

DREAMING WITH TWO FEET ON THE GROUND: ACUPUNCTURE IN CUBA

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Imagine if one day all pharmacy shelves went suddenly bare. What if a hospital with nine hundred beds had only two doses of morphine, antibiotics, and similar doses of anesthetics, steroids, diuretics, plus all the other meds. This is what happened in Cuba after the Soviet Union was dismantled in 1991 and aid as well as trade to the 11.5 million inhabitants of this Caribbean island abruptly evaporated.

A special period ensued. Not only did pharmaceutical medicines vanish, so did food and fossil fuel. Limited access to nourishment, electricity, and transportation prevailed. While the people struggled to survive with drastically reduced caloric intake, the medical system that had been carefully restructured since the 1959 revolution threatened to collapse. Acupuncture was swiftly summoned to close the gap. As if waiting for such a moment, Doctor Marcos Diaz Mastellari, trained as a psychiatrist, had been studying Chinese medicine since 1983. When this special period began, he administered acupuncture to an average of 80 patients in the course of a 16 hour day, maintaining his stamina by sipping brown sugar mixed with water because what little food there was went to needy patients. His responsibility was no longer limited to those on the psych unit; instead he was now performing acupuncture analgesia in the OR, using needles to replace morphine in the ER, and rescuing those with cardiac crises, complications of diabetes, acute asthma, and gastrointestinal disorders.

Dr Diaz became the Chair of the Oriental Medicine Department of the International Center for Neurological Restoration (ICNR) in Havana. This center is one of the five leading hospitals in the world for the treatment of Parkinson's, muscular dystrophy, multiple sclerosis, stroke, paralysis from accidents, and all types of neurological disorders. People travel from all over the world to be treated there. At the ICNR the most advanced conventional therapies are administered alongside the least conventional. For example, stereotactic computerized surgery for implanting fetal tissue to induce dopamine production for patients with Parkinson's Disease is followed by an intensive regimen of acupuncture, herbal medicine, and creative physical therapies that sometimes last for 7 or 8 hours a day.

Imagine a health care system that is universal, comprehensive, integrates alternative therapies, and provides care at no cost to the patient. Imagine that the practice of medicine does not involve a financial transaction between doctor and patient, hospital and patient, or clinic and patient. Imagine that medical training is free and that health care is not only considered a right, but a primary means of fostering the health and happiness of the community as a whole, as well as the individuals within it. This is medicine in Cuba. Often health is equated with wealth, but in Cuba, a poor country, the life expectancy rate is 76.1 years of age, compared to 76.8 in the United States. High standards of health in Cuba contradict the assumption that a high Gross National Product is a prerequisite, but it appears necessary that the government prioritize health.

Michele Frank, an American born physician who did her medical training in Cuba comments, "The impact of this system on doctors and medical students can't be overestimated: I think that in any country, people study medicine for a combination of reasons, including a desire to serve, a vocation for the field, love of science, interest in humanity, the Hippocratic Oath. In Cuba, these are the only reasons."



In answer to the question, “What are the most significant health care problems?” Dr. Frank responds that after the problem of chronic illness (cardiovascular disease, asthma, diabetes, cancer), comes the problem of waterborne diseases. The problem of water filtration and purification has been dramatically affected by the U.S. blockade since all of the chlorination equipment was purchased from U.S. companies that have not been able to supply replacement parts under the terms of the embargo. As a result, Cuban access to chlorinated water dropped from 98% to 26% between 1988-1994. This disproportionately affected children and the elderly. The mortality from diarrheal diseases increased 250 percent over this period. Infectious and parasitic diseases rose, along with tuberculosis and typhoid.

When nutrition levels dropped by a third, visual problems and motor function impairments afflicted more than 50,000 people. The lack of an adequate supply of appropriate antibiotics and chemotherapeutic drugs has also had an impact. Tainted water can be catastrophic without antibiotics, and many cancer treatments dependent on chemotherapy were unavailable. The capacity to perform surgeries has also been compromised by a lack of replacement parts for essential equipment such as heart-lung machines. Although surgeons are well trained to do high-tech corrective surgeries for cardiac defects like Tetralogy of Fallot, lack of coumadin, digoxin, antibiotics, and even Gortex patches keeps cyanotic children waiting years for operations that are routinely performed on infants in the United States.

But the Chinese ideogram for crisis is danger married with opportunity. Alternative therapies are being put to the test in Cuba with impressive results. In the absence of reliance on fluoroscopy, Dr. Diaz was called upon to confirm appendicitis with traditional Chinese diagnosis. Luckily, he reported, there were no mistakes—traditional Chinese techniques met the challenge. Similarly, surgeries and emergency room procedures were executed successfully with the aid of acupuncture in lieu of medication. Although there were plenty of skeptics in this country of conventionally trained doctors, natural and traditional medicine was being performed by hundreds of innovative physicians.

Though the special period placed the entire health care system in jeopardy, it was a time in which immensely creative efforts were unleashed, amongst them the opportunity to integrate natural and traditional medicines into an already comprehensive public health system. The First Congress of the Sociedad Cubana de Medicina Bioenergetica y Naturalista, held in Havana on November 20-24, 2000, demonstrated this. In attendance were 53 foreign health care providers along with 300 Cuban physicians who are increasingly fluent in the language and practice of natural and traditional therapies as well as conventional western medicine. Chinese traditional medicine is being taught as the theoretical underpinning of this alternative medical training, but homeopathy, herbal therapy, vitamin and food supplements, yoga, biofeedback, meditation, massage, magnet and bee therapies are also being studied and employed. Chiropractic is just beginning to be explored. Martha Perez Vinas, head of Natural Medicine in Havana, is one of many whom have dedicated thousands of hours to practicing and teaching acupuncture.

In the early 1990s acupuncture began to be widely disseminated, and by 1996 was becoming integrated into conventional health care settings. Dr. Luis Popa Salcedo, Director of Public Health for the mountainous eastern province of Granma for 21 years, commented that, “In 1984 there was a decisive shift in our national health care model, namely, a family doctor and nurse team served the community in which they themselves lived—each team caring for 600-900 people, or about 150 to 200 families over an area of 1800 kilometers. This model of primary care facilitates our mission to provide medical care, become aware of community health problems, and promote health through education. A decade later, Chinese traditional medicine was incorporated into our system as an efficient and useful therapeutic tool. We use it because it works. As people see its effects for chronic degenerative diseases, the demand is growing; and it is not a high cost therapy. Our death rates have dropped for asthma, diabetes, hypertension, cerebro- and cardiovascular diseases. Out of 140 doctors in our province, 130 have been trained in acupuncture by the 36 physicians who were already skilled specialists in this area.”



Dr. Lurdes Vargas Hernandez, director of the Niguero Municipality in Granma, conducted a 5-year study using electro-acupuncture on female infertility after conventional methods failed. She said that out of a sample of 17 patients, there were 14 successful outcomes: “We’ve had surprising and exciting results. My favorite treatment outcome is seeing the infants in their mother’s arms.”

Dr. Juventino Acosta Mier was the Chief of Urology at the Hospital and Medical School for the province of Matanzas, an hour east of Havana by car. Offered that same position at a newly constructed hospital in 1994, he declined so that he could found a 100-bed hospital and clinic solely devoted to natural and traditional medicine, the first in Cuba. Dr. Acosta said that his colleagues wondered, “How can you assume responsibility for a bee after being in charge of an elephant?” He explained that what appeared at first as initiating a simple pain clinic had grown into the first significant model of a hospital-based institution devoted entirely to natural and traditional healing methods. The polyclinic he founded served 23,000 patients in the first year, and in the year 2000 treated 60,000 patients. Patients are referred to the clinic by family doctors and interviewed separately by two young physicians who come to agreement about the diagnosis, consult with a specialist, and together decide upon a treatment plan. There is an interview by a staff nurse to determine how the patient feels before and after treatment. Dr. Acosta was pleased to report that amongst the patients seen at his clinic, hypertension was reduced from 28% to 24%, and diabetes from 5% to 3%.

Dr. Acosta said, “Meetings with patients as part of the team were instituted as a means of incorporating them into the treatment process. I was inspired by the Brazilian educator Paolo Freire to believe that in medicine as well as in pedagogy, the patient and the student should be the subject, at the center of the discipline, and the illness or body of knowledge the object of study. The role of the doctor and teacher is to facilitate that relationship.”

The Cuban medical system is organized in three graduated tiers: family doctor, polyclinic, and hospital. Family doctors, each serving around 120-200 families, are the foundation of the system. Every physician follows the six-year medical education with a three-year family medicine program and internship. When the family doctor cannot meet a patient’s needs, that person is referred to a polyclinic, leaving the hospital as the last resort.

Alternative therapies have been integrated into the basic six-year curriculum at all sixteen of the provincial medical schools since 1994. Acupuncture is embedded into each course. For example, the anatomy of the channels is incorporated into the course in basic anatomy; the neurophysiology of acupuncture is covered within physiology courses, and so on. Every medical student does a rotation in natural medicine in the last of their six-year training that includes acupuncture, herbal medicine, and homeopathy. In addition to this general training, in 1995 a specialty in natural and traditional medicine was established. This requires four years of additional training beyond the basic nine years consisting of six in medical school, and three in family medicine. The four modules designated consist of: bioenergetic medicine (acupuncture, Chinese herbal therapy); Cuban herbal or green medicine (*medicina verde*); physical medicine (massage, physical therapy, chiropractic); and psychotherapies (hypnosis, NLP, meditation, biofeedback). Although training may last between nine and seventeen years (for training in two specialties, for example a gynecologist who then decides to practice acupuncture as well), education is a cost-free right, as long as the student is capable.

In 1995 a new office under the Ministry of Public Health was created: the Office of Natural and Traditional Medicine under the direction of Dr. Leoncio Padron Caceres. Dr. Padron is committed to an accelerated program of growth for the development of holistic medicine, as well as its integration with conventional medicine. That same year a new Minister of Health was appointed: Dr. Carlos Dotres, a physician who made a major humanitarian contribution to world health by creating the Cuban Tarara Village program organized to treat more than 13,000 children from the Ukraine who were victims of the Chernobyl nuclear accident in 1987. This gift from Cuba meant that a child accompanied by one parent was housed, fed, and provided with free medical care at the expense of the government as a mission of friendship. Dr Dotres also served as the director of the



Cardiology Center of the William Soler Pediatric Hospital that treats children from Latin America and Africa without charge. Over 2500 children have benefited from surgeries performed there over the last five years. Dr. Dotres is completely supportive of the new developments in natural and traditional medicine education, clinical practice, and research.

Cuba is a leader in modeling how integrative medicine can become part of a national health care system. Cuban health care is implemented on three levels, corresponding to the three levels of government: nationally by the Ministry of Public Health; within each of the fourteen Provincial Health Divisions (each with its own medical school); and through the Municipal Health Division in each of 169 municipalities. At the grassroots level, Community Health Councils involve local residents in initiatives regarding health promotion and disease prevention. Public health is defined broadly as encompassing the social health of the community, and family doctors know and are known by the people they serve. Health education as well as health surveillance is within their purview. In recent years there has been a primary emphasis on prevention: how to maintain health through diet and exercise as well as family and community well being.

Immediately following the 1959 revolution, half of Cuba's 6000 doctors left the country. Since then, Cuba has offered free medical training not only to its own citizens, but also to doctors from medically underserved countries throughout the world. Today there are nearly 60,000 physicians, or about one doctor for every 200 Cubans. When South Africa's apartheid system ended and thousands of doctors emigrated, Cuba was able to send 600 physicians into the rural areas that suffered the greatest loss. Today there are 3000 Cuban doctors providing care in more than two dozen countries in Latin America as well as in Africa. In Cuba doctors earn about 400 pesos, or \$20 a month. This sum of money covers the basic costs of food and housing—it is legislated that rent or mortgage shall not exceed 10% of income.

Lessons learned in Cuba appear to extend beyond the boundaries of this island to the larger world health community, since the Public Health Ministry is committed to the training of foreign physicians from underserved nations. Cuba is eager to engage in collaborative research and exchanges with natural medicine providers of North America, Europe, and Asia. Physicians in Cuba continue to benefit from an increasing number of foreign visitors who witness their achievements, support their efforts, and share what they have seen and learned with colleagues in their home countries. One of Cuba's early North American acupuncture teachers, Ralph Alan Dale, commented, "In spite of its Third World origins, Cuba is on its way to becoming a model of health care for a new planetary medicine that will be benign, open, efficient, universally available, humanitarily oriented, and will combine the best of allopathic and holistic approaches for the prevention, alleviation, and eradication of illness."

