

Dispelling Myths Regarding Cisgender Sexual Minority Women and Breast Cancer

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Correction: Author cited Meads and Moore, 2013 as proof that sexual minority women have higher rates of breast cancer than heterosexual women: this was a misread as the article concludes that sexual minority women have higher rates of breast cancer mortality rate than heterosexual women but MIGHT have higher rates of breast cancer than heterosexual women. Other studies, like this 2012 study by the NIH (Application of the Rosner–Colditz Risk Prediction Model to Estimate Sexual Orientation Group Disparities in Breast Cancer Risk in a U.S. Cohort of Premenopausal Women) have found that some groups of sexual minority women are at a greater risk of acquiring breast cancer than heterosexual women.

Lesbian and bisexual cisgender women have higher rates of breast cancer and breast cancer mortality than their heterosexual counterparts (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). There is not much known about why this is the case, although most researchers revert to the common hypotheses that the increased prevalence of obesity, substance abuse, and nulliparity (not having given birth) among lesbian and bisexual women contribute to incidences of breast cancer (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). These hypotheses place individual responsibility on sexual minority women with breast cancer as opposed to identifying complicated, underlying structural problems. This literature review argues that homophobia and bisexual invisibility, in conjunction with fatphobia and inaccurate research methodology, have prevented clinicians and scientists from thoroughly examining the ways in which increased rates of alcohol abuse, the physiological effects of stress due to discrimination, and a lower rate of receiving mammograms caused by perceived negative judgment from healthcare providers contribute to the higher prevalence of breast cancer among lesbian and bisexual women.

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Introduction

Limited research conducted on the relationship between sexual minority status and breast cancer in cisgender women has determined that lesbian and bisexual women are more likely to suffer from breast cancer than heterosexual women (Meads & Moore, 2013). A UK study conducted on pairs of sisters in an attempt to control for genetic risks found that the heterosexual sisters had a 14.6% chance of developing breast cancer and that the lesbian sisters had a 29.6% chance of developing breast cancer (Meads & Moore, 2013). In addition, lesbian and bisexual women with breast cancer may generally have a higher mortality rate than heterosexual women, with one U.S. government study finding that they are three times more likely to die from the disease (Meads & Moore, 2013). Based on the few studies that have attempted to understand the link between lesbianism, bisexuality, and breast cancer, most have come to the conclusion that lesbian and bisexual women are putting themselves at an increased risk of developing breast cancer by engaging in individual “risky behaviors” such as a poor diet or lack of exercise (McPhail, 2014), excessive smoking and drinking, and choosing not to give birth (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). While individual behaviors certainly have a role in increasing disease risk, it is worth scrutinizing the previously cited reasons for disparate outcomes in breast cancer development and mortality among sexual minority women and shifting the focus to understanding how institutional and structural inequities contribute to these risk factors.

Interrogating the Risk Factors: Body Mass Index and Exercise

While it has previously been proven that lesbian and bisexual women may be more likely to be overweight or obese than heterosexual women (McNamara & Ng, 2016), there is conflicting evidence as to whether that is the case. Despite earlier research regarding sexual minority women and their association with increased body weight, there was not much research examining the factors that contributed to this disparity and ways to reduce it (Bohmer et al., 2007). If lesbian and bisexual women are, in fact, generally more overweight and obese than heterosexual women, it's worth considering why. It has been hypothesized that sexual minority women are stress eating as a means of coping with life events such as being closeted, coming out, dealing with discrimination, or struggling to find a community (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). Another possibility is that sexual minority women experience less fatphobia, or discrimination based on larger body size (McPhail, 2014), from potential female partners than heterosexual women experience from potential male partners and, as a result, are making less of an attempt to lose weight for purely aesthetic reasons (Bohmer et al., 2007). Without aesthetic motivations, sexual minority women whose overall health could benefit from a lower body weight may not choose to reduce their weight.

Additionally, it has previously been proposed that a lack of exercise is the root cause behind increased weight in sexual minority women and that providers should urge their lesbian and bisexual female clients to exercise more (McNamara & Ng, 2016). However, the same study that proposed this reasoning later contradicted it with the inclusion of a statistic that stated that lesbian and bisexual women exercise just as much on average than heterosexual women (McNamara & Ng, 2016), and an even more recent study concluded that women on a more homosexual end of the sexuality spectrum are significantly more physically active and less significantly obese than

heterosexual women (Fricke & Sironi, 2020). Whatever the reasons for larger body size among sexual minority women, if in fact a true phenomenon might be, the lack of focus and thorough research on the underlying societal and cultural causes of supposed obesity among sexual minority women pushes one to reexamine whether many medical researchers and practitioners are genuinely concerned for lesbian and bisexual women's health. It may be the case that using higher weight and its historical association with physical deviance from societal norms in conjunction with sexual minority women's sexual deviance from societal norms serves as a way of finding individual fault with their relatively increased breast cancer risk (McPhail, 2014). Examining researcher and practitioner motivations, however, may not prove as valuable to understanding the relationship between obesity and breast cancer prevalence among sexual minority women as looking into whether sexual minority women are actually more obese as a whole than their heterosexual counterparts.

Per a recent study, there are no disparities in body mass index (BMI) and obesity diagnoses by sexual orientation, and there are no significant differences between BMI measurements and, by association, rates of obesity and high weight in lesbian women, bisexual women, and heterosexual women (Wolfgang et al., 2022). There are also conflicting studies regarding the role that obesity and its various definitions play in increasing breast cancer risk. Postmenopausal women who are obese, classified by the National Institutes of Health (NIH) as a BMI greater than 30, have a 20–40% increase in breast cancer risk than women who have a “normal” weight, classified by the NIH as a BMI between 18.5 and 24.9 (Munsell et al., 2014). However, a higher BMI and waist size are not themselves risk factors for breast cancer development (Song et al., 2022), but high blood sugar, diets high in fat, and a lack of regular exercise often associated with obesity are (Sun et al., 2017). Additionally, the average BMI of women in the Song study who ended up developing breast cancer (23.4) was slightly lower than that of the women in the study without breast cancer (23.6), and this study, unlike the Munsell study, accounted for women who were postmenopausal as well, enhancing its relevance and accuracy because breast cancer risks increase after menopause (Sun et al., 2017). If sexual minority women are not, in fact, more obese than heterosexual women, body size may not be to blame for disparate outcomes in breast cancer diagnoses and mortality.

It's worth noting that BMI is rooted in research that excluded people of color and women and is therefore a somewhat inaccurate measure of health (Hicken et al., 2018), and that BMI does not consider the effects of the ratio of muscle to fat mass independent of body weight on health (Iyengar et al., 2019). Using BMI as a sole metric may skew views of the fitness and overall health of sexual minority women, who tend to have more lean muscle mass on average than their heterosexual counterparts (Bohmer et al., 2007). It also has been found that waist circumference is a better indicator of disease risk and overall health than BMI, since it predicts visceral and abdominal fat percentage, which are statistically significant indicators of many diseases, more accurately (Hicken et al., 2018). While the correlation between BMI and breast cancer has been disproven, a higher body fat percentage is shown to correspond with a higher risk of acquiring breast cancer (Iyengar et al., 2019). A Women's Health Institute study used DEXA scanning machines to measure the amount and type of body fat in a cohort of postmenopausal women every three years for a span of 12 years and tracked cases of breast cancer among participants (Iyengar et al., 2019). The researchers found that a 5% increase in whole body fat resulted in a 28% increased chance of acquiring invasive breast cancer, and that a 5% increase in abdominal fat resulted in a 46% increase in invasive breast cancer (Iyengar et al., 2019). They also found that while an increase in BMI generally correlated with an increase in overall body fat, 48.3% of the women in the highest quartile of abdominal fat were distributed among the three lowest quartiles of BMI (Iyengar et al., 2019). The

results of the Women's Health Institute study indicate that breast cancer risk is often more complicated than body size or even body fat percentage alone, and that understanding whether obesity is at the root of increased breast cancer in sexual minorities requires further research examining body fat percentage and placement.

It is worth noting that unfortunately, while there is copious existing research on the relationship between sexual orientation, BMI, and body size, very little public domain research is available specifically on differences in waist circumference and the percentage values of different kinds of body fat in women by their sexual orientation. The fault may lie not with researcher motivations but with research methodology and funding: the most accurate tools to measure body composition, the DEXA scan machine, takes at least 30 minutes to work, has a maximum weight capacity of 350 pounds, and is expensive to acquire (Body Composition and Bone Density Testing, 2019). Despite the many failings of BMI as a measure of health and the lack of sufficient availability of research on sexual minority women using more accurate metrics, Song's finding that body weight does not vary on average by sexual orientation (Song et al., 2022) is quite shocking considering the common stereotype that sexual minority women are overweight (McPhail, 2014). This research indicates that the underlying cause of increased breast cancer acquisition and death rates in lesbian and bisexual women is most likely not weight-related but a result of other factor(s).

The conflicting evidence and recent developments in research regarding the relationship between obesity, sexual orientation, and breast cancer suggest that the common assumption that lesbian and bisexual women are at a higher risk of breast cancer (McPhail, 2014) due to their supposed obesity is rooted in homophobia and fatphobia, and thus requires further scrutiny. There is also a need for a more holistic and less-biased view of identifying causes of obesity in sexual minority, cisgender women. Perhaps measuring abdominal body fat percentage, cholesterol levels, triglyceride levels, and blood sugar and asking about diet and exercise habits are better ways for healthcare providers to know whether a larger lesbian or bisexual patient is healthy overall instead of recommending more frequent aerobic activity, as McNamara and Ng suggested (McNamara & Ng, 2016). In tandem with a body fat or weight circumference measurement, these metrics could potentially replace BMI as an indicator of breast cancer risk and overall health. This more holistic approach, in addition to mammograms and genetic screening for breast cancer, might be a more accurate way to measure and reduce incidences of breast cancer in a sexual minority woman than by looking at the number on the scale.

Interrogating the Risk Factors: Sexual Minority Status and Alcohol Consumption

Increased alcohol intake is a known risk factor for breast cancer, even in those who are not alcoholics: Moderate alcohol use has been found to be associated with a large increase in breast cancer risk among women who were not initially considered high risk for the disease (McDonald et al., 2013). In one study, women who consumed 3–4 alcoholic beverages per day had a 32% increase in breast cancer risk compared to non-drinkers, women who consumed 4 or more alcoholic beverages per day had a 46% increase in breast cancer risk compared to non-drinkers, and women who consumed just one alcoholic beverage per day were at a 5% increased risk of developing breast cancer compared to non-drinkers (McDonald et al., 2013). Breast cancer is the “number one cancer caused by alcohol among women globally,” and, as a result, alcohol is considered a class 1 carcinogen by

the International Agency for Research on Cancer (World Health Organization, 2021). Sexual minority women tend to drink alcoholic beverages more frequently and at a higher quantity than heterosexual women, and lesbian women are three times more likely to suffer from alcoholism at some point in their lives compared to heterosexual women (Mcnamara & Ng, 2016). Both lesbian and bisexual adolescents and adults have higher rates of cigarette smoking, alcohol, and drug abuse and addiction compared to their heterosexual counterparts (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). Alcohol use is a “behavioral risk factor” for breast cancer exhibited by many lesbian and bisexual women (Meads & Moore, 2013), and in one study, alcohol use was more prevalent among women with breast cancer than women who were cancer free (Song et al., 2022), though women with breast cancer may be using alcohol to cope with the suffering brought on by their condition and treatment.

While it is convenient for healthcare providers and researchers to dismiss alcohol abuse among lesbian and bisexual women as a “behavioral risk factor” and to simply advise sexual minority, female patients to quit their substances, it is important to consider the societal factors, such as stress stemming from a lack of acceptance from others in their lives, that could drive lesbian and bisexual women to various addictive drugs and how these factors may relate to breast cancer. Hughes et al. posited that alcohol abuse is more prevalent among all marginalized groups, stating that “Risks related to alcohol use do not stem from sexual orientation per se, but are more likely a consequence of cultural and environmental factors associated with being part of a stigmatized and marginalized population” (Hughes, 2005). Lesbian and bisexual women also have higher rates of alcohol abuse than gay and bisexual men (Hughes, 2005), which coincides with the fact that sexual minority women are discriminated against for both their gender in addition to their sexual orientation, based on sociological theories expanding on Kimberle Crenshaw’s theory of intersectionality (Cabrado et al., 2013). Stress, also a risk for the development of breast cancer, often coexists with substance abuse, since alcohol, drugs, and cigarettes are common ways to relieve stress (Meads & Moore, 2013). While more intersectional research is needed when it comes to sexual minority, cisgender women, and substance abuse, particularly regarding bisexual women and sexual minority women of color, there is also a need to see whether the heightened substance abuse among lesbian and bisexual women is responsible for their breast cancer rates, if stress levels associated with their sexual orientation and the coinciding discrimination are the unaddressed, underlying cause, or if increased breast cancer risks among sexual minority women are a result of some combination of these factors.

The Link Between Psychological Stress, Discrimination, and Breast Cancer

Psychological stress and its biological consequences are associated with an increased breast cancer risk in women (Anatova et al., 2011). Cortisol, a hormone that plays a role in human physiological responses to psychological stressors, also plays an essential part in mammary gland development and estrogen activity in the mammary tissues, so an abnormally large amount of this hormone may lead to a suppressed immune system in the mammary gland, leaving breasts more vulnerable to the development of cancer (Anatova et al., 2011). There is a positive association between a woman’s exposure to stressful life events and her likelihood of developing breast cancer (Chiriac et al., 2018). Lesbian and bisexual women often undergo a series of stressful life events that heterosexual women do not, including grappling with their sexual identity, facing

the consequences of either coming out of or staying in the closet, witnessing and experiencing homophobia or biphobia from others, and struggling to find a community, acceptance, and potential romantic or sexual partners (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). These external stressors due to homophobia and sexism could provide one explanation for increased breast cancer development and mortality in sexual minority women.

Lesbian and bisexual women generally experience higher stress levels than their heterosexual counterparts over the course of their lifetime (Meads & Moore, 2013). In a 2015 study conducted by Juster et al., a control group of heterosexual, cisgender women and an experimental group of sexual minority, cisgender women were exposed to the same stressor (Juster et al., 2015). Both groups of women were exposed to identical stressors. Before and after 40 minutes, their levels of cortisol, a hormone often associated with stress, were measured via a blood test. The group of lesbian and bisexual women had higher cortisol levels overall than the group of heterosexual women, showing that not only do lesbian and bisexual women experience more societal and discriminatory stressors than heterosexual women over the course of their lifespan but their bodies have an increased stress response to the exact same stressors, as well as to day-to-day short-term stressors (Juster et al., 2015). This finding is in line with Dr. Arline Geronimus's "Weathering" hypothesis: Originally employed to describe the negative health consequences of experiencing racism and sexism, weathering refers to the negative physical stress that the emotional stress of oppression places on the body, increasing the risk of negative health outcomes (Geronimus, 2006). It is possible that sexual minority individuals experience a similar "weathering" phenomenon due to institutionalized homophobia. Given the positive association between being a sexual minority woman and increased stress hormone levels, and the positive association between stress hormone levels and breast cancer incidences, it is possible that increased stress caused by societal difficulties may be an underlying factor in their increased risk of breast cancer morbidity and mortality in sexual minority as compared to heterosexual women.

Interrogating the Risk Factors: Sexual Minority Women, Parity, and Breast Cancer

Nulliparity, or the condition of not having given birth, is a large risk factor for breast cancer among lesbian and bisexual women (The Health of Lesbian, Gay, Bisexual, and Transgender people report, 2012). Recent research conducted by ACOG supports the previous finding by asserting that nulliparity is associated with an increased risk of breast cancer ("Practice Bulletin Number 179: Breast Cancer Risk Assessment and Screening in Average-Risk Women," 2017) and that breast feeding, which is often associated with giving birth, reduces various forms of breast cancer (Anstey et al., 2017). However, while lesbian women were far less likely to become pregnant than heterosexual women, bisexual women were 22% more likely to become pregnant than heterosexual women (Hodson et al., 2017). This data demonstrates why health researchers, especially those studying breast cancer, need to avoid treating sexual minority, cisgender women as a homogenous group and consider the different lived experiences of lesbian versus bisexual women for the sake of research accuracy. The statistics from the Hodson study mentioned earlier also suggest that while bisexual women may have higher rates of breast cancer than heterosexual women, nulliparity may not be a contributing factor to this risk (Hodson et al., 2017), contradicting previous research (Meads &

Moore, 2013). While nulliparity is prevalent among lesbians and is, in fact, a breast cancer risk, it is one that is quite hard to reduce given the various social, legal, and financial barriers presented to lesbian singles or couples pursuing alternative reproductive technologies to give birth (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). Health plans often fail to cover infertility treatment for lesbians, or for bisexual women in a lesbian couple (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). Additionally, there is a need to honor and respect the choices of women who prefer not to give birth, whose partners give birth instead of them, who choose to adopt, or who choose not to raise children.

Perceived Discrimination, Lack of Access, and Preventative Care

A major, previously unidentified risk factor for the increased rates of breast cancer mortality in lesbian and bisexual cisgender women is the general reluctance to receive mammograms, which are an effective way to reduce the risk of mortality in people with breast cancer (“Practice Bulletin Number 179: Breast Cancer Risk Assessment and Screening in Average-Risk Women,” 2017). Lesbian women are less likely to receive mammograms than heterosexual women (McNamara & Ng, 2016) despite the fact that consistent mammograms after the age of 40 have been proven to reduce the risk of breast cancer mortality (“Practice Bulletin Number 179: Breast Cancer Risk Assessment and Screening in Average-Risk Women,” 2017). One study that examined the relationship between race, sexual orientation, and likelihood of mammography found that white, bisexual women were 30% less likely to receive mammograms than white, heterosexual women, and black, lesbian women were 20% less likely to receive mammograms than black, heterosexual women, although it is worth noting that the sample size of black women was not sufficient enough to conclude significance (Agénor et al., 2020), illuminating the fact that research surrounding health outcomes in sexual minority women, particularly sexual minority women of color, is often difficult due to a lack of willing participants (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). While some research exists as to the rates of mammogram procedures by various sexual orientations, very little research has been conducted on the reasons behind this reluctance to get a mammogram. However, one study examining experiences with discrimination in healthcare by sexual orientation found that sexual minority women were less likely to be satisfied with their primary care providers than heterosexual women due to perceived discrimination and treatment (Mosack et al., 2013). It is possible that lesbian and bisexual women are hesitant to visit the doctor for mammograms out of a lack of access to health providers who are competent when it comes to their sexual orientation, or out of a general fear of the healthcare system due to their own negative past experiences or those shared with them by other sexual minority women.

Fear of discrimination from health professionals is most likely a risk factor for increased breast cancer mortality rates among lesbian and bisexual women, as this fear may deter them from routine checkups and mammograms that allow for early detection of the disease and a healthier lifestyle in general. Research conducted by Khalili and others identified a need for LGBT+ competency training for faculty physicians and a more effective way for patients to identify LGBT+ competent healthcare providers (Khalili et al., 2015). Many lesbian and bisexual women who may have had prior negative or discriminatory experiences with the healthcare system may avoid disclosing their sexual orientation during a healthcare appointment in fear of being outed to others, and this

apprehension is especially prominent in individuals who receive health insurance through their workplaces (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). In one survey reported in “The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding,” 16% of doctors stated that they would be uncomfortable treating a gay patient (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014), further proving that many providers are not equipped to provide competent care for LGBT+ individuals. It is possible that the lack of LGBT+ competency among doctors is due to a lack of representation, as LGBT+ individuals, especially sexual minority women, are underrepresented in the medical field. While 29% of the United States’ general population aged 29–34 currently identifies as LGBT+, with the majority of these individuals identifying as bisexual women (Williams Institute, 2020), only 6.3% of recent medical graduates within that same age range identified as lesbian, gay, or bisexual, with the majority of these individuals identifying as male (Mori et al., 2021). Perhaps an increase in “out” sexual minority women in the medical field would allow sexual minority female patients to feel more comfortable seeking preventative healthcare without fear of experiencing sexism and homophobia, as well as allow for increased awareness and competency in the field as a whole.

It’s also quite possible that the barriers lesbian and bisexual women face when it comes to receiving preventative breast cancer care are not only mental and emotional but also financial. Adult lesbians are less likely to have health insurance than adult heterosexuals, and this disparity becomes more pronounced when monogamous couples are compared (Khalili et.al). Twenty-nine percent of cisgender bisexual women live in poverty compared to 17.8% of cisgender heterosexual women, while the cisgender lesbian poverty rate, according to this study, is quite comparable to that of cisgender heterosexual women, at 17.9% (Williams Institute, 2020). Sexual minority women with health insurance most likely have acquired it through their place of work, resulting in a previously stated fear of being outed to their workplace by their provider (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014), and those who do not have insurance may struggle to afford care, resulting in an even more difficult time finding a competent provider that they feel comfortable with. In order to increase preventative breast cancer care among lesbian and bisexual women (and decrease the risk of mortality by association), health care providers, as well as workplaces and insurance networks, should identify themselves as LGBT+ competent, and healthcare institutions such as medical schools and hospitals should make LGBT+ competency training mandatory.

Barriers to Effectively Researching Sexual Minority Women and Breast Cancer

Inadequate research methodology could contribute to risk factors for increased breast cancer acquisition and mortality in lesbian and bisexual women, as mentioned earlier, and further knowledge is required to protect lesbian and bisexual women from breast cancer. For instance, in many studies, lesbian and bisexual women are placed into a homogenous category as opposed to two separate categories, despite having very different healthcare needs, which may render research results inaccurate (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). In many studies and publications examining the link between sexual orientation and breast cancer in women, bisexual women are completely overlooked (a phenomenon

often called “bisexual invisibility”), while lesbian women are compared to heterosexual women (San Francisco Human Rights Commission LGBT Advisory Committee). Bisexual invisibility could be negatively impacting the breast cancer rates and overall health of bisexual women, since they represent such a large portion of the LGBT+ community, especially of sexual minority women: While only 0.2% of young women polled in one study identified as “Gay” or “Lesbian,” 8.4% identified as bisexual (San Francisco Human Rights Commission LGBT Advisory Committee). Bisexual women may go unnoticed by healthcare professionals, since there is often an assumption that they are either heterosexual or lesbian depending on whether they are dating a man or a woman at the time of their appointment, which may decrease their quality and individuality of care (San Francisco Human Rights Commission LGBT Advisory Committee). This misunderstanding between patients and providers can be remedied if providers routinely take sexual histories at appointments, asking not only about one’s current sexual activity status but also about one’s past sexual patterns and self-identification.

It’s very difficult for researchers to find an adequate number of lesbian and bisexual female subjects for studies examining breast cancer development and mortality risks, for a variety of reasons (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). For instance, the age disparity among women with breast cancer may have a hidden effect on the current understanding of the link between sexual minority status and breast cancer, as well as the methodology of studies that are attempting to resolve this gap in the general knowledge. An increase in age is a risk factor for breast cancer development, as aging leads to more genetic mutations that could increase breast cell proliferation or decrease the body’s immune response (Sun et al., 2017). Aging is also a risk factor for breast cancer mortality: A study conducted in 2016 found that 99.3% of all breast cancer-associated deaths in the United States were reported in women over 60, and 71.2% of breast cancer-associated deaths in the United States were reported in women over 40 (Sun et al., 2017). Breast cancer mainly affects older women, and much fewer older women openly identify as lesbian or bisexual than younger women: While 30% of people ages 18–24 identify as LGBT+ nationwide, that number decreases to 16% of people ages 50–64 and 7% of people over 65 years old (Williams Institute, 2020). Given the inverse relationship between age and LGBT+ identity status, and the direct relationship between age and breast cancer risk, it’s possible that the true effect of sexual minority status on breast cancer risk will not be known until younger people who are more likely to be public or “out” with regard to their sexual orientation grow older, acquire breast cancer, and become available as research subjects.

Additionally, many bisexual or lesbian women are reluctant to share their sexual orientation with researchers or on surveys for fear of a breach in confidentiality, and many will avoid even participating in studies relating to sexual orientation for this reason (Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities, 2014). This discomfort and lack of trust is often mutual, as the healthcare provider or researcher conducting patient examinations for studies is likely not only to be heterosexual, cisgender, and male, but to feel uncomfortable taking the sexual history of any patient, and to feel especially uncomfortable if they suspect their patient is LGBT+ or if their patient has shared their LGBT+ sexual orientation or gender identity (Khalili et al., 2015). It is possible that healthcare professionals’ reluctance to discuss matters pertaining to sex and prejudice regarding sexual minority clients is a result of the lack of focus on LGBT+ issues in healthcare education, especially in medical school curricula (Khalili et al., 2015). Integration of LGBT+ topics into standardized healthcare education could be a possible solution to healthcare professionals’ discomfort and lack of knowledge with regard to their LGBT+ patients.

The lack of adequate research on lesbian and bisexual women's health is also exacerbated by institutional and governmental factors. For instance, sexual orientation is not yet a required category for demographic data collection conducted by cancer research organizations in the United States of America or in the United Kingdom (Meads & Moore, 2013). So far, cohort studies have not measured the relationship between sexual orientation and breast cancer incidences, which means that health policies, particularly those related to breast cancer, are potentially inaccurate (or at the very least, lower quality) and leave sexual minority women behind (Meads & Moore, 2013). Lesbian and bisexual women are more likely to live in liberal states and territories such as Washington, D.C, New York, or California, than in conservative states like Arkansas or Wyoming, and they are more likely to live in urban areas than rural areas (Williams Institute, 2020), so it is possible that there is a response bias in previous breast cancer research studies towards sexual minority women living in big cities in liberal states, when their living situations and potential for further discrimination might affect their rates of breast cancer and other ailments. Another possibility is that governments of more conservative states, the boards of religious hospitals, and the higher-ups at religious universities routinely refuse to fund LGBT+ health studies due to homophobia masked as religious or "moral" reasons, making it especially difficult for scientists who wish to create more knowledge about sexual orientation and breast cancer to conduct their studies.

Conclusion

There is much that can be done to raise awareness – and, as a result, decrease incidences – of breast cancer and breast cancer mortality among lesbian and bisexual women. LGBT+ competency training for healthcare professionals, a system to penalize providers who are homophobic or who make LGBT+ patients feel uncomfortable, and an increase in self-identified LGBT+ or allied healthcare professionals may encourage sexual minority women to attend regular checkups. Access to affordable medical care and government-sponsored rather than workplace-sponsored insurance will make lesbian and bisexual women more likely to attend mammograms and breast exams and motivate them to take better care of their overall health and well-being. Body neutral education emphasizing health metrics other than body size or BMI could encourage providers to focus on promoting more healthful diets and decreased substance use rather than weight loss, helping sexual minority women mitigate risk factors for breast cancer without the anxiety that comes with homophobia or fat stigma.

Additionally, LGBT+-identified (or LGBT+-competent) mental healthcare professionals and increased access to them may help lower stress levels brought on by significant life events experienced by lesbian and bisexual patients, and reducing said stress could potentially reduce the associated risk of breast cancer. Educating lesbian and bisexual women on why alcohol use is an unhealthy coping mechanism for discrimination-related stressors and providing healthy alternatives could also reduce this risk. The creation of funding or grants for medical scientists who specifically perform research on lesbian and bisexual women's health could help them overcome financial barriers and lead to more accurate research methodology and outcomes. Complete confidentiality in these research studies, or, alternatively, a research administrator that discloses their own sexual minority status, might make more lesbian and bisexual women comfortable enough to participate in breast cancer risk studies and more willing to disclose their sexual orientation. If these procedures are implemented within healthcare spaces, industry, and education, it is possible that sexual minority women may see a decrease in disproportionate breast cancer cases and mortality.

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