, sample size, and ratio of heterosexual and LGBTQ+ examined in the study. However, given that these articles include both research and literature review, a holistic table for each research focus was not possible. The first four tables are generated from my summaries of each research focus, and the last four tables are highlights from select articles.

LGBTQ+ Health Studies: Areas of Inquiry	
Participant Focus	**Research Focus**
• *Sexual and gender minority health*: all LGBTQ+ persons • *Gender minority health*: all non-cis-gender participants • *Sexual minority adults*: cisgender men and women who identify as lesbian, gay, or bisexual • *Sexual minority women (SMW)*: women who identify as lesbians or bisexuals • *Gay and bisexual men (GBM)*: men who identify as having sexual relations with the same-sex or with both genders	• *Breast cancer screening*: studies that look at frequency of common breast cancer screening tests, such as mammograms • *Cervical cancer screening*: studies that look at frequency of common cervical cancer screening tests, such as pap tests • *Health Insurance*: studies in which health insurance coverage is included in demographic screening or is the primary focus of research • *Sexual behaviors*: studies that evaluate intercourse practices and pregnancy • *Stigma and health care barriers*: studies that evaluate stigma by both medical practitioners and patients, or other structural issues related to LGBTQ+ health disparities

Table 1. Top 25 Articles			
Areas of Inquiry	**Studies***	**Research Years**	**Year Range**
Participant focus:			
Sexual and gender minority health	[7], [9], [10], [11], [12], [13], [14], [21]. [23], [24], [25]	2018, 2021, 2015, 2018, 2017, 2015, 2018, 2015, 2021, 2019, 2022; 2015 (3), 2017 (1), 2018 (3), 2019 (1) 2021 (2), 2022 (1)	2015-22
Gender minority health	[3], [22]	2014, 2017	2014-17
Sexual minority adults	[16], [20]	2021, 2014	2014-21
Sexual minority women (SMW)	[1], [2], [4], [5], [6], [15], [17], [18], [19]	2021, 2019, 2020, 2016, 2019, 2020, 2020, 2019, 2020; 2016 (1), 2019 (3), 2020 (4), 2021 (1)	2016-21
Gay and bisexual men (GBM)	[8]	2015	2015
Research Focus:			
Breast cancer screening	[4], [13], [15], [17], [21]	2020, 2015, 2020, 2020, 2015; 2015 (2), 2020 (3)	2015-20
Cervical cancer screening	[3], [4], [6], [13], [18], [19]	2014, 2020, 2019, 2015, 2019, 2020; 2014 (1), 2015 (1), 2019 (2), 2020 (2)	2014-20
Health Insurance	[3], [4], [6], [8], [11], [14], [15], [16], [18], [20], [22]	2014, 2020, 2016, 2015, 2018, 2018, 2020, 2021, 2019 2014, 2017; 2014 (2), 2015 (1), 2016 (1), 2017 (1), 2018 (2), 2019 (1), 2020 (2), 2021 (1)	2014-21
Sexual Behaviors	[1], [2], [5], [8], [12], [18], [19]	2021, 2019, 2016, 2015, 2017, 2019, 2020; 2015 (1), 2016 (1), 2017 (1), 2019 (2), 2020 (1), 2021 (1)	2015-21
Stigma and Health Care Barriers	[4], [7], [8], [9], [10], [11], [14], [23], [24], [25]	2020, 2018, 2015, 2021, 2015, 2018, 2018, 2021, 2019, 2022; 2015 (2), 2018 (3), 2019 (1), 2020 (1), 2021 (2), 2022 (1)	2015-22
*see “Article Reference Numbers”			

Discussion

The most prominent topics in the top articles about LGBTQ sexual and reproductive health were health insurance coverage (11), stigma and health care barriers (10), sexual behaviors (7), cervical cancer screening (6), and breast cancer screening (5). Below, statistics from each study are cross-examined by topic, accounting for differences in sample age and size.

Health Insurance Coverage

Health insurance coverage influences access to overall health services. The LGBTQ community experiences substantial disparities in health insurance coverage and access: according to US Census data, LGBTQ owns private health insurance at lower rates and have more financial barriers to medical care than their heterosexual counterparts.[4] Sexual minority adults have worse baseline health and an elevated risk for certain diseases, both of which either prevents sexual minority adults from receiving coverage or cause them to pay higher premiums. The ACA expanded insurance coverage for over 20 million Americans, and a study by Gonzales et al. (2021) reports decreased percentages of uninsurance among both sexual minority adults and heterosexual adults (-5% and -2.5%., respectively).[5]

Table 2. Health Insurance Coverage*

Article #	Researcher	Year	Sample Age	Sample Size	Hetero/Cis: LGBT Ratio	% Sample Total	% Hetero	% SMW	% GBM
3	Peitzmeier et al.	2014	21-64	3,858	3636:50:00	91.27%	91.30%	90.70%	-
6	Agénor et al.	2016	15-44	11,300	10,162:1,010	-	82.80%	75.50%	-
8	Petroll and Mitchell	2015	18-68	722	0:722	-	-	-	75.50%
14	Rossman et al.	2018	18-27	206	0:206	57%	-	-	-
15	Williams et al.	2020	>40	53,073	52,216:1,162	90.90%	90.90%	91%	-
16	Gonzales et al.	2021	18-64	89,404	86,181:3,223	86%		86%**	86%**
18	MZ Greene et al.	2019	21-45	430	0:430	-	-	66.50%	-
20	Gonzales and Blewett	2014	25-64	3,351,805	3,319,858 :31,947	-	-	86.4%	86.2%

* Articles [4] and [11] analyzed health insurance, but did not post their data; Article [22] examined health insurance as a barrier to medical care
** Article examined insurance coverage for all sexual minority adults

[4] Gonzales et al., "Changes in health insurance coverage, access to care, and health services utilization by sexual minority status in the United States, 2013-2018," Health Services Research 56, no. 2 (April 2021): 235–46.
[5] Ibid.

Cervical Cancer Screening

According to the data from the California Health Interview Survey, lesbian (16.5%) and bisexual women experience cervical cancer at significantly higher rates (16.5% and 41.2%) than heterosexual women (14%).[6] While lesbian women also have higher risk factors for cervical cancer such as higher body mass indices and smoking history, part of this difference is caused by a misconception that lesbians rarely transmit between lesbians; more recent studies indicate that STIs are common among lesbians.[7] Both STI and HPV testing are important in preventing cervical cancer, with 70% of all cervical cancer cases caused by HPV infections.[8]

Papanicolaou (Pap) tests are also the most important tool in detecting precancerous cervical abnormalities, although current cervical screening guidelines do not include language or considerations for lesbian and bisexual women.[9] Furthermore, while the rate of past-year pap tests averages similarly between heterosexual women and sexual and gender minority women, there are significant differences across sexual orientations in Pap test timing and positive HPV and abnormal Pap tests. Compared to female patients, female-to-male (FTM) patients experience 8.3% more inadequate Pap tests, or 10.77% more inadequate Pap tests after adjusting for age, race, and BMI.[10] Then, following an inadequate Pap test, FTM patients were less likely to return for a re-test (52.6%<67.7%, p=0.153). Considering this discrepancy between the accuracy of Pap

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[6] Gwendolyn P. Quinn et al, "Cancer and Lesbian, Gay, Bisexual, Transgender/Transsexual, and Queer/Questioning (LGBTQ) Populations," *CA: A Cancer Journal for Clinicians* 65, no. 5 (2015): 389.
[7] Ibid.
[8] Ibid.
[9] Ibid, 400.
[10] Peitzmeier, Sarah M. et al, "Female-to-Male Patients Have High Prevalence of Unsatisfactory Paps Compared to Non-Transgender Females: Implications for Cervical Cancer Screening," *Journal of General Internal Medicine* 29, no. 5 (May 2014): 778–84.

tests among female and FTM patients, Peitzmeier et al. recommend increased use of Pap test alternatives such as primary HPV DNA screening for FTM patients.

Table 3. Past-year Pap Tests

#	Researcher	Year	Sample Age	Sample Size	Hetero/Cis: LGBT Ratio	% Total Women	% Hetero	% SMW	% FTM
3	Peitzmeier et al.	2014	21-64	3858	3628:53:00	72%	72%	-	72%
4	Milner et McNally	2020	18-74	1, 115	0:1,115	-	-	80%	-
6	MZ Greene et al.	2019	n>62	55/691 = 0.08%	0:55	-	-	56.70%	-
6	MZ Greene et al.	2019	n<62	636/691 = 92%	0:636	-	-	25%	-
18	MZ Greene et al.	2019	21-45	430	0:430	-	-	60.00%	-
19	Solazzo et al.	2020	24-54	12,175	9,986:2,189	85.50%	86.00%	82.75%	-

Breast Cancer Screening

Breast cancer screening is more publicized and less invasive than Pap tests, which results in more data and general awareness of breast cancer. Breast cancer ranks second as a cause of cancer death in women with an annual mortality rate of 21.9 cases per 100,000 women per year.[11] However, research examining the incidence of breast cancer in sexual minority women is sparse, with few studies having substantive research populations and reporting. Since the prevalence of breast cancer among FTM transgender persons and males is low, most research about breast cancer focuses on women.

Quinn et al. discuss how researchers have estimated breast cancer prevalence, density, and mortality among sexual minority women. For instance, the California Cancer Registry found

[11] Gwendolyn P. Quinn et al, "Cancer and Lesbian, Gay, Bisexual, Transgender/Transsexual, and Queer/Questioning (LGBTQ) Populations:" 387.

that geographic areas with a greater density of lesbian women reported higher incidences of breast cancer and areas with a greater population density of bisexual women reported lower breast cancer incidence.[12] Quinn et al. says that certain risk factors such as nulliparity and obesity can account for these differences: in one breast cancer study that compared lesbian and heterosexual sisters, the data reflected that lesbian sisters "had significantly more education, fewer pregnancies, less total months pregnant, fewer children, fewer total months breastfeeding, higher body mass indices, exercised fewer times per week, and performed fewer breast self-examinations."[13] Furthermore, they advise that, "given the likelihood that lesbian and bisexual women will delay seeking health care, every clinical encounter, not just preventive care visits, should be seen as an opportunity to promote screening."[14]

Table 4. Prevalence of Breast Cancer*

#	Researcher	Year	Sample Age	Sample Size	Hetero: LGBT Ratio	% Total Women	% Hetero	% SMW
13	Quinn et al.	2015	18-65	71,112	69,078: 2,034	-	20.6%	31.1%**
15	Williams et al.	2020	>40	58, 378	57,216:1,162	0.03%	0.03%	0.03%
17	N Greene et al.	2020	38-64	15	0:15	-	-	100%

*Article [4] studied breast cancer, but excluded women with a history of breast cancer from its analysis; Article [21] excluded patients with a history of breast cancer or bilateral mastectomy
**Weighted prevalence was 17.8% for lesbians and 13.3% for bisexual women

Sexual Behavior

Differences in sexual behavior between sexual minority adults and their heterosexual counterparts cause differing health outcomes. For instance, sexual minority women have an increased risk of breast, ovarian, and endometrial cancer due to fewer full-term pregnancies. The

[12] Ibid.
[13] Ibid, 388.
[14] Ibid, 389.

following two articles discuss how accounting for sexual behaviors such as pregnancy, abortion, intercourse, and contraceptive youth can inform curriculum designers as to how sex education programs must change to be more effective and inclusive for sexual minorities.

McKay et al. analyzed teen sexual behavior, including the probability of sexual intercourse and contraceptive method, based on different types of sex education and education types. Sexual minority youth were more likely to report no sex education and less likely to report receipt of abstinence-only education. Furthermore, sexual minority females were more than twice as likely to report no sex education compared to their heterosexual peers. McKay et al. also found that sexual minority females were also less likely to report no sexual intercourse and more likely to have used no method or an ineffective method of contraception during their last sexual intercourse. They concluded that all types of education, except education solely focused on refraining from sex and contraception methods, had a statistically significant effect on sexual behavioral outcomes. However, more research must be conducted on outcomes associated with specific curricular content, as well as the amount, types, and accuracy of information obtained online or through social media.

Table 5. Associations between demographic characteristics and sexual intercourse and use of contraceptive methods at last intercourse in past 12 months among adolescent female ages 15–19 years, 2011–2019 National Survey of Family Growth

Characteristic	No sexual intercourse in past 12 months *n* = 2461	Used no method or ineffective method *n* = 328	Used condom only *n* = 517	Used hormonal or other effective method only *n* = 374	Used dual method *n* = 290
Overall	62.1 (1.3)	7.2 (.6)	12.0 (.8)	10.1 (.8)	8.6 (.8)
Age in years					
15-16	82.1 (1.6)	3.5 (0.8)	6.0 (0.9)	4.7 (1.0)	3.7 (0.9)
17-19	50.5 (1.7)	9.3 (0.8)	15.5 (1.1)	13.3 (1.1)	11.4 (1.0)

Sexual orientation					
Heterosexual	62.7 (1.5)	6.7 (0.6)	11.9 (0.9)	9.5 (0.8)	7.6 (1.2)
Sexual minority	57.9 (3.0)	10.1 (2.0)	12.7 (1.5)	14.2 (2.5)	5.0 (1.0)
* Table from Article [1] by McKay et al. (2021)					

In "Sexual orientation differences in pregnancy and abortion across the lifecourse," Charlton et al. examined data from the Nurses' Health Study (NHS). They looked at 116,430 cisgender nurses aged 15-42 years completed questionnaires that interrogated their medical history and health behaviors, such as teen pregnancies and history of abortions. The team divided the participants into three cohorts based on birth year: GUTS1 participants were born between 1982 and 1987, NHS2 participants were born between 1947 and 1864, and NHS3 participants were born between 1965 and 1996. Examining the cohort by age and sexual orientation – heterosexual with no same-sex partners, heterosexual with same-sex partners, mostly heterosexual, bisexual, and lesbian – the researchers found that all sexual minority groups, except for lesbians, were generally more likely than their heterosexual peers to have a pregnancy, a teen pregnancy, and an abortion in their lifetimes. The increased risk of sexual behavior in sexual minorities suggests that medical education must teach healthcare providers not to assume that pregnant patients and those seeking an abortion are heterosexual.

Table 6. Frequency of Pregnancy and Abortion by Sexual Orientation in Three Cohorts of US Women*					
	Heterosexual w/ No Same-Sex Partners	**Completely Heterosexual w. Same-sex Partners**	**Mostly Heterosexual**	**Bisexual**	**Lesbian**
GUTS1	76.4%	4.7%	15.3%	2.1%	1.6%
Pregnancy in lifetime	1.0 (ref)	1.35	0.95	1.23	0.42
Pregnancy age <20	1.0 (ref)	2.21	1.28	1.23	0.42

Abortion in lifetime	1.0 (ref)	3.51	2.31	3.21	0.56
NHS2	89.7%	-	-	0.4%	0.9%
Pregnancy in lifetime	1.0 (ref)	-	-	.80	.46
Pregnancy age <20	1.0 (ref)	-	-	1.97	0.73
Abortion in lifetime	1.0 (ref)	-	-	1.79	0.82
NHS3	82.5%	2.5%	11.4%	1.8%	1.8%
Pregnancy in lifetime	1.0 (ref)	1.06	0.98	0.92	0.52
Pregnancy age <20	1.0 (ref)	1.43	1.63	1.42	1.05
Abortion in lifetime	1.0 (ref)	1.77	1.95	1.68	0.96
*Table from Article [2]					

Stigma and Health Care Barriers

Presence of stigma in healthcare settings can decrease a patient's likeliness of seeking routine check-ups or even medical help during emergencies. Alternatively, patients may also disclose false information about themselves to avoid bias or discrimination. Healthcare providers depend on accurate disclosure of sexual history, sexual orientation, and gender identity for optimal patient care. While several studies highlighted non-disclosure as a theme in their study, Rossman et al. focused the most on the underlying reasons for disclosure and nondisclosure in "'The doctor said I didn't look gay': Young adults' experiences of disclosure and non-disclosure of LGBTQ identity to healthcare providers" (2018).

Table 6. Sexual and Gender Minority Status Disclosure					
#	**Researcher**	**Year**	**Sample Age**	**Sample Size**	**Non-disclosure%**
8	Petroll and Mitchell	2015	18-68	722	85%
12	Hafeez et al.	2017	13-19	1,320	32%
14	Rossman et al.	2018	18-27	206	37%

Rossman et al. asked participants whether they had disclosed their LGBTQ identity to their healthcare providers, following up with an open-ended question depending on their response. If participants answered affirmatively, they were asked the question, "please describe the reactions of the doctor(s) or other medical professional(s) you have told about you sexual orientation or gender expression."[15] Participants who did not disclose were asked, "please describe why you have not told a doctor or other medical professional about your sexual orientation or gender expression."[16] Rossman et al. organized the participants feedback through thematic coding to create three primary themes and seven subthemes.

Table 7. Themes for Non-Disclosure of LGBTQ Identity to Providers		
Themes/Subthemes	**Description**	**Count**
Provider Factors in Non-Disclosure		32
Lack of Inquiry	Providers not asking about LGBTQ identity	27
Provider/ Patient Relationship	Factors in the patient/provider relationship that impact disclosure	5
Resistance to Disclosure		29
Discretion	Reason for non-disclosure was that LGBTQ identity was personal information	13

[15] Kinton Rossman et al., "'The Doctor Said I Didn't Look Gay': Young Adults' Experiences of Disclosure and Non-Disclosure of LGBTQ Identity to Healthcare Providers," *Journal of Homosexuality* 64, no. 10 (2017): 1390–1410.
[16] Ibid.

Stigma	Reason for non-disclosure was concerns of negative reactions from providers	10
Ambivalence	Patients were unsure of their reasons for not disclosing	3
Conditional Disclosure	Patients indicated that they would disclose identity under certain circumstances	3
Identity and Healthcare		21
Not Relevant	Patients indicate that their identity is not relevant to their health	21
*Table from Article [14]		

In contrast to the non-disclosure model, conceptual models for disclosure exist for coding participant data. Using Johnson & Nemeth's (2014) method, Rossman et al. organized participant data into three separate phases: pre-interaction, healthcare interaction, and outcome. However, they had to create new codes for themes that did not exist within the original model.

Table 8. Themes for Disclosure of LGBTQ Identity to Providers**

Themes/Subthemes	**Description**	**Count**
Provider Knowledge		18
LGBTQ Affirmative Knowledge	Providers giving information that reflect knowledge of LGBTQ health	5
Lack of LGBTQ Knowledge	Providers indicating that they have a lack of knowledge of LGBTQ health	9
Communication		87
Comfortable	Providers indicate their comfort with patient disclosure	8
Uncomfortable	Providers indicate their discomfort with patient disclosure	16
*Positive Reaction	Patients feel that providers reacted positively to disclosure	21
*Absence of Reaction	Providers did not react to patient disclosure	38
*Provider LGBTQ Identified	Providers were also LGBTQ identified	4
*Microaggressions	Providers indicate negative feelings about LGBTQ identity through verbal or nonverbal communication	9

Provider Attitude		35
Acceptance	Providers behave in an accepting manner after disclosure	12
*Professionalism	Providers behave in a professional manner attitude after disclosure	12
Respect	Providers behave in a professional manner attitude after disclosure	6
*Friendliness	Providers behave in a friendly manner after disclosure	5
*Discriminatory Actions	Providers behave in a discriminatory manner following disclosure	8
***Patient Expectations of Providers**		20
*Lack of Negative Reaction	Patients reflect that providers react in a negative way to disclosure	13
*Still Received Treatment	Patients reflect that providers still provide care despite disclosure	7
*Themes and subthemes not present in Johnson and Nemeth's (2014) model ** Table from Article [1]		

Rossman et al.'s research affirmed that, "consistent with past literature, the most significant barrier to disclosure was provider's not asking about LGBTQ identity."[17] They propose that this barrier to disclosure can be easily addressed through inclusion of LGBTQ identities into paperwork, a theme which occurred in several other studies that focused on stigma and health care barriers, such as Heredia et al. (2017) and Margolies and Brown (2018). [18]

Discussion

The results of this study indicate that LGBTQ policy change influenced research. Although my research filter began to look for articles published starting in 2012, all the year ranges for each area of inquiry begin in 2015. Furthermore, 40% of the articles were published in 2015 – the year in which the Supreme Court legalized same-sex marriage. From 2015 onward, a steady pace of research for each research focus emerged, except for areas of inquiry in which I found five or less articles on the topic.

[17] Ibid.
[18] Ibid.

To my surprise, women's health was a popular topic among the articles selected. Sexual minority women are overrepresented compared to research on gay and bisexual men or gender minorities, and comprise 36% of all the articles collected (9>3). Furthermore, two of the research focuses concern themselves with female anatomy – breast cancer and cervical cancer. These two research focuses account for 44% of the articles.

Limitations

As a brief literature review, this paper cannot highlight the nuance in each study. For instance, my own table highlighted the percentages of LGBTQ+ health insurance ownership; however, many articles focused on more nuances in health coverage, such as LGBTQ+ ownership of each health insurance type (public, private, health-savings accounts (HSAs), etc.). This limited scope disadvantaged articles that focused on sexual behaviors and stigma and health care barriers since the data collected in these articles often did not have commonalities easily displayed within a traditional table. Furthermore, in a more detailed literature review, more articles on gay and bisexual men and nonbinary/queer identities. Although these topics are less researched, a longer investigation with advanced search terms could include more of these types of articles.

Conclusion

This literature review highlights important trends within LGBTQ+ health research, such as the need for increased health insurance coverage and access, increased cancer screening, inclusive sex education, and widespread data collection about sexual and gender minorities.

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References

[1] McKay, Elizabeth Anne, Matias Placencio-Castro, Mei R. Fu, and Holly B. Fontenot. "Associations Between Sex Education Types and Sexual Behaviors Among Female Adolescents: A Secondary Data Analysis of the National Survey of Family Growth 2011–2019." *Sexuality Research and Social Policy* 19, no. 3 (September 1, 2022): 922–35. https://doi.org/10.1007/s13178-021-00664-w.

[2] Charlton, Brittany M., Bethany G. Everett, Alexis Light, Rachel K. Jones, Elizabeth Janiak, Audrey J. Gaskins, Jorge E. Chavarro, Heidi Moseson, Vishnudas Sarda, and S. Bryn Austin. "Sexual Orientation Differences in Pregnancy and Abortion across the Lifecourse." *Women's Health Issues : Official Publication of the Jacobs Institute of Women's Health* 30, no. 2 (2020): 65–72. https://doi.org/10.1016/j.whi.2019.10.007.

[3] Peitzmeier, Sarah M., Sari L. Reisner, Padmini Harigopal, and Jennifer Potter. "Female-to-Male Patients Have High Prevalence of Unsatisfactory Paps Compared to Non-Transgender Females: Implications for Cervical Cancer Screening." *Journal of General Internal Medicine* 29, no. 5 (May 2014): 778–84. https://doi.org/10.1007/s11606-013-2753-1.

[4] Milner, Gabrielle E., and Richard J. McNally. "Nonadherence to Breast and Cervical Cancer Screening among Sexual Minority Women: Do Stigma-Related Psychological Barriers Play a Role?" *Health Psychology* 39 (2020): 891–99. https://doi.org/10.1037/hea0000887.

[5] Agénor, Madina, Christina A. Muzny, Vanessa Schick, Erika L. Austin, and Jennifer Potter. "Sexual Orientation and Sexual Health Services Utilization among Women in the United States." *Preventive Medicine* 95 (February 1, 2017): 74–81. https://doi.org/10.1016/j.ypmed.2016.11.023.

[6] Greene, Madelyne Z., Tonda L. Hughes, Alexandra Hanlon, Liming Huang, Marilyn S. Sommers, and Salimah H. Meghani. "Predicting Cervical Cancer Screening among Sexual Minority Women Using Classification and Regression Tree Analysis." *Preventive Medicine Reports* 13 (March 1, 2019): 153–59. https://doi.org/10.1016/j.pmedr.2018.11.007.

[7] Aleshire, Mollie E., Kristin Ashford, Amanda Fallin-Bennett, and Jennifer Hatcher. "Primary Care Providers' Attitudes Related to LGBTQ People: A Narrative Literature Review." *Health Promotion Practice* 20, no. 2 (March 1, 2019): 173–87. https://doi.org/10.1177/1524839918778835.

[8] Petroll, Andrew E., and Jason W. Mitchell. "Health Insurance and Disclosure of Same-Sex Sexual Behaviors Among Gay and Bisexual Men in Same-Sex Relationships." *LGBT Health* 2, no. 1 (March 1, 2015): 48–54. https://doi.org/10.1089/lgbt.2013.0050.

[9] Heredia, Dagoberto, Tyson L. Pankey, and Cesar A. Gonzalez. "LGBTQ-Affirmative Behavioral Health Services in Primary Care." *Primary Care: Clinics in Office Practice*, LGBTQ+ Health, 48, no. 2 (June 1, 2021): 243–57. https://doi.org/10.1016/j.pop.2021.02.005.

[10] Fredriksen-Goldsen, Karen I., Jane M. Simoni, Hyun-Jun Kim, Keren Lehavot, Karina L. Walters, Joyce Yang, and Charles P. Hoy-Ellis. “The Health Equity Promotion Model: Reconceptualization of Lesbian, Gay, Bisexual, and Transgender (LGBT) Health Disparities.” *The American Journal of Orthopsychiatry* 84, no. 6 (November 2014): 653–63. https://doi.org/10.1037/ort0000030.

[11] Margolies, Liz, and Carlton G. Brown. “Current State of Knowledge About Cancer in Lesbians, Gay, Bisexual, and Transgender (LGBT) People.” *Seminars in Oncology Nursing*, Lesbian, Gay, Bisexual and Transgender (LGBT) Cancer Care, 34, no. 1 (February 1, 2018): 3–11. https://doi.org/10.1016/j.soncn.2017.11.003.

[12] Hafeez, Hudaisa, Muhammad Zeshan, Muhammad A Tahir, Nusrat Jahan, and Sadiq Naveed. “Health Care Disparities Among Lesbian, Gay, Bisexual, and Transgender Youth: A Literature Review.” *Cureus* 9, no. 4 (n.d.): e1184. https://doi.org/10.7759/cureus.1184.

[13] Quinn, Gwendolyn P., Julian A. Sanchez, Steven K. Sutton, Susan T. Vadaparampil, Giang T. Nguyen, B. Lee Green, Peter A. Kanetsky, and Matthew B. Schabath. “Cancer and Lesbian, Gay, Bisexual, Transgender/Transsexual, and Queer/Questioning (LGBTQ) Populations.” *CA: A Cancer Journal for Clinicians* 65, no. 5 (2015): 384–400. https://doi.org/10.3322/caac.21288.

[14] Rossman, Kinton, Paul Salamanca, and Kathryn Macapagal. “‘The Doctor Said I Didn’t Look Gay’: Young Adults’ Experiences of Disclosure and Non-Disclosure of LGBTQ Identity to Healthcare Providers.” *Journal of Homosexuality* 64, no. 10 (2017): 1390–1410. https://doi.org/10.1080/00918369.2017.1321379.

[15] Williams, Austin D., Richard J. Bleicher, and Robin M. Ciocca. “Breast Cancer Risk, Screening, and Prevalence Among Sexual Minority Women: An Analysis of the National Health Interview Survey.” *LGBT Health* 7, no. 2 (March 1, 2020): 109–18. https://doi.org/10.1089/lgbt.2019.0274.

[16] Gonzales, Gilbert, Carrie Henning-Smith, and Jesse M. Ehrenfeld. “Changes in Health Insurance Coverage, Access to Care, and Health Services Utilization by Sexual Minority Status in the United States, 2013-2018.” *Health Services Research* 56, no. 2 (April 2021): 235–46. https://doi.org/10.1111/1475-6773.13567.

[17] Greene, Naomi, Jowanna Malone, Mary Anne Adams, Lorraine T. Dean, and Tonia Poteat. “‘This Is Some Mess Right Here.’: Exploring Interactions between Black Sexual Minority Women and Healthcare Providers for Breast Cancer Screening and Care.” *Cancer* 127, no. 1 (January 1, 2020): 74–81. https://doi.org/10.1002/cncr.33219.

[18] Greene, Madelyne Z., Tonda L. Hughes, Marilyn S. Sommers, Alexandra Hanlon, and Salimah H. Meghani. “Association of Pregnancy History and Cervical Cancer Screening in a

Community Sample of Sexual Minority Women." *Journal of Women's Health* 28, no. 4 (April 1, 2019): 526–34. https://doi.org/10.1089/jwh.2018.6960.

[19] Solazzo, Alexa L., Madina Agénor, S. Bryn Austin, Jorge E. Chavarro, and Brittany M. Charlton. "Sexual Orientation Differences in Cervical Cancer Prevention among a Cohort of U.S. Women." *Women's Health Issues* 30, no. 4 (July 1, 2020): 306–12. https://doi.org/10.1016/j.whi.2020.02.002.

[20] Gonzales, Gilbert, and Lynn A. Blewett. "National and State-Specific Health Insurance Disparities for Adults in Same-Sex Relationships." *American Journal of Public Health* 104, no. 2 (February 2014): e95–104. https://doi.org/10.2105/AJPH.2013.301577.

[21] Bazzi, Angela Robertson, Debra S. Whorms, Dana S. King, and Jennifer Potter. "Adherence to Mammography Screening Guidelines Among Transgender Persons and Sexual Minority Women." *American Journal of Public Health* 105, no. 11 (November 2015): 2356–58. https://doi.org/10.2105/AJPH.2015.302851.

[22] Gonzales, Gilbert, and Carrie Henning-Smith. "Barriers to Care Among Transgender and Gender Nonconforming Adults." *The Milbank Quarterly* 95, no. 4 (December 2017): 726. https://doi.org/10.1111/1468-0009.12297.

[23] Lund, Emily M., and Claire M. Burgess. "Sexual and Gender Minority Health Care Disparities: Barriers to Care and Strategies to Bridge the Gap." *Primary Care: Clinics in Office Practice*, LGBTQ+ Health, 48, no. 2 (June 1, 2021): 179–89. https://doi.org/10.1016/j.pop.2021.02.007.

[24] Apaydin, Kaan Z., Holly B. Fontenot, Derri Shtasel, Sannisha K. Dale, Christina P.C. Borba, Christopher S. Lathan, Lori Panther, Kenneth H. Mayer, and Alex S. Keuroghlian. "Facilitators of and Barriers to HPV Vaccination among Sexual and Gender Minority Patients at a Boston Community Health Center." *Vaccine* 36, no. 26 (June 18, 2018): 3868–75. https://doi.org/10.1016/j.vaccine.2018.02.043.

[25] Lombardo, Joseph, Kevin Ko, Ayako Shimada, Christopher Wright, Jerry Chen, Alisha Maity, Marissa L. Ruggiero, et al. "Perceptions of and Barriers to Cancer Screening by the Sexual and Gender Minority Community: A Glimpse into the Health Care Disparity." *Cancer Causes & Control : CCC* 33, no. 4 (April 2022): 559–82. https://doi.org/10.1007/s10552-021-01549-4.

Federal Register. "Nondiscrimination in Health Programs and Activities," August 4, 2022. https://www.federalregister.gov/documents/2022/08/04/2022-16217/nondiscrimination-in-health-programs-and-activities.

Jones, Jeffrey M. "LGBT Identification in U.S. Ticks Up to 7.1%." Gallup.com, February 17, 2022. https://news.gallup.com/poll/389792/lgbt-identification-ticks-up.aspx.