INTEGRATIVE ONCOLOGY

Integrative cancer care in a US academic cancer centre: the Memorial Sloan–Kettering experience

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ABSTRACT

Various surveys show that interest in complementary and alternative medicine (CAM) is high among cancer patients. Patients want to explore all options that may help their treatment. Many CAM modalities offer patients an active role in their self-care, and the resulting sense of empowerment is very appealing. On the other hand, many unscrupulous marketeers promote alternative cancer “cures,” targeting cancer patients who are particularly vulnerable. Some alternative therapies can hurt patients by delaying effective treatment or causing adverse effects or detrimental interactions with other medications. It is not in the best interest of cancer patients if they cannot get appropriate guidance on the use of CAM from the health care professionals who are part of their cancer care team.

The Integrative Medicine Service at Memorial Sloan–Kettering Cancer Center in New York was established in 1999 to address patient interest in CAM, to incorporate helpful complementary therapies into each patient’s overall treatment management, to guide patients in avoiding harmful alternative therapies, and to develop prospective research to evaluate the efficacy of CAM modalities.

KEY WORDS

Integrative medicine, complementary and alternative medicine, cancer, oncology

1. INTRODUCTION

Various surveys show that interest in complementary and alternative medicine (CAM) is high among cancer patients.1–5 The Integrative Medicine Service at Memorial Sloan–Kettering Cancer Center [MSKCC (www.mskcc.org/mskcc/html/1979.cfm)] in New York was established in 1999 to address patient interest in CAM, to incorporate helpful complementary therapies into each patient’s overall treatment management, and to guide patients in avoiding harmful alternative therapies. The Board and executive leadership of MSKCC made a strategic decision to establish a new “service,” a subdepartmental administrative unit, to improve the quality of life of cancer patients. The institutional leadership recruited Dr. Barrie Cassileth, an authority and pioneer on CAM and cancer care, to head the service and to develop the programs. Over the years, the service has become a full-fledged academic unit, with many programs in clinical care, research, education, and information services. It is recognized as one of the prototypical integrative oncology programs in international cancer care.

2. THE INTEGRATIVE MEDICINE SERVICE AT MSKCC

2.1 Set-up

The service was set up as a horizontal academic unit that interacts with all other departments within the institution. The service chief reports directly to the physician-in-chief of the hospital and to the chair of the Department of Medicine. Two physicians and a biostatistician serve as faculty members in the service. The service also has an administrator who oversees budgets, staffs, and operation of programs.

The service has its own three-story building assigned by the cancer center to house outpatient treatment rooms and offices of service members. This facility also includes a special room for mind–body therapies, a large studio for fitness and yoga classes, and a conference room with state-of-the-art telecommunications equipment. The interior of the building and the rooms were modified to create a sense of tranquility and healing.

2.2 Clinical Services

The Integrative Medicine Service offers a wide range of evidence-based complementary therapies, such as various types of massage, acupuncture, music therapy, hypnotherapy, meditation, guided imagery and visualization, nutrition and herbal products counselling, and classes such as yoga, qi gong, and fitness. These interventions provide important benefits in the context of mainstream cancer care. They focus on supportive care, emphasizing quality of life both for patients and for family members through healing regimens that address the body, mind, and spirit.
Services are provided on an inpatient basis in the Memorial Hospital or on an outpatient basis at the MSKCC Rockefeller Outpatient Pavilion (visits to physicians) and the Bendheim Integrative Medicine Center (visits to CAM practitioners [Figure 1]). The clientele includes cancer patients (whether treated at MSKCC or elsewhere), their families, and their friends. Many MSKCC staff members and members of the community also use integrative medicine services at the serene and comforting Bendheim facility.

Newly diagnosed cancer patients are undergoing much distress and anxiety. They want to explore all kinds of treatment options. They receive counselling on the nature of cancer and cancer treatment, realistic expectations, and how to protect themselves from bogus alternative therapies. The counselling helps these patients to become more comfortable with their final treatment decisions, because they feel that they are not missing out on any options. For cancer patients undergoing treatment, the service focuses mainly on using complementary therapies to help in the reduction of symptoms so that the patient can go through treatment more smoothly.

With the advancement of cancer treatment, more and more patients become cancer survivors. These patients want to explore techniques or practices that will promote health, prevent diseases, and enhance a sense of well-being. This population is making up an increasingly large part of the outpatient practice.

The inpatient program provides massage, music therapy, meditation, hypnotherapy, and acupuncture for patients suffering from a variety of symptoms, including pain, depression, fatigue, and anxiety, or patients who have end-stage disease. Referrals for all services are made by physicians and other health care professionals, but patients and family members also may self-refer. The Integrative Medicine team is part of the MSKCC health care team, and collaborates with physicians, nurses, and other health care professionals to assure appropriate treatment plans. All interventions and patient encounters are properly charted in the medical record.

The Bendheim Integrative Medicine Center is a standalone facility that provides a tranquil and comforting environment conducive to healing. Numerous individual services and classes are provided there, including massage, shiatsu, reflexology (foot massage), meditation, hypnotherapy, acupuncture, nutrition counselling, biofeedback, yoga, qi gong, Pilates, Alexander technique, and chair aerobics, among others. Counselling and guidance are also provided both for patients and for staff in nutrition and dietary supplement concerns.

The Center is open 6 days and 4 evenings each week. Hours of operation, services provided, and staff utilization are regularly re-evaluated to assure appropriate utilization of funds and availability of care. Beginner and intermediate yoga classes are provided for staff at the main campus of MSKCC. Massage and acupuncture are also available twice weekly at MSKCC satellite clinics outside Manhattan.

2.3 Research

Scientific research is fundamental to the mission of the Integrative Medicine Service. The service’s research program has two main areas of emphasis:

- symptom control studies, which involve evaluation of complementary therapies to determine their value in alleviating symptoms experienced by cancer patients; and
- antitumour botanical research, which brings promising laboratory findings to cancer prevention and cancer treatment clinical trials.

All MSKCC research evaluating complementary therapies uses the same rigorous scientific methodology used for evaluating conventional therapies. All research is conducted in collaboration with senior MSKCC physicians and laboratory scientists. The research is funded by grants from the National Cancer Institute (NCI), the National Institutes of Health (NIH), and private foundations, and by institutional research grants.

Symptom control studies focus on clinical trials of complementary medicine modalities. Despite all of the difficulties associated with conducting randomized controlled trials (RCTs) in CAM, the RCT design is used in most clinical studies conducted in our service, because it offers the scientific rigor that is much needed in the field of CAM research. Several acupuncture trials on dyspnea, post-chemotherapy fatigue,
post-thoracotomy pain, shoulder dysfunction after neck dissection, and hot flashes in breast cancer patients have been completed\(^{11–14}\). A RCT of acupuncture for post-colectomy ileus and another for post-chemotherapy fatigue are underway. In addition, music therapy for mood disturbance and massage therapy for cancer pain have also been studied\(^{15,16}\). All clinical trials are conducted under protocols approved by the Institutional Review Board.

The service has conducted several trials of botanical agents in cancer prevention and cancer treatment. Another main focus of botanical research is agents purported to “boost the immune system,” a popular class of natural products among cancer patients. We developed a multi-project research program to systematically study botanical immunomodulators as related to cancer care. As a result, we were awarded by the NIH to become one of six botanical research centers in the country. Our laboratory research projects are conducted in collaboration with senior scientists in the Sloan–Kettering Institute, Cornell University, and the Chinese University of Hong Kong.

### 2.4 Education

The service provides education on CAM to cancer patients, cancer survivors, the general public, and health care professionals. Education programs offer a broad range of written and consultation information, including material on complementary modalities, herbs and other dietary supplements, herb–drug interactions, and risks associated with unproven alternative cancer therapies. Information is provided in the form of brochures, flyers, individual counselling, and Web pages. Senior members of the service are frequently invited to give in-service education, community talks, seminars, lectures, and media interviews. Training programs for licensed massage therapists and acupuncturists on how to provide safe therapy tailored to cancer patients are offered twice annually. Graduate student internships are in place.

The next generation of medical professionals is increasingly interested in learning more about integrative medicine, which is not part of their regular medical school curriculum. Many medical students, residents, fellows, and attending physicians have completed “observerships” with us for an introduction to integrative medicine and for an experience in how complementary therapies are provided and evaluated in research. Our summer-student internship program is one of the most popular in MSKCC among medical students funded by the NCI summer research fellowship. A formal elective rotation in integrative medicine is made available to medical students and residents in the New York Metro area.

In addition, service staff developed an NIH–funded T32 research fellowship training program to cross-train the next generation of integrative oncology physicians to eventually become leaders in academic medicine.

Trainees are physicians who have completed residency in a medical specialty. They systematically learn the principles and practice of complementary therapies and of research methodology and how to integrate that knowledge into mainstream clinical practice.

The service’s About Herbs, Botanicals & Other Products Web site (www.mskcc.org/mskcc/html/11570.cfm) provides detailed information on more than 230 herbal remedies and other products that cancer patients commonly ask about. Each entry lists ingredients, purported use, known mechanism of action, toxicology, adverse effects, and interaction with other medications, all backed by published literature. This Web site makes available to oncologists and consumers worldwide a readily accessible source of evidence-based information. With the advance of information technology, the public is exposed to an overwhelming amount of information and misinformation on CAM. Our Web site, which is constantly updated and expanded, helps to remove the confusion. It receives more than 1 million page views annually—at times, more than the MSKCC home pages on the Web—underlining the tremendous demand for this kind of information from the general public.

### 2.5 Integration

Integrating complementary therapies in an academic medical center can be challenging initially. We find the following approaches helpful:

- We use only evidence-based therapies that have a favourable risk–benefit ratio\(^{17,18}\).
- We follow the norm of regular medical practice in a mainstream medical facility. Practitioners must review medical records before interacting with patients and delivering treatment. They also document the treatment, patient responses, and follow-up plans in the hospital’s electronic medical record system. This documentation facilitates communication between all people involved in the patient’s care.
- The practitioners provide a very professional service. All therapists have undergone a rigorous credentialing and hiring process. They must be highly experienced, with relevant work experience, and they must possess a warm and caring bedside manner.

### 2.6 Overcoming Obstacles

The program had to overcome several obstacles to be able to grow. Unfamiliarity with the complementary modalities on the part of oncologists hindered acceptance that these therapies be provided to their patients. Introductory seminars were therefore established for other services, and in-service lectures were provided to nursing staff, social workers, and case managers, often with experiential demonstrations. Service staff
write reviews for professional journals and book chapters for oncology textbooks. Another important approach is the conduct of collaborative research. Grant applications were developed jointly with other physicians. All of our clinical trials are conducted in conjunction with another medical oncology or surgical oncology program. This cooperation promotes mutual trust and respect. Staff also actively participate in many institutional committees, which provides opportunities for interacting with other leaders in the institution.

3. SOCIETY FOR INTEGRATIVE ONCOLOGY

As time goes by, more and more cancer centers and community practices are including integrative medicine as part of their comprehensive cancer care model. In 2003, several integrative oncology programs from major cancer centers joined forces to form the Society for Integrative Oncology [sio (www.integrativeonc.org)]. Membership in sio has grown to encompass an international mix of individuals and organizations. As a non-profit multi-disciplinary organization, sio has set as its mission the education of oncology professionals, patients, caregivers, and relevant others about the scientific validity, clinical benefits, toxicities, and limitations of state-of-the-art integrative therapies. It provides a forum for presentation, discussion, and peer review of evidence-based research in the discipline and is an advocate for responsible public policy and the highest standards of practice through appropriate training and certification of health care professionals. A clinical practice guideline has been developed and adopted by sio to offer evidence-based practical tools in the practice of integrative oncology 19.

4. REFERENCES


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