Closing the Gap in Breast Cancer Care: Characteristics of Gender Diverse People who Access Screening Mammography

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Background

Early detection and treatment of breast cancer leads to ***improved survivorship*.** The United States Preventive Services Task Force and National Comprehensive Cancer Network both recommend screening for breast cancer among transgender and non-binary (TGNB) people designated female at birth. For TGNB people designated male at birth, the University of California San Francisco recommends biennial screening mammography for those over age 50 who have taken gender-affirming estrogen for at least 5 years.

A previous institutional study of 253 TGNB patients found ***TGNB breast cancer screening rates ranged from 2.0-50.0%, significantly lower than the national rates for cisgender women (66.7–78.4%)***.

These findings suggest the need to better understand factors which influence screening mammography use in the TGNB population.

Methods

TGNB patients were identified via selections within the electronic medical record (EMR) indicating one or more of the following: gender identity = “transgender female”, “transgender male”, “non-binary", or “neither exclusively male nor female" and/or sex assigned at birth field with a different male/female binary than reported gender identity. Screening mammography was defined by Centers for Medicaid and Medicare Services’ (CMS) quality metrics based in Current Procedural Terminology (CPT) codes displayed in **Table 1**.

The number of TGNB patients undergoing screening mammography was identified and descriptive statistics of demographics and social determinants of health (SDoH) were analyzed.

Table 1. CPT Codes Consistent with CMS’ Breast Cancer Screening Definitions

Code	Description
77055	Mammography; unilateral
77056	Mammography; bilateral
77057	Screening mammography, bilateral (2-view study of each breast)
77061	Diagnostic digital breast tomosynthesis; unilateral
77062	Diagnostic digital breast tomosynthesis; bilateral
77063	Screening digital breast tomosynthesis, bilateral
77065	Diagnostic mammography, including computer-aided detection (CAD) when performed; unilateral
77066	Diagnostic mammography, including computer-aided detection (CAD) when performed; bilateral
77067	Screening mammography, bilateral (2-view study of each breast), including computer-aided detection (CAD) when performed
G0279	Diagnostic digital breast tomosynthesis, unilateral or bilateral (list separately in addition to 77065 or 77066)

Figure 1. Gender Identity (N=192)

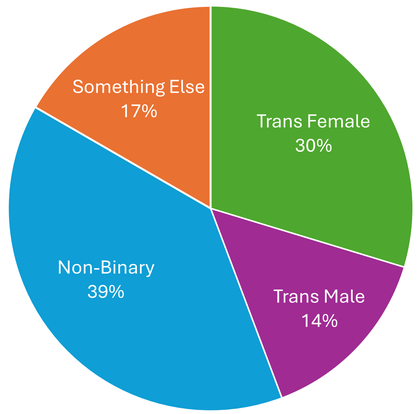

Figure 2. Majority Characteristics (N=192)

Race: White (72%)

Ethnicity: N/A (88%)

Insurance: Commercial (59%)

SDoH: Negative Screen (81%)

Figure 3. Intersectional Stigma Model

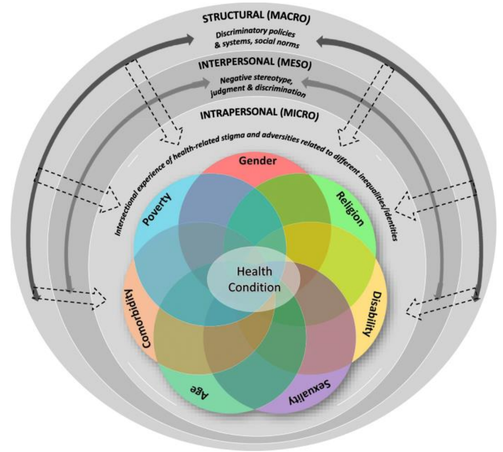

Figure Source: Rai, S.S., Peters, R.M.H., Syurina, E.V. *et al.* Intersectionality and health-related stigma: insights from experiences of people living with stigmatized health conditions in Indonesia. *Int J Equity Health* 19, 206 (2020). https://doi.org/10.1186/s12939-020-01318-w

Results

From a sample of 5,004 total TGNB patients, ***192 (3.8%) underwent screening mammography for breast cancer prevention***. Of these 192, the most prevalent gender identities were non-binary (39.1%, N=75) and transgender female (29.7%; N=57) **(Figure 1).** 75.5% (N=145) were over 40 years old. Most patients identified as White race (71.9%; N=138) and without a listed ethnicity (88.0%; N=169). Most (59.4%; N=114) patients had commercial insurance (**Figure 2**).

Documentation rates of 13 SDoH items ranged from 1.6-47.9% per question. For questions with at least 30 responses on file, responses indicating unfavorable SDoH ranged from 0% (not having a doctor) to 17.4% (need for mental health care). ***A total of 86 patients were screened for SDoH needs. Of these, 16 patients (18.6%) screened positive***, but only one patient (6.3%) had documented actions taken to address these needs (referral to mental health services).

Conclusions

Gender minority patients face stigma, access difficulties, and a lack of supporting data for consensus agreements. These factors, among others, reduce rates of screening mammography in the TGNB population. Our data describes qualities of TGNB patients who underwent at least one screening mammogram. These data highlight that White, non-Hispanic/Latinx/Spanish ethnicity patients with commercial insurance are more likely to complete breast cancer screening(s). Indicators of unfavorable SDoH were uncommon.

As demonstrated by our sample, patients with fewer minority identities are likely to access preventative breast cancer care. **These findings emphasize the role of multiple minoritization and suggest that intersectional stigma may reduce breast cancer screening rates in the TGNB population (Figure 3).** Further analysis of these data will allow investigation into the role of intersectional identity and SDoH on healthcare utilization among TGNB patients.

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