

## RESEARCH BRIEF

# Anxiety and PTSD Symptoms During the COVID-19 Pandemic in Women With Breast Cancer

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**OBJECTIVES:** To examine (a) the impact of the COVID-19 pandemic on anxiety and post-traumatic stress disorder (PTSD) symptoms and (b) the impact of socioeconomic factors on COVID-19-related anxiety and PTSD symptoms.

**SAMPLE & SETTING:** Women with early-stage invasive breast cancer who were receiving chemotherapy in western Pennsylvania and eastern Ohio.

**METHODS & VARIABLES:** Baseline study variables included economic hardship, interpersonal relationships, and perceived stress. PTSD and anxiety symptoms were collected in June 2020 (T1) and February 2021 (T2). Group comparisons were made using paired-sample t tests, analysis of variance, and Pearson correlations.

**RESULTS:** There were 88 women at T1 and 64 women at T2. At T1, PTSD symptom scores were significantly associated with less interpersonal support, greater economic hardship, and greater perceived stress. Anxiety scores were associated with perceived stress. At T2, anxiety scores were still associated with perceived stress. However, PTSD symptom scores were no longer associated with interpersonal support, economic hardship, or perceived stress.

**IMPLICATIONS FOR NURSING:** Anxiety and PTSD symptom measurement during a global pandemic is needed to identify vulnerable patients with breast cancer who need targeted support and emergency guidance in nursing practice.

**KEYWORDS** COVID-19; breast cancer; anxiety; PTSD symptoms

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The SARS-CoV-2 virus caused the outbreak of the COVID-19 pandemic with far-reaching economic and social effects. About one-third of infected patients reported severe complications, including acute respiratory distress syndrome, acute renal failure, acute respiratory injury, septic shock, and severe pneumonia (Acter et al., 2020).

As clinical experience with the pandemic grew, it became clear that certain populations were at increased risk for inferior COVID-19 outcomes. An analysis from a cancer center in London found that 24% of patients with cancer died of COVID-19 (Russell et al., 2021). A recent review about mortality in patients with cancer found a 59.4% death rate among patients with cancer and severe COVID-19 (Nadkarni et al., 2021). Patients with breast cancer, who may be immunocompromised by the effects of their malignancy and cancer treatment (e.g., chemotherapy), are identified as a high-risk population for contracting COVID-19 (Tsamakis et al., 2020). COVID-19 has also been particularly impactful on low-income and underrepresented communities. Emerging evidence suggests that Black Americans comprise a disproportionately greater number of reported COVID-19 cases and deaths compared to other Americans (Kirksey et al., 2021). This is particularly true for Black Americans with a cancer comorbidity. An analysis of racial disparity among U.S. patients with cancer and COVID-19 found that Black patients with a diagnosis of cancer were at significantly increased risk for COVID-19 and its adverse outcomes (Wang et al., 2021).

However, little is known about the emotional impact of COVID-19 on patients with breast cancer. The aims of this study are as follows: (a) to examine stress, anxiety, and post-traumatic stress disorder (PTSD) surrounding the COVID-19 pandemic among women with breast cancer at two time points (June 2020, prior to a vaccine, and February 2021, after vaccines became available) and (b) to describe the