

High-Tech, High-Touch: Reconciling Technology and Integrative Medicine

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“At best, technology supports and improves human life; at its worst, it alienates, isolates, distorts and destroys.”¹
—Author and Futurist John Naisbitt

Vis *medicatrix naturae*. Latin, from Greek, originally attributed to Hippocrates, translated as “the healing power of nature.”² One of the core principles of the integrative medicine philosophy. We value nature and natural healing. We strive for homeostasis, for balance. We laud the healing powers of our planet and lament the erosion of her natural resources. Ecologically sustainable medicine—buzz words we use to champion the necessary greening of medicine—recognizes not only the impact of the environment on health but the impact of the practice of healthcare on the environment. We cheer recently published research documenting the positive effects of green spaces on human health.³ We strive to be models of health for our patients, adopting yoga or meditation or other practices designed to simplify our lives and harness the power of the mind-body connection for optimal healing.

Yet we live and practice in an increasingly technology-driven society. E-mail and texting are default methods of communication, and our patients request that we “friend” them on Facebook and follow health advice delivered in brief 140-character bursts on Twitter. In fact, in a 2008 survey conducted by the Commonwealth Fund, nearly 90% of respondents indicated that they wanted their physicians to communicate electronically.⁴ Patients want high-tech doctors. But they also want more face-to-face time, more personal connections. The onslaught of high-tech has been blamed for rising disconnection

and depersonalization in our communities. We worry about the impact on children’s minds and about the very nature of human interaction. In the increasingly complex world we inhabit, how do we reconcile our high-touch values with our high-tech realities?

Communication, I believe, is the key shared value. Integrative Medicine promotes healing relationships and open communication as cornerstones of our philosophy. Indeed, as defined in 2004 by the Consortium of Academic Health Centers for Integrative Medicine, integrative medicine “is the practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing.”⁵ It is notable that this statement emphasizes the importance of the relationship in healing. Regardless of the modalities a practitioner employs—drugs or herbs, surgery or acupuncture needles—it is the very nature of the connection between practitioner and patient that begins to define integrative medical care. It is the foundation of our work.

In fact, we have research to support this common-sense contention. In a landmark 1987 study published in the *British Medical Journal*, Dr KB Thomas reported on his experiences with 200 patients in general practice.⁶ All patients presented with physical symptoms (eg, cough, sore throat, abdominal pain, headache) but demonstrated “no abnormal physical signs” and no definitive diagnosis could be made at that time. Patients were divided into two main groups: half were given a “positive” consultation (given a firm diagnosis and told confidently that they would be better

in a few days) and half were given a “negative” consultation (told that it was uncertain what was wrong). In both groups, half were offered treatment (a placebo) and half were offered no specific treatment. When asked how they felt, two weeks after consultation, a significantly greater percentage of those given a positive consultation reported feeling better than those given a negative consultation (64% vs. 39%, $P < .01$). Whether or not patients received prescribed treatment made no difference. The outcomes were predominantly predicated on communication between doctor and patient.

Connection is crucial, therefore, to the practice of integrative medicine. Many of our tried-and-true healing remedies emphasize the power of human contact. In the most ancient, basic, and perhaps most poorly understood (from a conventional, scientific perspective) modalities, this involves touch. Hands-on therapies such as osteopathy, chiropractic, and massage are just a few of the many practices that rely on human touch for healing. The power of touch is tremendous. Even those practices that involve energy fields (eg, acupuncture, reiki) incorporate person-to-person contact as a core element. Sadly, this element of healthcare practice—the “touch” in healing touch—has become more and more removed from modern medical care. Practitioners and patients alike mourn the loss of face-to-face communication time. This is the mechanism by which, historically, we have established healing relationships. Especially in primary care, relationships that develop through 1:1 time spent together over many years are crucial to both patient and practitioner satisfaction. The previously cited Commonwealth Fund report points out that “our fragmented system rewards

high-cost, intensive medical intervention over higher value primary care, including preventive medicine and the management of chronic illness.” But there are opportunities in these challenges, for, as Ralph Waldo Emerson wrote, “Our strength grows out of our weakness.”⁷

We must learn how to leverage our interest and proficiency in technology as a means to facilitate communication and, therefore, connection and the development of relationships. The rise of social networks like Facebook highlights our society’s desire to reconnect and share stories, and information, in new and interesting ways. Practitioners who have embraced this technology are now able to address not only the individual information needs of a single patient but can deliver messages instantaneously to an entire community. For example, I established a Facebook page for my practice, The Whole Child Center.⁸ Although we are physically located in Northern New Jersey, we have “fans” from many countries. I share many different kinds of information. Recent examples include notices of public speaking events, health articles of note in the news, a video about how to make your own natural hand sanitizer, and a request for gently used car seats for a family struggling with financial difficulties. The opportunities for connection—and for action—are endless in this new world of doctor-patient communication. For those of us that desire to advocate change on a larger scale, there is perhaps no better method available to do so. Just as then-candidate Barack Obama used Web 2.0 technologies to engage voters and help vault him to the Presidency in 2008, so can we adopt these methods to promote integrative medicine as a transformative model of healthcare.

The importance of communication also extends to dialogue among practitioners. The 2008 Commonwealth Fund report notes, “We can no longer afford, nor should we tolerate, the outcomes of our fragmented healthcare system. We need to move away from a cottage industry in which providers have no relationship with, or accountability to, one another.” Communication among providers and coordination of healthcare services is absolutely a key principle of integrative medicine. The Consortium urges us to make “use of all appropriate therapeutic ap-

proaches, healthcare professionals and disciplines to achieve optimal health and healing.” In order for care to be truly integrated, it is crucial that we encourage and support communication between various types of healthcare practitioners. In the most local sense, this may occur in clinics and hospitals, but practically, many practitioners across a wide distance care for the same patient. Coordination of therapies and dialogue across disciplines is a key ingredient in ensuring the success of an integrative model. Communication technologies may, in fact, offer us the best way to connect with each other to best serve our patients, no matter where we live. Although person-to-person e-mail is most commonly utilized, newer technologies may, in fact, be more robust and secure. For example, inexpensive, password-enabled, Web-based solutions now allow audiovisual chats among groups of providers. Documents and images can be shared for viewing and commentary. Geographical distances are no longer barriers, as voice and video are streamed through the internet. On a more global scale, on-line networks have developed to allow practitioners to discuss clinical, research, educational, and advocacy ideas. One such model is the International Pediatric Integrative Medicine Network,⁹ which I started in January 2004. Based on the free Yahoo Groups format, the International Pediatric Integrative Medicine Network now links over 400 practitioners from countries across the world with the expressed mission to connect pediatric integrative medicine practitioners and organizations via a moderated, secure electronic network. In an age where attendance at medical conferences is dwindling and practitioners are looking for new ways to connect, professional listservs provide technological solutions to the challenges of connecting practitioners.

There are numerous challenges in patient and practitioner education, as well. As attendance at conferences has dwindled, the use of technological solutions for health education has skyrocketed. Ironically, forward-thinking nonprofit organizations founded on the principles of supporting nature and ecological sustainability have adopted Web-based solutions to promote their missions. Joel Kreisberg’s Teleosis Institute coordinates an on-line course, “Introduction to Leadership In

Green Health Care,”¹⁰ which has included participants from as far away as Nepal. Richard Louv’s Children and Nature Network features a blog, Field Notes from the Future, on their informative Website. One post discusses “Techno-Naturalists,” promoting the use of gadgets that might encourage children (and quite a few adults) to get outdoors.¹¹

Many people believe that technology is the antithesis of nature. Here’s an alternate view. A fishing rod is technology. So is that fancy backpack. Or a compass. Or a tent. When boomers my age ran through the woods with play guns (as distasteful as that might be to some people), they were using technology as an entry tool to nature.

Today, the family that together goes geo-caching or wildlife photographing with their digital cameras, or collecting pond samples, is doing something as legitimate as going fishing; both involve gadgets that offer an excuse to get outside. Young citizen naturalists are bound to have a different attitude about technology from many older people—and that could be an advantage.

There are even potential ecological advantages inherent in the use of technology. Electronic medical record systems reduce the use of natural resources like paper. Educational webinars reduce travel-related energy expenditures. Although social networks and on-line courses cannot replace human face-to-face interaction, they can create and sustain relationships that otherwise would not form or survive.

One of the ecological advantages of integrative medicine is the promotion of self-care. In their seminal article, “Integrative Medicine: Bringing Medicine Back to Its Roots,” Ralph Snyderman and Andrew Weil implore us to “involve the patient as an active partner in his or her care, with an emphasis on teaching each patient the best way to improve his or her health.”¹² Mind-body medicine skills, easily taught to children and adults alike, are one such set of self-care tools that can help patients cope with stress and pain. Biofeedback, a mind-body practice that uses monitors to feed back to patients biophysical data of which they are typically unaware, has undergone a revolution with respect to

home use through the development of less expensive, more mobile hardware and software. This is just one example of an integrative medical modality made more accessible and useful through technological advancement.

Over the years, I have delivered many versions of a presentation I call, "Back to the Future." The concept is that the use of many modalities we now include in integrative medicine—herbals, acupuncture, massage, and so on—goes back thousands of years in some cultures. The future of healthcare, which I firmly believe is rooted in the principles and practices of integrative medicine, is in fact dependent on reemphasizing time-tested, old-school values like practitioner-patient and practitioner-practitioner relationships through the use of modern communication tools. If we are to move forward, it must towards a hybrid high-tech, high-touch system that does not shun the use of technology but instead embraces the challenge of mindfully utilizing our best new technologies to best achieve the goals of integrative medicine.

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