Anxiety, Depression, and Stress Reaction/Adjustment Disorders, and Their Associations with Healthcare Resource Utilization and Costs Among Newly Diagnosed Patients with Breast Cancer: A Retrospective Observational Cohort Study

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Introduction

- Breast cancer is the most common cancer among women in the United States (1).
- Newly diagnosed patients with breast cancer often experience anxiety, depression, and other psychological distress (2).
- Real-world evidence on incidence and prevalence of anxiety, depression, and stress reaction/adjusted disorders in breast cancer is limited
- The impact of psychological distress on healthcare resource utilization (HCRU) and costs has not been adequately assessed.

Objectives

- To evaluate the incidence and prevalence of anxiety, depression, and stress reaction/adjustment disorder among patients newly diagnosed with breast cancer.
- To examine all-cause HCRU and costs, and mental health-related HCRU and costs, among patients newly diagnosed with breast cancer and compare them between patients with and without psychiatric disorders and between patients with incident and prevalent psychiatric disorders.
- To assess the association of these psychiatric disorders with healthcare costs.

Methods

- This retrospective observational cohort study was conducted using a large US administrative claims database from a US healthcare payer with 20 M covered lives (**Figure 1**).
- Breast cancer was identified using ICD-10-CM: C50 during the index period (1/1/2018 – 12/31/2019).
- The earliest diagnosis date of breast cancer was identified as index date.
- Demographics and comorbidities (including anxiety, depression, and stress reaction/adjustment disorder) were assessed using data collected within 12 months before and after the index date.
- HCRU and costs were assessed using data collected within 12 months after the index date.
- Generalized linear regressions were performed to examine the association between healthcare costs and anxiety, depression, and stress reaction/adjustment disorders (2,3).

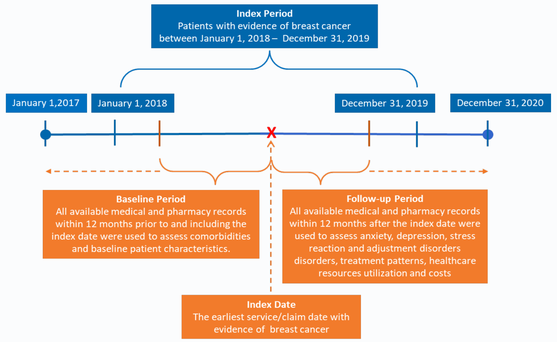

Figure 1. Study Design

Results

Of 6392 newly diagnosed patients with breast cancer, mean [SD] age was 67.4 [12.2], 68%.9 had Medicare Advantage and 31.1% had commercial health insurance (3).

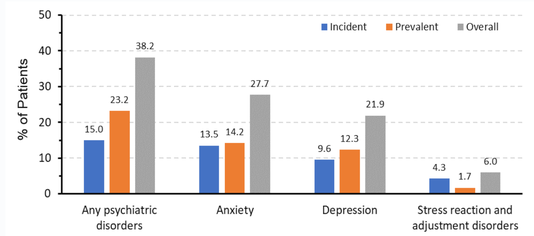

Figure 2. Incidence and Prevalence of Anxiety, Depression, Stress Reaction/Adjustment Disorders Among Newly Diagnosed Patients with Breast Cancer

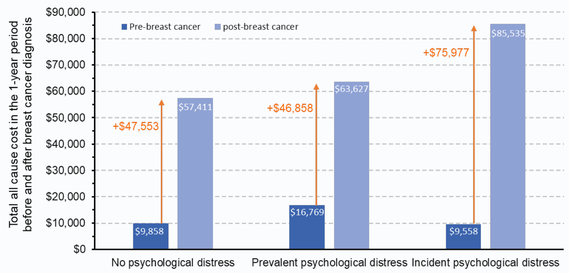

Figure 3. Unadjusted All-cause Healthcare Costs in the 1-year Period before and after Breast Cancer Diagnosis

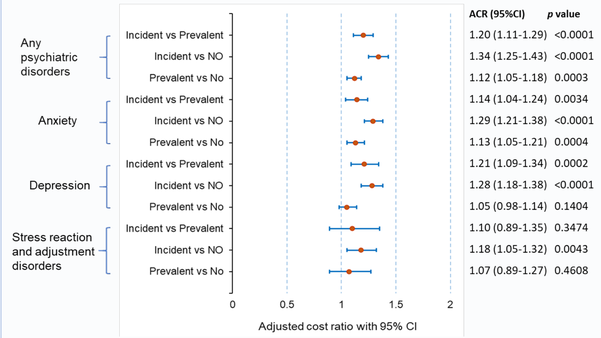

Figure 4. Multivariable Generalized Linear Regression: Adjusted Cost Ratios
Multivariable adjusted cost ratios for total all-cause healthcare costs among newly diagnosed patients with breast cancer. Adjusted covariables included: age, geographic region, rural/suburban/urban residence, household income, payer type, surgery year, number of comorbid conditions, number of cancer-related therapies, and previous year's total all-cause healthcare cost.
Note: Any psychiatric disorders include anxiety, depression, and stress reaction/adjustment disorders.

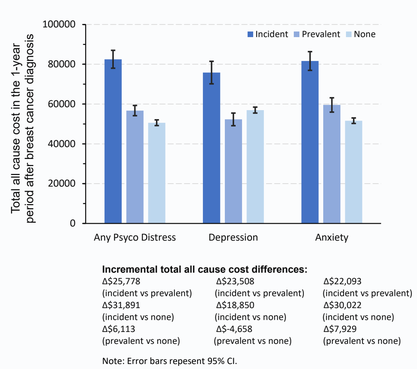

Figure 5. Multivariable Generalized Linear Regression: Incremental Total All-cause Cost Differences
Note: Any psychiatric disorders include anxiety, depression, and stress reaction/adjustment disorders.

Conclusions

- Anxiety, depression, and stress reaction/adjustment disorders are very common among patients with newly diagnosed breast cancer.
- Anxiety, depression, and stress reaction/adjustment disorders are significantly associated with increased HCRU and expenditures in the first year following breast cancer diagnosis.
- Patients with breast cancer who experienced incident anxiety, depression, or stress reaction/adjustment disorder had higher all-cause healthcare costs in the year following their cancer diagnosis than those with prevalent anxiety, depression, or stress reaction/adjustment disorder or none of these psychiatric disorders.
- Early diagnosis and optimized management of anxiety, depression, and stress reaction/adjustment disorder in this vulnerable population could improve clinical outcomes and reduce HCRU and healthcare costs.

References

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3. Dai D, Coetzer H, Zion SR, Malecki MJ. Anxiety, Depression, and Stress Reaction/Adjustment Disorders, and Their Associations with Healthcare Resource Utilization and Costs Among Newly Diagnosed Patients with Breast Cancer: A Retrospective Observational Cohort Study. Journal of Health Economics and Outcomes Research. 2023;10(1): 68-76. doi:10.36469/jheor.2023.70238.

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