**Racial Disparities in Early-stage Breast Cancer Patients' Quality of Life over Time**

Maria Pérez, Tess Thompson, Donna B. Jeffe

*Funded by the National Cancer Institute and Breast Cancer Stamp Fund (R01 CA102777, PI: Dr. Jeffe)*

**Background**
- Black breast cancer patients are at greater risk of being diagnosed at more advanced stages of disease and of dying from breast cancer than White patients.
- Patients diagnosed with ductal carcinoma in situ (DCIS) and early-invasive breast cancer (EIBC) receive similar treatments but report differential improvements in quality of life (QOL) over time.
- Little is known about whether racial disparities exist in QOL change over time.

**Methods**
- Newly diagnosed early-stage breast cancer patients (stage 0-IIA) treated at Siteman Cancer Center and Saint Louis U.
- Four telephone interviews a mean 6 weeks (T1), and 6 (T2), 12 (T3), and 24 (T4) months after definitive surgical treatment.
- Collected demographic, psychosocial, and clinical data (treatment data confirmed by medical record).
- QOL collected at each interview using the 36-item RAND Health Survey 1.0; higher scores reflect better QOL (scale 0-100).
- RM-ANCOVA examined changes in QOL over time by race (White, Black) for each of the 8 QOL subscales.
- Each of 8 models adjusted for cancer stage (DCIS, EIBC) and controlled for factors significantly associated with QOL at T1 (age, marital status, education, depression history, BMI, comorbidity, surgical side effects, social support, menopausal symptoms).

**Results**
- Significant interactions between race and time were observed in fatigue and emotional wellbeing ([EWB]; each p < .05).
- Black patients reported a decline in EWB and little change in fatigue, while White patients reported an increase in both outcomes over time.
- Black patients reported worse general health, social and physical functioning, EWB, and greater limitations due to emotional problems (each p < .05) compared with White patients across all interviews.
- Differences between White and Black patients at T4 in general health, physical functioning, EWB, and limitations due to emotional problems met criteria for minimally important differences.
- Physical functioning, role limitations due to emotional problems, and general health improved over time (each p < .05) across all patients.
- No significant changes over time or interactions between race and time in domains of pain and limitations due to physical functioning.

**Conclusions**
- We observed clinically important racial disparities over time after adjusting for cancer stage and other clinical, demographic, and psychosocial factors.
- Future research should investigate reasons for these racial disparities in QOL outcomes to inform interventions designed to reduce them.