Mental Health Conditions Contribute to Increased Cancer Care-Related Costs, Hospital Visits for Patients with Breast and Prostate Cancers

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Expert Perspective:

“Mental health issues are common but often under-recognized,” said Joshua Adam Jones, MD, MA, and ASCO expert. “They affect the well-being of a significant number of people living with cancer, as well as drive up health care costs and hospital admissions. This study shows that routine mental health screenings and treatment should be a standard part of quality cancer care.”

ALEXANDRIA, Va. – A new analysis of data from the U.S. Military Health System finds that mood and adjustment disorders such as anxiety and depression were strong predictors of the annual number of outpatient visits, hospital admissions, and number of days in the hospital for patients with breast and prostate cancer. The study also found that between 2007 and 2014, mood and adjustment disorders increased 7% (21% to 28%) among breast cancer patients and 4% (9% to 13%) among prostate cancer patients. However, during this period the rate at which depression increased was identical for both groups. Authors will present their findings at the American Society of Clinical Oncology’s (ASCO) upcoming Quality Care Symposium, taking place March 3-4, in Orlando, Florida.

“Just as we’re helping patients who are undergoing treatment and experiencing physical side effects, we should be doing the same thing when it comes to a patient’s mental health,” said lead author Diana Jeffery, PhD, Director of the Center for Healthcare Management Studies at the U.S. Department of Defense. “Early and frequent mental health assessments are essential not only to improving quality of life, but also to avoiding unnecessary hospital admissions.”
Researchers from the U.S. Department of Defense analyzed claims data from 9.5 million beneficiaries of the Military Health System. The Military Health System is the health care system of the Department of Defense that provides care to active duty and retired U.S. military personnel and their families.

Dr. Jeffery and colleagues found that for patients with breast and prostate cancers, mood and adjustment disorders were predictors of hospital admissions, following the number of other chronic illnesses and having received chemotherapy within the year. On average for each year, patients with breast cancer and a comorbidity of mood and adjustment disorders had 9.4% more ambulatory visits, 2.3% more hospital admissions, and 5.4% more hospital bed days compared to their counterparts without such disorders. Men with prostate cancer and mood or adjustment disorders had 6.7% more ambulatory visits, 2.9% more hospital admissions, and 8.4% more hospital bed days compared to their counterparts without mood and adjustment disorders.

When mood and adjustment disorders were present, an additional 4,800 admissions per year occurred for patients with breast cancer, and 2,600 admissions occurred for men with prostate cancer. Further, the presence of mood and adjustment disorders added an additional 72,000 days in the hospital each year for patients with breast cancer and 65,000 days for patients with prostate cancer.

Mood and adjustment disorders resulted in an additional 312,000 outpatient visits per year for the breast cancer population and 169,000 visits for the prostate cancer population.

Researchers also identified mood and adjustment disorders as a strong predictor of cost for both breast cancer and prostate cancer populations. Data show that a mood or adjustment disorder increases costs by $9,000 per year for a breast cancer patient and $8,000 per year for a prostate cancer patient.

The authors conclude the data provide compelling evidence that integrated mental health services and care is an important element of routine oncology care because it contributes to better patient care and could reduce system-wide costs.

The average annual number of cancer cases were 24,612 and 13,258 for breast or prostate cancer patients, respectively, in the Military Health System. Researchers conducted a cross-sectional analysis using administrative data from patients ages 18-64. The study population had a primary diagnosis of either invasive breast or prostate cancer from 2007–2014.

Researchers identified several limitations to the study including disease stage, which required them to postulate that for many patients, advanced disease was associated with more ambulatory
visits, hospital admissions, and bed days, as well as increased risk of depression, anxiety, and adjustment disorders. The researchers also note that each year's patient population had individuals at all stages of cancer, from newly diagnosed to late-stage, and in all phases of the cancer continuum.

### 2017 Quality Care Symposium News Planning Team

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View the disclosures for the News Planning Team.

ATTRIBUTION TO THE 2017 QUALITY CARE SYMPOSIUM IS REQUESTED IN ALL NEWS COVERAGE.

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#### 2017 Quality Care Symposium: Presentation Information

| Poster Session A: Cost, Value, and Policy in Quality; Practice of Quality | Diana D. Jeffery, PhD  
| Friday, March 3, 2017: 11:30 AM – 1:00 PM EST | Defense Health Agency  
| Friday, March 3, 2017: 4:15 – 5:15 PM EST | Falls Church, VA  
| Hyatt Regency Grand Cypress, Regency Hall, Ground Level |

**Abstract 18**: Comparing patients with breast and prostate cancer in terms of their mental health comorbidities as predictors of cost and utilization

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**Background**: We compared the role played by mental health comorbidities in the health care cost and utilization of non-elderly patients with breast and prostate cancer. **Methods**: The Military Health System affords its beneficiaries equal access to medical care. We performed a cross-sectional analysis using administrative data of all 9.5 million beneficiaries, ages 18-64, with direct care and a primary diagnosis of either invasive breast or prostate cancer during FY2007–FY2014. We used regression models to identify predictors of cost and utilization, including sociodemographic variables, system of care, treatment modalities, chronic disease comorbidities, and mental health comorbidities. **Results**: On average, annually there were 23,800 and 13,300 patients with breast or prostate cancer, respectively. More comorbid depression (16.8%) or anxiety (14.2%) occurred among breast cancer patients than prostate cancer patients (6.9%, 6.7%).
Annual cost per patient (inc. pharmacy) was significantly higher for breast cancer ($16,287 vs. $11,069, p < 0.001). The strongest predictors of annual breast cancer costs were (in order from highest predictive value) chemotherapy, surgery, and mood or adjustment disorder (p < 0.0001); the strongest predictors for prostate costs were chemotherapy, radiation therapy, surgery, and mood or adjustment disorder (p < 0.0001). Mood and adjustment disorders were strong predictors of the annual number of ambulatory visits, hospital admissions, and bed days for both breast and prostate cancer (p < 0.0001). **Conclusions:** Mental health comorbidities play a significant role in health care costs and utilization of non-elderly adults who are breast and prostate cancer patients. An unexpected finding was that, although different in frequency, mental health comorbidities were important predictors of cost and utilization for both patients with breast and prostate cancer. For both breast and prostate cancer, routine screening and treatment for mental health disorders should be part of quality cancer care.

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