Extended Length Book Review and Integral Evaluation.

Integrative oncology: Principles and practice. 2006.
M. P. Mumber, MD (Ed.).
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by **Sara Nora Ross**

Nearly a year ago, a colleague associated with the editor of *Integrative Oncology* asked me to review the book, which at that time was still in the newly-published category. As a scientific reference text, it had been subjected to rigorous review procedures before its publication. Because I am not in the medical field, the motivation for asking me, as I understand it, was to have the book reviewed through an integral lens. To the usual functions of a book review would be added an evaluation on how the book meets such standards as we apply at *Integral Review.*

Not long after receiving that request, my 92 year old mother began a descent into ill health that turned out to be terminal cancer. My roles during her dying process delayed my reading and writing about this book while they provided my first direct exposure to the care and concerns of a cancer sufferer. Perhaps some insights gained and experiences pondered during that last journey with my now-deceased mother will be informed by and contribute to this later-than-promised review in some ways not otherwise possible.

> Integrative oncology (IO) is the next step in the evolution of cancer care. It addresses the limitations of the current system, while retaining its successful features. It includes the use of evidence-based tools that translate into definable outcome in the fields of preventative, supportive and antineoplastic care… IO addresses all participants in a sustainable process of cancer care, at all levels of their being and experience. Along with tools that translate into definable outcomes, it also includes methods that can transform the health of individual participants and the entire medical system. (Mumber, p. 3)

Thus begins the integrative medicine field's first reference text to focus on oncology. Integrative medicine is a term intentionally adopted by the field to replace the more prevalent "complementary and alternative medicine (CAM)." As editor Matthew Mumber explains in his introductory chapter, the aim of using the term integrative medicine is to replace dualistic distinctions between conventional medicine and CAM with more pragmatism, distinguishing "a form of medicine that delivers 'what works'" irrespective of such categories.

Organization of the Book

This book's organization indicates a commitment to educative thoroughness and consistency and therefore utility as a reference text. The first of two sections is dedicated to explicating principles of an integrative oncology. After the first chapter's introduction to integrative medicine and its general principles, six chapters offer context, principles, and resources on (a)

clinical research and evidence, (b) physician training, (c) the health and wellness of the physician/health-care provider, (d) models of care, (e) legal issues, and (f) business assessment.

The second section is dedicated to practice, with an impressively methodical and highly serviceable approach to presenting material. The initial two chapters address clinical decision analysis and stages of change, respectively. The third chapter, an overview of modalities, introduces each modality and sets the presentation sequence used to organize the remaining chapters' applied subject areas. The eight modalities that are overviewed and invoked in sequence where applicable in the remaining chapters are (a) physical activity, (b) nutrition, (c) mind-body interventions, (d) botanicals, (e) manual therapy, (f) energy medicine, (g) spirituality, and (h) alternative medical systems. The authors of these overviews are also the contributors of the multiple modality discussions within the specific topics of the remaining chapters. Three of those remaining five chapters address modalities with respect to (a) cancer prevention, (b) supportive care, and (c) antineoplastic therapy. One chapter is dedicated to tobacco, alcohol, and integrative oncology. The final and longest chapter treats specific applications of integrative oncology in sub-sections dedicated to malignancies of breast, prostate, lung, colorectal, skin, and other cancers. These are followed by the final sub-section on palliative and end-of-life care.

The Chapters

Section I - Principles

1. Principles of Integrative Oncology

Before introducing the principles of integrative oncology in his opening chapter, Matthew Mumber provides a basic introduction to orient the reader. This includes an overview of integrative medicine's relationship with the conventional medicine it includes. His brief discussion of the "push" away from conventional medicine and the "pull" toward its alternatives, supported by statistics, is appropriately balanced with acknowledgment of both the positive and the negative attributes of integrative medicine. In checking, I found that the Society for Integrative Oncology (http://www.integrativeonc.org/) does not provide a definition of "integrative," but Mumber does. To do so, he draws on two general ideas from Ken Wilber: (a) since the evolution of integrative systems transpires through a combination of transcendence and inclusion, integrative oncology "must include the positive aspects of biomedicine while going beyond its limitations;" (b) a truly comprehensive integrative approach will address "all of the individuals involved—patient, family, providers, community and society—at all levels of their being (mind, body, soul and spirit) in all levels of their experience, including the self, their role in a specific culture, and the effects of and on the natural environment" (p. 6). The distraction of that assertion's grandiose scope and its odd classification of community and society as individuals are somewhat rescued by two scope-clarifying points: (a) "community" is used (in duplicative fashion, above) to refer to a group of people that includes the patient, family members, and providers; and (b) to meet the needs of these diverse individuals, a team approach to care is required.

This initial chapter of the book warrants extra space here (Table 1) to quote its list of principles of integrative medicine and then, specifically, oncology (pp. 7-8).

Table 1. Principles enumerated in *Integrative Oncology*

Integrative Medicine Principles		Integrative Oncology Principles
1. Relationship centered	7. (Continued) integrate the best therapy for individual, conventional or CAM	1. Harmlessness/beneficence
2. Cultural sensitivity	8. Seeks and removes barriers to innate healing	2. Service among equals
3. Individualized care based on mind, body, and spirit	9. See compassion as always helpful	3. Compassion
4. Patient as active partner	10. Works collaboratively with patience and a team of providers	4. Focus on healing
5. Focus on prevention and health maintenance	11. Maintains that healing is always possible even when curing is not	
6. Provider as educators and role models, i.e., self-care	12. Agrees that the physician's job is… to cure sometimes, heal often and support always	
7. Evidence-based approach from multiple sources of information to		

The defining feature asserted for integrative medicine is transformation, as distinguished from translation. The systems in which integrative medicine therapies are rooted can result in "an entirely new viewpoint" (p. 10) on the part of health providers and patients. By comparison, translational interventions target desired outcomes, i.e., a linear relationship between action *x* and outcome *y*. Mumber provides a list of differentiating characteristics of interventions with *intent* of translation versus transformation that conveys operating assumptions of the two approaches. Wordings of the transformative ones seem designed as contra-versions of the translational ones to emphasize their differences. In doing so, a number of them appear to indicate an either/or rather than integrative definition. For example, translational characteristics of "external locus of control" and "has levels of effect" have counterpart transformational characteristics of "internal locus of control" and "all or nothing." It seems that the rendering of the list slips away from the goal to integrate ("transcend and include"). However, lists are merely lists, and the "walk" of the remainder of the book does not manifest such contradictions as I inferred from this list's "talk."

Integrative oncology emphasizes the addition of prevention and supportive care in addition to treatment modalities. In doing so, it extends the Precautionary Principle. This principle had non-medical origins that have since been extended to health care situations, specifically breast cancer prevention, and its use is extended in this book. It "allow[s] physicians and other providers to act in situations where limited data are available, if that action is almost certainly safe and deemed necessary" (p. 13). The relative paucity of scientific research to date into many integrative medicine therapies places a greater burden on the practice of that medicine, because it requires high degrees of diligence to analyze the entirety of clinical situations. Overall, integrative medicine in general and oncology in particular have demanding sets of tasks to perform and coordinate, the complexities of which the remainder of the book illuminates.

2. Clinical Research and Evidence

By distinguishing an additive connotation, commonly given to *integrative*, from the more complex association of *integration*, Nancy Stark, Suzanne Hess, and Edward Shaw begin their chapter by articulating the unique demands of an integrative approach to oncology. It is not about adding to one's toolbox, the additive approach. It is integrative because it "must involve a critical appraisal of modalities that may enhance the response to biomedical therapies" or at minimum

enhance the quality of life of "the community" Mumber defined earlier. It involves different systems of enhancement. These introduce perennial concerns about complementary and alternative medicine (CAM) therapies' efficacy, safety, and appropriate patient counseling. Efficacy and safety of CAM therapies are complex to assess because they must interface with chemotherapy, radiation, or surgical treatments for cancer. This level of complexity is addressed as the authors use their chapter to offer a framework for clinicians' decision making to recommend or incorporate CAM therapies in their practice. To construct that framework, they review research methods and a levels-of-evidence scheme to weigh research findings on CAM therapies, their efficacy, and their safety. These demand coordination and principled decision making.

Their discussion of research methods used in the traditional Western medicine paradigm as compared to methods appropriate for CAM therapies has a certain kind of similarity, though different and more complex, than methodological debates argued in numerous other literatures. The similarity is that of a penetrating analysis of where traditional scientific methods cannot always suffice. Rigorous science is consistently argued for in integrative medicine, so this is not an argument against it. But it is an explication of the increased complexity involved to do science that informs how to integrate CAM therapies with conventional cancer treatments. CAM therapies' *systems of enhancement* have more to juggle than cause-effect tests of single-treatment efficacy and probabilities. The authors' work in this chapter is recommended reading for researchers in any discipline as an exemplar of carefully yet succinctly teasing apart and explicating research demands, methods, well- and ill-placed assumptions, and balancing acts required with varying levels of empirical evidence.

3. Physician Training in Integrative Medicine.

Placing medical education in the principles section of the book, rather than the practice section, sends a message that Patrick Massey develops further in his chapter. He and other authors in this text refer to the high percentage of cancer patients seeking complementary and alternative medicine. One concern is that many patients do not inform their conventional medical providers about their pursuit or use of CAM therapies. With more than half of cancer patients using CAM, with or without the knowledge and advice of their physicians, physicians need a working knowledge of CAM therapies to help them communicate with and serve their patients. The contraindications of some CAM therapies in conjunction with chemotherapy and radiation should drive the need for better doctor-patient communications supported by knowledge acquisition. However, "it is safe to say that most physicians have little experience with CAM" (p. 47).

Massey discusses physician education in integrative medicine from three standpoints: the personal benefits to the doctor, progress in institutionalizing CAM in medical education, and continuing medical education. The Consortium of Academic Health Centers for Integrative Medicine, comprised of 27 medical schools at the time of this book's publication, "has become the vanguard of medical school CAM education," playing a role in addressing the first two issues above. It emphasizes the need to bring greater healthy balance to medical education, seeking to embed integrative medicine's values. The benefit is two-pronged: obviously, patients and doctors benefit from access to CAM modalities, but further, the holistic values are emphasized to

increase the personal and emotional development of physicians. (Viewers of the television series *Grey's Anatomy* may have observations of how vital this two-pronged agenda is.) Massey also explores the challenges of continuing medical education in general as well as for CAM. A hopeful note is his report that according to a number of studies, the former presumption that continuing education was not necessary has been replaced and physicians recognize it as essential. Development matters: an integrative principle.

The chapter closes with a network model for community physicians, because even those physicians who choose not to use CAM therapies in practice should understand its terminology and be familiar with the research as well as where to find experts in CAM to serve as resources. Methods to start new continuing medical education programs are enumerated, as are resources that include physician retreats and healing spas, among others.

4. The Health of the Healer: Physician/Health Care Provider Wellness

Developing the rationale introduced above, Danna Park's focus in this chapter is on how and why providers' health statuses matter, too. Medical texts rarely address the conflict between self care and care for others inherent in the medical profession. Easier said than done, Park discusses the challenges of physicians' incorporating self-care and wellness. One source is less evident than others: the integrative approach recognizes the interconnection of provider-patient relationships, each person affecting the other. Well developed, an integrative approach may result in "the practitioner-patient relationship itself becom[ing] a tool for healing" (p. 58).

The wellness of oncologists is particularly vital when studies report from 25-50% of them suffering from burn-out, and high percentages of physicians without personal health-care providers. Oncologists suffering from high emotional exhaustion and the sense of low personal accomplishment were about half of one study. Park explores several domains of burn-out and its detrimental impacts on patient care, stress, depression, suicide, drug and alcohol abuse, and relationships. The role of "medical culture," instilled during the inhumane rigors of medical school, stands out as a significant player in embedding ongoing challenges to wellness. Part of the challenge to wellness is the need to transform our systems from "sickcare" to health care. Principles promoted by an increasing number of groups "are a call to action" to "start with introspection and honest self-evaluation, honoring the fact that the individual is at the heart of change" (p. 67). The remainder of the chapter is dedicated to addressing a wide range of approaches that educate about and support delving into personal self-care, from individual lifestyle changes, to the psychosocial or interpersonal, to the spiritual. The message to physicians it that it is possible and vital to develop more integrative awarenesses, and to realize the extent to which their health impacts patients, families, and the medical system as much as their ill-health does: the principle of beneficence begins with oneself.

5. Models of Care

Judith Boyce's chapter is instructional for integrative medicine practitioners who want to extend the reach and benefits of integrative approaches. In addition to treatment modalities, this can include the preventative and supportive dimensions of the integrative triad. After enumerating and discussing practical discernment, logistical, and strategic questions necessary to

the launch of a new practice, and in particular one using integrative medicine therapies, the remainder of the chapter is dedicated to presenting models of care with their advantages and limitations followed by examples of 14 integrative medicine centers.

The chapter also could be instructional for the integrative oncology field as such. In it, I see the beginnings of a (presumably) new model. Such a model could perhaps lead to an evidenced-based developmental assessment tool for the field's own use. In effect, Boyce's overall presentation enables, at minimum, four kinds of high-level gazes. These are relevant to factors involved in evolving cancer care. Each gaze can discern a spectrum of sorts across the factor(s) it examines. One kind of high-level gaze enabled is at the structural form of organization(s) involved in a given model. Another is at the level of geographic, including within-building, location. A third is the spectrum of increasingly complex and more integrative models and the factors that enable them to be so (but not enumerated here). Finally, one is the spectrum of population demographics reached and *relationships formed and affected*, as a function of the organizational structure, location, and degree of integrative level achieved. Given a vision of integrative oncology addressing "all participants in a sustainable process of cancer care, at all levels of their being and experience," such a model to under gird various assessments may be a developmental tool for the field.

6. Legal Issues

All physicians, and many other health providers, have to be concerned with the legal and ethical demands that go hand in hand with their medical profession. When medical collaborations include CAM therapies, issues of shared liability surface along with malpractice and other traditional areas of law that apply to non-CAM practice. Michael Cohen and David Rosenthal use cases from their own experience and liability and ethical frameworks to analyze situations that integrative oncologists may expect to arise in practice. This treatment presumes the United States context; legal issues in other countries would differ somewhat. The clinical audience they target in this chapter includes oncologists who have cases of (a) patient seeks therapeutic advice about CAM therapies, (b) patient enrolled in a clinical trial designed to use a CAM therapy, or (c) a patient who plans to use CAM therapies with or without medical advice.

CAM therapies are sufficiently in the medical mainstream that the National Center for Complementary and Alternative Medicine (NCCAM) at the National Institutes of Health has defined integrative medicine and recognized its therapeutic modalities when they have merit determinable by "some high-quality" evidence. While these are the beginnings of institutionalizing integrative medicine, Cohen and Rosenthal point out that because NCCAM does not specify a threshold for that evidence, it leaves the clinician "to make delicate judgments at the borderland of good clinical and legal sense" (p. 102). More thoroughly institutionalizing integrative medicine would show up in the form of more, and more specific, guidelines for this context.

In the meantime, the legal and ethical maze of factors for clinicians to weigh in making decisions is elaborate. By offering case scenarios and discussing their intricacies, case law, general malpractice theory, and permutations of the cases, the authors walk through the kinds of legal and ethical reasoning and hypothetical tangents that they, institutional review boards,

consulting attorneys, and courts of law must navigate. The intricacies—applicable in research and clinical practice—are increased when patients exercise their options to disregard physicians' advice while the law may maintain that physicians remain responsible. The chapter includes two practice-relevant appendices with procedural forms, and a list of major resources for legal and ethical issues in integrative care.

7. Business Assessment

Joan Kines begins her chapter with the question: Why provide integrative oncology service? One of the answers is the prediction of an expert in the field that infers consumers in the United States context, at least, will continue to demand CAM therapies. The prediction is that by 2010, the supply of alternative practitioners would grow by 88%, as compared to the supply of traditional medical physicians growing by 16%. Kines situates her question, though, in the context of an integrative oncology business assessment. Before launching such a service, there are numerous practical business issues to address. She tailors her contribution to walk her target audience through the detailed assessments required to function in the U.S. context. Addressing both general and CAM-specific concerns, it treats market and costs assessments, reimbursement analysis, medical codes and how to add new ones to categorize CAM treatments, CAM reimbursements and non-reimbursements by the medical system, insurance benefits covered, and insurance coverage issues related to specific modalities. The appendix supplies schedules of specific insurance coverage and physical therapy policy.

Section II - Practice

A stated purpose of this major portion of the book is to move forward the process of defining the practice of integrative oncology. For its target audience of physicians who serve as the "conductors" of the integrative approach, the attempt is to build a decision making guideline. In chapters and sections dedicated to specific clinical goals, the multiple interventions are presented together in a framework so that an integrative approach rather than a toolbox approach may be more accessible and likely to be adopted.

8. Clinical Decision Analysis

Judging from his review of the several efforts previously undertaken by others, Matthew Mumber's chapter substantively addresses the previous void in integrative oncology's decision analysis. His systematized approach results in a standardized method that is transportable to the different contexts in which clinical decision making processes must coordinate (a) a patient's clinical situation, (b) specific treatment goals, (c) general preventative approach, (d) general supportive care approach, (d) general antineoplastic approach, and (e) the level of evidence for therapy.

He developed four decision tree processes rooted in case experience, corresponding to four major groups of decisions. These address the variations of patient and disease characteristics: localized versus metastatic disease and high versus low rates of disease control or response. Within each group's decision tree is a separate decision pathway for the intervention goals of

prevention, supportive care, and antineoplastic care. This results in each decision group actually having four decision process trees within it, encompassing an integrative approach to the group.

While the term decision tree may invoke in the reader a line drawing of bifurcation-type decision points and the limbs and branches that lead to and from them, Mumber's decision trees reflect a juxtapositional, nuanced approach—and no line drawings. He appears to correct for deficiencies in earlier approaches to integrative oncology decision making. This befits the complexity of coordinating the multiple relations among decision factors. While each decision tree is tailored to the specific challenges, nuances, and if-thens of the four groups above, they share a consistent centerpiece, which I call Mumber's *juxtapositional matrix.* It provides a systematic method for using the preponderance of data for safety and efficacy to arrive at recommendations. Each of the twelve decision tree processes is supported by clinical examples of scenarios in which the process would be used. Mumber stresses that these products are "by definition, exploratory tools—and are not meant to be firm clinical guidelines" (p. 147).

My specialization in complex decision making processes suggests the following assessment of Mumber's integrative contribution. Given the inherent complexities of cancer in human systems, the variations in patient and disease characteristics, the balancing acts of deciding how to coordinate conventional and CAM therapies, the uneven range of reliable data to inform decisions, the different levels of evidence provided by those data, and the integration of treatment, prevention, and support goals, Mumber is contributing a significant innovation that should support integrative oncologists' efforts to coordinate the challenging array of *systems of relations* their profession demands. This is no small feat, all in the service of these physician-conductors of multi-system orchestras of patient-family-provider communities they in turn serve.

9. Stages of Change

Robert Lutz introduces his brief chapter on stages of change by acknowledging some of the various perspectives that cancer patients in different disease or high risk contexts may manifest. This sets the stage for introducing the stages of change model already familiar in the medical field. Relative to an individual's readiness to initiate a new behavior, the stages are: (a) pre-contemplation (preceding awareness of a problem requiring change), (b) contemplation, (c) preparation, (d) action, and (e) maintenance. The change process is recognized to be a nonlinear one, characterized by different rates of passage through the spiral of the stages. Lutz provides an integrative range of patient change-readiness assessment points: (a) quality-of-life concerns, goals, and expectations; (b) current health status/fitness status; (c) health practices and attitudes; and (d) life situation and environment. Wisely, he recommends periodic re-evaluation that acknowledges barriers and challenges, a step-wise approach that includes articulating how the program is affecting the individual's perceived quality of life. This feedback loop can support the change process. He suggests that physicians who have developed healthy lifestyles, and implicitly, who have navigated their own change processes, may be more effective providers.

10. Modalities - Overview

Over the span of more than 70 pages, this overview section is organized to provide a systematic introduction of the eight modalities that may be included in integrative oncology.

Each modality section has the following sub-sections: (a) general introduction, (b) cancer research background, (c) major current questions facing that field, (d) general summary that includes tools for practice, and (d) glossary of terms specific to the modality.

10a. Physical activity, by Robert Lutz. Lifestyle behaviors influence the occurrence of diseases. Rather than viewing cancer and other diseases as "actual" causes of death, the locus of cause is more and more recognized as lifestyles and behaviors therein. Research to date does not explain the exact biological linkages between physical activity and cancer, but supports that such a link exists. Levels of physical activity that support prevent and treatment will vary by one's age and life conditions.

10b. Nutrition, by Cynthia Thomason and Mara Vitolins. The development of 30-50% of all cancers is linked to dietary patterns and food selections. As with physical activity, the exact connection mechanism with the development of chronic disease, including cancer, is yet to be made. Estimates are that 30-40% of cancers could be prevented by maintaining healthy body weight, nutritious food intake, and increased physical activity. Nutritional care for oncology patients that responds to nutrient metabolism changes is a well recognized need.

10c. Mind-body interventions, by Linda Carlson and Shauna Shapiro. A mind-body intervention is "any treatment that addresses the interaction between the mind (thoughts, feelings) and body (physical processes)" (p. 184). Some such therapies are already mainstream in oncology, while a number of others are viewed as adjunctive. Therapies covered throughout the book include hypnosis, imagery, relaxation, meditation, yoga, psychotherapy and creative therapies (e.g., dance, music, writing/journaling, painting/drawing, sculpting). Other interventions are not included in the book due to both space constraints and more limited research. These include biofeedback, healing prayer, and autogenic training. Mind-body interventions help decrease symptoms of depression and increase emotional expression, and many have potential impact on the immune and endocrine systems. Psychotherapy and meditation have the most research and thus the strongest evidence to date. Cancer patients' needs change over the course of time and the variety of interventions used can be tailored accordingly.

10d. Botanicals, by Lise Alschuler. Among cancer patients, from 13-63% are estimated to use publicly-accessible herbal remedies, yet relatively few health-care professionals are trained to recommend such botanical therapies. Research data on botanicals and cancer care are mostly experimental, yet demonstrate promising results and trends. Clinicians have insufficient data for decisions to include or recommend botanicals. Institutionalized support for regulation of quality, standardized ingredients, claims of efficacy, and drug interactions related to botanicals is a societal growing edge.

10e. M*anual therapy,* by J. Michael Menke. Hands-on therapies reduce anxiety, pain, disability, and related inflammation by restoring structural and mechanical function. The manual therapies of massage, chiropractic and osteopathic manipulation treat from the "outside-in" via the muscular-skeletal system. Although there is a compelling link between inflammation and cancer, there is no evidence that manual therapies are effective as antineoplastic goals. Modern manual therapies offer risk assessment, preventive, early detection, supportive, and rehabilitative contributions in an integrative oncology.

10f. Energy medicine, by Suzanne Clewell. Energy medicine includes "all energetic and informational interactions resulting from self-regulation or brought about through other energy linkages to mind and body" (p. 203). This includes energy pulses from the environment that affect both biology and psychology, such as magnetic, electric, electromagnetic (radio and micro waves, including cell phones), acoustic, and gravitational fields. Evidence documents that humans can generate and control subtle energies that seem to influence physiological and physical mechanisms, although these are not yet measurable. Thirty-four energy medicine modalities are organized in table format to indicate their non-mutually-exclusive distribution across their modes of use. With the percentages calculated from the table by this reviewer, modes of use Clewell itemizes are energy that is: (a) guided by universe (59%), (b) guided by practitioner (70%), (c) administered by others (97%), (d) self-administered (65%), (e) distance healing (17%), (f) current research (73%), and (g) used in U.S. hospitals (47%).

This section is longer than those that precede it, justified by the nature of its invisible topic. Ten characteristics of energy medicine are listed, providing an inferable snapshot of subtle energies' characteristics: for example, energy follows thought, energy medicine is non-local, and changes in the energy field are eventually expressed in the physical body. Clewell walks the reader through the human chakra energy system and selected therapies, providing an orientation to this non-Newtonian universe. The review of the chakra system offers an integrative window into the meta-system of the human person. It represents an opportunity to understand active interrelations among the systems of one's psychology (e.g., emotions, thoughts, motivations), of one's chakra energies, and of one's numerous physical sub-systems. Integrative, indeed.

10g. Spirituality, by Howard Silverman and Toby Schneider. This longest of the eight modality introductory sections begins with attempts to define spirituality; at the same time it respectfully avoids imposing a definition that could be argued and thus distract from the purpose of introducing the modality. Beyond the earliest pages, the section progresses further into meaning-making territory, suggesting the difficulty to tease apart "things spiritual" from "things psychological." One author's autobiographical journaling during her cancer experience is used liberally for inspiration and to illuminate points. Two brief mnemonic-based tools for soliciting patient history, "spirituality assessments" developed by others, are shared to aid clinicians' efforts to be present to and explore this dimension of patients' beliefs.

10h. Alternative medical systems, by Lawrence Berk. The general philosophy of ancient medicine systems is congruent with that of integrative oncology. This section discusses how these systems work and how they address cancer in general, selecting three of them for specific introduction. While these medicine systems are complete systems, most recommendations in the remainder of the text include only partial aspects of them. Beck compares Western medicine methods and assumptions with those of alternative medicine systems. These differences are evident in the brief descriptions of the three selected for focus: ayurvedic medicine, homeopathy, and Traditional Chinese Medicine. Supportive care of cancer patients has effective tools in alternative systems of medicine. These systems, however, view cancer as a late-coming symptom of pre-existing, underlying problems of a systemic nature. (In this, their relation to energy medicine is most evident.) In these systems, many such problems are not viewed as treatable by the time malignancies become evident. Thus, these systems stress prevention.

11. Modalities – Cancer Prevention

Cancer prevention takes place on three levels. *Primary* is the level of prevention in the general population. *Secondary* prevention concerns people with documented precancerous changes. *Tertiary* prevention is that with people who had a cancer diagnosis and good results from treatment, and want to prevent recurrence of the disease *or* its symptoms. (This echoes the energy and alternative medicines above: disease is the last, not initial, manifestation of problems.) The remainder of the chapter is in sub-sections of detailed discussion by the various modalities' content experts of their modalities' effects on the three levels of prevention.

12. Modalities – Supportive Care

Supportive care is not an option for oncologists. Rather, it is an integral dimension of the continuum along which they have responsibilities, from diagnosis through the course of illness. Supportive care is needed in managing both the cancer and treatment-related symptoms. Possible symptoms are numerous: sleep changes, pain, depression, anxiety, weight gains and losses, and changes in connections with sexuality, fatigue, mucositis, nausea, and diarrhea. The remainder of the chapter is in sub-sections of detailed discussion by the various modalities' content experts of their modalities' contributions to supportive care. Of these, the energy medicine sub-section is both the longest and most impressive for the wide range of integrative dimensions it addresses, an indication of the pervasively holistic nature of energy medicine and its insights.

13. Modalities – Antineoplastic Therapy

Antimeoplastic therapy refers to all interventions whose action mechanism results in eradicating, i.e., killing, cancer cells from the body. The three major categories are conventional medicine's chemotherapy, radiation therapy, and surgery. There are several active trials of new antineoplastic alternative approaches. The remainder of the brief chapter is in sub-sections of detailed discussion by those content experts whose modalities do, or may, contribute to antineoplastic therapy.

14. Tobacco, Alcohol and Integrative Oncology

Because it includes yet transcends the smaller scale of the individual patient and extends to greater social scales, Dennett Gordon's may be one of the most socially-integrative chapters in the book. From its introductory citations of health and demographic statistics and relationships of tobacco and alcohol consumption with cancers, its discussion moves from individual-oriented treatments to systemic consideration of the institutionalized health tragedy that plays out around the world. It advocates for social, political, and institutional approaches and reframing national and international agendas, and proposes a list of interventions believed to be effective at the societal level.

15. Specific Malignancies

Six sections of this chapter are individually dedicated to prevalent cancers: breast, prostate, lung, colorectal, skin, and a group of "others." Consistent with the scheme used throughout the

book, each modality that can be included in an integrative oncology for each specific malignancy is discussed in that context. Each section includes a substantive reference charting of benefits of interventions in the specific malignancy. Charts specify relevant modalities and interventions, their benefit, and the level(s) of evidence available for each line-item. These sections complete the reference function of the book, discussing the current state of knowledge on treating the conditions and the findings of relevant studies. The final section is described separately, next.

15g. Palliative and end-of-life care, by Matthew Mumber.. Palliative care, as described by the Institute of Medicine, "seeks to prevent, relieve or sooth the symptoms of disease or disorder without effecting a cure… is not restricted to those who are dying or those enrolled in hospice programs… attends closely to the emotional, spiritual and practical needs and goals of patients and those close to them" (Mumber, p. 495). Mumber notes that palliative treatment is closer to an integrative approach than conventional medicine, given the fact that at this stage, curing is impossible while healing remains possible. CAM modalities are also being considered as part of palliative and end-of-life care. About 60% of hospices use CAM and patient studies indicate more satisfaction with hospices when they do. Patient preferences for palliative care are not yet widely incorporated, though. For example, although 90% would prefer to die in the comfort of their home, only 15% do. The key elements of palliative care are concerned with alleviating suffering in the physical, emotional, social, and spiritual dimensions. Each of these has at least several manifestations. This final section of the book itemizes alternative modalities that provide palliative care of these various sufferings at the end-of-life.

Evaluative Discussion

In the earlier Section I – Principles part of this review, I incorporated some evaluative comments into my overviews of those chapters. Occasional evaluative comments showed up my review of the Section II – Practice chapters. Thus, my remaining discussion is organized to respond to several global evaluative questions I asked and sought answers to while reading this text. The first is drawn from the book's own stance about what integrative oncology does and how well the book's contents appear to manifest or support that stance. The other three questions are the evaluation points *Integral Review* (IR) employs to assess how well a given work meets IR's criteria.

Integrative Oncology's Stance

Two related assertions at the beginning of the book convey what I would call the overall stance of integrative oncology. Because the field is yet young, stance would include commitments, hopes, and aims to be realized in the future.

> Integrative oncology (IO) is the next step in the evolution of cancer care. It addresses the limitations of the current system, while retaining its successful features. It includes the use of evidence-based tools that translate into definable outcomes in the fields of preventative, supportive and antineoplastic care… IO addresses all participants in a sustainable process of cancer care, at all levels of their being and experience. Along with tools that translate into definable outcomes, it also includes methods that can transform the health of individual participants and the entire medical system. (p. 3)

> A truly comprehensive integrative approach will address "all of the individuals involved—patient, family, providers, community and society—at all levels of their being (mind, body, soul and spirit) in all levels of their experience, including the self, their role in a specific culture, and the effects of and on the natural environment (p. 6).

The global evaluation question was how well the book's contents appear to manifest or support that stance in relation to its key elements. I found that before I could legitimately use the foregoing assertions to select key elements for evaluation, I needed to make some editorial revisions to them. Working from a re-worded stance removes the need to critique unrealistic elements in the original wording. I considered unrealistic those elements that lacked sufficient qualification of scope, or that were outside the realm of the practical or possible if they were interpreted literally. Segments that I have revised are indicated by italics and some original words are deleted.

Editorially revised versions of integrative oncology's stance.

> Integrative oncology (IO) is the next step in the evolution of cancer care. It addresses the limitations of the current system, while retaining its successful features. It includes the use of evidence-based tools that translate into definable outcomes in the fields of preventative, supportive and antineoplastic care… IO addresses all participants in a sustainable process of cancer care, *to the extent possible,* at all *relevant and accessible* levels of their being and experience. Along with tools that translate into definable outcomes, it also includes methods that can transform the health of individual participants and the entire *U.S.* medical system. (Editing included insertions only, no deletions.)

> A truly comprehensive integrative approach will address *to the extent possible,* all of the individuals involved—patient, family, providers—at all *relevant and accessible* levels of their being (mind, body, soul and spirit) in all *relevant and accessible* levels of their experience, including the role *of their* specific culture and the effects of *social and* natural environment*s on them.* (Editing included insertions, deletions, and other revisions.)

How Well Does *Integrative Oncology* Manifest and Support the Field's Stance?

Integrative oncology: Principles and practice is an extremely well conceptualized and systematically organized scientific reference text that I would learn from and take seriously, were I a member of the medical field. It is a research-based, non-speculative resource. It explains and addresses a range of limitations of the current cancer care and medical systems with a positive, constructive tone, and offers evidence-based reasons for recommended changes in medical education. It advocates for reframing the yet prevalent competition between conventional and integrative approaches. It embeds methods to help achieve pragmatic, non-competitive integrations of "what works" in cancer care. It incorporates the best of current medical practices and tailors them to the unique challenges of this specific field, e.g., defining and including levels of evidence criteria in treatment decision making and in detailed outlines of complementary and alternative medicine approaches. The book consistently incorporates attention to the three dimensions of cancer care: preventive, supportive, and antineoplastic. Its innovation of standard

guideline decision trees offers a new model for clinical decision making in oncology and embeds the integrative approach in those processes. Methods are clearly oriented to foster healthy transformations in patients and physicians/health providers, including various forms of patients' healing as compared to curing. The book succeeds in manifesting the stance of the field in these respects.

The book's effectiveness is uneven when it comes to manifesting the stance of the field to address "all participants" and "all levels." Explicit statements about addressing all participants at all levels appears in only a few places in the entire book. When it is encountered, it includes no explication or rationale. Implied, however, is a "should:" that integrative approaches "should" essentially be all things to all people. This is a tall order for any enterprise, and one that warrants careful, realistic modification. For example, Figure 1.1, page 7, includes more "participants" than any single field can "address" at "all" levels, e.g., society, culture, and the natural world.

To avoid overstatements, an integral approach would carefully discriminate among the viable possibilities and reasons for them, identify and compare possibilities and constraints, and articulate principles that are more tailored to contexts and are thus more pragmatic than sweeping generalizations. Integral approaches are practical. They take into account others' perspectives as well as various forces of inertia and motivations, etc. They can embrace the reality that no enterprise controls the attitudes, behaviors, and choices of others, who may not wish to be affected by the enterprise's mission in the same way as the enterprise envisions, if at all.

However, Chapter 5 in Section I on models of care provides, even if more implicit than explicit, the windows into various *hows* that integrative oncology may use to fashion itself into realizing its worthy goals. Whether taken at its face value as an integrative examination of integrative medicine models, or as the beginnings of a complex integral model that supports developing the field itself, it is noteworthy for offering grounded pointers to help the field manifest its stance. While its section in this review did not include any specific mention of how the models do or do not address the community of the patient defined at the beginning of the book, that chapter is the place in the book where that stance gets some attention (but see below).

While the book does an excellent job of addressing perhaps most of the patient's and physician's needs, concerns, behaviors, healing, and education, it gives little attention—beyond initial mention of them—to "the team" of health providers serving a patient (p. 6), or to "the community," "the group of people that includes the patient, their family members, and the providers" (Fig. 1.1, p. 7). One reason may be that in a non-speculative, evidence-based book for a young field, there is insufficient data to do more than identify the ideal. But I also reflected on the possibility that the objectives for the book could not encompass so much as to address these two key elements. I reflected on the possibility that focusing on patient, physicians, and the challenges of cancer itself leaves little room, in practice, to address individuals who are peripheral or at least not consistently central to attention. I reflected on the steep demands on the "conductor of the orchestra" (p. 6), whether the traditional or integrative oncologist working with the patient, to coordinate the team of providers. This set of reflections led to the notion that what is missing in each of those scenarios is the role of *process observer*. Process observers do not have such tasks as direct patient care, team coordination, operational communications, etc. The role is to maintain a finger on the pulse, the awareness and oversight of the processes going on,

and alerting team and community members, as appropriate, to circumstances and occasions that need their attention. A process observer might also function as an important link between the medicine delivery team and the patient's community of family and other support. If in the development of this text there had been a process observer role, might the team and the community around the patient have been given more print space? In general, might an integrative oncology with goals to address all participants benefit from incorporating a process observer role?

The whole domain of patient, family, and other caregiver dynamics and relationships, part of "the community" mentioned above, was untouched territory in this book. While conventional medicine procedures may adequately address issues in this domain and their effects on patients, it may be possible that complementary and alternative medicine treatments could engender additional dynamics. Does an integrative oncology elsewhere address these and their impacts on patients, treatments chosen, related stresses, and relationships? If not, does it need to?

Appropriate sections of the book addressed larger social and environmental effects on patients and the occurrence of cancer. These were not exhaustive, but their scope seems justified. Economic and health insurance coverage issues were touched on in various sections of the book, but the overall economic picture represented by complementary and alternative medicine (CAM) was not portrayed or addressed. In stating that, I reflect the assumption, which I believe applies, that CAM is largely an option for the shrinking middle class and the wealthier upper class population in the U.S. Long term, deeply systemic change would be required before this picture is likely to change in the U.S. much less elsewhere. This is certainly an aspect of "all participants, all levels." Does integrative oncology have this picture in view and a long term strategy toward greater access to CAM therapies?

The nutrition modality presented throughout the book conveys its significance in health and cancer rates. Of all the modalities, it and physical activity are universal across populations. Nutrition represents certain issues not addressed in the text. Integrative factors that might have been introduced include those of: (a) educating the general population about the nutrition-disease linkage and (i) correct balances of food amounts and varieties and (ii) how to select and prepare nutritious meals; (b) institutionalizing such education, including the society-borne costs of both that education and nutritional ill-health from lack of it; (c) economic difficulties of purchasing the variety of quality foods in the ideal diet, and their compounding when multiple dietary needs co-exist in one family budget; (d) meal preparation time and effort in both busy working families and cancer patients' life conditions; and (e) pervasive influences of advertising and other media on unhealthy food choices.

Individuals' culture and culture at large received only cursory mention in a few places. Beyond the mention of medical culture's roots in medical education, and participants' "role in a specific culture," (p. 6), cultural sensitivity (p. 7), stigma (p. 212), and taboos (p. 223), I did not see the text incorporate cultural considerations. Different cultures characterize medical teams, patient communities, the medical system, ethnic groups, and larger society. From a realistic standpoint, though, it makes sense for the text to confine itself to refer to culture without delving into it. This would be because *how* culture could be a factor and be addressed would require case and culture specificity, not the purview of this general reference text.

In summary, the book *Integrative Oncology: Principles and Practice* succeeds in manifesting and supporting the stance of the integrative oncology field as represented at the beginning of the book, without contradictions, and with only a few minor weaknesses that do not detract from its success or its benefits to readers.

Integral Review's General Evaluation Criteria

The following evaluation, brief in light of the foregoing review and evaluative process, applies *Integral Review's* general criteria to the book, *Integrative Oncology*.

Criterion #1

> *The work reflects or takes into consideration multiple possible perspectives of understanding how humans perceive, organize, and experience reality. Along with this, it demonstrates some understanding of the evolutionary processes, layers, and patterns inherent in all life phenomena.*

Criterion #1 is for assessing if the work coordinates multiple systems of various kinds (which are described quite generically in the criterion). To *coordinate* systems means one may reflect on, create, compare, contrast, transform, define and/or synthesize their properties and behaviors. This is the hallmark of integral thought and action.

The field of integrative oncology is explicitly about coordinating the existing medical system with integrative medicine systems applied to cancer care. Within integrative oncology, the evidence-based systems of preventative, supportive, and antineoplastic care are integrated. The book's organization itself reflected coherent coordination of the numerous systems not only of that cancer care triad, but also the modalities available within them, and further, those modalities applied to cancers in the human system. Numerous perspective systems and social systems at various scales were coordinated in multiple places throughout the text. Authors demonstrated the coordination of multiple kinds of systems within their presentations. These accomplishments may be inferable if not always explicit in the book review's abstracts of and evaluative comments on the chapters. *Integrative Oncology* meets Criterion #1.

Criterion #2

> *The work demonstrates a sensibility for developmental and/or evolutionary dimensions throughout the lifespan of individuals, social units, organizations, and societies.*

As the first reference text of the integrative oncology field—a social unit—the book represents the field's determination to be the next step in the evolution of cancer care. The book advocates for evolutionary complexity showing up in the form of the integration of, rather than competition and dismissive attitudes between, integrative medicine and conventional medicine.

While doing so, it advocates for more research to support its own evolution as an evidence-based field, which in turn will facilitate its integration with conventional medicine. It is explicitly sensitive to the conditions supporting the development of cancer, individual and societal

development to reduce those conditions, and the patient's and physician's own development as sufferer and healer, respectively.

In these and other ways not spelled out here, *Integrative Oncology* meets Criterion #2 in basic ways that are necessary but not necessarily sufficient for a more fully integrated, and integral, developmental approach. Beyond the scope of the present text, the ideal would require an additional text to full apply this criterion. To do this would involve applying developmental theory itself to integrative oncology principles and practices. This would reveal that principles and practices, in practice, thwart any *one size fits all* assumptions. A fully developmental treatment would require nuances and tailoring to address the variety of differences in individual and organizational behaviors at each stage of development. This is a recommended direction for integrative oncology, integrative medicine, many other institutions and, actually, society as a whole.

Criterion #3

> *The work is oriented toward facilitating translative as well as transformative development in various domains of life. (Translative development refers to increasing capacity within a given set of competencies, views or attitudes. Transformative development refers to the evolution of a set of competencies, views or attitudes with a fundamentally greater capacity for handling complex situations.)*

The purpose of the book, well supported by its presentation, is transformative. The contents effectively articulate how both translative and transformative development in individuals, medical education and practice, and other domains can be fostered and manifest in multiple ways. *Integrative Oncology* meets Criterion #3.

Conclusion

Little did I imagine that this book review cum evaluation processes would result in a writing of this length. It was a long but satisfying exercise, and one that I hope serves the field of integrative oncology.

In closing, I want to return to having mentioned at the beginning of this writing that I had gained experience and insights from having companioned my mother in her dying process. The most poignant to share became more so during this process of reading and writing. It has much to do, I believe, with integrative oncology's vision for evolving cancer care and transforming the health of individuals and indeed the larger medical system.

To relate one experience, below, helps me underscore the importance of key insights in *Integrative Oncology's* chapters on energy medicine and alternative medical systems. Their authors emphasize that cancer and many other illnesses—our human *dis-eases*—are symptoms and end results of various problems of imbalance (dis-ease) that long precede the physical forms they will eventually take if they go unaddressed. This is familiar territory for those who do various kinds of energy practice or medicine, but it is not mainstream knowledge yet. If it were, and if it were coordinated in integral ways described above, and if it were applied in practice in

our individual and collective behaviors, it could have the revolutionary and evolutionary power to indeed prevent dis-ease and transform the health of individuals and societies.

Three years before her death, my mother left her geographic community of 45 years to move to another, to my nurse-sister's home. A few weeks before dying with cancer and related complications, she shared her personal diagnosis. "You know, I think I began going downhill this summer, when I was starting to feel so depressed with missing all my old friends at the Senior Citizens Center (in her former community) and not finding any Centers here I could get to. I think that's when all this started."

If a culture is imbued with recognition of the wide array of catalysts of dis-ease, and of dis-ease as a forerunner of disease, it would under gird and motivate a society that invests in the numerous kinds of services and *education in healthy ways of relating* that help prevent and alleviate dis-ease. Integrative medicine has the insights to be the vanguard of such a culture.

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