Symptoms, Cancer-Related Distress, and Overall Distress May Contribute to Racial Disparities in the Outcomes of Patients With Early-Stage Breast Cancer

A recent article reports that symptom distress in African American (AA) women during chemotherapy was associated with decreased adherence to recommended chemotherapy (Cancer. 2017;123:2061–2069). A survival disparity between AA women and white women with breast cancer (BC) has been well documented, with a reported 5-year survival rate of 89% for white women and 75% for AA women after the initial diagnosis. The authors report historically longer time spans leading up the diagnosis of BC, as well as from surgery to the initiation of adjuvant chemotherapy, for AA patients compared with white patients. Furthermore, prior research has pointed to racial disparities in the ability of AA patients to receive a full course of chemotherapy within the prescribed timeframe, which also can affect outcomes.

“Despite initiation of treatment, black women do not receive full-dose or timely chemotherapy for breast cancer as prescribed,” says Margaret Rosenzweig, PhD, CRNP-C, AOCN, FAAN, corresponding author and professor in the department of acute/tertiary care at the University of Pittsburgh in Pennsylvania. “The current study was conducted, in part, to describe the incidence and severity of symptoms and overall cancer-related distress in black women and the association of symptoms and cancer-related distress to adherence (receiving full-dose prescribed chemotherapy without delay) to chemotherapy.”

Study Details
Researchers performed an exploratory analysis of data from the Attitudes, Communication, Treatment, and Support (ACTS) Intervention to Reduce Breast Cancer Disparity study, a randomized controlled trial of a psychoeducational intervention conducted from 2011 through 2015, with the aim of promoting adherence to therapy for AA women with BC. Subjects were AA women from 6 centers in western Pennsylvania and 1 center in Ohio who had BC diagnosed at varying stages, and for whom chemotherapy was recommended and prescribed. Symptom incidence and distress were assessed via symptom reporting questionnaires (National Comprehensive Cancer Network [NCCN] Distress Thermometer and Problem List, McCorkle Symptom Distress Scale, and Donovan Symptom Representation Questionnaire) at baseline, midway through chemotherapy, and at the completion of chemotherapy. Sociodemographic information was collected via questionnaire and other information (such as tumor characteristics, smoking, weight, height, menopausal symptoms, and adherence to chemotherapy) was abstracted from the medical record. Based on adherence data, patients were placed into 2 groups: those receiving 85% or greater

KEY POINTS
- Only 60% of AA women with early-stage BC received at least 85% of the prescribed adjuvant chemotherapy within the prescribed timeframe.
- The number of symptoms and symptom distress were related to the ability to receive timely, full-dose adjuvant chemotherapy.
- These findings provide an actionable area in which to potentially decrease cancer treatment disparities.
of the prescribed chemotherapy within the prescribed timeframe and those receiving less (because those receiving less than 85% of prescribed chemotherapy have exhibited poorer outcomes in prior research).

A total of 151 women were randomized to the ACTS intervention group or usual care. The ACTS intervention group received psychoeducational support. After excluding those with metastatic cancer and participants with fewer than 2 assessments, the current analysis was performed in 121 patients.

Mean scores for symptom distress deteriorated and increases in distress scores were noted over the course of chemotherapy, with the greatest occurring from baseline to the midpoint. These increases were attributed largely to 4 symptoms: appearance, bowels, fatigue, and insomnia. The pattern of total reported number of symptoms was similar, increasing throughout the course of chemotherapy, especially from baseline to the midpoint of chemotherapy. Cancer-related distress scores also significantly correlated to the subjects’ ability to receive full-dose chemotherapy by the midpoint analysis, but not at the completion of chemotherapy. The total number of symptoms was not found to be significantly related to the ability to receive full doses of chemotherapy at the midpoint, but the total number of symptoms at baseline positively correlated with the ability to complete the full and timely chemotherapy dose. Of the sociodemographic variables analyzed, only fewer number of comorbidities and full employment status were found to be significantly associated with positive chemotherapy adherence.

**Implications**

The results of the current study demonstrated that approximately 33% of AA women did not receive 85% of their prescribed adjuvant chemotherapy dose by the midpoint and 40% did not receive it by the projected endpoint. Furthermore, the participants’ ability to receive the treatment within the recommended timeframe was associated with worsened symptom scores. This pinpoints a potential target area when attempting to improve adherence among AA women with BC as a strategy to decrease disparities and improve outcomes. “We now need to focus on symptoms and distress as important etiologic factors of chemotherapy dose disparity in breast cancer treatment. We believe that is best measured through the intense, longitudinal assessment of symptoms, distress, quality of life, social determinants of health, and an exact accounting of the clinical encounter over the course of breast cancer treatment as compared by race,” says Dr. Rosenzweig. No control group of white women was included, but the authors state that according to prior literature, the number of white women receiving less than 85% of the prescribed chemotherapy dose is only approximately 3.5%. Dr. Rosenzweig and her colleagues believe this is the first study to report that a higher level of symptom incidence and distress correlates with a decreased ability of AA women to receive adequate chemotherapy.

“An important focus of our next study is that racial differences in clinical communication, including differences in patient-centeredness of care, may play an important role in symptom management and thus the ability of black women to receive full-dose and timely chemotherapy,” says Dr. Rosenzweig.

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