Episode: Health Oriented Medicine with Dr. Nathan Daley

Short Bio

- Dr. Daley is trained in Integrative medicine, preventive medicine, diagnostic radiology, and environmental health.
- He received his integrative medicine training at the University of Arizona Center for Integrative Medicine (with Dr. Andrew Weil) and Scripps Center for Integrative (with Dr. Mimi Guarneri).
- He now practices preventive medicine in Colorado at the Leonardi Institute.
- Dr. Daley is a thought leader and pioneer in the area of positive health, “health-oriented medicine”, lifestyle medicine, and clinical ecological medicine.
- His approach to health-oriented medicine has been heavily influenced by the sciences of process (or systems) ecology, anthropology, complex systems science, environmental health, and ecopsychology as well as the philosophies of Mahatma Gandhi and Arne Naess.
- The result of this trans-disciplinary synthesis is a “bottom up” process of contributing to local and global health, through optimizing individual health. A process that Dr. Daley calls EcoHolos.
- However, Dr. Daley believes that significant progress in this area cannot be made without, first, defining health as a positive entity and generating a common health oriented perspective and paradigm. This is the focus of today’s interview.

Preparatory Questions and Answers (not actual live interview):

**Question:** Health is a commonly used word, especially in integrative and alternative medicine and related industries, yet you say we are all really talking about disease when we use that word. Why is this so?

**Answer:** Well, I do think that many people have an intuitive sense of what health really is, as a positive entity. But when it comes to medical or healing approaches to improving health, most are studied, understood, and practiced from a disease oriented perspective. This is by default, since most civilized cultures possess a disease oriented perspective.

Some would argue that Ayurveda and TCM are not exclusively disease oriented, and I agree that, traditionally, they are not necessarily disease oriented or health oriented in an exclusive sense, but encompass both perspectives when applied in whole healing system form. But the
application of these systems within modern and “western” medicine forces them to become exclusively disease oriented. They are integrated into a disease oriented paradigm, used to diagnose and treat disease, and the component modalities of these systems are studied in regard to their effect on certain pathological conditions.

Prevention and preventive medicine is also clearly within the disease oriented paradigm.

The reason for all of this is that we only have a language and concepts for disease. Culturally we assume health is in place before disease manifests. We do not seek interventions to improve health, only to avoid, mitigate, or reverse signs and symptoms of pathology. Even exercising to “get in shape” is exercising to reverse signs of deconditioning and imbalance.

The fundamental question underlying any use of term health is “how can we claim to affect health without any way to identify health and determine any affect on health?” Now it is common to use the term wellbeing to refer to health, but I don’t find that to be helpful. The idea of “being” well does imply a subjective and intuitive element of health, but still does not help us identify methods that maximizing health. And subjective evaluations of health may not be very sensitive in a population that assumes health is present before disease manifests, or that health is what they experience when they do not feel bad.

In essence, health is only understood in a negative sense. We have an idea of what health is not and when it may be compromised, but little idea of when what health IS and when it may be maximized. This is to understand health in a positive sense, as something that exists in degrees beyond its absence.

**Question:** Why is it important that we have a concept of positive health in the first place?

**Answer:** Because a person’s goal in seeking medical guidance is NOT really to treat and prevent the many diseases that have been defined. If asked, most people will have a hard time deciding which one of the thousands of diseases they would prefer to avoid the most. They usually end up declaring that they would prefer to avoid all diseases is possible. They might say, “I know we all die, but I want to go quickly and without suffering and major disability.” In essence, they are saying that they want to live with maximal health. And they are drawing from their intuitive sense of health, that experience of being fully alive, energetic, engaged, fulfilled, and happy.

But, currently in medicine, every intervention in employed against a disease or symptom of dysfunction. We do not say, do this or take this for health without it being called into question by the scientific community. Health does not exist within the biomedical paradigm, and only marginally exists in the alternative paradigms. I’d like to see the development of a true operational concept of health and the subsequent prioritization of health in medicine as its most important pursuit. Such a medicine is what I call health oriented medicine.

**Question:** How do you define health as a positive entity?

**Answer:** Well, I’ve had an interest in complex systems science, systems ecology, and ecosystem health for some time. Reading in those areas it became evident that their efforts to understand how systems (or organisms) organize and tolerate perturbations seemed to be getting at some concepts that certainly apply to human organisms as well, but concepts that are not applied in medicine. Concurrently, my studies in integrative medicine and particularly Ayurvedic and TCM were revealing some concepts which, as I understood them, suggested
similar essential meanings. Finally, I realized that much of the language being used in modern efforts to define health could find compatibility with these concepts, especially the work of Aaron Antonovsky on salutogenesis. Antonovsky, a sociologist, was an early pioneer in the health oriented perspective and coined the term salutogenesis from the Latin, salud which means health and genesis which means generation or creation… thus the generation of health. This was to be contrasted with pathogenesis, the generation of pathology or disorder. Antonovsky focused on a Sense of Coherence (SOC) and Generalized Resistance Resources (GRR) as the operational concepts of salutogenesis. The SOC was the sense of the world as being comprehensible, manageable, and meaningful. The GRRs were resources that allowed one to deal with challenges and stressors.

Meanwhile, Robert Ulanowicz, an ecologist formerly at the University of Maryland, was working on quantifying the informational or energy flows of ecosystems and used the concepts of Ascendancy and Overhead to quantify various types of connectivity in ecosystems. Ascendancy refers to the limited primary and efficient connections of energy exchange in the ecosystem while Overhead refers to the numerous random and redundant connections of energy exchange within the ecosystem. The greater the Ascendancy and Overhead, multiplied by the total energy throughput, of an ecosystem, the more robust that ecosystem seemed to be. The more it could sustain itself and recreate itself despite challenges.

The meaning between Antonovsky’s SOC and GRR and Ulanowicz Ascendancy and Overhead are quite compatible to me. I see these concepts as referring to efficacy and resilience. SOC and Ascendancy refer to efficacy in the sense of efficacy as the ability of an organism to acquire resources and transform them into itself. In complex systems terms, this is the concept of autopoeisis or self-making. GRRs and Overhead refer to resilience in the sense of the capacity of an organism to persist and preserve its general conformation despite perturbations within a dynamic environment. In complex systems terms, this may be referred to homeostasis. Homeostasis has a long history in medicine, yet has never really found its way into a positive concept of health.

Looking at Ayurveda and TCM, I see the essential meanings of efficacy and resilience within concepts central to these systems as well. In Ayurveda, I believe Agni and Samanagni are synonyms for efficacy and self-efficacy, respectively. And Ojas is a synonym for resilience. In TCM, I believe Shen is a synonym for efficacy and Jing a synonym for resilience.

So, I define health as the product of dynamically optimized efficacy and resilience.

**Question:** How can we measure positive health?

**Answer:** Well, this is a difficult question and my exploration of this question is relatively undeveloped compared to other areas, but I think it will not take long to advance our ability to quantify health.

In psychology, there are many ways to assess self-efficacy and these can certainly contribute to the measurement of general efficacy.

It appears that much of our laboratory diagnostics offer insight into efficacy and resilience as well. For instance, measuring anabolic hormone levels might represent a measure of efficacy, as they help to repair and replace tissues in the body. Measuring digestive function, intestinal absorption, and metabolic parameters might similarly suggest a measurement of efficacy.

On the other hand, stress tests like the well known exercise stress test might best reflect a level of resilience. Essentially, we could put a person under any stress, or environmental
perturbation, and assess their tolerance as a test of resilience. For example, the time it takes to reach a certain body temperature while immersed in cold or hot conditions would be an indicator of thermal resilience and suggestive of general resilience.

But we can also assess individual efficacy and resilience by assessing one’s ecological connections and the health of the environment they are immersed in. Integrating the individual assessment of health with that of other scales, like ecosystems and social systems, is something I hope to pursue more intensely in the near future.

**Question:** Instead of the perspective that impaired health results from disease, you prefer the perspective that disease results from impaired health. How could this perspective be used clinically?

**Answer:** Health therapy. I already do a good deal of health therapy. People come to me with disease diagnoses and numerous symptoms, all already being managed by disease specialists, and so I focus on ecology, or essentially a broad lifestyle approach. We work to improve their movement (what others call exercise), nutrition, air and water quality, chronobiology and sleep, and their perception of the world. I’ll fill in some gaps in their disease treatment as well, but largely it is through the improvement in ecology, and through the subsequent gains in health, that their disease conditions dramatically improve and sometimes even disappear.

**Question:** Others have used the term “ecological medicine” before, but you use it a bit differently. Can you explain what you mean by “ecological medicine”?

**Answer:** Many use ecological medicine to refer to environmental health and environmental medicine, or the study and practice of avoiding or correcting harm from pollution and toxicants. Others use it to refer to the environmentally aware and sustainable practice of medicine... green medicine if you will.

Most superficially, I use ecology in the sense of the total process of informational exchange between organism (person) and their environment. This refers to the total interaction with their environment and can the whole of these interactions can be divided however is most functional. I use nutrition, movement, air, water, electromagnetic, and interbeing.

More deeply, I use ecology in the sense of the interdependence of organism and environment. In the sense that the coupled exchange between these two manifests their existence. Ecology in this sense is a process of being or becoming as part of the whole.

**Question:** Where can our listeners go to explore health oriented medicine and ecological medicine further, as well as keep up with new developments?

**Answer:** www.ecoHolos.com