Canada and India: An Innovative Partnership to Advance Oncology Nursing Research

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Cancer care nursing research is at a very promising juncture in the history of the field. This is a result, in part, of the unprecedented availability of funding for research, continuing education, clinical training, and, more recently, well-funded research training opportunities for nurses interested in pursuing graduate work in oncology nursing. Canada and India have been at the forefront of establishing two well-articulated research programs to train the next generation of clinician-researchers in the area of psychosocial oncology. The initiatives have been particularly timely because wide access to information technology allows the transcendence of time and geographic boundaries to bring relevant stakeholders together to advance the science and practice of oncology nursing. The purpose of this article is to review the specific research training activities (a core videoconferenced evidence-based seminar; periodic virtual, interactive brainstorming sessions; and yearly face-to-face workshops) of the programs in terms of core themes and pragmatic issues associated with their delivery across the various national and international training sites. Strategies are presented to ensure that research training activities can be replicated across other clinical sites, institutions, and countries. This article hopefully will inspire other researchers to develop similar transdisciplinary research training programs toward a strong research and mentoring tradition within nursing and across relevant psychosocial oncology fields.

Background

Initially, a nursing-led research training initiative focusing on psychosocial oncology had to be conceptualized and submitted as a grant proposal (Loiselle, Degner, Butler, & Bottorff, 2003–2009). At the time, the Canadian Institutes of Health Research (CIHR) had announced an intention to fund training program initiatives to build research capacity in Canada. In particular, emphasis was placed on the efforts of healthcare researchers interested in a transdisciplinary approach to collaborative research. A total of $1.8 million (funded jointly by CIHR and the National Cancer Institute of Canada [NCIC]) over a six-year period was granted to the nursing-led training initiative called the PORT (Psychosocial Oncology Research Training) program (Loiselle, Profetto-McGrath, Polit, & Beck, 2007). Once the working framework of the PORT program was established, an important step was to promote its mandate so that eligible graduate students interested in psychosocial oncology research could apply for training and funding. A key dissemination strategy was, and continues to be, the program’s Web site (www.port.mcgill.ca), which provides comprehensive information on PORT’s mentors and trainees, ongoing activities, funding opportunities, and sample publications. An additional promotional strategy was to engage the network of PORT mentors across the country in actively recruiting trainees from various disciplines to the program.

The intersection of “word of mouth” and the Internet led to interest nationally and abroad. One interested party was India’s accomplished clinician, Brindha Sitaram, PhD, who was looking for well-established...
programs to partner with and to assist in the development of a recently funded program called COOPER (Centre of Psycho-Oncology for Education and Research). Following Internet and telephone exchanges, Sitaram, the director of COOPER, visited McGill University in Montreal, Canada, in September 2006 to experience, first hand, the program established at McGill and “connected” to three additional university sites with the intention of modeling COOPER after PORT’s operations. During her visit, Sitaram met with all relevant stakeholders at McGill, including Carmen Loiselle, PhD, RN, director of the Oncology Nursing Program and PORT leader; Gerald Batist, MD, CM, chair of the Department of Oncology; Hélène Ezer, PhD, director of the School of Nursing; and Richard I. Levin, MD, dean of the Faculty of Medicine. The visit facilitated establishment of long-term goals, objectives, and intended outcomes of the international collaboration. As a result, two memoranda of understanding were signed among PORT, the School of Nursing, the Faculty of Medicine, and COOPER.

Loiselle and Sitaram formally launched the PORT/COPPER collaboration through videoconferencing; since then, several PORT mentors have taught COOPER trainees about key issues in research development in cancer research through videoconferencing. Research topics that are taught jointly include information needs of patients with cancer, communication between patients and healthcare providers, preferences in cancer treatment decision making, and cultural issues in cancer care delivery. The interactive sessions and mutual research interests resulted in a grant proposal submitted to the Shastri Indo-Canadian Institute, which allowed PORT’s leader to travel to Bangalore, India, to meet with the COPPER community. Herein, the authors review in more depth the context for such collaboration in terms of cancer care, the specific features included in the individual and joint programs (PORT in Canada and COPER in India), as well as the benefits (and some of the challenges) of joining forces to enhance the impact of “distance” research and training collaborations.

The Context of Cancer Care and Nursing Research Agendas

Cancer remains a leading cause of disability and death worldwide. The diagnosis and treatment of cancer disrupt all aspects of daily life and are associated with significant levels of anxiety, anger, depression, and dread. Because the number of individuals with cancer is expected to double in the next 15 years as a result of the aging population and advances in screening and treatment, pressures are mounting to find optimal ways of helping patients and their families cope with cancer. The discipline of nursing often has been at the forefront of developing cutting-edge psychosocial interventions that have been successful in softening the blow of cancer diagnosis and lessening the many short- and long-term effects of the illness (e.g., psychological, physical, social, spiritual, intergenerational).

This is a promising time in history for cancer care nursing research as nurse scientists in the field seek answers to pressing questions pertaining to cancer prevention, access, to quality cancer care services and information, optimal patient-provider communication, adequate follow-up messages and actions to prevent or detect early cancer recurrences, symptom management during and after treatment, and end-of-life care tailored to individual needs. Enhanced communication and collaboration opportunities mean that cancer care nursing research agendas are more dynamic, more responsive to social needs and healthcare delivery developments, and more accessible to other healthcare researchers, clinicians, and the public at large. Two relatively recent trends have been particularly significant to the advancement of the field:

- The explosion of information technology, which enables nurses to readily transcend geographic distances and disciplinary boundaries to work together to answer important cancer care issues, and
- The ever-increasing critical mass of well-funded oncology nurse researchers who contribute to a more visible, productive, and collaborative research enterprise. Until now, however, oncology nurse researchers had little opportunity to come together with other health-related disciplines to share their research outputs and to mentor and train cohorts of graduate students eager to become researchers in the field. The gap was addressed recently when CIHR began funding interdisciplinary healthcare research training programs.

Our team was successful in our proposal, and the ensuing PORT program received generous funding from CIHR and NCIC for a six-year period. Four Canadian universities are involved: McGill University, University of British Columbia, University of Manitoba, and Dalhousie University. Several key components of PORT make the program exemplary:

- High-quality, cross-institution research and mentoring leadership is provided by Canada’s foremost oncology nurse researchers.
- Advanced training in psychosocial oncology theory and research issues via an advanced, integrated, evidence-based, videoconferenced, graduate-level seminar, “Research in Psychosocial Oncology,” is coordinated by Loiselle and facilitated by a team of 12 psychosocial oncology researchers.
- Trainees and mentors participate in an annual two-day scientific meeting of psychosocial oncology researchers and policy makers, where timely research topics and trainees’ work are presented for discussion and advancement. (The workshop precedes the annual national conference in psychosocial oncology led by the Canadian Association of Psychosocial Oncology (CAPO), and all PORT trainees are required to attend.)
- Opportunities are available for the development of skills in knowledge synthesis and knowledge transfer through periodic videoconferenced sessions called virtual interactive brainstorming sessions (VIBS), facilitated by mentors and trainees and occurring in real time across four time zones (now live with the addition of India).
- Financial support is available for graduate students in the form of a yearly stipend and support for exchanges and internships across the program sites and at related healthcare agencies in Canada, the United States, and elsewhere. To date, 28 PORT trainees have received fellowships and have been networking with PORT’s team of psychosocial researchers based at the four participating universities.

Core Evidence-Based Seminar

PORT trainees register for a three-credit, graduate-level seminar connected through videoconference. Each seminar session is led by a different PORT mentor who brings to the discussion his or her own expertise in a specific area of psychosocial oncology research. A total of 13 weekly three-hour sessions are held (see Figure 1). The video...

**Figure 1. Weekly Topics: Psychosocial Oncology Research Training Seminar**

**Week 1:** Introduction and the state of theorizing in psychosocial oncology

**Week 2:** Intervention in psychosocial oncology: Methodologic and practical concerns

**Week 3:** Coping with cancer: A child’s perspective

**Week 4:** Coping with cancer: An adult’s perspective

**Week 5:** Search for meaning and spiritual issues related to cancer

**Week 6:** Marginalized groups, remote populations, and access to oncology care

**Week 7:** Family caregiving and quality of life

**Week 8:** Patient/family/healthcare provider communication

**Week 9:** Information needs and decision making in cancer

**Week 10:** Cancer prevention and cancer risk

**Week 11:** Couples and sexuality

**Week 12:** Innovative psychosocial approaches and interventions

**Week 13:** Future avenues for research in psychosocial oncology

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conference format allows trainees from coast to coast to participate simultaneously in discussions while being exposed to the various resources (both technical and human) of each participating university. The revolving cast of seminar facilitators allows trainees to make regular contact with authors of key research papers included in an anthology of readings produced and copyrighted by McGill University. The wide variety of seminar facilitators also allows students to experience a diversity of seminar leadership styles; certain facilitators provide questions to lead seminar discussions in particular directions, whereas others encourage free discussions based on the required readings for that week (Oliffe, Howard, Bottorff, Hislop, & Loiselle, in press). In the videoconference, the transdisciplinary features of the PORT program are fully realized. Nursing, management, kinesiology, and philosophy students discuss, debate, and collaborate on vital psychosocial oncology issues from their own academic perspectives. Comments received from trainees at the end of the seminar include the following.

I really liked and benefited from the PORT seminar. It was great to be exposed to materials that I wouldn’t normally read about in my own area. I also liked the discussion format where students were free to share ideas/comments and could have input from the instructor/other students. I believe that this type of format is ideal for grad students as it teaches them to be critical and not memorize everything like most undergrad courses do. Despite a few technological difficulties that we had early in the term (that were later fixed), it was great to hear from Canadian researchers about their own research and future direction.

In addition to the regular videoconference seminar sessions, VIBS take place regularly, and PORT mentors, trainees, and invited speakers interact on timely topics related to an ongoing study, a dissertation, a collaborative proposed project, or recent research findings. The PORT program also features other online components to augment exchanges so that prior discussions can continue through other venues, such as chat groups and Web-based course tool exchanges (Loiselle, 2005).

Along with the weekly classroom dynamism and the geographic boundary conquering of the PORT seminar, the dependence on videoconferencing also presents unique challenges. Negotiating the etiquette of videoconferencing can be difficult for unacquainted students during the first weeks of the seminar. Determining the appropriate moment to engage in ongoing discussion, choosing when to keep comments site-specific and when to transmit them, and timing remarks and responses to account for spurious technologically imposed time lags are abilities that students acquire to different degrees. The financial costs of videoconferencing also are significant; the extra bandwidth to maintain the signal and the hardware technology required at each conference site involve a substantial expenditure, along with the hiring of a bridge operator or someone who remotely takes care of technical glitches that may arise. The financial costs and the initially challenging technology-related learning curve are negligible, however, when compared to the added value of bringing geographically distant experts and trainees together to share the best evidence available. In a formative evaluation undertaken in 2005, trainees reported that their knowledge of psychosocial oncology issues had grown substantively. They also highlighted mentors’ effectiveness in delivering content, exploring substantive issues, and interacting via the various information technologies—all contributing significantly to their academic and professional lives (Iatauro, 2006).

Annual Meeting

Although most components of PORT’s operation rely on technology, PORT trainees and key mentors meet face to face every year to discuss ongoing research and issues regarding the delivery of the program. The two-day workshop concentrates on topics relevant to the year’s central theme. Previous PORT annual meetings have included themes such as “Key Concepts in Psychosocial Oncology Research: Contributions and Challenges,” “Innovations in Psychosocial Oncology Interventions and Research,” and “Highlights from PORT Trainees’ Programs of Research.” As one PORT trainee indicated,

The PORT [seminar and annual meeting] has provided me with a broadened understanding of the multidimensional issues in psychosocial oncology, excellent exposure to theoretical diversity, and the opportunity to continue to develop writing and publishing skills and presenting opportunities.

Following the meeting, PORT trainees and mentors take part in the annual CAPO conference and disseminate research findings through scientific panels, presentations, and symposia. Titles of scientific communications presented by nurse trainees include “Second Cancer Risks Among Childhood Cancer Survivors,” “Decision Making Around Risk Reduction in the Context of Hereditary Breast and Ovarian Cancer,” and “The Role of Informational Support in Relation to Healthcare Services Use Among Individuals With Cancer.”

Internship

PORT also offers a one-time internship to trainees who wish to extend their research training beyond PORT and their home universities. The internship usually is a one-to-two-week exposure to a research institute, hospital, or community center’s cancer-related activities that significantly contributes to a trainee’s research skills. Trainees select a host mentor and propose a number of research activities consistent with the aims of the program. A recent intern reported that the rewarding experience of the off-site partnership helped her gain “the kind of knowledge which is difficult to explain or teach, and is most often learned through trial and error” and encouraged “a spirit of discovery and innovation” (Wilkins, 2006).

Types of Oncology Nursing Studies Being Conducted

Although PORT is essentially transdisciplinary in nature, with more than a dozen disciplines represented by mentors and trainees alike, most studies conducted by participants focus on relevant oncology nursing phenomena (mentors’ and trainees’ research profiles are available at http://port.mcgill.ca/people.htm). Studies range from prevention to bereavement, often with a particular emphasis on the family system as central to the experience of cancer. Graduate students, for instance, explore issues pertaining to cancer prevention and screening through the development of Web-based applications to bring the best evidence to adults and children through innovative means, such as interactive Web sites on nutrition and other healthful lifestyle activities. Culture- and age-specific issues have been explored with regard to patients deciding whether to receive a preventive vaccine against cervical cancer. A related area of study is the effect of more culturally sensitive materials to sensitize particular populations to effective cancer screening strategies. Others have explored the beliefs, attitudes, and behaviors of healthcare professionals in relation to complementary and alternative medicine employed in cancer care. Others have investigated couples’ interactions in relation to processes related to smoking cessation. A promising meaning-making intervention that has received empirical support in previous studies among newly diagnosed individuals (Lee, Cohen, Edgar, Laizner, & Gagnon, 2006) is now being tested among individuals in the late stages of cancer. Another team of researchers and trainees have developed a program of research in the area of masculinity and cancer-related behaviors and outcomes. The experiences of children coping with childhood cancer have been researched extensively by PORT mentors and trainees. Lastly, a team of nurse researchers mapped out how preferences for certain types of cancer information and informational support affect cancer-related outcomes among newly diagnosed individuals. As the sample of research studies attests, PORT has been at the forefront of producing important evidence on timely topics pertaining to the cancer experi-
ences of diverse samples at different stages of the illness experience. Sample publications produced jointly by PORT nurse mentors and trainees are depicted in Figure 2.

**Broadening the Scope of the Program to International Venues**

PORT’s cooperative arrangement with its sister program, COPER—a joint initiative of the Indian government’s Department of Science and Technology and Bangalore’s National Institute of Advanced Studies—began in the fall of 2006. By October 2007, seminars were held jointly between participants in Bangalore and Canada with various information technologies.

The partnering is most timely because the High Commission of India–Ottawa (2005) suggested that the many

alities between the two countries make such partnership promising. A commitment to democracy and the fact that the two societies are multicultural, multiethnic, multireligious, and share a common language provide a strong foundation for collaboration. The respective governments have identified healthcare research cooperation as a priority and cancer research as mutually relevant because the burden of cancer is very real for both nations. For instance, India has an estimated 2.5 million cases of cancer at any given time (American Cancer Society [ACS], 2006), with nearly 800,000 cases diagnosed in 2000 and 550,000 deaths from cancer the same year. Tobacco-related cancers account for nearly one-third of all cancers in India—predominantly of the head and neck, lung, and esophagus. Cervical and breast cancer are the two most common cancers among Indian women (ACS). Many cases can be prevented or treated effectively if detected early; unfortunately, more than 70% of all cancers in India are diagnosed late, when the disease is so advanced that treatment is much less effective (ACS). India is proactively tackling the issues through the creation of new cancer care centers (approximately 300 to date) where more than 2,000 highly qualified and well-trained cancer professionals work across various disciplines (B. Sitaram, personal communication, July 10, 2006). The paucity of psychosocial oncology specialists, however, has led the Indian government to channel funds to increase research and clinical capacity in the field.

With those goals in mind, areas of strength have been identified jointly and realistic research collaborations and training opportunities are being developed for master’s, doctoral, and post-doctoral students from nursing and other health-related disciplines. With PORT and COPER together, researchers and trainees have the opportunity to attend virtual research activities, develop joint research agendas, and explore innovative methods to conduct international research on timely psychosocial oncology issues.

The cooperative initiative extends the current PORT student exchange and internship programs to incorporate COPER researchers, and trainees, and research sites. The internship program also helps to identify rich but underused clinical sites throughout India that can serve as environments where Canadian and Indian trainees can conduct research activities, such as dissertation work. The presentation of research findings and networking opportunities available at the annual PORT meeting are enriched by the participation of guest researchers and trainees from COPER. COPER trainees are invited to participate in PORT’s VIBS, wherein researchers and trainees periodically connect through videoconferencing to discuss progress in joint research collaborations. Based in the highly developed information technology (IT) center of Bangalore, COPER’s research agenda and access to sophisticated IT infrastructure create ideal conditions for seminar participation and research collaborations.

PORT’s investigators benefit from close working relationships with researchers and trainees at COPER. COPER investigators are experienced quantitative and qualitative researchers and clinical experts, holding several peer-reviewed grants to study psychosocial issues surrounding cancer, including distress, depression, and spirituality. Sitaram’s team also is attuned to the varieties of approaches required to accommodate the needs of India’s diverse cultures. Based on those approaches, a series of studies has been planned around PORT and COPER’s shared research agenda.

The initial research objectives are broadly defined to include the following:

- A nationwide study to assess key psychological issues among patients with cancer. This effort has been started in India, where funding has been granted (B. Sitaram, personal communication, July 10, 2006). Likewise, new data on such population trends in psychosocial oncology in Canada are being collected (H. Bryant, personal communication, November 15, 2007).
- The study of various psychosocial differences and similarities regarding cancer information needs and decisional preferences of Canadian and Indian patients and their families across the cancer continuum.
- The assessment of suitability of existing psychological tools and techniques to assess psychosocial oncology issues according to respective cultural settings. When indicated, tools will be adapted, refined, and pilot tested among diverse ethnic groups in both countries.
- The development and evaluation of evidence-based, tailored psychosocial oncology interventions (Vilela et al., 2006) according to cultural contexts.
- The documentation of psychosocial variables that are context-specific rather than “universal,” enabling the adaptation of the best predictive theories of psychosocial adjustment to cancer.
- The transferability potential of a comprehensive cancer informational intervention using information technology to support individuals newly diagnosed with breast or prostate cancer (Loiselle, Edgar, Batist, & Lu, 2008).

Because of the complementary expertise of team members, partnerships between Canadian and South Asian researchers and trainees are likely to contribute to cutting-edge, high-quality, internationally relevant, interdisciplinary research training so that the knowledge base is broadened on the various personal, contextual, and cultural issues involved in processes related to optimal psychosocial adjustment to cancer and wider access to comprehensive cancer care. In addition, the joint initiative will generate new knowledge on the various factors that interact

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Ohlen, J., Balneaves, L.\(^6\), Bottorff, J.\(^4\), & Brazier, A.\(^5\) (2006). The influence of significant others in complementary and alternative medicine decisions by cancer patients. *Social Science and Medicine, 63*(6), 1625–1636.


\(^4\) PORT mentor
\(^5\) PORT trainee

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**Figure 2. Sample of Recent Joint Publications by Nurse Mentors and Trainees**
to modulate cancer-related responses to the perceived cancer threat, cancer preventive recommendations, adherence to cancer treatment modalities, cancer recurrence monitoring, palliative issues, and bereavement. Such knowledge can be used, in turn, to improve the quality and cross-cultural relevance of future psychosocial oncology intervention and outcomes research. The PORT-COPER partnership also exposes new and established researchers to cutting-edge research topics, pertinent cross-cultural methodologies, and a broadened research agenda. In addition, the partnership increases the visibility of oncology nurse researchers with international expertise and leadership so that researchers and graduate students in India and elsewhere look to them for future research training and research collaborations.

**Conclusion**

The PORT-COPER partnership provides a unique model of collaboration. In addition to generating cutting-edge knowledge in cross-cultural aspects of oncology nursing, the partnership will prepare the next generation of researchers to broaden the knowledge base in the field through the development, testing, and refinement of psychosocial cancer care interventions that are more culturally sensitive and relevant to today’s growing cancer population, which is increasingly ethnoculturally diverse. To our knowledge, these are the only transdisciplinary psychosocial oncology research training programs in the world affording a formal exchange of knowledge and resources that is mutually advantageous, particularly because the two programs are in different stages of development, and much can be learned from each other’s cancer research, training, and healthcare delivery experiences. We are confident that with the sharing of our experiences and supporting materials, many more productive research training programs in oncology nursing will be launched throughout the world.

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