

# The Burnham Review

## Green Healthcare and The Environment

Consider Manual Therapy and Complementary and Alternative Medicine for Optimal Health

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**Kimberly Burnham, PhD Editor**

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### The Green Health Clinic (GHC)

This issue of The Burnham Review looks at quotes, questions and definitions as a way to work out how environmentally friendly your practices are and how well your clients live in their environments. It also looks at ways in which complementary medicine, including Integrative Manual Therapy and Homeopathy are good for the client, the practitioner and the environment.

### Measuring Up to The Standard

These quotes are interesting filters through which to look at your healthcare clinic or practice.

"A thing is right when it tends to preserve the integrity, stability, unity and beauty of the biotic community. It is wrong when it tends otherwise."  
-- Aldo Leopold.

"The doctor of the future will give no medicine, but will interest his patients in the care of the human frame, in diet, and in the cause and prevention of disease." – Thomas A. Edison.

### From the Plants' Point Of View

As Richard Deertrack of Taos

Pueblo once said, "from the point of view of a plant, all people look pretty much the same." From the point of view of the planet, we are one species. If nothing else has united humanity to see past

our colliding cultural differences, the prospect of ecological collapse may be bringing us to our senses.  
<sup>1</sup>(Ausubel,2007).

### Definitions of Green Health Clinic

These definitions come from the Teleosis Institutes online Green Health Care course.

1) The Green Health Clinic (GHC) provides health care in ways that minimize harm to human and ecosystem health.

2) The architecture, organizational design, strategic planning, and budget of the GHC should embody principles of responsibility to nature and future generations.

3) The GHC provides ecologically sustainable therapies and products.

4) The GHC provides services to patients with any health condition but may limit the range of therapies offered in order to reduce

ecological impacts and increase efficiency.

5) The GHC engages in a continuous process of assessment and evaluation of its services, in light of patient satisfaction and research into environmentally preferable technologies.

6) The GHC employs ecologically sound conceptions of health, recovery, and rehabilitation.

7) The GCH encourages staff and patients to live in environmentally sound ways that express a modest level of consumption.

8) The GHC acts as a community educator, advocating principles of sustainability in every aspect of life.

9) The GHC encourages institutions with which it has business and academic relations to operate in environmentally responsible ways.

10) The GHC pays its share of the environmental and social costs of providing health care.

11) The GHC monitors, minimizes, and equalizes, environmental risks to employees.

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12) The GHC provides high-quality services at a level inexpensive enough for that they can be made equally available to all.<sup>2</sup> (Kreisberg,2007).

### **Healthcare Spending**

“Health spending is rising faster than incomes in most developed countries, which raises questions about how these countries will pay for future health care needs. The issue may be particularly acute in the United States, which not only spends much more per capita on health care than any other country, but which also has had one of the fastest growth rates in health spending among developed countries. Despite this higher level of spending, the United States does not achieve better outcomes on many important health measures.”<sup>3</sup>(Kaiser,2007).

### **Sustainable Medicine**

Principles of sustainability are relatively new to medicine. Daniel Callahan founder of the Hastings Institute, introduces readers to his work and facilitates opportunities for clinical integration of the principles of sustainability.<sup>4</sup> (Kreisberg,2007).

What is needed is a radical change in how we think about medicine and health care, not simply better ways to reorganize existing systems. We need a "sustainable medicine" that is affordable to national health care systems and provides equitable access in the long term. The notion of "sustainability" comes from environmentalism, which seeks to protect the earth and its atmosphere in order to sustain indefinitely human life of a good quality.

As with environmentalism, sustainable medicine requires reformulating the idea of progress that drives technology costs and fuels public demand. The Western idea of

progress, translated to medicine, sets no limits on the improvement of health, defined as the reduction of mortality and the relief of all medical miseries. But unlimited progress cannot be paid for with finite funds.

Long-term affordability and equitable access requires a finite vision of medicine and health care, one that does not try to overcome aging, death, and disease, but tries to help everyone avoid a premature death and to live decent, even if not perfect, lives.

At the same time, we often overlook the health benefits of spending money in ways that have nothing to do with the direct delivery of medical care: education and health, for example, are strongly correlated: the higher the former the better the latter.<sup>5</sup> (Callahan,2007).

“In relation to greater responsibility for one’s own health, Callahan makes the point that solidarity, and a sense of social responsibility, would argue in favor of people taking much better care of their own health than they do.

Thus a person who believes that science will, by the time it is needed, have a gene at its disposal for the cure of lung cancer is less likely to give thought to not smoking.”<sup>6</sup> (Leeder,1998).

### **Manual Therapy Green Audit**

Integrative Manual Therapy and many other manual therapies are very green forms of health care.

There are no medications getting into the water supply, there is often relatively little use of equipment for diagnosis and treatment. It often comes down to pretty much “have hands, will increase the client’s quality of life and health status.”

Consumable resources, used in the practice of IMT, include laundry

(pillow cases mostly, no sheets), and paperwork.

Resource needed for the practice of Integrative Manual Therapy include, therapists with specific education (tuition, travel, time resources), reference books / manual, travel by the therapist and client to the office (gas, time, wear and tear on car or means of transport), massage table (reuseable with cleaning - spray and wipe down), pillow cases (reuseable with laundry).

As well there are office management resources (overhead for the space where the therapy takes place). There is also power and electricity for the computers, printers, phones, although in a pinch this therapy could be done in the dark, if the power went out.

Waste production includes waste water and paper products from laundry and toilet facilities. paper cups for green tea and coffee.

Is there a way to do that same therapy with less consumption of resources? If there were more therapists spread across the country / world, then therapists and clients could travel less distance to work and get treatment.

Of course, everyone, except for the licensing boards would be happy with less paperwork. Dispensing with pillows would decrease laundry but affect comfort. The therapy would be just as effective. (Burnham,2007).

### **Children and the Environment**

Adapted from the American Academy of Pediatrics’ (AAP) Pediatric Environmental Health handbook, this site provides health providers with user friendly health education materials on preventing exposures to toxic chemicals and other substances that affect infant

and child health.<sup>7</sup>(PSR,2007).

### **Survey To Fill Out**

Here is a nice website that gives you a real sense of your chemical body burden. <sup>8</sup>(Inside Bay Area,2007).

While this one tells you how many earths worth of resources there would have to be in order for everyone to live the way you do. Ecological footprint calculator <sup>9</sup>(Earthday Network,2008).

### **Healthcare Footprint**

One way to represent the scale of consumption is to use the ecological "footprint": an estimate of the amount of space it takes to generate the energy, food, pasture, consumer goods, etc., that it takes to maintain each of us. The Ecological Footprints of Nations Study <sup>10</sup> (Wackernagel,1997) calculates that "humanity as a whole uses over one-third more resources and eco-services than what nature can regenerate."

The United States has a footprint of 9.6 hectares per capita, whereas Canada's average per capita footprint is 7.2 hectares, still well over the 1.7 hectares globally available per capita.

Large scale health care systems such as those in Canada and the United States depend on wealthy economies to sustain them. But wealthy economies are unsustainable and must scale down their overall consumption of materials and energy<sup>11</sup>(Athanasion,1995) and <sup>12</sup>(Jameton,1997).

Health care professionals can offer leadership both in devising environmentally sound health care practices and in articulating the principles of sustainable health.

Similarly, health care professionals need to include environmental care

among their primary ethical obligations

Health care professionals will thus have to become actively involved in the ethical debates concerning balancing environmentally responsible health care with clinical services.<sup>13</sup> (Jameton,2001).

### **What is the Story of Stuff?**

From its extraction through sale, use and disposal, all the stuff in our lives affects communities at home and abroad, yet most of this is hidden from view. The Story of Stuff is a 20-minute, fast-paced, fact-filled look at the underside of our production and consumption patterns.<sup>14</sup> (Leonard,2007).

### **Questions for Creating A Sustainable Medicine**

The following are questions to ask to make your practice more environmentally friendly and ecologically sustainable while maximally helping your clients.

What practices do you do in your office and in your personal wellness program that are sustainable, what do they do for you, how do you feel when you are doing them.

When do you use them in your treatment choices for others. What are the obstacles to using these techniques in your medical practice?

Choose a common therapy utilized in your practice. Trace back all the resources required for the application and practice in your office by answering the following questions.

Does it consume resources? Which resources and how much? Does it generate waste? If so, how much? Is there a way to do that same therapy with less consumption of resources? How would that change the delivery of the service? How would it change the effectiveness? What would it

require of you and/or staff to do that therapy differently? Do this with two different treatment modalities/therapies, one that you perceive consume's more and one that consumes less.

How do the changes in technology affect the way you practice medicine? How do you manage these changes in your practice? How do you feel about technological changes? How is your office culture affected by the changes in technology? <sup>15</sup>(Kreisberg,2007).

### **Environmental Allergies and Toxicant-Induced Loss of Tolerance**

"Sensitivity to chemicals appears to be the consequence of a two-step process: loss of tolerance in susceptible persons following exposure to various toxicants, and subsequent triggering of symptoms by extremely small quantities of previously tolerated chemicals, drugs, foods, and food and drug combinations including caffeine and alcohol.

Although chemical sensitivity may be the consequence of this process, a term that may more clearly describe the observed process is toxicant-induced loss of tolerance.

A number of human challenge studies in this area have concluded that there is no physiological basis for chemical sensitivity. However, these studies have failed to address the role of masking. A set of postulates is offered to determine whether there is a causal relationship between low-level chemical exposures and symptoms using an environmental medical unit. <sup>16</sup>(Miller,1997).

Sensitivity to chemicals is a toxicological concept, contained in the dose-response relationship.

Sensitivity also includes the concept of hypersensitivity, although controversy surrounds the nature of effects from very low exposures. The term multiple chemical sensitivity has been used to describe individuals with a debilitating, multi-organ sensitivity following chemical exposures.

The basis of MCS is still to be identified, although a large number of hypersensitivity, immunological, psychological, neurological and toxicological mechanisms have been suggested, including: allergy; autosuggestion; cacosomia; conditioned response; immunological; impairment of biochemical pathways involved in energy production; impairment of neurochemical pathways; illness belief system; limbic kindling; olfactory threshold sensitivity; panic disorder; psychosomatic condition; malingering; neurogenic inflammation; overload of biotransformation pathways (also linked with free radical production); psychological or psychiatric illness; airway reactivity; sensitisation of the neurological system; time dependent sensitisation, toxicant induced loss of tolerance. Most of these theories tend to break down into concepts involving: (1) disruption in immunological/allergy processes; (2) alteration in nervous system function; (3) changes in biochemical or biotransformation capacity; (4) changes in psychological/neurobehavioural function.<sup>17</sup> (Winder,2002).

### **Cataracts and the Environment**

Conditions from asthma and cancer to HIV and malaria have modifiable environmental factors that increase the risk and symptoms. A 100 plus page document looks at

those factors. As an example, "Cataracts have been associated with exposure to sunlight and environmental tobacco smoke, as well as to smoke from solid household fuels, and with dehydration from diarrhoea that is largely attributable to environmental causes.

In total, it was estimated that 7% (5—10%) of all cataracts are attributable to environmental risks.<sup>18</sup>(Prüss-Üstün,2007).

### **Healthcare Without Harm**

Health Care Without Harm is an international coalition of 473 organizations in more than 50 countries, working to transform the health care sector so it is no longer a source of harm to people and the environment.<sup>19</sup>(HCWH,2008).

### **Ecological Homeopathy**

Preventing illness and protecting our environment can and should be mutually inclusive.

Homeopaths can be persuasive spokespersons for this agenda because homeopathy is an excellent form of Ecologically Sustainable Medicine (ESM) and meets the requirements of a sustainable medical system.

Homeopathy reaches beyond the boundaries of medical technology. It is a methodology embedded in a planetary whole. Any discussion of ecological healing and environmental health cannot afford to ignore the role of homeopathy. By avoiding the ecological repercussions of current mainstream medical practices, homeopathy supports a sustainable, clean ecosystem.

Through their professional practices, homeopathic practitioners have an opportunity to contribute to environmental stewardship by helping establish homeopathy as a

catalyst for environmental healing. The need for such healing has never been more urgent. As the degradation of the natural environment continues to accelerate, homeopathy and its values offer profound insight into personal and global healing. life.<sup>20</sup> (Kreisberg,2007).

### **Criteria for Ecologically Sustainable Medicine (ESM)**

Criteria for ESM include: Safe and harmless, Clean and non-toxic, Cost-effective, Non-polluting, Adaptable and flexible, Renewable, Protective of the quality of life on earth, the environment and earth's natural resources, Synergistic with human health and global well-being, and Connected with the web of life.<sup>21</sup> (Kreisberg,2007).

All of these criteria fit not only homeopathy but many forms of energy medicine and manual therapy.

### **First Do No Harm - The Integral Vision of Healing**

"It always struck me as interesting that a major tenet in the Hippocratic Oath, an oath that in various forms has been taken by many physicians around the world for almost 2,000 years, is simply, "First, do no harm."

Why would it even be necessary to ask a future physician to promise something like that? Hippocrates understood that, of all the power a physician has, much of it is enormously positive and beneficial. One item needs most to be checked: the almost unprecedented capacity to harm a person, legally.

A physician can harm a patient with what he knows; but even more so, with what he doesn't.

The aim of integral medicine can be stated simply as the desire to lessen the harm done by both of those types of errors. Therefore, medicine may more effectively set

the stage for the extraordinary miracle of healing that, 2000 years later, none of us yet fully understands.<sup>22</sup> (Wilber,2005).

### **The Dilemmas Facing Medicine**

Everybody knows the first dilemma, because for years it was drummed into medical students: “Don’t get emotionally involved with your patients.” At the time, it was certainly not a cruel and uncaring injunction to treat people like objects; it was a genuine and sincere attempt to bring a dispassionate and scientific approach to healing illness. Becoming emotionally involved with a patient not only clouded the physician’s judgment, it constantly drained the physician and accordingly seemed to harm the patient.

And yet, beginning in earnest a decade or two ago, there was an explosion of hard empirical research showing that positively enlisting various emotional factors—on the part of the health-care practitioner as well as the patient—has a profoundly affirmative effect on the treatment, in many cases not only reducing recovery time but medical costs as well.

Put bluntly, not becoming emotionally involved in some ways could not only increase medical costs but significantly harm the patient.

A conventional physician is more-or-less forced to treat a patient as if the patient were essentially a biophysical or material system—medications, surgery, radiation --- one physical intervention after another.

The “Cartesian” problem in the conventional practice of medicine is that they treat a patient as if he or she were a physical machine, when they all know otherwise.

It is now estimated that in many cases a majority of treatment failures are due to lack of patient compliance with the prescribed medical intervention (from taking pills to following a recommended diet)

Another dilemma faced by health-care practitioners is rarely spoken about, but it is a topic always lurking in the background: just where do we locate illness? And where do we locate the causes of any illness?

Arteriosclerotic heart disease has many contributing factors, including diet, with primary culprits including trans-fatty acids, now thought to directly contribute to thousands of deaths annually but are nonetheless widespread ingredients in virtually every packaged food product in this country.

Can any person be healthy if the biosphere is sick? From this uncomfortable perspective, it appears that as a physician, when they treat any patient, is being asked to fix one small link in a thoroughly diseased chain of events.

In some mysterious way everything is connected to everything else, so all illness is somehow deeply embedded in networks, systems, and chains of pathology.

Once it is understood that a human being is not simply an assemblage of physical parts, but contains emotional, mental, and spiritual dimensions that cannot be reduced without remainder to material processes, then what exactly does “health” mean in such a multidimensional being? How many levels of being—physical, emotional, mental, spiritual—should a doctor treat?<sup>23</sup> (Wilber,2005).

### **The Chemical Sea Around Us**

Defying comprehension is the complexity of the chemical sea that

surrounds, sustains, and constitutes all life. From this sea, never-ending challenges are faced by organisms striving to defend against those multitudes of chemicals that cause cellular stress or harm. Biological mechanisms have evolved for maintaining organism homeostasis during contact with these harmful substances. Most of these chemical stressors have long existed or are produced by myriads of human activities. However, for those chemicals that are relatively new to the world, the mechanisms for homeostasis maintenance are not necessarily adequate. Chemicals for which organisms have had the least time to adapt are those that only recently have emerged as environmental contaminants.

Perhaps more daunting will be gaining a better understanding of the unanticipated ways in which these substances can interact with the environment and the creation of a new paradigm for their management or stewardship.”<sup>24</sup>(Daughton,2005).

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### **Holistic Healthcare for the Client**

"You must be able to communicate effectively with clients and any companion(s) of the client and integrate your work with that of other practitioners. Throughout the process, clients and any companion(s) are encouraged and supported to take an active part and this is enhanced by you using, as far as is possible, interventions which are sustainable by the client in their own context."<sup>25</sup> (ANH,2008)..

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