



# Breast cancer diagnosis, treatment, and outcomes of patients from sex and gender minority groups

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We would like to congratulate the authors on a well-structured study examining breast cancer outcomes in sexual and gender minority (SGM) patients (1). This is a challenging population to research due to the absence of sexual orientation and preferred gender identity documentation and lack of inclusion as a demographic characteristic in previous studies. Many electronic medical records do not even have ways to collect this information. In those that do, it is often missing as a result of both lack of data collection by clinicians, and patient reluctance to disclose their sexual orientation and gender identity (SOGI) secondary to previous stigmatizing interactions with the health system. These barriers limit our full understanding of the experiences and potential disparities faced by SGM patients. Despite the relative lack of data, previous studies of the data that do exist have shown that sexual minority women (SMW) undergo screening for breast cancer at lower rates but have a similar prevalence of breast cancer when compared to their cisgender counterparts, highlighting areas of potential disparity for SMW (2).

Eckhert *et al.* (1) have performed the first study to look at breast cancer outcomes in patients from SGM groups. They report the results of a case-control study that identified SGM patients treated over a 14-year period at a single institution. There were 92 patients identified as eligible (74 lesbian women, 12 bisexual women, 6 transgender men), and matched with cisgender heterosexual (CGH) patients

based on age, year of diagnosis, and hormone receptor status. The two groups were similar in age, socioeconomic status, insurance type, rates of coronary artery disease, diabetes, and obesity, median age at menarche, age at first delivery, menopausal status, oral contraceptive use and hormone replacement use, with significantly more non-Hispanic white patients, nulligravid patients, and a trend towards increased at-risk alcohol use and cannabis use in the SGM group.

The authors found no difference in guideline concordant screening, referral to genetics, or clinical trials engagement between the two groups. SGM patients were found to have significant delays to diagnosis (SGM *vs.* CGH: 64 *vs.* 34 days), were more likely to have documented refusal of oncologist recommended therapy (SGM *vs.* CGH: 38% *vs.* 20%), and were more likely to pursue alternative medicines (SGM *vs.* CGH: 46% *vs.* 30%). Notably, SGM patients had significantly higher rates of cancer recurrence (SGM *vs.* CGH: 32.2% *vs.* 13.3% overall, 17.3% *vs.* 2.5% for local recurrence and 24.7% *vs.* 13.6% for metastatic recurrence) that persisted after multivariable analysis.

It is reassuring to see that guideline concordant care is being provided to SGM patients and that they are being offered participation in clinical research studies at the same rates as their CGH peers. The delays from symptom onset to tissue diagnosis of almost twice as much time, and recurrence rate that are almost tripled are concerning,

as they are not explained by the small differences in demographic characteristics between the two groups. Previous data on delays in the general breast cancer patient population have shown that longer times to surgery are associated with lower disease specific survival (3). While SGM patients have not been specifically evaluated as a separate cohort within studies of the timeliness of care, they are likely to suffer the same diminished outcomes as a result of delays.

This study also showed that SGM patients declined oncologist recommended care more frequently, which may be secondary to lack of trust in the healthcare system due to previous stigmatizing or discriminatory interactions with healthcare providers (4,5). The issue of stigma has been previously understood in the context of the minority stress model, in which people from minority groups experience poor health outcomes secondary to negative experiences in seeking care including frank discrimination or denial of care (6). These experiences only serve to perpetuate fear and excessive stress when seeking additional care. Heer *et al.* identified three levels of barriers that sexual minority patients undergoing cancer screening and treatment face—individual factors including personal fear of pain and embarrassment, provider-level factors including provider experience treating SGM patients, communication skills, and use of gender and sexual orientation inclusive language, and system level factors including the perception of an inclusive environment including the opportunity to give both sex at birth and identifying gender (7). Certainly, these factors may explain some of Eckhert *et al.*'s (1) findings related to receipt of care among SGM patients, and serve as points of investigation as health care systems work to dismantle these barriers.

There is a similar paucity of data on outcomes in the gynecology literature, however several studies have shown that SMW have lower rates of screening for cervical cancer (8,9). This difference in screening rates in breast and cervical cancer between SMW may be due to access to providers, or secondary to the false perception that cervical cancer screening is not necessary in certain populations (10). This only further reinforces the need to provide sexual orientation and gender affirming care to this higher risk patient population. These outcomes also underscore the need for better electronic medical record documentation of sexual orientation and gender in order to allow for more robust datasets for further research. We would encourage clinicians to accomplish this by incorporating SOGI questions into their routine history taking, and creating

inclusive environments in which patients feel comfortable reporting their SOGI status. For example, this could include standardizing intake forms to ask all patients their sexual orientation and gender identify, ensuring that marketing materials and signage within the hospital or clinic include SGM patients, and training staff on identifying and using appropriate pronouns.

Eckhert *et al.* (1) highlight the importance of, and raise many questions for, future research in outcomes in sex and gender minority groups.

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