



The Future of Oncology Nursing Research: Research Priorities and Professional Development

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The Oncology Nursing Society's (ONS's) mission is to improve cancer care and the lives of individuals with cancer by funding oncology nursing research, scholarships, awards, and educational programs (Berger, Cochrane, & Mitchell, 2009). To that end, the ONS research agenda intends to provide investigators with strategic priorities for advancing oncology nursing knowledge and improving the quality of cancer care (Berger et al., 2009). Those priorities include health promotion, cancer symptoms and side effects, late effects and survivorship, end-of-life issues, psychosocial and family issues, nurse-sensitive patient outcomes, and translational science. The National Cancer Institute ([NCI], 2007) Translational Science Working Group defined translational science as basic research discoveries transformed into drugs, treatments, or methods for prevention, as well as scientific discoveries transformed into clinical applications to reduce disease incidence, morbidity, and mortality.

One translational science priority for ONS is to identify cognitive-behavioral, psychoeducational, rehabilitative, and self-management interventions (individual and multilevel) with demonstrated effectiveness in target populations (Berger et al., 2009). Of particular interest are interventions addressing symptoms such as pain, sleep, fatigue, and mood disturbance (Berger et al., 2009). The National Institute of Nursing Research ([NINR], 2013) published four major themes to help operationalize and implement its strategic plan.

- Symptom science: improving quality of life for individuals with chronic illness
- Wellness: preventing illness and promoting health

- Self-management: promoting personalized health strategies
- The science of compassion: enhancing end-of-life and palliative care

The ONS priorities and NINR themes are synergistic. Nurse scientists must articulate how their programs of discovery scholarship are aligned with these priorities and themes, generating knowledge that enhances health, lengthens life, and reduces illness and disability (National Institutes of Health, 2013).

Biobehavioral Research and Oncology Nursing Science

One strategy for building science is integrating biologic and behavioral sciences, referred to as biobehavioral research. Biobehavioral research encompasses the interactions among biologic, behavioral, and social factors, and their effect on health outcomes (Moore, 2004). Nurse scientists are well positioned to use biobehavioral research methods to study human health phenomena, implement behavioral interventions to achieve biologic outcomes, or intervene in biologic processes to influence behavior. Biobehavioral measures can advance knowledge by informing interventions for symptom management, adherence, and self-management, as well as response to treatment and treatment toxicity. Potential targets for biobehavioral research include health promotion, quality of life and well-being, disease progression and response, symptoms and symptom management, treatment decision making, and treatment-related toxicity. Biobehavioral research also is an NCI priority (NCI, 2007). Initiatives are to identify biologic, sociocultural, and psychological factors associated with cancer-related risk, protective behaviors, and behavioral

genetics research, as well as to identify psychological processes in decision making relevant to cancer screening, risk assessment, prevention, and treatment (National Institutes of Health, 2013).

Biobehavioral research is an effective strategy for advancing the ONS research priorities. Areas of oncology nursing science that would benefit from a biobehavioral approach need to be identified, and concepts and measures throughout studies should be shared whenever possible. For example, use of the Patient Reported Outcomes Measurement Information Systems (PROMIS) (Cella et al., 2010) may strengthen nursing science by allowing comparisons of study findings in commonly studied patient-reported outcomes. Examples of PROMIS instruments include mood disturbance, sleep, fatigue, and pain. PROMIS instruments are reliable and valid and have been tested with oncology populations (Cella et al., 2010). Measures have been translated into other languages for use in populations with health disparities. For example, measures have been translated into Spanish through an iterative process of forward- and back-translations with multiple expert reviews and sample testing from the target population to ensure they are well understood, conceptually equivalent, and culturally appropriate (Correia, 2011). In addition, any research approach needs to demonstrate coherent theoretical links among biologic and behavioral concepts and measures, the ability to apply basic science methods to clinical and human studies, feasibility of data collection methods, and a sound plan for data analysis. Synergy among the research priorities and themes of ONS and NINR is an exciting opportunity to advance oncology nursing science.