

Guest Commentary by Dr. Patricia A. Grady

Cancer-Related Research at the National Institute of Nursing Research

Although medical science continues to make great strides in the fight against cancer, it remains the second leading cause of death in the United States. According to the American Cancer Society (ACS), in 2004 more than half a million people will die from cancer, and more than 1.3 million new cases will be diagnosed.

Given this enormous impact, investigation into cancer and its effects on patients and families continues on many fronts. The National Institute of Nursing Research (NINR) recently identified five research themes for the future: changing lifestyle behaviors for better health, managing the effects of chronic illness to improve health and quality of life, identifying effective strategies to reduce health disparities, harnessing advanced technologies to serve human needs, and enhancing the end-of-life experience for patients and their families.

Each of these themes addresses the needs of cancer patients in some way. Changing behavior to promote early screening, improve diet and exercise, and reduce unhealthy behaviors is one key to health promotion and cancer prevention. As cancer becomes a chronic disease with long-term treatment, patients and families need new strategies to cope. Increasing NINR's already strong programs in health disparities should help reduce the disproportionate burden of cancer in African American and other minority populations. Advanced technologies will aid nurses in counseling their patients about

genetic testing, symptom management, decision making, and in developing telehealth and informatics interventions for both patients and caregivers. When cancer progresses beyond the possibility of cure, better palliative care practices are needed to improve the quality of life at the end of life.

NINR's cancer research portfolio focuses heavily on symptom management. Studies are currently funded to address the symptoms of both the disease and its treatment, including pain, fatigue, nausea, and dyspnea. In one example, a nurse investigator worked extensively with children suffering from acute lymphoblastic leukemia. She found that intensive radiation or chemotherapy treatments to attack lymphoblasts in the central nervous system have long-term adverse effects on the developing brain, leading to future cognitive, behavioral, and academic deficits. This result influenced a change in usual care to include intrathecal methotrexate alone.

Other NINR-funded research studies have published results on chemotherapy-induced nausea, transitional care of elderly cancer patients after surgery, exploring symptom clusters, oral hygiene during chemotherapy, managing cancer-induced pain and fatigue, and the end-of-life trajectory of cancer patients.

NINR also has participated in several national cancer research-related activities. NINR cosponsored the 2002 NIH State of the Science Conference on Symptom Management in Cancer.

We routinely collaborate on the development of cancer research capacity with ACS, the Oncology Nursing Society (ONS), the Susan Komen Foundation, and the Association of Pediatric Oncology Nurses (APON). In August 2003, NINR cosponsored a working group with APON titled "Moving the Research Agenda Forward for Children with Cancer." The executive summary is available at <http://ninr.nih.gov/ninr/research/pedscancer.pdf> and the May/June 2004 issue of the *Journal of Pediatric Oncology Nursing* is devoted to the working group proceedings. In March 2004, ONS and NINR cosponsored the National Nursing Research Roundtable, an annual meeting of the representatives of 25 nursing organizations, with the theme of building "An Inventory of Interdisciplinary Initiatives." As the lead NIH institute on end-of-life research, NINR is cosponsoring the NIH End-of-Life State of the Science Conference in December 2004.

NINR is strongly committed to promoting research to reduce the pain and suffering associated with cancer, especially from the perspectives of prevention, health promotion, and symptom management. We are proud of the relationships we have developed with many cancer-related organizations to help further research progress and the implementation of research findings. Most important, we are happy to salute the contributions through research that oncology nurses and ONS have made toward improving the quality of life for those with cancer. ♦

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This *NCI Cancer Bulletin* is produced by the National Cancer Institute (NCI). NCI, which was established in 1937, leads a national effort to eliminate the suffering and death due to cancer. Through basic and clinical biomedical research and training, NCI conducts and supports research that will lead to a future in which we can prevent cancer before it starts, identify cancers that do develop at the earliest stage, eliminate cancers through innovative treatment interventions, and biologically control those cancers that we cannot eliminate so they become manageable, chronic diseases.