

Integrative Oncology for the Whole Person: A Multidimensional Approach to Cancer Care

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Abstract

Today, more than ever before, millions of people are seeking an approach to medicine and health care that is more comprehensive, more holistic and integrative, and more compassionate and sensitive to their needs as a whole person. This is particularly true for those dealing with cancer. Changing patient demographics, heightened consumer demand for complementary and alternative medicine (CAM) products and services, advances in medical science and technology, expanding access to the Internet and health information, and other factors have contributed to a wave of transformation that is unprecedented in its impact on the entire health care system. These trends have fueled the emerging fields of integrative medicine and oncology, which are growing rapidly. As these fields continue to evolve, they will move beyond the present integrative model to a broader vision of whole-person, multidimensional care that will more fully and coherently address and embrace all dimensions of the human experience. This article describes 6 major driving forces behind the wave of transformation presently under way in medicine and health care. It provides a brief, historical overview of integrative medicine and oncology and summarizes the present status of these emerging fields. It discusses the future of integrative medicine and oncology, including a multidimensional approach to care, and highlights 5 key elements that underlie this approach. Finally, it describes The Seven Levels of Healing—a model of multidimensional care—and concludes with a discussion of 3 important challenges and opportunities for medicine and health care that lie on the horizon.

Keywords

cancer, integrative oncology, emotional healing, life assessment, mind–body approaches, spirituality and healing

Introduction

Medicine and health care are undergoing a wave of transformation that is unprecedented in its breadth and impact on the entire health care system. A major force behind this wave is that today, more than ever before, millions of people are seeking an approach to health care that is more comprehensive, more holistic and integrative, and more compassionate and sensitive to their needs as a whole person. This is particularly true for those dealing with cancer.

Growing patient demand for a more expanded approach is a big part of what has led to the emerging fields of integrative medicine and oncology. Other significant trends are also contributing to an ongoing transformation of the medical paradigm—from a strictly conventional approach that existed for decades, to the era of complementary and alternative medicine (CAM) that prevailed in the 1990s, to the present era of integrative medicine and oncology. As the field continues to evolve, it will progress to what I believe will ultimately be regarded as a multidimensional approach. This will move beyond the present integrative model to a

broader vision of whole person care that more fully and coherently addresses and embraces all dimensions of the human experience.

This article has 5 major objectives. It will

1. outline 6 major driving forces behind the wave of transformation presently under way in medicine and health care;
2. provide a brief, historical overview of integrative medicine and oncology and summarize the present status of these emerging fields;
3. discuss where integrative medicine and oncology are heading in the future—toward a multidimensional approach to care—and highlight 5 key elements that will underlie this approach;

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4. describe The Seven Levels of Healing—a model of multidimensional care that has been developed into a comprehensive, integrative oncology education and support program for patients, loved ones, and health professionals; and
5. conclude with a discussion of 3 important challenges and opportunities on the horizon as integrative medicine and oncology continue to evolve.

The 6 Driving Forces

Numerous social, political, and economic trends are affecting the wave of transformation under way in medicine in general and oncology in particular. I describe below what I believe are 6 of the major driving forces:

Aging US Population and High Cancer Burden

The first major driving force behind this wave of transformation is the aging population in the United States. Between the years 2000 and 2020, it is projected that there will be a 67% increase in the number of Americans older than 55, growing from approximately 60 to 100 million.¹⁻³ This demographic phenomenon has never happened before in American history. This is significant for many reasons, including the fact that cancer is a disease of aging, and its incidence increases dramatically for both men and women after age 55.⁴ Although the rate of newly diagnosed cancers and deaths from cancer have declined slightly in the United States in recent years,⁵ the overall burden of cancer remains high and is expected to grow significantly in the next 20 years. An April 2009 report in the *Journal of Clinical Oncology* estimates a 45% increase in the number of cases of invasive cancers in the United States between 2010 and 2030, from approximately 1.6 million to 2.3 million, respectively.⁶ In fact, 1 in 3 women and 1 in 2 men alive today are expected to be diagnosed with cancer at some point in their lives.⁷

The Baby Boom Generation: Patients as Consumers

The second major force is that it's not just anyone getting older, it's the "Baby Boom" generation. The Baby Boomers are 78 million people born in the United States between 1946 and 1964.^{8,9} They are the largest cohort ever born in the United States and represent approximately 25% of the overall population.¹⁰ In 2001, this generation began turning age 55, entering the period of life that carries an increased risk of developing not only cancer but chronic illnesses of all kinds.¹¹

This unique historic demographic phenomenon is significant because whereas the previous World War II generation was raised to be stoic,¹² Baby Boomers were

raised to be special. This generational shift in values was heralded by Dr. Benjamin Spock's landmark book, *Baby and Child Care*, initially published in 1946.¹³ Spock's book popularized a new organizing principle of the family—to meet the needs of children—which increasingly became a central priority for all parents, and indeed society as a whole. *Baby and Child Care* went on to sell more than 50 million copies and became the bible of this historic new value system.¹⁴

Baby Boomers have been raised with the idea that they are special and that most, if not all, aspects of their lives should be special as well. They are now bringing this level of expectation to medicine and health care and commonly seek multiple opinions and a wide range of choices in their treatment. This has ushered in a new era in which patients are now active consumers who demand specialized and individualized care rather than being passive recipients who unquestioningly accept standardized care.^{15,16}

Increasing Cultural Awareness of Health and Cancer

The third major force is the dramatically expanding cultural awareness of health in general and cancer specifically. Americans now commonly hold the expectation of being healthy and active into their 70s, 80s, and even beyond. The wellness industry in the United States is estimated to exceed \$500 billion dollars a year and is growing.¹⁷ Countless books, articles, magazines, and products related to health and wellness for both men and women are now widely available.

This trend has now extended beyond general health and wellness to a broader public awareness and discourse about cancer. In recent years, the long-standing taboo against talking about cancer has been decisively broken. A landmark event in this process occurred when, in 1974, Betty Ford became one of the first public figures to openly disclose her diagnosis of breast cancer.¹⁸ Throughout the 1980s and 1990s, it became increasingly acceptable to talk about cancer in public. Another major step forward occurred in 2000, when Katie Couric underwent a screening colonoscopy—live on national television—in the aftermath of her husband's death from colon cancer.¹⁹

Since then, mainstream cultural awareness of cancer has expanded dramatically. The American Cancer Society and numerous other philanthropic organizations devoted to cancer have become widely known. Millions of people participate in a huge variety of fundraising events—from walk-a-thons, to races, to memorial campaigns, to black-tie dinners. Public disclosures of cancer diagnoses and treatment by politicians and celebrities are now a common occurrence, even including television specials documenting their intimate cancer journeys. Innumerable support groups, organizations, and Web sites about cancer are continuously

increasing in number and scope. Articles about cancer also now routinely appear on the covers of major news magazines, and there are at least 9 popular magazines specifically devoted to cancer now in circulation. Examples include *Caring4Cancer*, *Cure*, *Coping*, *Heal*, *iCan*, *Women & Cancer*, *MAMM*, *CR: Learn and Live*, and *Pink Ribbon*.

Advances in Medical Science and Technology

The fourth major force is the number and quality of scientific and technological advances in medicine that have occurred in recent years, especially in oncology. These include better diagnostic techniques such as PET/CT, increasingly powerful MRI scans, and digital as well as invasive radiology.

Many new drugs, and even new classes of drugs, exist today that weren't available even 10 to 20 years ago. Examples include targeted therapies such as monoclonal antibodies, epidermal growth factor, and vascular endothelial growth factor inhibitors; growth factors and cytokines; radioimmunotherapies; tumor vaccines; and more sophisticated hormone therapies such as aromatase inhibitors and selective estrogen receptor modulators.

Recent advances in radiation treatment modalities are also greatly enhancing the care of people with cancer, including intensity-modulated radiation therapy, stereotactic radiosurgery (Cyberknife), seed implantation brachytherapy, proton beam radiation, radiofrequency ablation, and high-intensity focused ultrasound, among others.

The emerging fields of genomics, proteomics, and metabolomics are also advancing a powerful movement called *personalized medicine*.²⁰⁻²² Breakthroughs in these fields promise to further revolutionize health care by tailoring the diagnosis and treatment of cancer and other diseases to the specific genetic and molecular profiles of patients.^{23,24}

All these developments are leading to people living longer with cancer than ever before,²⁵ and have created the expectation that cancer will increasingly be regarded and treated as a chronic disease. This increased longevity is creating an expanding need—and demand—for more attention and services, over a longer period of time, with significant, far-reaching consequences for the health care system and society as a whole.²⁶

The Internet and Access to Health Information

The fifth major force is the exploding use of the Internet and its revolutionary impact on how people access health-related information.^{27,28} It is conservatively estimated that 155 million American adults now use the Internet.^{29,30} (The report in reference 29 indicates that 71% of all US adults were using the Internet in 2007. The census data in reference 30 reports a 2004 population of 218 million adults in

the US. So 218 million American adults x 71% use of the Internet [per reference 29] = 155 million adults.) A 2006 study by the Pew Internet & American Life Project reported that 80% of American adult Internet users, or approximately 113 million people, have searched online for health information, and 8 million search online for health information every day.³¹

Cancer patients are among the most active users of the Internet.^{32,33} Studies suggest that up to 60% of cancer patients and their companions routinely use the Internet to search for information about their disease and treatment options.³⁴⁻³⁶ They are also increasingly using the Internet for psychosocial support, including through online support groups, chat rooms, blogs, social networking sites, and message boards.^{37,38}

Internet access to health-related information is an unprecedented phenomenon in human history and has powerfully accelerated the trend of patients as consumers.³⁹⁻⁴¹ It is now common for patients to arrive in their physician's office with an armload of articles and associated questions about treatment options. Patients also commonly use the Internet to search for specialists, second opinions (or more), specialized procedures, reported clinical outcomes, and clinical trials.⁴² Email and other forms of digital communication between doctors and patients are also expanding significantly and will likely continue to increase in the coming years.^{43,44}

Increasing Use of Complementary and Alternative Medicine

The sixth major force behind the wave of transformation in medicine and health care is the increasing use of CAM by Americans. A December 2008 report by the National Center for Health Statistics (NCHS) indicated that 38% of all Americans use some form of CAM.⁴⁵ A 2005 Institute of Medicine publication, titled *Complementary and Alternative Medicine in the United States*, detailed this trend and reported that Americans were spending at least \$27 billion out of pocket for CAM products and services.⁴⁶

Use of CAM is particularly common among people with cancer. Studies indicate that up to 80% of all cancer patients use some form of CAM during the course of their illness.⁴⁷⁻⁴⁹ Among the more commonly used CAM modalities are acupuncture, massage, yoga, energy healing, Traditional Chinese medicine, Ayurveda, mind-body interventions, and a wide variety of vitamins, mineral supplements, antioxidants, and herbs.^{50,51}

People with cancer use CAM for numerous reasons.^{52,53} Many patients hope to improve their chances for survival,⁵⁴ even though there's little evidence that CAM therapies can accomplish this.⁵⁵ Many are trying to strengthen a sense of control over their lives and health, which they may feel has

been compromised by an illness or diagnosis.⁵⁶ Others try to “boost their immune system,”⁵⁷ hoping to affect the course of their illness. Many use CAM to reduce treatment-related toxicity and improve overall quality of life⁵⁸ or to alleviate mental, emotional, and spiritual pain and anxiety.^{59,60} Fortunately, there is growing scientific evidence that many CAM modalities can, indeed, be very effective for these latter concerns.

Emotional distress is a major factor that warrants more attention in caring for people with cancer. Numerous peer-reviewed journal articles—and oncologists’ own direct experiences—confirm that there is a high prevalence of emotional distress among people with cancer.⁶¹⁻⁶³ Although understandable, this distress can be associated with an adverse impact on a patient’s ability to manage his or her illness.^{64,65}

Unmet spiritual needs among people with cancer are also now coming more fully into focus. A study involving 230 patients with advanced cancer, published in February 2008 in the *Journal of Clinical Oncology*, found that 72% of the patients reported spiritual needs that were unmet by the health care system.⁶⁶ In an accompanying editorial, titled “Meeting Spiritual Needs: What Is an Oncologist to Do?” Dr Betty Ferrell, from the City of Hope National Medical Center, acknowledged the significance of these findings and urged oncologists to take a more proactive role in assessing and meeting these spiritual needs.⁶⁷

The fact that oncologists now write and talk more openly about the emotional and spiritual needs of cancer patients and their loved ones represents a significant advance in the evolution of mainstream medicine. It is part of an even larger social phenomenon in which, more than ever before, people readily discuss their religious and spiritual beliefs in public settings, from politics to pop culture. Many are moving away from classical religious structures and dogmas toward more personalized forms of spirituality. Indeed, many sociologists now recognize a new demographic of people who describe themselves as “spiritual, but not religious.”⁶⁸ A 2005 *Newsweek* cover article, titled “Spirituality in America,” discussed this phenomenon and reported that in a survey of 1004 Americans, 80% believed that the universe was created by “God,” 79% described themselves as “spiritual,” and 57% ranked spirituality as “very important” in their lives (the highest ranking offered in the survey).⁶⁹

The 6 major forces outlined above have profoundly influenced the emerging fields of integrative medicine and oncology. Recent economic and political events in the United States—including what appears to be a genuine commitment to health care reform by the Obama Administration and numerous members of the US Congress.^{70,71}—are also affecting this wave of transformation, in ways that are still unfolding. It is clear, however, that the transformation currently under way is destined to continue and grow even more in the future.

Before talking more about what lies ahead, I will give a brief historical overview of integrative medicine and oncology and describe how far these fields have come. This will provide a context for a discussion about where I believe we are headed in the future.

Historical Overview of Integrative Medicine and Oncology: How Far Have We Come?

The fields of integrative medicine and oncology have come a long way in recent decades, arguably beginning with the emergence of what is now called CAM. The history of CAM in the United States is long and storied,⁷² but its emergence into mainstream culture can be traced to 1971. Coincidentally, this is the same year that Richard Nixon declared the “War on Cancer.”⁷³

In July 1971, acupuncture burst into mainstream American awareness in a well-publicized article by James Reston, a *New York Times* vice president and reporter covering Nixon’s historic trip to China in July of that year.⁷⁴ While in Beijing, Reston underwent an emergency appendectomy and received acupuncture as part of his postoperative care, with positive results. This occurred in an era—spanning the 1970s and 1980s—when healing modalities that were outside of the strict, conventional paradigm were regarded as “alternative” and essentially worthless. In fact, many CAM modalities that are now commonly accepted and increasingly recognized as having value were, at that time, viewed—a priori—as “quackery,” and were largely dismissed out of hand. Physicians (or students) who wished to discuss or explore these modalities were often shunned and ridiculed, especially in academic medical centers.

This began to change in the 1990s, when awareness and use of CAM grew dramatically. Two landmark studies by Harvard’s Dr David Eisenberg surprised the medical community by documenting the extent of this trend. The first, published in *The New England Journal of Medicine* in 1993, revealed that 33% of the United States population was using CAM in their daily lives.⁷⁵ The second, published in the *Journal of the American Medical Association*, revealed that by 1997, 42% of the population was now using CAM.⁷⁶ (Note: Eisenberg’s 1997 42% CAM use is higher than the NCHS 2008 38% CAM use [reported in Reference 45], perhaps because Eisenberg’s study included “self prayer” and “spiritual healing by others” as CAM modalities, whereas the NCHS study did not include these.) This publication also documented, for the first time, that the number of visits to CAM practitioners exceeded those to all primary care physicians, and out-of-pocket expenditures for CAM exceeded those for all physician services. Clearly, a paradigm shift was under way, and its magnitude and impact were confirmed in numerous other medical journal

articles as well as in books and other media during that period.

Additional major events from the 1990s include the establishment of the Office of Alternative Medicine in 1991, with an initial budget of \$2 million.⁷⁷ In 1998, the National Cancer Institute (NCI) established its own Office of Cancer Complementary and Alternative Medicine.⁷⁸ In 1998, The Office of Alternative Medicine was reestablished as the NCCAM, with a budget of more than \$100 million and a new status as one of the 27 institutes and centers that make up the National Institutes of Health.⁷⁹ The growing interest in CAM also led to the establishment, in March of 2000, of the White House Commission on Complementary and Alternative Medicine Policy, with the mission of creating “a report containing legislative and administrative recommendations that will ensure public policy maximizes the potential benefits of CAM to all citizens.”⁸⁰

During the 1990s, medical schools began offering courses on CAM,^{81,82} funding and activities in CAM research increased dramatically,⁸³⁻⁸⁵ and many formerly scorned healing modalities began to enter the mainstream.⁸⁶

The Era of Integrative Medicine and Oncology: Present Status

The year 2000 heralded yet another major step in the evolution of medicine and health care in the United States, when Americans moved from the era of CAM to the current, new era known as *integrative medicine*. This term reflects growing interest in integrating conventional and evidence-based CAM therapies to better address the needs and concerns of the whole person.

A significant event in this new era was the formal establishment of the Consortium of Academic Centers for Integrative Medicine, in 2000, with 8 founding members.⁸⁷ As of 2009, the consortium has grown to include 39 member organizations.⁸⁸ Medical schools⁸⁹ and residency training programs⁹⁰ now increasingly offer courses and training in integrative medicine as well. Hospitals are also responding to growing demand for CAM services.⁹¹ A 2007 survey of nearly 1400 hospitals throughout the United States found that nearly 37% of respondents offered one or more CAM therapies, up from 26% in 2005.⁹² CAM research funding and activities have also increased significantly in the past decade.⁹³ A January 2008 cover article in *US News and World Report* showed the extent to which this movement has now penetrated into the popular zeitgeist, with its dramatic headline, “Alternative Medicine Goes Mainstream.”⁹⁴

Another significant event in this evolutionary process occurred in February 2009, when the Institute of Medicine in partnership with the Bravewell Collaborative hosted an historic, 3-day “Summit on Integrative Medicine and the Health of the Public” in Washington, DC.⁹⁵

The field of integrative oncology has contributed greatly to this wave of transformation in medicine. In the remainder of this article, I will focus on integrative oncology, beginning with some highlights of its development during the past decade.

- In 2000, the US Congress held the first ever hearings on integrative oncology, titled “Cancer Care for the New Millennium: Integrative Oncology.”⁹⁶
- In 2000, the first book to describe a comprehensive, integrative approach to cancer care was published: *The Journey Through Cancer: Healing and Transforming the Whole Person*.⁹⁷
- In 2002, the first peer-reviewed journal on integrative oncology appeared: *Integrative Cancer Therapies*.⁹⁸
- In 2003, the Society for Integrative Oncology was established and began publishing the *Journal of the Society for Integrative Oncology*.⁹⁹
- In 2006, the first textbook on integrative oncology was published: *Integrative Oncology: Principles and Practice*.¹⁰⁰
- In 2007, the Society for Integrative Oncology published the first ever “Integrative Oncology Practice Guidelines.”¹⁰¹
- In 2008, 2 additional academic texts on integrative oncology appeared: *Integrative Oncology: Incorporating Complementary Medicine Into Mainstream Cancer Care*¹⁰² and *Integrative Oncology*.¹⁰³
- In 2008, the *Hematology-Oncology Clinics of North America* journal published its first ever issue entirely devoted to integrative medicine in oncology.¹⁰⁴
- By 2009, at least 7 NCI-designated cancer centers had integrative programs, including MD Anderson Cancer Center, Memorial Sloan-Kettering Cancer Center, Dana Farber Cancer Institute, Johns Hopkins University, UCSF, UCLA, and the Mayo Clinic.
- At present, many different institutions and government and nongovernment organizations are supporting research in this field. In 2007, the NCI alone provided nearly \$122 million to support more than 400 CAM-related research projects.¹⁰⁵
- Numerous community-based cancer centers throughout the United States are now also contemplating or beginning to develop integrative oncology programs.

There is no question that the many people who have worked diligently for years to advance the field of integrative oncology to this point have much to be proud of. As far as we have come, however, there is still much more

to do. Although the growing integration of CAM modalities into mainstream care is a big step forward, I think it is also clear that what is at present called integrative oncology does not yet fully, or coherently, address the needs and concerns of the whole person.

I am not alone in this belief, as evidenced by a landmark 2008 Institute of Medicine monograph, titled *Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs*, which urges us to provide care for the whole patient more comprehensively and effectively.¹⁰⁶ This document is a call to action—arguably even a mandate—for us to aspire to a larger vision of cancer care.

As important as they are, in actual practice today, most integrative oncology programs lack a clearly articulated purpose and vision. Most offer a “menu” of complementary therapy services but rarely, if ever, in a truly coordinated way. There is little or no consistent direction about how patients can optimally use them and inconsistent support from physicians and institutions for using them at all. Most integrative oncology programs are still oriented primarily toward ameliorating symptoms or the worthy (but somewhat amorphous) goal of improving quality of life.

What is often missing is coherent guidance about the ultimate goals of CAM usage and how to safely and effectively use these modalities in combination with chemotherapy and radiation, let alone how to use them optimally in combination with each other. Furthermore, attention to the often overwhelming mental, emotional, psychosocial, and spiritual needs and concerns of patients and loved ones is inadequate.

On the research front, most integrative oncology studies still focus primarily on the effects of a single intervention or modality on a specific subset of patients or on a single symptom or condition or physiological process.¹⁰⁷ This kind of research is indeed useful and very important in establishing an evidence base for the use of CAM.¹⁰⁸ However, in the context of the myriad, complex multidimensional issues and concerns encountered on the cancer journey, most integrative oncology research remains largely confined to the reductionist paradigm, continuing to focus on smaller and smaller pieces of the puzzle while often missing the larger reality of what patients and families are actually wanting, needing, and experiencing.

Once again, despite these limitations, integrative oncology has come a long way, and we have taken many significant steps in the right direction. But the compelling questions before us are the following: (a) Where does integrative oncology need to go next? (b) Where is it ultimately heading? and (c) What are the most efficient and effective ways to get there?

I believe that what’s coming next may someday be called the era of “multidimensional medicine.”¹⁰⁹ This will move beyond the current integrative approach to a broader and deeper view and practice, which fully honors every dimension

of who we are as human beings—whether patients, family members, doctors, nurses, CAM practitioners, technicians, or society as a whole. I will describe this further in the next section.

A Multidimensional Approach to Care: What Does This Mean?

A multidimensional approach to care will embody a more coherently conceptualized purpose, vision, and consensus about what we’re really here to do, and *be*, for people with cancer and their loved ones, as well as for ourselves, our colleagues, and our own family members and communities. It will provide a richer, more comprehensive, and more satisfying experience for everyone involved by addressing the multidimensional needs and concerns of human beings in a proactive way.

A multidimensional approach for the future will encompass a number of elements that are not yet fully, or consistently, incorporated into the practice of mainstream medicine or even integrative medicine. Although this is not intended to be a complete list, the key elements discussed below illuminate and inform the path ahead.

Humans Are Multidimensional Beings

The first key element is that we will, finally and unabashedly, acknowledge that we are all multidimensional beings. At the most basic level, this means that we all have a mind, a heart, and a spiritual dimension as well as a physical body—not to mention deep and important interpersonal connections—and that our job is to honor and care for all these dimensions with equal skill and integrity. This is, of course, no easy task, particularly in a “bottom-line” oriented and highly specialized health care system that focuses almost all its attention and resources on diseases, procedures, interventions, and other physically measurable parameters.

Historically, as we all know, the biomechanical, reductionist model of medicine has focused primarily on what can be seen and measured. Although this approach has led to enormous technological and medical advances that provide great benefits to many people, what can be seen and measured is still only the proverbial tip of the iceberg of what comprises a human being or what needs to be addressed for healing to occur at deep levels. The most substantial part of an iceberg lies well below the surface, and the same is true for humans. Here, beneath the physical domain, lies fertile territory for exploration that can pay great dividends.

With the advent of newer and more sophisticated technologies we’ve thankfully become increasingly able to look more deeply below the surface, including into the molecular and genetic components of illness and disease. However, this still ignores the rich matrix of mental, emotional, social,

and even spiritual dimensions of people, all of which not only affect their thoughts, feelings, beliefs, and deeper emotional reality but their physiology as well. This is also largely true for most CAM modalities, which—although generally more holistic in their orientation—are nonetheless primarily focused on relieving symptoms, particularly as CAM is currently practiced within integrative models of care.

Multidimensional medicine in the future will take a much broader, bolder view. It will fully recognize and acknowledge the deeper mental, emotional, social, and spiritual dimensions of being that profoundly affect all aspects of one's life and health. Furthermore, while continuing to provide impeccable care for the physical body, it will elevate these other dimensions from their historic "second-class" status and validate their essential, intrinsic role in health and healing.

The Context as Well as the Content of Care Will Be Acknowledged and Enhanced

A multidimensional approach will clarify important distinctions between the content versus context of care. The content of care encompasses everything we do in medicine, including patient consultations, follow-up visits, billing, coding and administering chemotherapy and radiation. In the future, this will also, increasingly, include administering and monitoring CAM services.

The context of care, on the other hand, is the container in which all this activity occurs, and it profoundly affects the actual experience of everyone involved. The word *context* is derived from the Latin *con*, meaning *together*, combined with the Latin *texere*, meaning *to weave*. Thus, the context of care is what weaves together the people and the activities in which they are engaged.

Context of care encompasses many things. It begins with the consciousness and intentionality of the physical and energetic environment. This goes beyond having plants and paintings in the lobby, which, as attractive as they may be, are not a substitute for an environment that is consciously and genuinely warm and welcoming. In this respect, the consciousness and intentions of physicians and staff—to create an environment where people feel that they are truly wanted and are greeted by human beings who demonstrably care about them—can be as important as, if not more important than, the physical aspects of the facility itself.^{110,111}

Next, the context of care is profoundly affected by the quality of communication that is occurring in an organization—including intrapersonal and interpersonal as well as verbal and nonverbal. This includes communications among physicians and staff as well as with patients and family members.¹¹² A multidimensional approach will acknowledge the critical importance of the communication style of physicians and staff and also provide training and support for more effective, empathic communication skills.¹¹³⁻¹¹⁵

Finally, context of care encompasses team alignment and synergy. This becomes even more critical when practitioners with a variety of different backgrounds, training, and world-views are working together.¹¹⁶ A multidimensional approach will thus require a more expanded view of how institutions are organized and managed. This will include having a shared vision, mission, purpose, and values along with clearly defined roles and responsibilities.¹¹⁷ It will also include having clear agreements as well as communication tools and skills that facilitate open, honest, and supportive communication among team members and help effectively and efficiently resolve disputes and upsets.

Clarity of intention, mission, purpose, more skillful and effective communications, and team agreements will go light years toward moving the fields of integrative medicine and oncology forward. Although time consuming on the front end, these will yield great dividends—immediately and over the long term—for everyone involved. They will create greater trust and efficiency and foster authentic congruence between an organization's stated mission and its actual culture. This congruence is often sorely lacking, to everyone's detriment.

Families and Loved Ones Are Essential, Interconnected Partners in the Healing Journey

A third key element is that we will more actively engage families and loved ones in the healing process, particularly caregivers of people with cancer. This will include providing education for them, as well as for patients, and inviting them into their own healing and transformation process.

Family members and loved ones affect—positively or negatively—a patient's well-being and quality of life^{118,119} and possibly their survival as well.^{120,121} As multidimensional beings, we are fundamentally not separate, and in fact, we are all dynamically interconnected. No patient—or anyone, for that matter—exists independently of his or her immediate social network or the web of human existence. It is thus difficult, if not impossible, to heal at the deepest levels without addressing the social dimensions of a person's life.¹²² Part of our work will be to consciously and more effectively address this larger web in our efforts to help patients heal.

The intrinsic interconnectedness of everyone, and everything, is not simply a social or philosophical concept. Modern physics has demonstrated both the wave-particle duality of matter (including the atoms in all of our bodies) and the impact of the observer on quantum events. At the quantum level, it is very hard, if not impossible, to discern where one person ends and another begins. Emerging evidence also suggests that consciousness itself is nonlocal.¹²³⁻¹²⁵ The clinical implications of these findings in particular remain unclear. However, they clearly challenge our traditional, Newtonian notions of space, time, and separation and are

consistent with ancient wisdom that has long affirmed the essential interconnectedness of all life.

We Will Move From a Reactive to a Proactive Approach to Care

The fourth key element is that we will help patients and loved ones navigate all dimensions of the healing journey—including the physical, mental, emotional, social, and spiritual dimensions—in a clear, coherent, and proactive manner. We will not just wait for illness and symptoms to show up and try to respond; we will be more proactive partners with patients trying to help themselves.

In support of a larger trend toward preventive health care, this will be a further evolutionary step in the movement away from a reactive “disease-management” model—which has led to a strained, often dysfunctional, and blatantly inequitable health care system—toward a proactive model of “health-promotion.”

Especially for people with cancer, we will help them plan effectively for the myriad challenges they are likely to encounter and provide concrete, practical tools that they can use to address them skillfully and effectively. In this new model, patients and loved ones will be actively supported in expanding their self-awareness and participating in all aspects of their healing journeys.

There Will Be an Enhanced Focus on Survivorship and End-of-Life Care

As increasing numbers of people are living longer with cancer than ever before, there is growing awareness of and interest in survivorship.¹²⁶ It is becoming increasingly clear that completing one’s treatment is often just the first step on a longer journey that involves an entirely new set of issues, questions, and challenges than those encountered in the initial weeks and months following a cancer diagnosis.¹²⁷ In response to this, we will help patients not only receive and complete their treatment as gracefully and effectively as possible but also establish a clear vision for their lives and a plan of action for maintaining a healthy lifestyle.

A multidimensional approach will also recognize death and dying as a sacred and integral part of life and will enhance end-of-life care. This will involve showing more respect and giving more help to those who are dying and supporting them to complete their lives in the most satisfying and fulfilling way possible.^{128,129} Helping terminally ill patients and their family members come to terms with and more readily accept mortality will also save untold millions of dollars in questionable or futile medical interventions that only minimally extend life (if at all) while often prolonging suffering.¹³⁰

In summary, a multidimensional approach will move beyond the classical, reductionist approach to treating disease

and associated symptoms and even beyond the current integrative approach, which is still often fragmented and reactive, rather than genuinely holistic and proactive. We will move toward a much broader vision of honoring and caring for patients and their loved ones as truly multidimensional, interdependent beings; skillfully and coherently addressing their needs and concerns on all levels; and helping them consciously create lives of wholeness, meaning, and purpose—regardless of how long they have to live.

So the next question is the following: how can this be accomplished in the context of modern medicine and modern life?

One Model of Multidimensional Cancer Care

One model of multidimensional care is The Seven Levels of Healing, described in detail in *The Journey Through Cancer: Healing and Transformation for the Whole Person*. This model encompasses the key elements of a multidimensional approach to care outlined above, and addresses 7 fundamental domains of inquiry and exploration that are encountered by patients and loved ones on the healing journey, particularly in dealing with cancer.¹³¹

This program is offered to patients, loved ones, friends, and health professionals in weekly, 2-hour afternoon or evening sessions over 7 weeks. It is facilitated by specially trained staff and attended by 10 to 14 participants. The sessions include a combination of educational information, group and individual exercises, sharing, and guided imagery processes.

Each weekly session focuses on 1 of the 7 levels described below:

Level 1: Education and Information, addresses the informational needs of patients and loved ones by providing basic knowledge about cancer and the latest conventional treatment options.¹³²⁻¹³⁴ This helps patients actively participate in and obtain the greatest possible benefit from their care.

Level 2: Connection With Others, explores the benefits of support and connection with others on the cancer journey.^{135,136} It reviews the scientific evidence demonstrating that psychosocial support can improve quality of life for patients and family members¹³⁷⁻¹³⁹ and creates an opportunity for participants to experience this directly and broaden their support network.

Level 3: The Body as Garden, invites patients and loved ones to regard the human body as a sacred and wondrously complex garden, rather than just a machine. In this context, participants learn about the roles of diet and exercise during cancer treatment¹⁴⁰ and explore the safe and effective use of

evidence-based CAM modalities such as yoga,¹⁴¹ massage,¹⁴² acupuncture,¹⁴³ Reiki,¹⁴⁴ and mind-body interventions,¹⁴⁵ among many others.

Level 4: Emotional Healing, enters the inner realm of the human heart. Participants learn how to skillfully address the range of emotions that often accompany cancer—a process that is essential to whole-person, multidimensional care. The healing power of emotional expression, compassion, forgiveness, and acceptance of all parts of one's self are also addressed.¹⁴⁶⁻¹⁴⁸

Level 5: The Nature of Mind, looks at how one's entire experience of life—including life with cancer—is influenced by conscious and unconscious thoughts, beliefs, and the meanings one gives to events.¹⁴⁹⁻¹⁵¹ In Level 5, patients and family members explore their individual thought patterns and beliefs and learn to escape the tyranny of the mind, helping them move forward more effectively on the healing path.

Level 6: Life Assessment, supports patients and loved ones in exploring the hopes, aspirations, goals, and purposes of their lives.^{152,153} Three important questions are addressed to help clarify priorities and liberate time, energy, and resources for healing:

- What is the meaning and purpose of my life?
- What are my most important goals for the coming year?
- How do I want to be remembered by those whom I love?

Level 7: The Nature of Spirit, explores the spiritual dimension of life and healing, which studies show is of great concern to people from all walks of life—especially those with cancer and their loved ones.¹⁵⁴⁻¹⁵⁶ Connecting with this spiritual dimension relieves anxiety and distress, calms the turbulent waves that are an intrinsic part of human existence, and deepens the potential for healing and well-being.¹⁵⁷⁻¹⁵⁹

Since August 2007, the program has been running at the Rocky Mountain Cancer Centers (RMCC) facility in Boulder, CO.¹⁶⁰ It is now being implemented in multiple centers throughout the RMCC network in Colorado, as well as at the Kansas City Cancer Center, in Kansas City, MO.

Moving Forward: 3 Major Challenges and Opportunities

As we move forward in the evolution of integrative medicine and oncology, numerous challenges and opportunities lie on the horizon. Here are 3 that I believe merit

particular consideration. Consciously addressing and responding to them will be essential for integrative oncology to fulfill its ultimate potential as a multidimensional approach to care.

Consensus About Purpose

As a large and growing field in medicine, it is time to articulate our purpose in clear, understandable terms and develop a bold consensus about our deeper goals and true objectives. This likely won't be easy, but it is essential.

A clearly understood purpose is vital to the success of any endeavor. Nonetheless, the purpose of medicine is rarely defined—much less explicitly agreed on—by the various practitioners who may be involved in a patient's care, let alone by health care as a profession.

I believe there are actually 2 purposes of medicine. The first, obvious one is a relative purpose: to fix the problem(s) at hand and replace illness with health and optimal functioning to the fullest extent possible, as effectively and efficiently as possible. As laudable as this purpose is, it is *relative* because—as defined by the Encarta World English Dictionary—it is “not permanently fixed, but having a meaning or value that can only be established in relation to something else, and will change according to circumstances.”¹⁶¹ In other words, even if we skillfully “fix” a problem, or cure a disease, it is usually only a matter of time before another problem or illness appears. Moreover, death will inevitably overtake all our best efforts to fix problems.

But there is also an ultimate purpose—which extends beyond the physical realm to include the mind, heart, and spirit of patients, loved ones, and even humanity as a whole. This ultimate purpose is to help people to experience wholeness, comfort, love, and a sense of joy and meaning in their lives, regardless of how long or short their lives may be. This larger purpose includes discovering that the source of lasting fulfillment lies within—not in an impermanent, ever-changing outer world, no matter how technologically sophisticated, integrative, or holistic it may be.

Reaching a consensus about our purpose in medicine will require more discussion about healing versus curing.^{162,163} As a profession, medicine has finally arrived at a point where the concept of healing as an intrinsically valuable goal is becoming increasingly accepted, even if the health care system as a whole has yet to back this up with real attention and resources. But when we talk about healing, what do we really mean? Even a group of physicians and CAM practitioners who all conceptually support this notion would very likely have differing, if not conflicting, definitions of what healing really means, not to mention which kinds of healing we most honor and value.

Creating a clear consensus about these issues will be an essential part of moving toward a multidimensional, whole-person approach to care for cancer or any other illness.¹⁶⁴ It

will give us a compass to keep our focus on the proverbial true north. Such a consensus will go a long way toward guiding our direction and helping resolve the countless choices and decisions involved in forwarding the evolution of integrative medicine and oncology. These will involve everything from resource allocation to program organization, content, and structure; from clarifying our goals to developing practical implementation strategies; and from recruiting, training, and credentialing CAM practitioners to building effective, coherent teams that are aligned and effective. It will also involve clarifying and prioritizing the enormously important and complex research agendas that lie ahead.¹⁶⁵⁻¹⁶⁷

Health and Well-Being of Physicians and Staff

Despite the breathtaking advances in science, medicine, and technology that are happening in medicine and will undoubtedly continue in the future, health care is, ultimately, a process of person-to-person interaction and exchange. Therefore, creating an effective and sustainable multidimensional approach to care will require more attention to the health and well-being of staff, including physicians. This is no small matter because studies now show an alarmingly high rate of professional burnout among physicians, and especially oncologists.^{168,169} A 2003 survey published in the *Journal of Oncology Practice* found an overall 62% rate of burnout among 1740 oncologists.¹⁷⁰ The top 3 signs were frustration (78%), emotional exhaustion (69%), and lack of satisfaction with their work (50%). Clearly, there is something wrong with this picture, and neither physicians nor patients are served by this state of affairs.

This problem is not limited to physicians. Studies also document that nurses and other staff members have high rates of stress and burnout.^{171,172} The situation is even further compounded by the well-documented shortage of nurses in this country, which will likely worsen in the future.^{173,174} A shortage of oncologists is also predicted to become a serious issue in the coming years.^{175,176}

Solving these challenges will involve offering effective programs for health professionals and medical staff to foster their own growth, healing, and self-care.¹⁷⁷ As the saying goes, “You can’t give what you don’t have.” There are few professions in which this is more important than medicine in general and oncology in particular.

Escaping the “Tyranny of Feel Good” and Honoring the Crucible of Suffering

The final challenge is perhaps the hardest one to confront and may be the most controversial. But I believe it is very important, for many reasons. Key among them is that it provides one of the greatest areas of potential growth for

physicians, staff, and other practitioners, as well as patients and loved ones.

This challenge involves escaping what I call the “tyranny of feel good.” I define this as the cultural and professional pressure that almost all physicians (especially oncologists) feel—internally and externally—to do whatever they can to make people feel better as quickly as possible. This pressure, although ubiquitous and understandable, may not always serve the best interests of patients or physicians.

I want to be absolutely clear that I’m not talking about failing to respond fully and meticulously to all aspects of a patient’s medical care, including offering pain medications, anxiolytics, antidepressants, or any other technological or pharmaceutical interventions when they are appropriately indicated.

I am talking about expanding our capacity to be fully present with people who are struggling with deep, complex, and profound issues, and expanding our ability to listen and respond skillfully. Sometimes this means resisting the cultural and professional impulse to immediately give advice and do something to try to fix the problem. In the face of intense human suffering, resisting this ingrained impulse can, admittedly, be difficult. But what is often needed is not about *doing* at all. On the contrary, quite often the better approach would be, “Don’t just do something . . . sit there.” A crucial extension of this, however, is not to just “sit there” but actually to be fully present, in an open, receptive attitude of nonjudgmental, attentive listening.¹⁷⁸⁻¹⁸⁰

Studies have confirmed that many patients dearly wish that their doctors would listen to them more fully.¹⁸¹ The simple need for human connection and compassionate listening is universal and is one of the reasons so many people visit CAM practitioners.¹⁸² A 2007 monograph by the NCI, titled *Patient-Centered Communication in Cancer Care: Promoting Healing and Reducing Suffering*, emphasized the importance of empathy and understanding in the physician–patient encounter and the need for additional communication training for physicians.¹⁸³

In addition to improving listening and communication skills at the individual and team levels, a multidimensional approach to medicine will liberate us from the “tyranny of feel good” by embracing the following 3 concepts:

1. It will more fully explore and acknowledge the impact of unconscious thoughts, beliefs, feelings, meanings, and emotions on every aspect of our health and life. The impact of these factors goes beyond the discoveries of Sigmund Freud and Carl Jung that began a hundred years ago, to the latest discoveries of neuroscience, depth psychology, and psychoneuroimmunology. The latter are increasingly confirming that there is, indeed, a vast matrix of unconscious thoughts,

beliefs, feelings, and emotions in every human being that affect all aspects of our experience of life and important dimensions of our physiology as well.¹⁸⁴⁻¹⁸⁶ Helping patients heal at the deepest levels will require attention to the unconscious and recognition of its myriad effects on our health. A multidimensional approach to care will facilitate the process of inquiry and self-discovery for patients and physicians alike. It will validate the importance of this process and provide meaningful tools for increasing attention to this dimension of healing.

2. As an extension of this, a multidimensional approach will embrace what Jung called “the shadow.”¹⁸⁷ This shadow—the denied, disowned, and rejected parts of one’s self—resides in both the individual and collective unconscious. Like unconscious thoughts and beliefs, it affects our individual and collective health in many ways.¹⁸⁸ A multidimensional approach will acknowledge not only the personal psyche and shadow but the transpersonal and archetypal realms of existence as well.^{189,190} Ignoring them is tantamount to closing our eyes to vistas of being and existence that are central to who we are as humans and central to our health and well-being. These dimensions of being—which are part of everyone—contain many apparent paradoxes and opposites, including darkness and light, masculine and feminine, and so-called good and evil.¹⁹¹ Healing at the deepest levels will require acknowledging these dimensions, resolving their inherent conflicts, and integrating the wounded, hidden, and fragmented parts of the self.^{192,193} This is essential to healing the whole person and will be a central part of a multidimensional approach to medicine—for patients and loved ones as well as health professionals.
3. As we continue our efforts to better understand, more accurately diagnose, and more effectively treat cancer and other diseases, we would be prudent to also take time to honor the crucible of suffering, which is another universal component of the human experience. The desire and intention to do all we can to relieve another’s pain as quickly, efficiently, and effectively as possible is, of course, a noble and worthy endeavor. On the physical level, this is still, appropriately, the paramount goal. However, on the mental, emotional, and spiritual levels, saints, sages, and wise men and women throughout history have recognized and spoken about the crucible of suffering as a pathway to deeper wisdom, insight, and self-knowledge. Efforts to bypass or shorten

this process—however well-intentioned and through whatever means—may deprive patients of an extremely important opportunity for growth. This, quite often, also leaves deeper roots of problems unexamined and unresolved, only to resurface in the future.

Life experience makes it abundantly clear that many problems and challenges cannot be solved through will, intellect, or technology—no matter how brilliant or inspired. At times in everyone’s life, only patience, humility, and surrender can provide the guidance and light that leads to the deepest healing. Once again, this is not about being passive, or fatalistic, or ignoring physical mental, emotional, or spiritual pain. It is, rather, about acknowledging the truth of what we are facing, however painful and difficult, and becoming courageous enough to hold suffering and loss as a part of life and to consciously seek their hidden gifts, instead of always moving first to bypass the pain or find a solution.

Genuine emotional and spiritual growth often requires letting go of one’s carefully constructed identity and all its trappings. This may involve the death of the ego and the loss of the illusion of control—one of the hallmarks and most feared aspects of the cancer experience. And yet as many people with cancer have testified, navigating this territory with skill and compassion can lead to a new and treasured sense of self that is greatly expanded and filled with deeper meaning, purpose, and connection.^{194,195} A multidimensional approach will make room for, and honor, this part of the human journey, as fully as it pursues the latest technological advances in science and ways to integrate conventional and CAM treatment modalities.

Conclusion

I call to mind the epic poem, *The Divine Comedy*, by the 13th century Italian poet, Dante Alighieri. Many will recognize and remember its compelling opening lines:

In the middle of the road of my life,
I awoke in a dark wood,
where the true way was wholly lost.¹⁹⁶

This is exactly how patients and loved ones often feel when they come for help—to a physician, CAM practitioner, or healer of any kind—especially when dealing with cancer. They may, like Dante, feel lost, isolated, confused, and utterly helpless, and they are turning to us for wisdom and guidance as well as whatever interventions we can offer.

In *The Divine Comedy*, Dante had a wise guide, the Greek poet Virgil. Virgil wanted to help Dante, but he understood that Dante had to go through a process in his healing. In Dante’s case, this meant going all the way into

the tenth circle of hell before he could complete his journey. Although Virgil was a kind man, he didn't try to take Dante straight to paradise and bypass everything that Dante had to learn. Instead, he patiently accompanied Dante every step of the way and supported him in bravely facing everything that was before him.

I believe that we in oncology—and especially those who are committed to an integrative, multidimensional approach to cancer care—have an extraordinary and unique opportunity to be like Virgil for those who come to us, like Dante, feeling “lost in a dark wood.” We have not only an opportunity but a rare privilege to guide them toward wholeness, meaning, and joy—like Virgil, with wisdom, love, skill, and understanding. But to do so most effectively, we must commit to finding wholeness in ourselves and make it a priority in our lives and in our work.

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