

Transgender Health and Breast Cancer Risk: Unveiling the Evidence

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Introduction/Significance

- Transgender individuals face challenges in the US healthcare system, including refusal of care, harassment, a lack of gender nonconforming providers (Seelman et al., 2017).
- Many transgender individuals may only seek medical care for gender affirmation and avoid primary healthcare concerns (Seelman et al., 2017).
- Transgender patients may depend on healthcare providers to initiate cancer screening discussions more than cisgender individuals.
- There is an inconclusive understanding of breast cancer risk in transgender individuals undergoing gender-affirming hormone therapy, which complicates the development of definitive screening and prevention guidelines.

Understanding Hormone Therapy in Transgender Medicine:

- Cancer is a leading global cause of death, necessitating early detection through screening (McFarlane et al., 2018).
- Approximately 0.5% to 1.3% of the population identifies as transgender, contributing to the demand for transgender healthcare (McFarlane et al., 2018).
- The relationship between GAHT and cancer risk in transgender individuals is not clearly established, despite the known role of hormones in tumor growth (McFarlane et al., 2018).
- In transgender medicine, where GAHT introduces external hormones to align secondary sexual characteristics with gender identity, understanding GAHT’s impact on cancer risk is complex (McFarlane et al., 2018). This complexity arises because patients on GAHT may have disease risks that differ from those traditionally associated with their sex assigned at birth or affirmed gender identity, leading to many unknowns in how routine screening recommendations should be applied to transgender (McFarlane et al., 2018).

Purpose/Conceptual Framework

- The purpose of this systematic review is to examine the breast cancer risk among transgender individuals undergoing GAHT.
- The review is guided by Dorothea Orem's Self-Care Deficit Nursing Theory, emphasizing the importance of self-care in healthcare and the role of nursing interventions in supporting transgender individuals' self-care related to breast cancer risk.
- This study aims to provide insights into the medical implications of GAHT in the transgender community, thereby aiding in informed healthcare decisions.

Methods

Project Design:

- Systematic literature review based on Dorothea Orem's Self-Care Deficit Nursing Theory framework.

Search Strategy:

- Performed electronic and manual searches in MEDLINE Complete, PubMed, CINAHL Ultimate from 2013 to 2023.
- Key terms “transgender,” “trans,” “breast cancer,” “malignancy,” “tumor,” “gender-affirming therapy,” “hormone therapy.”
- Ancestry search conducted through reference lists of identified publications to find additional references.

Inclusion Criteria:

- Studies with participants identifying as transgender, transsexual, or under terms denoting gender identity incongruent with their assigned sex at birth, seeking feminization or masculinization via hormone therapy.
- Publications in English from 2015 to 2023.
- Included studies conducted in the U.S. and abroad.
- All modes of hormone administration, dosages, and a variety of hormone types considered.

Exclusion Criteria:

- Articles published before 2013.
- Non-English language.
- Quality score below 3 (Rapid Critical Appraisal Checklist, Appendix C).
- Excluded studies focused on psychological outcomes of GAHT.
- Studies examining outcomes other than breast cancer risk.

Results

Synthesis Across Studies:

- Interpreting breast cancer risk within the transgender population is challenging, primarily because of the wide range of hormonal regimens utilized.
- The consistent theme across multiple studies, shows that when comparing the general transgender population undergoing GAHT to the general cisgender population, there isn't a statistically significant increase in overall breast cancer incidence.
- Distinct differences become evident when making more specific comparisons.
- Transgender women receiving GAHT have a 46-fold higher risk of breast cancer compared to cisgender men. Yet, this risk for transgender women does not surpass the breast cancer risk faced by cisgender women.
- Research indicates that transgender women receiving GAHT are often diagnosed with breast cancer at a younger age than cisgender women, with the median age at breast cancer diagnosis being 51, and typically after a shorter period of exposure to exogenous hormones (average range 13-18 years).
- For transgender men on testosterone therapy, studies show a much lower breast cancer risk when compared to cisgender women but an increased risk when compared to cisgender men

Conclusive Insights on GAHT and Breast Cancer Risk:

The comprehensive analysis of multiple studies suggests that GAHT does not inherently increase breast cancer risk in transgender individuals compared to cisgender populations. However, the risk profile changes when comparing subgroups: transgender women, when compared to cisgender men, exhibit a breast cancer risk more akin to that of cisgender women. Similarly, the risk for transgender men appears more aligned with cisgender men. These nuanced differences underscore the importance of tailoring clinical approaches and research strategies to address the specific needs and risk profiles of transgender individuals.

Limitations

Limited High-Quality Evidence:

- Scarcity of high-quality studies on GAHT and breast cancer.
- Variation in study designs, sample sizes, and methodological rigor complicates drawing firm conclusions.
- Dominance of observational studies, increasing bias risk and limiting causal relationship establishment.

Absence of RCTs:

- Notable lack of randomized controlled trials (RCTs) focusing on GAHT and breast cancer incidence.

Limited Research Addressing the Question:

- Few studies directly addressing the relationship between GAHT and breast cancer risk.
- Indicates an emerging research area with limited generalizability of findings.

Future Recommendations

Research Initiatives

- Conduct meticulously designed prospective cohort studies and RCTs specifically for transgender populations.
- Ensure these studies have large, diverse sample sizes and extend over longer durations for robust evidence.
- Delve into the impact of different hormone regimens, administration routes, and dosages on breast cancer risk.
- Foster collaborative research efforts across healthcare institutions to fill the current gap in high-quality evidence.

Quality Improvement in Healthcare:

- Develop and implement QI projects to improve breast healthcare for transgender individuals.
- Craft comprehensive breast care guidelines tailored to the unique needs of transgender patients.
- Include effective risk assessments, timely screening intervals, and proper diagnostic procedures in guidelines.
- Enhance cultural competence among healthcare providers to deliver gender identity-aligned care.

Policy and Healthcare Organization Actions:

- Polymakers and healthcare organizations should collaborate to create policies that meet the breast health needs of transgender individuals.
- Advocate for comprehensive insurance coverage that includes essential breast health services like mammograms and ultrasounds.
- Ensure access to gender-affirming care and coverage, preventing discrimination against transgender individuals.
- Work alongside LGBTQ+ advocacy groups to navigate policy formulation and implementation effectively.

Implications for Practice

Understanding Breast Cancer Risk:

- Recognize that GAHT does not significantly increase breast cancer risk overall in transgender population compared to cisgender population, supporting its continued prescription as a part of gender-affirming care.

Vigilance in Healthcare Provision for Transgender Women:

- Personalized Risk Assessment:** Consider individual risk factors, such as family history of breast cancer, age when hormone therapy was initiated, and duration of hormone use, to tailor the screening schedule.
- Breast Health Monitoring:** Implement routine breast examinations and screening protocols for individuals on hormone therapy, with a particular emphasis on those who have been undergoing treatment for five years or longer, to facilitate early detection and timely intervention.
- Earlier Screening Initiation:** Given that transgender women who developed breast cancer often did so at a younger age compared to cisgender women, it might be prudent to start breast cancer screening at age 30 years, earlier than the typical age recommended for cisgender women.

Educational Strategies:

- Implement tailored breast health education programs for transgender patients on GAHT.
- Focus education on breast self-examinations, recognizing changes, and the importance of reporting symptoms.
- Empower patients with knowledge and skills for proactive health behaviors and early detection.

Engagement and Empowerment:

- Empower patients with knowledge and skills for proactive health behaviors and early detection.
- Engage transgender patients in their breast health care and overall well-being.
- Align healthcare practices with the principles of patient self-care as emphasized in Orem's self-care theory.

Enhancing Care Quality:

- Aim to enhance care quality through these practices and continue to refine the understanding of transgender health outcomes through ongoing research.

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