

Public/Lay Abstract

For decades, Black women, those from lower socioeconomic (SES) backgrounds, and those with poor access to care have experienced the highest death rates from breast cancer in the U.S. Despite an increasing awareness of this troubling problem, most disparities research has been conducted in non-metastatic disease settings and has been descriptive, examining the potential reasons for disparities but not addressing them. As a result, little is known about how patients with metastatic breast cancer (MBC) from diverse backgrounds fare or how we can best support them.

Having a diagnosis of MBC exposes women to a high risk for sub-optimal care and disparities in survival because of the indefinite nature of one's illness and treatments, evolving financial stressors, caregiving and employment obligations, and other physical and emotional stressors, all of which can impact treatment receipt, clinical trial opportunities, quality of life, and mental health. Although some women with MBC live for years on minimal therapy and have limited symptoms, others suffer substantial and more immediate effects of MBC or its treatments, with frequent clinic visits, multiple emotional and physical challenges, and functional decline. Even those who experience prolonged control of their cancers will eventually develop symptoms as their cancers progress and treatments change. Further, the longitudinal and dynamic nature of MBC is distinct from the more finite disruptions in life that occur during active therapy in the early-stage setting. The degree of social support and resilience also varies between individuals, with emotional, resource, and caregiver challenges often amplified in the setting of a life-threatening disease like MBC.

Despite awareness of these challenges, *interventions to support women with MBC who are vulnerable to poor outcomes have not materialized*. In the proposed research, we will systemically incorporate a Social Determinants of Health (SDOH) needs assessment for patients with MBC at our center along with a process for individualized referrals for appropriate resources and services. This project will be conducted in close collaboration with our dedicated and clinically embedded MBC program, Ending Metastatic Breast Cancer for Everyone ('EMBRACE'). The robust infrastructure of this program, along with the wide availability of validated tools to screen for SDOH provide a unique opportunity to systemically evaluate and address needs of patients with MBC, by examining the 5 domains of SDOH (economic stability, education access & quality, health care access & quality, neighborhood & built environment, and social & community contact). We will then connect resources to optimally support patients. **The overarching goal of the proposed research is to screen for, understand, and lessen the emotional, physical, and financial challenges for those with MBC who are at highest risk for poor outcomes, so patients can focus on their disease, treatments, quality of life, and optimized survival.**

The EMBRACE program, launched in 2015 by Dr. Nancy Lin and Melissa Hughes (members of study team), engages all patients with MBC seen at our center, with the intent to clinically and informatically support patients and clinicians in the increasingly complex world of treatment and clinical trial options, cancer genomics, and overall care. To date, nearly 4,000 patients have participated in the EMBRACE clinical program and approximately 3,000 patients have enrolled to its companion, optional, research cohort study. Although EMBRACE provides patient education, clinical trial matching, and opportunities for shared care with local clinicians, **it has not yet focused its research or clinical programming on assessments of SDOH or interventions focused on reducing disparities in MBC**. With the funds from this award, we will pilot and evaluate a practical intervention at our center to directly support patients with MBC. We will then work to expand upon and disseminate our findings to other settings. More specifically, **we will execute the following aims for all MBC patients presenting for care at our center:** In Aim 1, we will operationalize and pilot SDOH screening at baseline, 6- and 12-months, with the outcome of feasibility. In Aim 2, among those meeting our SDOH criteria (patients who are Black, non-English speaking, Medicaid-insured OR who respond 'yes' to at least one critical need on the SDOH-assessment), develop and implement a systematic, tailored, and tracked referral system (the 'intervention') for patient resources, including social work, financial and/or access assistance, care coordination, food security, transportation, etc. In Aim 3, examine the services/resources utilized by patients receiving the intervention, how care was impacted, and patient/clinician satisfaction through surveys of enrolled patients at baseline and 12 months, one-time semi-structured interviews with 10 enrolled patients, and surveys of clinicians (at 12 months) whose patients participated.