Cardiovascular Disease Incidence and Cardiovascular Health Among Diverse Women With Breast and Gynecologic Cancers

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OBJECTIVES: To examine if racial differences in cardiovascular health (CVH) are associated with cardiovascular disease (CVD) disparities among women with breast and gynecologic cancers.

SAMPLE & SETTING: The sample consisted of 252 Black women and 93 White women without a self-reported history of cancer or CVD who developed a breast or gynecologic malignancy. Women who developed CVD before their cancer diagnosis were excluded.

METHODS & VARIABLES: CVH was classified using metrics of the American Heart Association's Life's Simple 7 framework. Metrics were summed to create a total CVH score (0–7). Associations among race, ideal CVH (score of 5–7), and CVD incidence following cancer diagnosis were estimated with Cox proportional hazards models.

RESULTS: Ideal CVH was similar between Black women (33%) and White women (37%). Race and CVH were not associated with CVD incidence.

IMPLICATIONS FOR NURSING: In a small sample of women diagnosed with breast and gynecologic cancers, racial disparities in CVH and CVD incidence were not observed. Additional investigation of potential confounders relating to social determinants of health tied to the construct of race is warranted.

KEYWORDS racial disparities; cardiovascular health; Life's Simple 7; cardiovascular disease
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Individuals with cancer experience a higher risk of developing cardiovascular disease (CVD) after diagnosis. Large studies conducted with U.K. and U.S. populations have demonstrated increased risks of several CVD outcomes, such as heart failure and coronary artery disease, among cancer survivors compared with individuals without a cancer diagnosis (Armenian et al., 2016; Strongman et al., 2019). These increased risks are likely related to receipt of cardiotoxic cancer treatments (Greenlee et al., 2022; Okwuosa et al., 2017; Sutton et al., 2023) and etiologic factors common to cancer and CVD (Koene et al., 2016). In studies that examine sex-specific risks of CVD following a cancer diagnosis, elevated CVD risk following a breast cancer diagnosis is well established (Florido et al., 2022; Gernaat et al., 2017), with some evidence of increased CVD risk following a diagnosis of endometrial or ovarian cancer (Anderson et al., 2022; Felix et al., 2017; Soisson et al., 2018; Strongman et al., 2019). There are also known CVD mortality disparities among Black women with and without breast cancer (Williams et al., 2023), as well as compared to White women (Gallicchio et al., 2017; Lu et al., 2016; Troeschel et al., 2019). Although CVD represents an important burden among women with breast and gynecologic cancers, the factors associated with racial differences in CVD among women with breast and gynecologic cancers are unknown. It is important to gain clarity about such factors to support additional research toward the elimination of racial disparities in CVD, particularly related to risk of cardiotoxicity associated with targeted cancer therapies, among breast and gynecologic cancer survivors (Chen et al., 2021).

Importantly, in 2010, the American Heart Association (AHA) outlined goals for reaching ideal