

Integrating complementary and alternative medicine into cancer care: Canadian oncology nurses' perspectives

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ABSTRACT

The integration of complementary and alternative medicine (CAM) and conventional cancer care in Canada is in its nascent stages. While most patients use CAM during their cancer experience, the majority does not receive adequate support from their oncology health care professionals (HCPs) to integrate CAM safely and effectively into their treatment and care. A variety of factors influence this lack of integration in Canada, such as health care professional(HCP) education and attitudes about CAM; variable licensure, credentialing of CAM practitioners, and reimbursement issues across the country; an emerging CAM evidence base; and models of cancer care that privilege diseased-focused care at the expense of whole person care. Oncology nurses are optimally aligned to be leaders in

the integration of CAM into cancer care in Canada. Beyond the respect afforded to oncology nurses by patients and family members that support them in broaching the topic of CAM, policies, and position statements exist that allow oncology nurses to include CAM as part of their scope. Oncology nurses have also taken on leadership roles in clinical innovation, research, education, and advocacy that are integral to the safe and informed integration of evidence-based CAM therapies into cancer care settings in Canada.

Key words: Complementary medicine, integrative medicine, oncology nursing

Introduction

In Canada, the integration of complementary and alternative medicine (CAM) into cancer care is in its nascent stages.^[1,2] Up to 93% of people use CAM during their cancer experience,^[3-7] yet few resources exist, including knowledgeable health professionals or

appropriate, and inclusive models of care, to support safe and effective CAM use by cancer patients. Despite these and other challenges, Canadian oncology nurses are taking a leadership role in shaping the integration of CAM into cancer care in this country. In this paper, we describe their perspectives on the current state and future

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potential of integrating CAM into oncology health care system in Canada.

What is Complementary and Alternative Medicine?

In Canada, definitions of CAM generally are drawn from the National Centre for Complementary and Integrative Health in the United States. CAM is defined as “a group of diverse medical and health care systems, practices, and products that are not generally considered part of conventional medicine”^[8] and includes therapies and practices commonly grouped into five categories:

- a. Biologic therapies (e.g., natural health products [NHPs] diets),
- b. Mind-body medicine (e.g., yoga, meditation),
- c. Manipulative and body-based practices (e.g., massage, chiropractic),
- d. Energy therapies (e.g., acupuncture, reiki), and
- e. Whole medical systems (e.g., traditional Chinese medicine [TCM], naturopathic medicine).^[9]

Complementary therapies (CTs) are those practices and products that are used by the majority of cancer patients in addition to conventional cancer treatment.^[8] In contrast, alternative therapies are used by a small percentage of patients (estimated to be 4%-14%) who leave conventional cancer treatment system to seek alternatives that are not supported by sufficient empirical evidence.^[10-12] Integrative medicine brings the best of both conventional and complementary medicine together while acknowledging patients' beliefs, values and goals, considering each type of medicine to be equally important in promoting overall health.^[8,13]

Landscape: The Canadian Context for Complementary and Alternative Medicine

The social, political, and health care context in Canada has shaped the degree to which CAM has been integrated into conventional cancer treatment and care. Founded on principles of socialized health care, conventional cancer care is largely publicly funded, based on the Canada Health Act (1984).^[14] Federal health care funding is distributed to the provinces and territories for “medically necessary” health care services, which in most instances does not cover CAM therapies or services such as massage, chiropractic care, or acupuncture.

NHPs, which are commonly used by up to 75% of cancer patients,^[15,16] also are not covered under the Canada Health Act, requiring users to pay out of pocket for these products. It is estimated that Canadians spend approximately 7.8 million dollars yearly on CAM products and practitioners.^[17] Since 2004, NHPs are regulated by Health Canada's Natural and Non-prescription Health Products Directorate (NNHPD), setting standards for good manufacturing processes, licensing, and labeling that includes safety and efficacy information.^[18] Patients and families are still able, however, to purchase NHPs via the Internet from worldwide sources, or locally as “food sources” (e.g., dried mushrooms and herbs). The safety and efficacy of these products distributed outside of the NNHPD cannot be assured.

Health care providers, including select CAM practitioners, are regulated and licensed at the provincial/territorial level in Canada. This has led to variability in access to and use of qualified and regulated CAM practitioners across the country.^[19-22] For example while cancer patients in the province of British Columbia may access (for a fee) licensed naturopaths, TCM doctors, acupuncturists, massage therapists and chiropractors, those living in the Atlantic provinces have limited access to a small range of regulated CAM practitioners.

Although most conventional health care professionals (HCPs) do not receive adequate education about CAM, this is, rapidly changing in Canada to meet the growing demand and needs of patients who use CAM. Medicine, pharmacy, and some undergraduate nursing curricula have begun to include CAM content, although, this is, not yet standard across the country.^[23-26]

There are a number of interesting trends emerging in the educational preparation, scope of practice, and licensing of some health professionals within Canada that may eventually influence the integration of CAM into cancer care. For example, some oncologists have been cross-trained as licensed acupuncturists and/or TCM doctors, incorporating both eastern and western medicine principles into the care of their cancer patients. Some patients use naturopathic physicians as their primary care provider (rather than a general practitioner) and a growing number of naturopaths have received specialized training in oncology. In some provinces, such as Ontario, registered nurses' scope of practice can include medical acupuncture, with specialized education and training (College of Nurses of Ontario [CNO] 2014).^[27] The blending of paradigms – western evidence-based medicine founded on Cartesian reductionist concepts, combined with holistic

approaches to care that considers a person's beliefs, values and goals, and social context — Holds promise for achieving person-centered cancer care that is inclusive of CAM in the future.^[28,29]

There exists, however, significant challenges to achieving the consistent integration of CAM into cancer care in Canada. For example, there is variability in health care provider education about CAM, which may lead to attitudes and beliefs about the value of CAM that may prevent health care providers from communicating with patients and families in an open, unbiased and nonjudgmental manner.^[30,31] In addition, the Canadian cancer treatment system is driven by efficiency models that use a biomedical reductionist approach to managing cancer^[32,33] that struggles to meet individuals' holistic needs.^[34-37] Economic barriers also persist, where most CAM therapies are paid for by patients out-of-pocket, leading to disparities in access to and use of CAM.

However, there also are shifts occurring that create opportunities for strengthening CAM integration within the health care system. Some of these examples include a rapidly expanding CAM evidence base. Numerous evidence-informed practice guidelines for the integration of select CAM therapies into cancer treatment and care have been published, offering clinicians resources to guide their CAM-related practice.^[38-40]

Initiatives within Canada focusing on person-centered care have created opportunities for patients and family members' to share their perspectives about priorities in cancer care, including the importance of integrating CAM. In addition to a national cancer control initiative that focuses on person-centered care,^[41] increasing advocacy by patient groups to include CAM as an integral part of cancer care also has pushed the CAM agenda forward in Canada.

Complementary and Alternative Medicine and Cancer: Complementary or Integrated?

People living with cancer in Canada rarely receive support from health professionals within the conventional cancer treatment setting to search for information about CAM, make informed CAM decisions, or access or monitor the use of CAM therapies.^[16,42,43] While most cancer centers may use an initial health assessment form to gather information from patients regarding NHP use, few models of care within these centers are set up to allow health professionals to provide ongoing assessment, support and monitoring of

these, and other CTs that patients might be interested in using across the cancer trajectory.

To our knowledge, at this time, there are no examples of “true” integration of CAM and conventional cancer treatment and care in Canada. Many conventional cancer treatment and community-based organizations claim to integrate CAM and cancer care, but most do not fully integrate CAM and conventional treatment as part of the same model of care.^[43] Instead, these organizations either offer a small range of CAM therapies and services in a complementary fashion to conventional treatment (e.g., relaxation classes, yoga, mindfulness-based stress reduction programs, therapeutic touch, music, and art therapy), or exist as a standalone “integrative medicine cancer center” offering a wide range of CAM modalities and practitioners without formal collaboration or communication with conventional cancer care providers. The resulting care is fragmented and the potential exists for negative interactions and overlapping care without sufficient communication between health care providers.

As a result of this lack of true integration of CAM, patients describe a process of “bridging the gap” or “bringing the two worlds together” when navigating between conventional and complementary cancer care systems.^[44,45] More than half of cancer patients (60%) report that they do not discuss their CAM needs or use with their conventional health professionals,^[5,46,47] indicating concerns about health professionals' lack of knowledge or interest, and negatively impacting their relationship with their health professionals.^[48-51] Concerns also arise about safety when patients combine treatments and therapies without adequate consultation, as well as the potential for missed benefits from not being made aware of CAM therapies that may be helpful and are backed by evidence.^[52]

What are the Complementary and Alternative Medicine-related Needs of Canadian Cancer Patients?

Recent CAM needs surveys conducted in British Columbia^[42] and Alberta^[16] with cancer patients at major cancer treatment centers have demonstrated similar findings. Almost half of those surveyed reported using CAM (46-50%) while the other half were considering using CAM. Women who were younger, more educated, and diagnosed for over a year were most likely to be users of CAM. The most popular CAM therapies used included biologically-based, mind-body, and energy-based therapies. Patients largely motivated to use CAM by persuasive family

and friends, used these therapies to improve their quality of life, boost their immune system, and increase their sense of hope. Many also identified a lack of knowledge about CAM and where to locate credible sources of CAM information. A staggering three-quarters of participants did not talk with their health care provider about using CAM, and <10% received adequate CAM information, support or referral from their health care provider. The most frequent gaps in CAM knowledge experienced by patients concerned when it is safe to combine CAM therapies with conventional treatment, and the efficacy of CAM therapies. Other Canadian CAM needs surveys of cancer patients across various regions of Canada reflect similar overall patterns and prevalence of use with slight variations in the types of CAM therapies used regionally.^[3,5,9,53-55]

Oncology Nurses: Positioned to Address the Gaps?

Oncology nurses in Canada are well positioned to address the unmet needs of cancer patients regarding the safe integration of CAM into their cancer treatment and care.^[56] Nationally, both the Canadian Nurses Association and the Canadian Association of Nurses in Oncology (CANO) have articulated practice standards and competencies related to CAM that include providing ongoing assessment, teaching and coaching, evidence-informed decision support, referral to other CAM resources and/or health professionals, and the monitoring, evaluation, and documentation of CAM decision-making and use.^[57,58]

Provincially, regulatory colleges (e.g., CNO;^[27] College of Registered Nurses of British Columbia)^[59] have established scopes of practice and standards related to the care of individuals with an interest in CAM. In general, before delivering or providing a CAM therapy, nurses in Canada must ensure that the intervention falls within their scope of practice, is an evidence-informed intervention, and is within the nurses' role in the institution where the nurse is employed. As with all accepted nursing interventions, the nurse must fully understand the known indications, contraindications, anticipated outcomes, side effects, adverse effects, and that the nurse is able to assess for and manage side effects/adverse effects, and monitor outcomes.^[27,58-60] Some oncology nurses working in cancer centers in Canada deliver CAM therapies such as therapeutic touch, relaxation, and mindfulness strategies. These nurses have received specialized training, have demonstrated initial and ongoing competency, and practice that CAM therapy within their Registered Nurse scope of practice and according to their organizational policies

and procedures. These nurses are joined by a growing number of allied health professionals (e.g., social workers, psychologists, and counselors) who are incorporating CAM into their care.

Canadian oncology nurses' knowledge, attitudes and practices regarding CAM have not yet been reported in the literature. However, based on two of the authors' (LB and TT) extensive experience researching and working with, leading, educating, and exploring CAM with oncology nurses across Canada, some general observations can be drawn. Foremost, many oncology nurses in Canada feel they do not have the appropriate knowledge and skills to provide the level of information and decision support that patients and families need regarding CAM. Few nurses have received undergraduate education specific to CAM and continuing education opportunities on this topic, including practical strategies on how to integrate CAM into care are limited.

Because few organizations have policies or practice guidelines regarding the integration of CAM into cancer treatment and care, some oncology nurses may be uncertain as to whether or not providing support for CAM use in the clinical setting is allowed by their institution. Others may not be aware of the growing level of evidence to support the use of select CAM therapies, thereby dismissing all CAM therapies as not aligning with evidence-based practice.

However, many Canadian oncology nurses believe that CAM use is an important aspect of person-centered care and should be included in the foundations of oncology nursing practice.^[61] When CAM is not addressed, nurses may have an incomplete picture of a person's health beliefs and practices and the impact of CAM on health and cancer-related outcomes. Further, by not inviting patients to openly discuss CAM, the nurse-patient relationship may be negatively affected, where patients may not feel comfortable discussing other sensitive issues such as sexuality and end of life issues.

Foundations: Oncology Nurses Knowledge and Skills to Support Complementary and Alternative Medicine Integration

Despite lacking knowledge about specific CAM therapies, most oncology nurses in Canada do have the foundational knowledge and skills to provide evidence-informed CAM information and decision support. Drawing upon the

supportive care framework^[61] oncology nurses have a holistic view of patients and families, considering their physical, psychological, emotional, social, informational, practical, and spiritual needs as related to their cancer experience. Canadian oncology nurses are also skilled in delivering culturally sensitive approaches to care, including assessments of patients' beliefs, values, and goals for health within the cancer experience. In addition to drawing on evidence to inform their practice, oncology nurses value many ways of knowing about a phenomenon (e.g., aesthetic, historical), which assists in incorporating CAM therapies such as acupuncture and TCM, which are based on traditional knowledge.^[62,63] They are expert at providing shared decision making and coaching and advocating for patients and families' needs and preferences. Oncology nurses also consider the social, political, historical, and other contexts within which patients experience cancer treatment and care, and advocate to influence these contexts to improve patients' quality of life and outcomes.^[57,64]

Canadian oncology nurses have a solid foundation on which to offer CAM information and decision support to patients and families experiencing cancer. Strategies are needed, however, to ensure nurses have basic and ongoing knowledge of the evidence for commonly used and emerging CAM therapies. Furthermore, it is important to review where nurses are placed within the model of care to ensure knowledgeable nurses are available to patients and families when decisions about CAM commonly occur, such as during times of transition - at diagnosis, start of conventional treatment, end of primary treatment, during the survivorship phase, recurrence, and during end of life care.^[45,65,66]

Pockets of Excellence: Moving Toward Integrative Medicine in Canada

Although currently there are no "true" integrative medicine cancer centers in Canada, there are a number of practice, education, and research initiatives that are shaping the conventional cancer care environment for optimal integration of CAM. One Canadian initiative that has been developed and led by oncology nurses to address the gap in care is the Complementary Medicine Education and Outcomes (CAMEO) research program.^[52,67] As a collaborative academic and clinical institution initiative, the CAMEO program seeks to determine the best ways to:

1. Support cancer patients and their families to make safe and evidence-informed decisions about CAM;
2. Evaluate how to improve health professionals' knowledge and decision support skills related to CAM; and

3. Facilitate the development of new CAM and cancer research knowledge.

Based on the Ottawa Decision Support Framework^[68] and tenets of Shared Decision Making,^[69] the CAMEO program has developed a series of CAM information and decision support resources and interventions to address a range of CAM needs from basic to complex. Some examples of these resources include a website with links to credible CAM information, a CAM and Cancer in Canada booklet, a CAM use diary to monitor CAM use, NHP monographs commonly used by women with breast cancer, a CAM decision support template, and on-line CAM and cancer education programs for patients, families and HCPs.^[52,67] The overarching mission of CAMEO is to raise the bar of clinical practice so that all patients in the conventional cancer care setting are assessed for CAM use and provided appropriate CAM information and decision support that meets their needs, in an open, unbiased, and evidence-informed manner by knowledgeable health care providers.^[52] Aspects of the CAMEO program model and resources such as online patient and health care provider CAM education programs and a CAM best practice guideline are being tested in other cancer care organizations across Canada to explore how to contextualize these resources for a variety of unique settings.

The CANO/ACIO hosts a national CAM Special Interest Group that brings together Canadian oncology nurses with novice to expert CAM knowledge and skill to share challenges and solutions related to integrating CAM into their practice. This group has also hosted regular CAM workshops for nurses to develop practical CAM decision support skills, as well as a national think tank to develop foundations for a CAM curriculum for oncology nurses in Canada.

CAM research by oncology nurses in Canada is also growing. In addition to developing and testing models of CAM integration, the CAMEO program has brought together Interprofessional CAM and conventional researchers on projects such as developing an NHP decision aid for women living with breast cancer experiencing menopausal symptoms, developing a randomized controlled trial protocol for the use of acupuncture for chemotherapy-induced peripheral neuropathy, and testing mind-body interventions for sleeplessness.

Other Canadian highlights that demonstrate movement toward more of a comprehensive model of care that includes true integration are located within academic institutions and a community-based center. Two emerging

centers in Canada focusing on integrative medicine are located at leading universities (Toronto and Edmonton). The purpose of these centers is to foster research and education that will support the integrative of evidence-informed therapies into the Canadian health care system.

The Ottawa Integrative Cancer Centre (OICC)^[70] is an example of a community-based integrative cancer center that is making strides toward true integration. Initiated in 2012, the OICC includes a wide range of complementary and conventional HCPs, and uses evidence-based therapies and approaches to promote whole-person care that complements conventional cancer treatments. Outcomes of care are evaluated, and significant efforts are made to reach out to the conventional cancer treatment setting and professionals to improve the safety and continuity of care.

Looking to the Future

Although the integration of CAM into cancer care in Canada is gaining momentum, there is much yet to be done to ensure patients and families have equitable access to high-quality cancer care that includes evidence-informed CAM therapies. Strategies focused on enhancing the CAM education of patients, families and HCPs; development of CAM clinical support tools and resources; refining models of care; and strengthening CAM research and advocacy will ensure continued evolution from complementary approaches to integrative health care.

Education

A key strategy to promote the integration of CAM into cancer care is to enhance the knowledge of patients, families, HCPs, and policy makers regarding CAM. By strengthening undergraduate nursing education to include CAM, oncology nurses will routinely assess for CAM use, offer informed CAM decision-making, and monitor and evaluate the use CAM within everyday cancer care. As nurses from different specialties in Canada (not just oncology nurses) will care for people living with cancer, it is important that all nurses have this foundational CAM knowledge and skills.

Cancer care is generally delivered within an interprofessional context; it is imperative to enhance the CAM knowledge and skills of the interprofessional team as well, through undergraduate and continuing education opportunities. Foundational work on CAM curriculum design has begun within Canada; this curriculum requires impetus to move to a required element of all undergraduate health professional curricula.

Development of national, specialized education and/or certification programs for nurses to practice CAM therapies such as acupuncture, mindfulness techniques, and other body-based therapies may also facilitate better integration of CAM therapies within cancer care.^[57] Nurses may use these evidence-based interventions in addition to conventional approaches to symptom management, within a research evaluation framework, to demonstrate improved patient outcomes and positive economic impacts on the system of care.

Policymakers also will benefit from education about the value of integrating select CAM therapies on patient outcomes and satisfaction with care. This strategy may be aligned with research initiatives that evaluate the cost-effectiveness and other economic outcomes of integrating CAM into cancer care.

Clinical Tools and Model of Care Design

As the evidence grows to support the integration of CAM within cancer treatment and care, strategies must be employed to ensure clinical tools and models of care are put in place to allow for optimal uptake of that evidence into practice. All patients and families should receive foundational CAM education and support around the time of diagnosis.^[52] Patient information resources have been developed to provide the “CAM basics” for patients considering CAM use in Canada.^[71]

In addition to credible sources of CAM information, patients and families should have access and support from HCPs, including nurses, to make safe and informed CAM decisions, throughout the cancer trajectory, especially at key points of transition.^[45,65,66] Oncology nurses should provide education to patients and families to be aware of all treatment options (conventional and CAM), as well as the risks, benefits and level of evidence for these options. This will support informed decision making and the uptake of evidence-informed therapies that may have less side effects and be more cost-effective.

Models of care must be designed to allow for maximal interaction with nurses, who will provide ongoing assessment and care for patients’ and families’ holistic needs, which may be inclusive of CAM. Ongoing assessment and development of a therapeutic relationship that respects a person’s beliefs, values, and goals for health within the cancer experience requires dedicated time with the nurse, rather than as an add-on to the medically focused visit.^[72]

Numerous examples of nurse-led care clinics (e.g., symptom management, fatigue, and breathlessness) are emerging in Canada and around the world; these nurse led clinics could be a place for CAM decision support for patients with complex needs to receive care by oncology nurses. Innovative models to increase access for patients from rural and remote regions of Canada to cancer support programs should be explored, such as through existing online support groups^[73] and telephone care.^[74,75]

Clinical tools, such as clinical practice guidelines, assessments tool that encourage ongoing CAM assessment throughout the cancer trajectory, and documentation strategies encouraging communication about CAM across disciplines is also needed to support CAM integration into cancer care. A number of patient decision aids (e.g., Use of CAM for menopausal symptoms after breast cancer treatment) and apps for mobile devices (NHP-cancer chemotherapy interaction checker) are also in development and testing phases by Canadian researchers that will facilitate improved CAM and cancer care.

Research

Oncology nurses are in a prime position to develop and implement CAM research studies that evaluate the process and outcomes of the integration of CAM therapies into cancer care. With an understanding of whole systems approaches to care, oncology nurses can take a leadership role in using research methodologies that are sensitive to and capture outcomes that are of prime importance to patients and families, as well as other economic and system outcomes important to administrator and policy makers. As the integration of CAM is in its infancy in Canada, it is imperative that new CAM-related initiatives always include an evaluative component, which can add to our understanding of the process and outcomes for patients and families, HCPs, and health resource utilization.^[76]

One mechanism to leverage this level of CAM research is for oncology nurses to collaborate with existing CAM research networks such as the Interprofessional Network of CAM (IN-CAM) researchers.^[77] Although not cancer-specific, this collaborative research community includes oncology nurse researchers who have held leadership roles within the organization, which seeks to generate new knowledge about CAM through research to enhance the health of Canadians. Also through IN-CAM, oncology nurse researchers can receive mentorship from internationally renowned experts in CAM research methodology and enhance their knowledge about new advances in CAM and research methods through annual conferences and symposia.

Advocacy

As the evidence base increases with regard to the efficacy and safety of CAM therapies in the context of cancer, oncology nurses may advocate for health insurance reimbursement of CAM therapies for which there is known benefit for cancer patients (e.g., acupuncture, massage, and mind-body therapies). Systems and structures for reimbursement will reduce disparities in the access and use of these beneficial CAM therapies, and will provide opportunities to study the impact of CAM use within clinical cancer care settings.

Conclusion

Although some progress has been made with a few pockets of excellence appearing, “true” integration of CAM and conventional cancer care has not yet been firmly established in Canada. Oncology nurses have an important and active role to play in moving forward the national CAM integration agenda through education, model of care design, clinical tool development, and research and advocacy strategies. Through these strategies, oncology nurses may forge ahead as leaders in promoting holistic person-centered, values-based, and evidence-informed care, that is, inclusive of CAM.

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