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Ethnobotany and culinary pedagogy as a community-based clinical intervention among Mexican Indians with diabetes

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Introduction

Every society conceptualizes what wellness/health is, and ways of maintaining health, curing illness, or addressing disability. Indigenous people exchange and trade their medicinal knowledge with other peoples. Traditional healing systems are taught inter-generationally among families and are based on Indigenous, empirical science, borne of observation and experience in the healing arts and sciences. Distinctive cultures develop within the environments that shape them, (Kuhnlein 1996a) (Wadsworth 1977) and thus nature in its myriad forms shapes the foundation from which traditional medicine and food choices evolve. As access to the land is impeded, or as medicines are destroyed as a result of neo-colonial practices, itself, and thus the practice of medicine, and community health is undermined.

A basic principle of our work at the Center is: Food and medicine rooted in their cultural context are avenues into community healing and action research. We term this method culinary pedagogy. This paper explores the integration of clinical and social science methods that are congruent with the conduct of culturally appropriate research among indigenous peoples of the west coast of Mexico .Our work uses a heuristic and phenomenological approach to address what we consider the social and somatic dissociation that underlies diabetes and other chronic diseases.

Personal commitment

Each staff member, faculty and patient engages a process of "personal detoxification" and authentic health-building that is bio-culturally isomorphic with achieving his or her health goals.
Authentic health building derives from the dynamic discovery and use of foods and practices that are indigenous to a region or, if resulting from syncretic practices nonetheless provide nutritive or medicinal sustenance and balance. This contrasts with foods that are exotic or introduced into an environment that contribute to or cause addictions and illness acting like poison. Authentic foods and food ways always support a balanced approach to glucose levels. Even where cultures cultivate authentic sweet foods such as sugar cane, tree sap like maple syrup, honey, or wines, or sweet wild plants such as Stevia (stevia rebaudiana), their use is moderated by cultural practice informed by empirical knowledge and does not give rise to illness, indeed are often curative and nutritious

Meaning and Success

The Center for Traditional Medicine serves as a cross roads of medicine, and people feel validated when they are invited to discuss their beliefs and knowledge about the causes of their illness in an historical and cultural context. We listen openly and actively engage narratives that reveal the symptoms of susto, (loss of spirit, extreme fright,) mal de ojo, (evil eye) and empacho, (stomach congestion). The use of medicinal plants, animals, foods, touch and massage, the elements and spirit ways are all methods of healing that continue to evolve in rural western Mexico. Beginning in the 1970's, I compiled oral histories with local herbalists and healers to document the use of plants and their categories of knowledge and practices (Korn 1983). The purpose of this action research was to affirm and sustain knowledge in the community and to support its practice inside and outside of my clinic.

We believe that a complex interaction of forces contributed to our success in the treatment of diabetes and other chronic diseases. First, we supported the body's natural ability to heal while avoiding secondary side effects: The gentle, non-toxic effect is generally a hallmark of natural medicines. The use of these natural, traditional medicines draws from a deep wellspring of somatically-encoded (Ferreira 1998) familial histories that when tapped, reinforce a healing response.

Because we interpret most of the disease states within a holistic model, we are able to treat and respond to the whole person. Thus where chronic pain or somatization is at best generally understood by allopathic physicians as merely physical or emotional symptoms, and therefore to be medicated psychotropically, or where people with diabetes deteriorate in spite of the multiplicity of medications, we respond to these calls of distress by addressing each individual's situation as a reality whose symptoms, when listened to, tell a whole narrative (Korn 1987) that contains the answers. We take time to learn the language of each person, listening and treating with our hands, eyes, ears and heart as well as with nutrition,

herbs and all the other modalities within our repertoire.

By the late 1980's several socioeconomic classes emerged in this western Mexican comunidad. Twenty years earlier, class distinctions were not as severely demarcated. During these same years, the introduction and consumption of sugar, flour and hydrogenated oils became new staples in the daily diet. Introduced foods progressively replaced the use of authentic foods. Authentic foods are native to the environment of west Mexico such as zapote, choyte, the Mexican sweet potato called camote, beans, amaranth, maize, fish from the sea, deer, avocado, turkey (guacalote), chilies (Andrews 1984) chocolate (Coe 1996) and the ubiquitous coconuts (coco nucifera). (Duke 1983)

Several changes contributed to shifts in food quality and security. A major Mexican national policy initiative that reached the comunidad was the CONASUPO. Established in 1965 to maintain price supports for introduced foods, Compañia Nacional de Subsistencias Populares (CONASUPO) delivered large quantities of cheap foodstuffs like flour, refined sugar, canned fruit juices, honey and packaged ground corn. However this attempt by a parastatal organization, (subsequently implicated in massive corruption and illicit drug trade) to deliver food to the rural The comunidad members who were acquiring wealth were also, we observed, among the first to become ill with the chronic diseases. They sought help in the city while the poor continued their visits to the Center for Traditional Medicine's clinic. It was common that following dissatisfaction with the medicine in the city, the wealthier members then returned to our clinic, not for traditional medicine per se, but for the latest "alternative" or "complementary medicine" that was commanding attention in the media. Thus, my task was to respond not only to the illness at hand but also to the belief systems that influenced people to reject various indigenous traditional healing methods, only to accept these same treatments known by different names in the lexicon of "complementary medicine."

Blood Type and health

Blood type of individuals has proved to be an important consideration when examining nutritional and chronic conditions. Four blood types evolved as responses by the human species, to migrations, climate change and environment. Type O blood, the oldest and predominant (universal) blood type evolved as the hunter with an intense and vigorous physical capacity supported by a diet that is predominantly fish, meat and fowl, combined with fresh fruits, green leafy vegetables and low carbohydrate roots. Native peoples in the Americas are among these "oldest of peoples". American Indian populations show a very high (sixty-seven to eighty percent) predominance of type "O" blood. (D'Adamo:1999). Type "A", "B" and "AB" represents proportionately smaller percentages of the world's human populations while type "O" is the main blood type worldwide. African peoples, American Indian peoples, the Basque of Spain and Sami of Scandinavia belong predominantly to the type "O" blood group.

According to D'Adamos research either a positive or negative or neutral chemical reaction occurs when eating foods that interact with proteins called lectins. Lectins are abundant and diverse in foods and have agglutinating (sticking) properties that affect the
blood (D'Adamo p 9 cook). For example cereal grains influence immune function by the ability of the wheat germ lectins to precipitate the passage of antigens derived from viral and bacterial pathogens to pass to peripheral tissues. Similar processes have been identified in dairy legumes and yeasts (Crayhorn p 147). Dr. D'Adamo's work is similar to the nutritional work being conducted by Dr. Nicholas Gonzalez who maintains that metabolic typing of individuals, though more specific than blood-typing, offers an effective approach to treating diabetes, heart disease, and cancer in addition to serving as an effective method for rebalancing body chemistry. (Gonzalez: 1999)

D'Adamo's research provided further theoretical support for our own intuitive concepts about the intrinsic value of eating according to where your ancestors themselves sprouted. Our research team decided to test out his work by following his mode; for one year in order to evaluate the effects prior to recommending it to others. For some of us this meant a return to our tribal customs; for others it meant learning them for the first time. Overall improvement in health and digestive functioning, reduction or eradication of allergies led us to incorporate these approaches into our clinical and educational programs. Following this first year we included blood typing analysis in the clinic and found it to be an effective model for communicating about and improving health.

Blood as Mnemonic

Why is blood type important? In addition to the applied bio-cultural nutritional specificity indicated by the role played by lectins and their effect on digestion and health, we have also found that "scientific evidence " which supports the "right to difference" among indigenous peoples is a potent tool for communities and individuals in understanding why "defectively modern" foods are disastrous. The third reason links to the second. Blood, like skin color has been a colonial mnemonic since colonization and continues to play a role in identity politics, whether it is the color caste system in Mexico in which mestizocization continues as government policy resulting in negatively internalized identities by many communities, or the

blood quantum system adhered to by the Bureau of Indian Affairs that continues to impose definitions of identity on American Indian tribal peoples. Blood in the context of identity and authenticity becomes both metaphor and emblem for the reclamation of blood type, a tool reclaimed by peoples who are choosing authentic forms of nourishment.

Defective Modernization

Throughout my time in Mexico, I witnessed a persistent trend of socioeconomic and cultural change resulting from modernization, which in turn severely affected the overall health of the community. Economic and social forces introduced into the Comunidad from the rapid growth of Puerto Vallarta in the last thirty years had a significant effect on the level of self-sufficiency, self-esteem, absenteeism, and the growing use and abuse of alcohol and drugs. As the economy, external development and political influences became apparent by the late 1970s, Puerto Vallarta became an economic focal point for developers and investors.

One Chacalan, Lupita Ramos C, explained that increasing housing construction along the Rio Tuito (one of two major water sources serving the comunidad and the ancient link to the mountain town of El Tuito) and other rivers increased levels of water contamination and water is wasted all over the place, and it does not rain like before." (Cruz Ramos 1999).

When I arrived at the comunidad in 1973, the use of pharmaceuticals and refined foods were growing at an accelerated pace. Denatured oils and refined wheat and sugar products, including, white flour, corn oils, powdered and on-the-shelf milks and candies were flooding the market. Yet most people also continued to grow coffee, beans and squash and grind corn, make fresh fish soups, slaughter pigs and pick fruits from family plots. In 1982 we witnessed the smoke rising from the beach as the Federales stormed the small village of Mismaloya 10 miles north and burned down the palapa homes and restaurants chasing the villagers back into the mountains in order to clear the beach for the development of a five star resort. That resort stands where the village had been located now limiting access to the beach to all but registered guests.

Rapid change from development imposed by expansion of Puerto Vallarta, the role of drug dealing (considered to be the driving economic power in the city and increasingly a significant factor in the comunidad) (Cruz 1999) and the growing influence of economic and social pressures flowing from the North American Free Trade Agreement have paralleled changes in health patterns.

Jalisco is the largest corn (maize) growing state in Mexico, but the financial value of corn is low compared with the export value of soybeans. Soybeans are rapidly replacing maize. Growing investments in touristic and agricultural changes portend even more rapid and larger scale economic and thus social and cultural changes in western Mexico. Such rapid externally imposed and internally adopted dietary and health transitions also altered access to wild foods and medicines by altering communal value systems. The migration from the villages by young adults began in the late 1980s. The increase in diabetes along with other chronic diseases rose side-by-side with these changes. The pace of life increased along with stress-related disorders. A Chacalan diet began replacing masa tortillas with white processed wheat bread sandwiches with cut-off crusts

Children and young adults came in to the clinic with high blood pressure, high blood sugar, insomnia, (often due to over-consumption of Coca Cola and other commercially produced sugar water products) allergies, and diabetes. An epidemic of chronic diseases was unfolding.

Imposed development and Chronic Disease

The gestation period of "defective modernization" (Simonelli 1987, p 23) that I began observing in early 1970's had resulted by the 1990's in a village-wide diabetes epidemic and the related triad of cardiovascular disease, stroke and high blood pressure. There was a palpable shift from infectious to chronic disease. Whereas people in the rural subtropics are subject to sanitation-based disorders such as intestinal parasites, typhoid fever, dengue, hepatitis A and non-A and the usual forms of influenza, colds and pneumonias incidents of chronic disease invaded the comunidad.. Heart disease, stroke, cancer, high blood pressure, diabetes (adult onset), chronic pain and stress became primary the primary health maladies. Villagers developed huge and multiple lipomas (benign fatty tissue) on their bodies. At the same time, there were growing rates of cancer and drug and alcohol abuse. Traditional healers using healing remedies from the jungle pharmacopoeia would each typically have detailed knowledge of more than 1000 Iatrogenic symptom rates grew as most villagers now traveled by boat to the city an hour away to obtain health care at the Social Security Clinic. We identified and catalogued iatrogenic symptoms including severe allergic reactions to pharmaceuticals, dermatitis, antibiotic resistance, over-use of cortisone, dizziness, and secondary digestive problems all resulting from inaccurate diagnoses or overmedication.

All of these problems were exacerbated by the (undiagnosed) chronic dehydration experienced by most of the patients seen at the clinic. The commonly practiced proscription against drinking quantities of water appears to have arisen out of the

history of sanitation problems. However traditional agua frescas, drinks made from fresh water, local fruits and berries, and anthelmintic herbs teas that traditionally took the place of plain water were replaced by Coca Cola and other commercially produced sugared juices. Not only were the benefits of water, fresh fruits and teas substantially reduced, but also adverse affects of refined sugar consumption became the norm.

Nutrition trauma

Community trauma includes a subset concept we call “nutrition trauma.” we define this type of trauma as a “disruption in access to endemic natural food resources due to overwhelming forces that make inaccessible foodstuffs that are bio-culturally and bio-chemically suited to healthy digestion and nutrient utilization.” Such outside forces include externally introduced economy, cultural genocide or ethnocide in the form of Mestizocization policies, (Salvador 1996 (Oct.4)), the melting pot in the United States and Russification in the Union of Soviet Socialist Republics where state integration policies are imposed on culturally distinct peoples (Fallon 1985). Agrarian reform policies like the Mexican constitutional revision of Article 24 that migration of Indian men primarily from rural to urban areas mainly in the north of Mexico along the border with the United States where manufacturing were quickly built by US companies after the adoption of the North American Free Trade Agreement. Self-sufficient and collective reliance practices among rural Indian peoples were replaced by landless peoples now dependent on unseen economic forces and dependence on commercial foods not suitable for Indian metabolisms. Dependence and food scarcity replaced self-sufficiency and plentiful and appropriate foods.

Nutrition Trauma occurs when introduced foods overwhelm the capacity of the local Indigenous peoples to digest and metabolize these new foods, which may cause disease and debilitation—conditions that were unknown or rare before the colonial process. A 1946 study of the Otomi people (who live in Puebla) found that they suffered no malnutrition, despite difficult conditions, relied on traditional foods such as quelites (greens) and ate no refined or processed foods, no wheat, and little dairy (Anderson 1946). Larsen asserts that bioarcheological evidence (from the Americas) suggests “most settings involving prolonged interactions between Europeans and Indians led to a decline in the quality of life and changes in activities for the latter” (Larson 2000, p 167).

Introduction of single-species agriculture or mono-culture in the Americas dramatically altered the ecology as well as the health of the indigenous populations. Such a change in quality of life and dramatically altered health affects can also result from changes slowly introduced into a society from outside trade. (Larson 2000; Murray 1998; Nabhan 1997; Jackson 1994; Lang 1989).

Even where people are active, as many are in the comunidad, the balance has tipped in favor of a process of “dis-ease” that has overwhelmed the body’s capacity to adjust to change. In Cabo Corrientes, nutrition trauma includes a sharp reduction in available arable land, reduction in fish supply in the bay (the seventh largest in the world) due to over fishing in response to tourism and development, pesticide poisoning, media propaganda and by a greater dependence on commercially produced foods in the 1990s, electricity and hence television in 2002 arrived in the comunidad in some villages. The images and storylines portrayed through the television clearly associated certain foods with being Indian, poor and disenfranchised, and, thus, undesirable. Commercially produced foods loaded with wheat, sugar, corn syrup, and preservatives were promoted as desirable and “modern.”

Reductions in arable land and fish supply caused an out-pricing of certain traditional foods by highly processed, less healthy foods that were mass-produced by corporate conglomerates. Our food surveys of the village tiendas revealed over 100 food and toxic cleaning items with nearly all supplied by transnational corporations such as, Kraft, (Phillip Morris) Pronto Unilever, Coca Cola, Quaker, Colgate, Palmolive, McCormick, Kimberley Clark and del Valle (Hirch 2003). Not surprisingly, people in the villages want to be "modern" so they work to acquire currency so they can buy the new products. “Indian foods” that have sustained members of the community, require physical labor and are sometimes unavailable appear destined to be replaced by convenient products.

European settlers introduced mono-cropping (the practice of single crop planting usually enhanced with fertilizers, herbicides and pesticides) into a previously efficient and abundant culture of Indigenous an intercropping farming system (the practice of encouraging the growth of many different, but interdependent plants and selecting for benefit). European introduction of wheat and the near destruction of amaranth as an important food led to an agricultural dominance of corn. Amaranth was a major ceremonial grain for the peoples of west Mexico out of which deity icons were made for the thirteen three-week celebration periods each year praising different gods (Butterwick 1998). Not only is the seed a major source of protein (seeds contain 16-18% compared to corn or wheat (12-14%). but the flower, the leaves and the roots provide rich nutritional benefits that rival and exceed all other plants in Mexico. Amaranth is very rich in the amino acid lysine (Karasch 2000) richer in iron than spinach and unlike corn, has hypoglycemic qualities.

Today in west Mexico honey is added to amaranth seed and it is now sold as a candy alegrias, meaning happiness, the name the Spanish gave to Amaranth. Yet one need only travel today a few hours from Mexico City to discover that amaranth as a seed or plant is virtually unheard of. The Spanish prohibited amaranth cultivation because of its use as a ceremonial food (Karasch 2000) and this caused its near complete disappearance as a major grain (seed) in Mexico.

However, like the ceremonial sacred mushrooms used by the Mazatecs and Maya, some peoples continued cultivation in secret or outside the boundaries of colonial rule.
In spite of millennia of exchange and trade among Indigenous peoples, the introduction of different foods did not contribute significantly to diabetes and other chronic disease patterns until recently. For many years, refined sugar like white flour was a product for the very few and very rich (Erasmus 1993). We can trace the parallel course of sugar production with diabetes development. By 1930 worldwide production of sugar catapulted sales to 19 million tons and by 1950 it was approximately 14 million tons. By 2000 more than 120 million tons of refined sugar was produced worldwide in one year. (Galloway 2000)

Diabetes is a symptom of community illness and we believe the answer is to be found in the community. Our work leads us to conclude that the failure of conventional diabetes prevention and treatment programs is due in large part, to the onus placed on the individual to change instead of recognizing culture and the community's role in the healing process. The failure to act from an integrated analysis of causality, in turn precludes appropriate prevention.

Treatment then remains dissociated from cultural identity and reinforces separation from authentic systems of support. In response to our conclusions we developed a community-wide intergenerational project to assess if the support of traditional medicine could mitigate the effects of community trauma. We received funding for this project between 1997 and 2000.

Community-determined methods
We began by gathering with women and teens throughout the community to share healthy meals and to discuss their concerns and interests. We traveled into the mountain towns several hours away, and by boat to neighboring villages. As plans for the project evolved we educated the influential community actors—the doctors and clergy—to prevent them from doing harm to the project and to also assess and engage their support for the value of traditional medicines.

The role of the facilitator in a community-determined action project is to collaborate in processes that validate community knowledge that is beneficial to the community, (Minugh 1989) define questions to be answered, the methods to use, the action to take and in this project, to define the health problems to be addressed. The principal emphasis is to encourage an exchange of knowledge and then present the knowledge as visible information—to mirror the information back to the source. My role was to offer conditions under which the comunidad's knowledgebase could be viewed, examined and recognized as a valid way to understand the community's cultural reality. Our work proceeded from the protocols defined by the Center for World Indigenous Studies for the conduct of community-determined research:

1. The project must be community-based, that is, the knowledge of the community must have a primary role determining the shape and direction of the project with outside researchers, activists and educators serving as collaborators and cohorts engaged in a process of the free exchange of knowledge.

2. The project must be bi-technological, that is, outside practitioners and researchers and community researchers and practitioners must be able to do some of each other's work.

3. The project and its outcome must be economically and technologically appropriate, that

4. The dissemination of the project knowledge and format must meet with agreement by the participants.

During our initial meetings we listed priorities, designed activities, and developed a plan of action that addressed each area of the group's interest. These activities and interest areas included a priority stated by the teen girls to learn the use of medicinal plants from their mothers and abuelas, sewing classes for the women, art classes for the children, and classes to train women in natural medicine health promotion and to conduct community screenings for diabetes, high blood pressure and stress.

The practice of traditional and integrative medicine must include satisfying the requirement that actions protect the cultural property rights of Indigenous Peoples—the products of each distinctive culture, including the knowledge of healing practices. This led to discussions with the comunidad men using this approach arising from the work of Dr. Rudolph Ryser (Ryser 1997) and Rodney Bobbiwash (Bobbiwash 2001) Their work focuses on the definition of laws protecting

indigenous people rights, which develop from the requirements of indigenous nations themselves, not subject to definition or modification by states governments. In the forum it was noted:

Only through new mutually agreed and enforceable treaties and the maintenance of existing treaties can Indians hope to preserve the diversity of tribal cultures and ensure the diversity of fish wildlife plants and their habitats for seven generations of families. Community members are rarely privy to the ongoing mechanisms promoting or countering the effects of development. While rural peoples are often the subjects of policy deliberations, they are most often excluded from the discussion table. Thus, our work in this project included facilitating network links within Mexico that would inform the comunidad members about policy development in other communities.

Exotic Food Preparation using local foods

Discussions of ancestral foods and nutrition led naturally to sharing foods. During one group session, the community members suggested making "Chinese food". A few young men joined in the cooking, by sneaking through the back door, as their interest in cooking challenged the strict gender role assignments that normally prevailed. Since one of the male team members from the north was a chef, he undertook the task of food preparation of exotic dishes. Together we gathered and prepared a feast of different Chinese (Han) dishes, using the neglected local foods such as Chaya (Chayamansa cnidoscolus), Capomo (Brosimum alicastrum) and Jicama (Pachyrhizuerosu). These ingredients became "Huevos Foo Yung" and Chaya Chow Mein.

Group food gathering and preparation also provided opportunities to discuss Chinese medicine and its similarities with curanderismo and its principles of Hot and Cold disease familiar to the group. In turn, the discussion about the ancient trade in chilies, indigenous to Mexico, finding their way east, gave breadth to the discussion about cultural continuity, change, and the value of local indigenous foods. We discussed the history of Chinese travels to the west

Intergenerational Activities

The children joined in the feasts and also attended arts classes at the Center where we emphasized themes of nature and respect for the environment. We engaged the schoolteachers to provide time for the young ones to make art of local (anti-diabetic) plants and provided the supplies; the teenage girls interviewed their grandmothers, adult women gathered plants, and made herbal tinctures and formed sewing circles. Some women sewed clothing for their daughters; still others embroidered dresses, aprons and potholders with local food theme designs; Nopales (Cactus), Obelisko (Hibiscus), and Pinas (pineapples).

The project sparked conversation between villages as well, as people traveled to collect items from around the community and exchanged plants for the gardens. More than once an elder would appear with an ancient herbal recipe and recite the utility of its application. Otherwise uninterested teen boys joined the project by participating in sports medicine classes where they learned how nutrition (not sugar) would enhance their soccer performance.
The boys also learned to use computers and along with teen girls, scanned the botanical art of their younger siblings. Together we all designed the medicinal plant book, mapping out the dialogue that would be used to share community knowledge.

Ethnobotanical validation

We validated community knowledge as we encouraged the use of the edible cactus nopale (Opuntia sp.), (Ramos 1980) Sabila, (Aloe Vera), (Bunyapraphatsara and Yongchaiyudha S. 1996;Yongchaiyudha 1996), Cundeamor (Momordica Charantia L.) (Raman 1996), I (Garlic) (allium sativum), Onions (Allium Cepa), Tamarindo (Tamarindus indica) and Papaya (Carica)

Plants have been used extensively for medicinal purposes throughout Mexico and North America (Moerman 1998). Mexico is one of the most biologically diverse regions in the world, with over 30,000 species of plants, an estimated 5000 of which have some medicinal value (Toledo 1995). Many of these are hypoglycemic in action and also support metabolic, (Davidow 1999) cardio-vascular, lymphatic and kidney function for a person with blood glucose dysfunction (IBIS 1999; Marles 1996).

The Comunidad is rich in natural anti-diabetic plants, and there is a history of using these plants medicinally and particularly as a food. The most common of these plants include Cundeamor (Mormordica charantia L) (Sarcar 1995) Zabila, (Aloe vera), (Bunyapraphatsara and Yongchaiyudha S. 1996; Yongchaiyudha 1996; Ghannam 1986) Ajo (Allium sativum), (Day 1998) Canela (Cinnamomum verum), Capomo, (Brosimum alicastrum) and Linaza (Enig 2000; Fallon 1995; Michael 1997; Erasmus 1993).

There are ongoing challenges to overcoming the dependency cultivated by (post) colonial medical systems. The comunidad, like much of the indigenous world is currently caught between, the degradation of local habitat containing indigenous medicines and the resultant loss of traditional knowledge. Many of these plants, like Mormordica charantia L (Cucurbitacae), which grew alongside the dirt paths, were all but gone from the village by the 1990's.Others, such as Nopale Prickly Pear Cactus (Opuntia sp.), while still grown are used less now. Still other plants, like Breadnut (Brosimum alicastrum), which along with Chaya (tree spinach) were a diet staple, are Capomo (bread nut) is one of the main plants we focused on for renewal especially for people with diabetes.

We spent countless hours with the elders gathering the capomo seeds and preparing and eating them in all the ways the elders said their mothers did. In addition we focused on the renewal of traditional food uses that had medicinal value. We found that the local practice of drinking tea made from cinnamon every morning is all but gone except among some elders and people living in the small ranches of the comunidad and increasingly coconuts whose value cannot be overestimated (Enig 1999) are left on the trees and are ignored except for their touristic value.

Detoxification Strategies

A final strategy for clinical and educational reclamation of natural healing methods was discussion and implementation of detoxification. One of the major components of our clinical work was to employ detoxification methods that were both indigenous to the region as well as novel and acceptable for introduction.

Detoxification involves activities that support liver function and metabolic balance, including eliminating as much as possible refined foods such as white flour and sugars, soft drinks and (excessive use of) alcohol. For indigenous peoples this means eliminating “introduced” or “colonial” substances that act like poisons. This call for the rejection of colonial nutrition may be located historically with other nodal moments when leaders, such as Shirley Palmer, a Colville Confederated Tribes council woman stood before the meeting of the Affiliated tribes of Northwest Indians in 1977 and implored every leader there to take responsibility for the alcohol abuse that is “killing our people” (Ryser, personal communication). This call to action was a turning point leading to the elimination of alcohol at leaders meetings and a turn to sobriety by many in the sovereignty movement.

Every culture that we have investigated includes detoxification strategies in their traditional medicine repertoire. Indigenous societies use alterative (blood- purifying) plants, peoples use practices derive from curanderismo and incorporate the use of particular herbal teas, herbal enemas, temazcales (sweatbaths) and bathing rituals (Goldwater 1983; Korn 1983). At the clinic we have applied detoxification methods that include the use of castor oil packs, and coffee enemas, which serve as “dialysis of the blood across the gut wall”. (Walker 2001, p. 49)

Coffee enemas are theorized to dilute bile and dilate blood vessels countering inflammation of the gut and to enhance Gluthianone S Transferase, facilitating the phase-two liver detoxification pathway so integral to health in people with diabetes. While often ridiculed by the uninformed, coffee enemas were until recently included the bible of medicine, the Merck Manual (Gonzalez and Issacs 1999). In our patient population in Mexico and in the northwest the USA patients readily embrace the coffee enemas in part because they promote a sense of relaxation and well being and because enemas are a tradition among many. Among the people who express resistance to use coffee enemas have been people who have given as an explanation that they have experienced sexual abuse.

Project significance

Authentic foods and medicines (those foods and medicines naturally evolved over time within a specific human culture) bring balance to the body, mind and spirit. Health practitioners and native peoples living in comunidads, on reservations, reserves and in urban communities, however, do not generally turn to authentic foods and medicines. Furthermore, nor with the passing of elders, these individuals do not necessarily possess that traditional knowledge to make appropriate diet changes. Foods introduced into a culture often serve as substitutes for natural foods that are readily available, but their consumption can produce disastrous dietary and health results

Our study of culture and community as healing for chronic disease is the first major effort to document the relationship between imposed development, community trauma and diabetes in Indigenous Mexico. We have demonstrated the efficacy of culture and the validated knowledge healing is palpable. Five years after the start of the project, several of the women trained as natural health promoters during the project continue their work with people in the village. Individual incidence of chronic disease can be reversed through cultural validation, reintroduction of local wild and cultivated foods and employment of traditional healing techniques.

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About the Authors:

Leslie E. Korn, PhD, MPH

I am the granddaughter of Romanian Jewish women who healed with their hands and their food.

I embraced this cultural memory only years after I had been living in the dry forest of Mexico wondering why I felt so totally at home in that beautiful land touching the feet and bellies of my patients. Following 10 years in Yelapa, I returned to complete my formal graduate training at Lesley University, (Health Psychology) Harvard School of Public Health (Maternal Child Health/International Health) and Harvard Medical School (Religion and Psychology). I returned to Mexico following my PhD from the Union Institute (Traditional Medicine and Feminist theory) where I conducted the work outlined in this chapter. I have a clinical/healing practice in Olympia WA. My current research is funded by the National Institutes of Health to document the effects of Polarity Therapy on the health of American Indian family caregivers. I am married, with three grown step-sons and a wild dog who figures in everything.

Rudolph C. Ryser, PhD

I grew to the age of awareness in a tiny village on the Pacific Coast surrounded by the sea, forests, long beaches and mild climate in the State of Washington—so similar to the semitropical comunidad in Mexico. The youngest of eight children I grew up in the Taidnapum Cowlitz way even though I knew nothing of the Indian politics that would later define so much of my life. While I received my formal education at Washington State University and the Union Institute and University my practical and fundamental education took place in the struggle to achieve the fullest expression of Indian Rights. I served as an advisor, researcher, and writer with the key leadership of US Indian tribes and later with leaders from other

indigenous peoples elsewhere in the world for more than thirty years to negotiate peaceful relations with often violent and dangerous state's governments and their policies. For the last twenty-five years I have served as the Board Chair and Executive Director of the Center for World Indigenous Studies, a policy analysis, education and research organization dedicated to the advancement of indigenous peoples' rights through activist scholarship. My wife and I have three beautiful sons.

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