

Rehabilitation Nursing Foundation Abstract Form

In 250-350 words, define the research question, state the significance of the research project, and present the research methodology and plan for analysis.

DO NOT USE A SEPARATE SHEET.

Falls and near falls are common among cancer survivors, and result in injuries and disability. Fall risk factors among older adults do not consistently explain falls among cancer survivors. It is crucial to understand the sources of fall risk before preventive interventions can be designed and implemented. Chemotherapy-induced peripheral neuropathy (CIPN) and its associated impairments (balance, gait, strength) and activity limitation may explain the high fall rate among cancer survivors, but has not been well-explored. CIPN is prevalent among women with ovarian cancer (OC), making them an ideal population in which to study associations between CIPN-related impairments, activity limitations, and falls/near falls. Using patient-reported and objective measures of CIPN-related impairments, prospective longitudinal modeling of key variables, and daily assessment of falls and near falls, we propose a pilot study to:

1. Systematically describe the occurrence of falls and near falls over time in women receiving neurotoxic chemotherapy for OC.
2. Describe the development and progression of factors hypothesized to be associated with falls and near falls over time in women receiving neurotoxic chemotherapy for OC, including:
 - a. CIPN
 - b. CIPN related impairments (balance, gait, strength) and activity limitation
3. Explore the relationships among falls/near falls, CIPN, and CIPN-related impairments and activity limitation.

In this longitudinal exploratory pilot we will measure CIPN and related impairments in women with OC (n = 15) upon enrollment and on Day 1 of each cycle of therapy (total of 6 cycles). Participants will wear an actigraphy monitor to track activity and will complete proxy measures of falls (Sensory Organization Test and the Activity-Specific Balance Confidence Scale) upon enrollment and at the midpoint and conclusion of chemotherapy, and a daily text message falls assessment. We will describe demographic and clinical characteristics of the entire sample and by fallers versus nonfallers. We will describe the number of falls and near falls in the sample and explore patterns of falls across 6 cycles of chemotherapy, calculating time to first fall. We will plot patterns of development of CIPN, CIPN-related impairments, activity limitation, and falls/near falls and will perform correlations among key variables.