August 1999 Issue | Sidney Baker, MD

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Welcome to *Functional Medicine Update*™ for August 1999. The theme of this month's *FMU*is the non-deterministic view of health, the post-Mendelian view of the relationship of the genes to health patterns throughout life. We will focus on modification of brain chemistry function and its relationship to the remediation of problems including attention deficit/hyperactivity disorder, autism, and certain central nervous system disorders in older-age individuals. This is the functional medicine model applied to neuronal plasticity.

Medicine, as applied to older-age individuals, is a focus of attention right now. An editorial call to action appeared in the *New England Journal of Medicine* recently. The author of this editorial, titled "Geriatrics and the Limits of Modern Medicine,"[1] is Dr. James Goodwin. We have cited his previous articles on the tomato effect, and recently, an article in the *Annals of Internal Medicine* on reasons traditional medicine has resisted nutritional medicine over the last several decades.

In the article in the *New England Journal of Medicine,* Dr. Goodwin states:

> "Like a number of geriatricians, I have come to believe that modern medicine does not work well for old people. There are three areas that are particularly problematic for old people; the medicalization of everyday life, the primacy of diagnosis, and reimbursement for medical care.
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> "Medicalization is not limited to behavior; new physical illnesses have been created, too. The most important of these are the proto-illnesses—diseases that do not cause symptoms and produce no suffering but are thought to be dangerous because there is a higher likelihood of real disease later on. High blood pressure is a proto-illness, as are osteoporosis, high cholesterol levels, aortic aneurysm, colonic polyps, and carotid-artery stenosis.
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> "Critics of medicalization face a serious difficulty. There is clear truth embedded in medicalization. It is true that some children have difficulty sitting still in a classroom and respond well to the early recognition of this problem. It is true that treatment of high blood pressure and osteoporosis has averted much morbidity. Thus, the benefits of medicalization are clear. Unfortunately, so is the harm.
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> "Cassell has argued that, with medicalization, the role of physicians has become so expanded and technologized that we fail at our most important task—providing relief from suffering.
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> "What if we find pathology wherever we look? Such is the case with the very old. Is hiatal hernia

still a disease if three fourths of women in their 80s have one?"

Dr. Goodwin goes on to say that putting a diagnosis on everything forces us to treat, which leads to over-medicalization, which then has an effect on reimbursement for medical care and utilization of services. He continues:

> "For several years I ran a large geriatrics program at a university-affiliated community hospital. In my more cynical moments I saw the hospitalization of my patients as a complicated feeding process; the various specialists would come around and perform their procedures, feeding from Medicare.
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> "Now reimbursement is being turned on its head, moving from fee for service to capitation and from overtreatment to undertreatment. Surely the most profound result of this transformation is the demonstration of the degree to which medical decision making is dependent on reimbursement.
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> "If we teach only what we know, and if we know only what we can measure in clinical trials, then we can say little of importance about the care of the elderly.
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> "More important than a new model, however, is the need to bridge the gaping chasm between what we do and what we know to be true. It is disturbing how many of my middle-aged colleagues in academic medicine have horror stories regarding the medical care of their parents or in-laws. These anecdotes should be listened to. Their collective weight may be as close as we get to a documentation of the failure of modern medicine with respect to the elderly.
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> "Anecdotes and individual opinions are maligned in modern medicine; we demand data, the products of scientific inquiry. But data do not convey values, and the practice of medicine is also about values. We need to tell more stories and to think and talk to each other about what the goals of medicine are and what they should be."

This month's *FMU* asks a question. How much disease through different age transitions can be either prevented or remediated on the basis of the new model we are calling the functional medicine model?

The June 1 issue of the *Annals of Internal Medicine* contains an editorial titled "Genes and Obesity: Is There Reason to Change Our Behaviours?"[2] Author Roland L. Weinsier states:

> "Several major factors, including energy requirements, nutrition, nutrient partitioning, dietary intake, and physical activity environment, interact to contribute to the development of obesity. Each factor is influenced by our genotypes. For example, cross-sectional and longitudinal studies show familial resemblance in adiposity, and adoption and twin studies offer clear evidence of a genetic component in human obesity. It is estimated that 40{56bf393340a09bbcd8c5d79756c8cbc94d8742c1127c19152f4230341a67fc36} to 70{56bf393340a09bbcd8c5d79756c8cbc94d8742c1127c19152f4230341a67fc36} of the

population variation in obesity is heritable. Unfortunately, readers too often mistakenly interpret such reports of high heritability estimates as an indication that genes play a deterministic role in causing obesity, independent of the environment and of behaviors. In contrast, behavioral geneticists have provided mathematical expressions indicating the important role of environmental and behavioral factors in determining body weight despite the fairly high heritability of relative body weight."

INTERVIEW TRANSCRIPT

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JB: This month we begin our 18th year of producing *FMU*. As I look back over our Clinicians of the Month, a few stand out as pioneers and leaders in this field. One historic contributor to the evolution of functional medicine is this month's clinician, Dr. Sidney Baker. His experiences in medicine include the Peace Corps, the Gesell Institute of Human Development, infomatics at Yale Medicine School, and the development of what we now call functional medicine. Dr. Baker, welcome to *Functional Medicine Update*™. Please give us a summary of your background, starting when you were a medical student and taking us up through your experience at the Gesell Institute.

SB: Thank you for your compliments, and I return them. You have kept the bar at an appropriately high level for all of us to aspire to, and have provided the information as well as the inspiration for all of us to try to cleave to a high standard of science in our medical practice.

I went to Yale as a history of art and Far Eastern history major. I entered Yale Medical School with a bug in my ear that was placed there by my mentor, Dr. Edgar Miller. I spent three months with him in Katmandu when I was taking a year off between my junior and senior years in college to explore the world, study art history, and have a little experience with medicine in Nepal. During sessions of long lines of patients in little clinics in rural Nepal, as we were finishing with a patient's abscess, tuberculosis, syphilis, leprosy, pneumonia, or whatever he had, Edgar would ask me if we had done everything we could do for the patient. Those words echoed in my mind through medical school, and they still do. Edgar is with me still as I see patients, often confronting the most difficult question that we all face in functional medicine: when do you give up on a certain treatment? When have you wrung the sponge dry when you are confronted with a patient in whom you think there might be a viral problem, a fungal problem, or some other problem that requires persistence sometimes in finding the best possible treatment?

In medical school I became enthralled by the science that was then being taught to me by teachers who really wanted me to learn it. As a pre-med liberal arts major, I didn't consider myself that talented as a scientist in medical school. I won some prizes and did well, but I also found myself confronting the decision that many of us confront in the early stages of our career. I was forced to decide whose side I was on–the patient's side or "our" side. I don't want to put too dark a face on it, but there is a tendency for the student who is too nice to patients to contract a little bit of disaffection among his colleagues and teachers. The implication is that you get better brownie points for courting the *New England Journal of Medicine* and carrying a copy of the *Lancet* rolled up in your pocket than you do from spending extra hours talking with a child or a mother.

I tried to walk that line, but I did find myself, and I still find myself, more on the side of being a patient's advocate than an advocate of the disembodied science we all represent. I think we all try to practice by scientific principles, however, thanks to the kind of help that Jeff Bland gives us.

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