

# DOCTORAL DISSERTATION DEFENSE



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**Date and Time:** Wednesday, September 8, 2021, 1:00pm

**Location:** College of Nursing, Room 130

## The Experience of Chemotherapy-Related Disruptions in Information Processing and their Effect on Social Roles and Well-Being in Older Breast Cancer Survivors



**COMMITTEE IN CHARGE:** Melissa Craft, PhD, RN, Co-Chair; Barbara W. Carlson, PhD, RN, Co-Chair; Carol Rogers, PhD, RN; Stephanie Marfurt, PhD, RN; Shannon Bert, PhD

**ABSTRACT:** Breast cancer is the most common form of cancer affecting women, with over 70% of new diagnoses occurring in women over the age of 50. Due to early detection and treatment advances, 5-year survival rates have increased to 90%, highlighting the need for clinicians to address survivorship issues that affect well-being and quality of life (QOL).

Chemotherapy related disruptions in information processing (DIPs) is a common complaint among survivors and are characterized by episodic disruptions in memory, attention, processing speed, and executive function. DIPs can lead to problems with performance and satisfaction in social roles that are crucial to women's social identity, well-being, and QOL. This study's purpose was to explore the experience of DIPs and their association with social roles and psychological well-being. The aims were to: 1) Evaluate the literature related to chemotherapy-related cognitive changes. 2) Compare objective measures of cognitive function to women's self-reports of DIPs and explore a new approach to measure DIPs and disengagement in social roles (Study 1). 3) Explore how DIPs affect social health and psychological well-being in older breast cancer survivors (Study 2).

Journals were used to explore experiences of DIPs and their impact on social roles in 15 (Study 1) and 8 (Study 2) participants, 50 and older. Spearman rho correlations assessed associations between objective cognition, perceived impairment, DIPs, social roles, and psychological well-being. In Study 1, lower cognition tended to be associated with higher levels of DIPs ( $\rho = -0.48, p=.07$ ) and less social engagement ( $\rho=-0.48, p=.07$ ). In Study 2, women with more DIPs tended to have lower role satisfaction ( $\rho=-0.62, p=.10$ ) and QOL ( $\rho=.61, p=.11$ ). Greater role satisfaction was associated with higher QOL/psychological well-being ( $\rho=.77, p=.03$ ), and social role participation ( $\rho=.79, p=.02$ ). Journal entries suggest that occupational roles were often affected, with women reporting loss of jobs and early retirement, often leading to declines in self-image and self-confidence. Coping mechanisms helped women function while experiencing DIPs. Findings suggest that mitigating the effects of DIPs may facilitate the continued engagement in society and maintenance of optimal QOL of women following treatment for breast cancer.