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Use of Complementary/Alternative Medicines and Supplements by Mexican-Origin Patients in a U.S.-Mexico Border HIV Clinic

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Abstract

This article draws from a study investigating the influence of institutional and psychosocial factors on adherence to antiretroviral (ARV) medications by Mexican-origin persons living with HIV (PWLA) on the U.S.-Mexico border and seeking treatment at a clinic in El Paso, Texas. Among 113 participants, many individuals reported using complementary and alternative medicines (CAM) to support general health and their immune systems and to address symptoms of HIV-related diseases and ARV side effects. CAM was seen as complementing ARV treatment; however, its use was often unreported to health care providers out of concerns about disapproval and loss of care privileges. This finding challenges researchers and providers to seriously consider how Hispanic populations, with their CAM use, may exhibit the hybridization of health and healing. Information on CAM use needs to be available to providers to assess the benefits and contraindications of use and to develop realistic and effective care strategies.

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Keywords

antiretroviral; complementary and alternative medicine; Hispanics; HIV

Complementary and alternative medicines and therapies (CAM) are often used to improve or maintain overall health and to relieve the side effects of conventional treatments or symptoms associated with chronic illnesses such as HIV infection (Sparber et al., 2000). CAM can be categorized into mind-body therapies such as yoga and meditation; natural products such as botanicals, vitamins, and minerals; body-based therapies such as massage; and culturally based healing traditions such as Ayurveda, traditional Chinese medicine, and *curanderismo* (Tabish, 2008).

The data reported in this paper emerged in the context of a larger study investigating the influence of institutional and psychosocial factors on adherence to antiretroviral (ARV) medications by Hispanic persons living with HIV (PLWH) in the U.S.-Mexico border area and seeking treatment and related services at a clinic located in El Paso, Texas. We defined “Hispanic” subjects, for the purposes of this paper, as persons of Mexican-origin if they or their parents had been born in Mexico. As “Spanish-dominant,” another recruitment criterion, we assured that Spanish would be the preferred language for communication with study participants. Finally, we used the term “cross-border health care” to describe the utilization of services on either side of the U.S.-Mexico border, the back and forth care-seeking typical of border populations. As noted by Amastae and Fernández (2012), seeking access to medical care and/or medicines is a traditional pattern of cross-border movement in both directions on the U.S.-Mexico border. In fact, most of our study participants had, at some time, sought services and/or lived on both sides of the border.

Although not the primary focus of our study, we believe that these CAM-related findings hold important lessons about traditional health practices and their interactions with institutionally legitimized health care and medication regimens, particularly for PLWH. The purpose of this paper is to describe the types and role of CAM in our border sample, and to illustrate the hybridization of treatment options and the need for better provider-patient communications about CAM. The subset of CAM data analyzed here emerged as a result of the exploratory nature of qualitative research, the serendipitous findings illustrating one of the advantages of an inductive approach.

Background

Increasing Use of CAM

In the United States, the use of CAM continues to grow. A study conducted by Barnes, Bloom, and Nahin (2008) showed that in 2007, approximately 38% of adults had used a form of CAM therapy in the previous 12 months. The relatively limited literature on CAM among Hispanics suggested that these populations combined traditional health and healing practices (from Hispanic and other cultures) with conventional medical care (Howell et al., 2006; Martinez, 2009; Rivera, Ortiz, Lawson, & Verma, 2002).

Health and healing practices in Hispanic communities include *curanderos*, *botánicas*, and *yerberos* in conjunction with conventional medical care. In *curanderismo*, beliefs of optimal health integrate physical, emotional, social, and spiritual aspects. *Curanderos*, or traditional healers, may treat a wide range of illnesses—physical, mental, and spiritual—and methods may include herbs, massage, prayer, and holy objects. *Yerberos*, or herbalists, prescribe herbal teas, baths, or poultices, which may be available from a *botánica*. The *botánica* serves

as an herbal pharmacy dispensing dried herbs and tinctures, as well as religious/sacred items (Lopez, 2005).

Mexican-origin individuals often use CAM therapies for general health maintenance and symptom management for various illnesses. In a study carried out in the late 1990s, 44% of Mexican-origin participants located in the Texas Rio Grande Valley used an alternative therapy at least once in the previous 12 months, and 66% never disclosed this information to their physicians (Keegan, 1996), a finding consistent with more recent literature (Shelley, Sussman, Williams, Segal, & Crabtree, 2009). The most frequent alternative therapies used by Mexican Americans were herbal medicine, prayer and spiritual healing, and massage; approximately 15% of participants had visited a *curandero* or folk healer within the previous year (Keegan, 1996).

CAM use tends to be higher in Hispanic patients than in non-Hispanic White patients. A study conducted at the University of New Mexico Senior Health Center in Albuquerque showed that 61% of Hispanic patients, compared with 40% of non-Hispanic White patients, had used herbal remedies in the previous year (Zeilmann et al., 2003). Another study showed that 1,235 Hispanic patients living in four counties in Texas near the U.S.-Mexico Border reported the use of home remedies primarily for treatment of stomach ache, cough, *nervios*, colic, fever, and diarrhea (Trotter, 1981). Other studies have also pointed to the importance of attention to traditional health and healing practices among Hispanics. Rivera and colleagues (2002), for example, conducted a study in El Paso, Texas, which found that 77% of the population used CAM therapies, implying that Hispanics in the largest U.S.-Mexico border city used CAM at a rate higher than national trends of CAM use. Participants reported using numerous CAM providers and types of home remedies simultaneously, chamomile and aloe vera being the most common. In this study, 76% of participants reported use of nutritional or commercial products such as multivitamins and calcium supplements. Few participants reported using urine therapy, folk healers, or a lead-based product. The study also concluded that 599 of the identified CAM treatments used could have had adverse effects on treatments including drug and disease interactions (Rivera et al., 2002).

CAM Use Among Hispanics Living With HIV

The use of CAM therapy seems to be more prevalent in patients seeking care for HIV infection compared with the general public (Almuete, 2002). In a survey conducted by Duggan, Peterson, Schutz, Khuder, and Charkraborty (2001), about 67% of 191 surveyed HIV-infected patients reported use of CAM therapies currently or in the past; the majority of these patients used CAM in conjunction with conventional medicine and said their physicians were aware of their usage. In the Alternative Medicine Care Outcomes in AIDS study conducted between 1995 and 1997, 63% of the 1,675 HIV-infected patients reported using 1,600 different types of CAM therapies and treatments including antioxidants, vitamins, and herbs (Standish et al., 2001). The primary reasons for seeking CAM therapies were to prevent weight loss, nausea, and diarrhea; to combat HIV or boost immunity; and for stress relief and depression management (Fairfield, Eisenberg, Davis, Libman, & Phillips, 1998). Patients also utilized CAM for the management of pain, such as that associated with peripheral neuropathy, by using acupuncture and capsaicin (Phillips, Skelton, & Hand, 2004; Simpson, Brown, & Tobias, 2008). CAM users have also been shown to consume herbal and nutritional supplements for specific ARV side effects such as hyperlipidemia and lipodystrophy (Hoogbruin, 2011; Swanson, Keithley, Zeller, & Stubbs, 2000).

Research on HIV-infected Hispanics has also pointed to high utilization of CAM. In a study conducted by Jernewall, Zea, Reisen, and Poppen (2005), 80% of the 152 HIV-infected

Hispanic gay and bisexual participants reported use of CAM. The patients who used Hispanic CAM and plant-based CAM were found to be less likely to adhere to prescribed medication regimens and to attend doctor's appointments (Jernewall et al., 2005). Those with a diagnosis of AIDS were more likely to use Hispanic CAM and plant-based CAM because they were in need of greater symptom relief (Jernewall et al., 2005; Pawluch, Cain, & Gillett, 2000).

Among Hispanics in the U.S.-Mexico border region, accessing and using CAM may be part of coping strategies that include movement between countries. Rivera and colleagues (2005) carried out a small observational study of 35 Mexican American patients with HIV infection in the El Paso, Texas region to examine CAM use in Hispanic PLWH who crossed the border for treatments. They found that 71% of their participants were using herbal products, primarily chamomile (*manzanilla*) and hibiscus (*flor de Jamaica*), and the use of herbal products known to cause potential clinical interactions was very high among these participants. The study also found that although most uninfected patients purchased their herbal products in the United States, the majority of HIV-infected patients (56%) crossed the border and purchased products in Mexico. It was also noted that the most common source of advice about CAM treatments were relatives and friends (Rivera et al., 2005).

Thus, while limited, studies exist that have illustrated CAM use among Hispanic populations and, in particular, the frequent use of CAM among HIV-infected Hispanics. Additionally, the literature has suggested that some border crossings may be motivated by the need to access traditional medications and treatment, and that potential clinical interactions with existing medication regimens demand a better appreciation of CAM use in this population.

CAM Use by Border Patients in HIV Care

The study from which the results reported here were drawn examined the influence of institutional and psychosocial factors on adherence to ARV medications by Mexican-origin PLWH on the U.S.-Mexico Border. These data included: the social-normative environment (extent and type of information, and range of perceived alternatives and experiences that may affect social norms with implications for treatment adherence); the institutional environment of treatment/service delivery (meanings and significance that treatment options and experiences have for individuals and communities), and individual variation and culturally patterned behaviors and responses of patients (processes that affect how care seeking and adherence behaviors change). In comparing factors affecting adherence in the U.S.-Mexico border, the study included accounts of CAM use and offered insights and experience to support strategies and treatment on both sides of this border (Shedlin, Decena, and Beltran, in press).

Theoretical Framework

Our ARV adherence study drew from two complementary models and adapted them to the adoption of and adherence to ARV medications: a dynamic model of culture, cultural diversity and cultural change (Handwerker, 2002), and the diffusion of innovations theory developed by Rogers (1995). Handwerker's (2002) model provided elements to explore health decision-making and behavior in context, as it focused on identifying and describing evolving configurations of cognition and behavior. According to this model, individuals can shape and direct both their own behaviors and those of others. Our focus on specific behavioral situations (e.g., health care utilization and adherence) and the choices made by individuals (e.g., whether to initiate treatment/medications, whether to adhere as directed, whether to use CAM and negotiate it in relation to an existing medical regimen) permitted the identification of a range of options that patients perceived and an exploration of the decisions and actions they took within that range. An additional component of the model

was the assumption that no individual possessed or participated in a single culture (in this study it was multiple medical cultures as well). Shared national, ethnic, experiential, medical, and historical elements combined to influence and shape patterns of behavior and responses to, for example, new treatment options, alternatives, and obstacles. Our data draw attention to the hybridization of health and healing models, and to the need health providers have to understand traditional and emerging healing practices not usually addressed in the clinical settings in which they collaborate with patients in order to develop effective strategies to maintain health.

Study Methods

A total of 113 patients were enrolled in our study; 61 participated in individual in-depth interviews and 52 contributed to focus groups. Of the 61 baseline interviews, 53 participants returned for a 6-month follow-up interview, with the purpose of documenting any changes in adherence during a 6-month period. Those who did not return had died, moved away, or changed providers. Five focus groups were conducted to explore HIV care with cross-border health care users, women, treatment naïve men, treatment-experienced men, and gay-identified men. Finally, nine key informant interviews were conducted with HIV service providers. Baseline and follow-up interviews were carried out in a private office in the clinic; the majority of the interviews were conducted in Spanish (a few of the male participants preferred English). The study was carried out in El Paso, Texas, geographically located across the U.S.-Mexico border from neighboring Juarez, Chihuahua (Mexico). Mexican-origin and Spanish-dominant women and men, 18–55 years of age, were recruited from a local community-based clinic serving this binational border population. The age range of the sample represented the majority of the patient population and excluded older patients who did not have access to ARVs when they were first diagnosed. The convenience sampling attempted to recruit as many women as possible from a predominantly male population.

Recruitment and Human Subjects Protections

Participants were recruited by their HIV health care providers, primarily while they waited for an appointment, for laboratory tests, or for case worker services. Clinic staff asked if clients would participate in an in-depth interview about their experiences with care and their medications. The Case Management Department referred most of the participants; clinical staff referred others. If a patient decided to collaborate in the study, s/he was referred to the Research Coordinator to receive more details about the study and to review the informed consent procedure if s/he wanted to do the interview at that time. Participants received \$30 (U.S.) for participating in the study. This amount was decided upon as non-coercive by the clinic director. After the interview, participants were asked for contact information to inform them when they needed to come back to conduct the 6-month follow-up interview. Contact information was saved in a password-protected file with access only by the Principal Investigator (PI), Co-Investigator, and Research Coordinator.

Participation in the study was entirely on a voluntary basis, and participants were informed that they could withdraw at any time. They were assured that neither their participation nor refusal would adversely impact their care in any way. All procedures to protect participant confidentiality were followed in obtaining informed consent, including Health Insurance Portability and Accountability Act (HIPAA) requirements in Texas. The study obtained human subjects approval, which was renewed annually for the length of the study by the university institutional review board.

In-depth, open-ended patient interviews involved the use of an interview guide rather than a questionnaire. The guides were structured to permit a greater coverage of issues, yet still

permit flexibility to explore particular responses and follow-up issues initiated by the respondents. They contained both closed- and open-ended response formats for questions. The purpose of the guide was to provide a framework within which respondents could express perceptions in their own terms rather than within preconceived response categories. The guides also served as checklists to assure that necessary attitudinal and behavioral content areas were covered. Most interviews were conducted by the PI, an experienced, bi-lingual medical anthropologist, and the Research Coordinator, a Mexican-origin, bi-lingual doctoral student. Some interview assistance was obtained from an experienced psychologist participating in other HIV studies at the clinic. The PI trained and supervised data collection and facilitated all focus groups.

Data were obtained from audiotapes, observation notes, and transcripts. Patient interviews and focus groups were taped; tapes were transcribed in Spanish. Preliminary analyses of the data were performed continually during data collection. Assessment of the quality and completeness of data in relation to the key research questions was an on-going process. Because similar issues were researched using different methods (individual interviews, observations, focus groups) and because multiple data sources were involved (patients, providers/key informants), multiple data sets were available on the research domains and key issues.

We used a grounded theory approach to explore emergent themes and constructs from our data (Strauss & Corbin, 1994). Analysis involved the classification of evidence from all data sets organizing them to identify patterns and relationships relating to the research domains. Qualitative coding of content related to research domains accommodated the exploratory nature of the questions and the complexity of open-ended responses to interviews. The qualitative coding unit was a text segment, including interview transcripts, data from follow-up interviews, and interviewer notes from interviews. The analysis team included the PI, Project Coordinator/Interviewer, and a consultant experienced in the use of Atlas.ti, a qualitative data analysis software.

Results

Demographics

Men made up the majority of individual interview participants (75%), a finding consistent with the predominance of men in the clinic population; most participants had been born in Mexico (59%). The mean age of the sample was 46 years and the mean time spent in El Paso was 16 years. Levels of education generally ranged between the seventh and twelfth grades (36%). A small proportion (16%) had some college training, and fewer had completed a GED or technical education. More than half of all participants reported *single* as their partner status at the time of the interview (58%); the percentages of those partnered (*married or with partner*) were 8% and 13% respectively. The mean time since diagnosis of HIV was 9.7 years with a mean time on ARVs of 8 years.

Sources of CAM Information

Participants reported CAM recommendations by family members, traditional healers in Mexico, women in the community who had treated their families for years, large U.S. discount stores, vitamin stores, doctors in Juarez and in the United States, herbal/natural stores in Mexico, and pharmacies. Some also reported hearing about products from friends, partners, and relatives, especially from those living in Mexico. Others reported reading about these options on the Internet and in magazines.

Reasons for CAM Use

Stress and spiritual health: Massage and yoga—Participants described involvement in activities to improve or sustain their spiritual health, to help cope with and release stress, to exercise and improve the flexibility of their bodies, and to develop networks and friendships. Acupuncture, body massages, yoga, and meditation were, in some cases, part of the participants' lives before being diagnosed with HIV. Coping with stress related to living with HIV was a common theme. While in some cases participants reported seeking massage to deal with specific areas of pain, others saw it as relieving stress:

I know stress is not good for HIV ... I go every 2 weeks for a deep tissue body massage; that is something I always do to... release the energy from the body, so that it's something I give to myself every 2 weeks ... I know the body holds a lot of feelings and anxiety in the muscles. And I know because when she works through my muscles I can feel the release and break when they finally let go, especially here in the shoulder part so I know the body holds a lot of good and bad energy.

Other participants noted that they practiced and benefited from meditation and yoga for their general health, for stress relief, and for spiritual health. These practices, usually carried out in groups, also helped participants feel they were a part of collectivities and establish relationships to others beyond networks of other self-identified PLWH. As one individual explained:

Yoga has a lot of ... consequences, to say it in some way. It's very connected with natural medicine and there is meditation in it, you know how? There is also concentration. ... It helps me. If I am very stressed out, I think it helps me ... relax.

Another patient suggested that, as part of a support group, yoga helped him establish and sustain relationships with others while getting to know himself better since becoming infected with HIV:

In fact, I like reading about religion a lot, not to practice it but to understand the spiritual part of me, to understand what is the history of humanity and where we are going because I am included in that process. To understand that I want to grow, I need to understand others in order to understand myself. Those are the things I practice. So that's led me to practice yoga and to practice meditation.

As a former substance abuser, he noted often sharing these experiences in support groups and saw yoga as another means to grow by engaging in inner reflection. Practices such as yoga and meditation were seen to complement HIV counseling sessions.

Herbs and supplements—The range of traditional and non-traditional products mentioned by our participants, is presented in Table 1, which covers the most salient of the CAM herbal products and supplements reported. The table lists the conventional name of a specific product, herb, or root, the Latin binomial name, and purported uses. The list captures the diversity of natural products reported, ranging from conventionally beneficial products such as garlic to less known yet widely utilized ones such as *uña de gato*. Despite the fact that many of the products listed were important for general bodily function, their purported uses ranged widely as well, from supplements to dietary regimes to prevention of diarrhea to managing HIV symptoms or ARV medication-specific side effects.

Several participants noted the importance of CAM to support general immunity, to help prevent illnesses like the flu or the common cold, and to improve energy. The following response suggested that some participants thought of prevention in the short and long terms:

The only thing HIV does is that it eliminates your immune system so yes, I have taken products that are sold, juices or extracts to help maintain a healthy immune

system and avoid cancer, diabetes, which can kill me ... You don't feel the changes in a week or 2 but then if I take them for 3 months, you do feel the change. ... You feel better. You feel you have more energy and yes, it makes sense because the cells are nourished constantly so you are not giving the virus a chance to attack your cells.

Another participant described Mexican nutritional supplements:

I am using natural supplements... Mexican products and yes, there has been a difference. They are manufactured in Mexico ... completely certified by scientists and doctors, based on the nourishment of the ... cells.

Many participants mentioned the use of vitamin combinations in addition to ARV medications. "I feel that getting those vitamins in my body," one person noted, "will keep me healthier and the doctors said that it is good to take a multivitamin." This participant connected the wellbeing associated with multivitamins with the endorsement of doctors, suggesting the importance of approval by physicians and other care providers. Another participant shared a combined approach:

I take a B-complex, flaxseed oil, and omega-3 fish oils that I take on a daily basis ... the B-complex I did notice that that gives me a little bit more energy. The others I just know that they promote good health and they're good for the heart or high blood pressure.

Some participants stated that they believed taking vitamin C helped them prevent the common cold. Other vitamins were mentioned as well, with the assumption that vitamins helped to support their immune systems. "I take Centrum® and my vitamins," one person commented, "not because I feel weak or tired, but only because they are vitamins and vitamins do no wrong to the body."

Combinations of herbs—The herbs and supplements listed in Table 1 represent a range of types of products as well as a range of purported uses. Nevertheless, part of the challenge of quotidian practices of CAM, as reported by the participants in this study, was that many used these products in combination with ARV medications and in different combinations of these herbs and supplements. As explained by the respondent below, it was important to note the interactions of various CAM methods, as well as interactions with their ARV medications: "Well, see, my ex-father-in-law was, he had a *hierberia* and I raised my kids on *hierbas* and I take, when I can't sleep, I take Sleepytime Tea®, I mean, you know. And I take *yerbabuena* for my stomach, you know, I take different herbs." Another reported experience illustrated other combinations of herbs and supplements:

My sister has a membership in Sam's® and in Costco™ and they sell a lot of things there. They sell Noni® juice, wine extract, vitamins, omega, omega oils, liquid vitamins because liquid vitamins get to your cells faster than in tablet form, minerals...and zinc...I take a lot of things.

Participants frequently discussed using multiple herbs for different purposes, some noting the benefits of their interactions. For example, one respondent reported using *anis* (star anise), *cola de caballo* (horsetail), *manzanilla* (chamomile), and *damiana* (*turnera diffusa*, "old woman's broom"), as well as saw palmetto for his prostate. When asked to expand on the benefits associated with using these herbs, he explained:

Damiana is a little of an aphrodisiac, it is also strong for the body (*constituyente*). Horsetail for gout, even though I've recently heard that it works negatively instead of helping, but I've also heard that it helped and apart from the kidneys, though also a little for the kidneys. Saw palmetto is for the prostate, to prevent prostate

problems and chamomile to calm down and all that. ... I don't notice a lot of difference, but it helps me a little psychologically.

This participant believed psychological and physical well-being were intertwined. Although he was unsure about the benefits of the various CAM treatments he used, he was emphatic about the connection between mental and physical health.

Treating symptoms of HIV-related diseases—Many participants discussed taking traditional herbal medicines to deal with the effects of HIV and HIV-related diseases. Most frequently these CAM treatments were linked to the restoration of energy and combating weakness, as well as controlling weight gain or loss or lipodystrophy.

Of the commonly noted effects of HIV, fatigue and a compromised immune system were among the most salient for participants, causing stress and worry. Vitamins, OMNIlife™, OMNIplus™, natural supplements, supplement injections (*Doloneurobion*, *Bedoyecta*), and some herbs were connected with support of the immune system. Ginseng, echinacea, flaxseed oil, omega-3 (for cholesterol, triglycerides, and high blood pressure), B-complex (sometimes injected), and vitamin C were thought to help reinforce the immune system and regain energy. Clorofila (chlorophyll) in liquid form was said to support the immune system and help with gastritis.

Lack of energy appeared especially of concern for women because, as one explained, “Women have a lot more responsibilities as we have to take care of our kids, we have to do the housework, you know, we're always tired, you know, having HIV wears you down.” Many participants reported using a combination of various CAM treatments simultaneously to help manage these side effects of HIV. One respondent said OMNIlife™ helped her control and reduce these symptoms, “So it gives you more energy, more concentration...you heal more easily, you laugh more easily during the day too. In other words, it helps strengthen my immunity.”

In addition to fatigue, the idea of a weakened immune system caused fear in many participants. One man stated that because of HIV he had

More fear ... I don't have a lot of defenses, my immune system is very low, so the doctor told me, “You have to take more care of yourself because you can get any disease that other people might get, cough, cold, any little thing that is normal for them, will be more complicated for you because of how low your defenses are.” And that's when my fear became stronger.

To boost immune systems, patients relied heavily on CAM. “I believe in garlic. I eat a lot of garlic for my immune system. If you put a container with garlic in it, I can easily eat between six and eight pieces per day.” Another reported that garlic pills kept him from getting sick by “purifying the blood.” Green and various herbal teas, along with herbal juices and rhubarb, were all commonly reported CAM treatments used for immune support.

Hearsay played an important role in how participants understood and engaged in CAM treatment options. Erroneous beliefs about prevention and hopes for a cure for HIV were clearly part of what fostered interest in emerging information (or conjecture) about treatments:

Participant: My sister sent me an email recently about something called ozonotherapy that is apparently working with HIV patients in Juarez.

Interviewer: How does it work?

Participant: You know what? I don't know. It's as if they inject you with ozone and I don't know what.

Another patient described using unnamed “drops” prior to being diagnosed with HIV in hopes of preventing HIV, believing that his use of this treatment may have allowed him to delay seroconversion. As he explained, “They were drops that you put in your drink, but I don't know what it was ... He (the provider) just wanted your social security and he would send them to you ... little bottles.”

A lack of weight control was an additional source of concern and anxiety for participants, and many engaged in both medically-indicated and traditional methods to help control their weight. Men and women described a combination of health practices, not choosing one over the other, such as combining nutritional supplements and herbal teas:

Participant: You know what I did do take is Ensure[®], sometimes ... I feel I look better when I started doing it every day, I used to. It just makes me feel better; you know, energy and getting a little bit more muscle weight. It does help ... because it makes me feel better.

Interviewer: In general, like for your HIV or for your nutritional intake, why are you taking those ... Is there anything else you do?

P: *Te de Jamaica*, which I take a lot, and supposedly lowers the levels [of] cholesterol in the blood. Then, as I said to you at the beginning, I don't drink any sodas. I'm always drinking water and *te de Jamaica* and then an antioxidant that is green tea—that's my routine.

I: When you take those teas and the soy supplements, have you noticed any change in your health?

P: Yes, a lot. A lot of energy. I feel good.

Treating side effects of ARV medications—Some patients explicitly reported using CAM treatments in conjunction with their ARV medications to manage the medication side effects. Several participants reported using melatonin to reduce the occurrence of bad dreams said to be caused by their ARVs, and various herbal supplements and juices to boost their immune systems and to ease inflammation of their stomachs, also caused by their medications.

Nearly all patients recorded changes in the face, arms, or legs, but their reports suggested uncertainty about the nature of those changes. Particularly confusing was lipoatrophy, and there was some lack of awareness of it as a condition connected to their ARVs. Some patients appeared to keep perceptions of body changes to themselves because they were unsure of whether these weight loss and physical changes were due to HIV, their lifestyles, or their medications.

In fact, uncertainty about the nature of physical changes being experienced punctuated many of the discussions of lipodystrophy. One patient reported using various teas to assist with weight loss, specifically the lipodystrophy caused by his ARV medications. Yet, as his commentary below suggested, it was hard for him to establish how much weight loss would help him get rid of his belly:

I've used teas to lose weight ... the medicine I am taking makes ... as it is, I have fatty deposits that are not problematic in my body. Add to that my excess of fat, which is worrisome, so the doctor has told me to take care of myself, to get rid of the belly.

Another commonly noted side effect was diarrhea, attributed by some to be from a buildup of toxins in the liver. To rid and cleanse their bodies of these toxins, many patients reported combining a daily detoxification treatment with their medications such as *Sabila* and *Nopal*, a product called Intestinal Formula 1 and 2, olive oil, milk thistle, various 30-day body cleanses, and cranberry capsules or juice. Another patient described his process of detoxification from the medications in the following way:

I take a lot of supplements that help, like milk thistle, and cranberry and that's good because it filters your liver out. It takes out all the toxins, and that I am very careful about because of the Hep-C ... And prior to that, once a month I would get diarrhea, actually twice a month, really bad because I think it's the medications building up ... it's like if I have something planned, I cancel it because if I have diarrhea, I am not going out of the house ... the very first protease inhibitor they had me on, I was on, my T-cells were 3. Curly, Larry, and Moe, I named them. Well you have to have a sense of humor. And the medication was so strong; um they were so toxic, that for 2 years, I really didn't do anything because I had to wear diapers.

As this commentary illustrated, the use of multiple health approaches, and the combinations of CAM that physicians may (but often do not) know about, were coping mechanisms our participants used to deal with the often very difficult (and embarrassing) side effects of ARVs.

Patient-Provider Communication

The greatest challenge of CAM use by the patients in our study seemed to be the lack of communication about use between patients and many of their health care providers. This gap obfuscated understandings of health and healing traditions and thus created the possibility of negative interactions with HIV-related medications and regimens.

With few exceptions, the use of CAM and a wide range of supplements complemented, and did not substitute for, ARV medications. However, use was said to go largely unreported to health care providers because of fear of disapproval and/or loss of care privileges. Some of the study key informants believed that patients also tended to view CAM as non-medical or insignificant information that they would “forget to report.” Three physicians were included among these knowledgeable sources and were asked specifically about their patients' uses of CAM. All three reported minimal to no usage, and one stated that only “1–2%” of patients even experimented with CAM. Another physician stated that CAM was “not very common,” and the third noted, “My patients, I don't think that any of them use it.” The physicians who reported low use of CAM also believed that the majority of their patients were honest and accurate in their reporting of such treatments. This feedback conflicted with patient reports as well as interviews with a pharmacist and HIV care administrator, who speculated use to be “about 50%” and “between 50 and 75%” of patients respectively. The administrator explained that he believed that patients did not divulge this information because they were afraid that if they told the doctors, “Then they're going to be kicked out of care because they have broken the rules.” Furthermore, this informant suggested that, in some cases, “They don't even see it [CAM] as an adjunct to health care because it's tradition and so common in the culture.”

Other respondents described the mixed and often negative medical opinions about CAM use. One participant, who used various medicines and herbs (such as ginseng, *damiana*, and *linaza*) for relaxation and immune support, recounted his experience with his physician:

He doesn't agree with anything that is not FDA (Food and Drug Administration) approved. For example, I was taking chondroitin glucosamine, for the joints and he

said, “No. Don’t take that. No. Those medicines are not scientifically proven and no ...”

Several participants maintained their faith in traditional herbs and injections despite the ambivalence or clear disapproval expressed by their doctors. In a few cases, participants opted to substitute herbs for medicines (other than ARV medications):

I have felt a lot of changes, with the herbs, I take the *te de la mula* (*Eriosema grandiflorum*), and I use it to substitute for a drug called Laxin. I just take the *te de la mula* and I pee all day, just in case I get bloated, or if I’m retaining liquid. If I see that my body wants to retain liquid or if I feel it a little bit ... the doctor said to me that I have to watch it when I get diarrhea or a stomachache and all of that. I take my herbs and I forget about everything else. I have faith in them.

In making the connection of herbs, other natural remedies, and crossing the border for products he explained:

Miel de gato ... I went to Juarez and buy, before the passport thing, I used to go over and buy a lot of herbs ... eucalyptus leaves for the cough. I would buy mostly a strange root ... a strange root ... an herb, that is supposed to energize you or I don’t know what ... I’ve done ginseng or done green tea ... It seems to me that, um, when I take both of them together, um, I am more happy ... and it is good for the glycerites.

Conclusions

The reported experiences of the participants in this study point to the existence of a rich and large repertoire of traditional and emerging practices and natural remedies used for coping with and alleviating physical and mental health challenges posed by HIV infection. While it is clear, from their comments and from the long list of remedies documented here (see Table 1), that traditional medicines are a crucial part of how everyday women and men deal with an HIV diagnosis, they use these complementary and alternative health resources in conjunction with, and not instead of, ARV medications. In other words, the hybridization of health and healing practices surfaced as individuals negotiated and mixed culturally-framed understandings and practices of healing with standard scientific views, conventions, and practices of health and healing. One set of practices did not supplant another; CAM use was seen to complement and potentially enhance or mitigate negative effects of medical regimens. Furthermore, women and men participants reported their willingness to learn about and to try various new strategies and remedies that borrowed from emerging traditions of healing. This challenges researchers and health care providers to take more seriously that Hispanic populations may mix traditional healing practices with medical treatment, which produces new practices of health and healing.

The reliance on word of mouth and suggestions from kin, friends, and others, points to a second dimension of what has been documented here: our respondents viewed health care providers and biomedicine as legitimate, but not exclusive, resources in their lives. They paid attention to physician’s warnings about specific practices or remedies but it was often the case that if they believed, based on their own experiences or those of others, that a particular herb worked in a certain way, they were unlikely to relinquish it simply based on what a health provider said. Furthermore, negative or positive interactions between CAM and a patient’s medical regimen may be unknown to the patient or to the health provider (Lu et al., 2009). In some cases, specific practices were so commonplace in their lives that individuals may not have been aware that they were using CAM.

Accounting for the degree of patient utilization of CAM becomes a challenge in the creation and sustenance of effective relationships between health care providers and PLWH. The marked differential in patient reporting and provider awareness of CAM use documented here, consistent with recent studies (e.g. Shelley et al., 2009), suggests that providers need to be educated about the utility and benefits of CAM. Their acceptance of appropriate CAM use would then support communicating to patients the importance of reporting such use in order to develop a truly collaborative and effective strategy to maintain health.

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Table 1

Most Frequently Reported Herbal Products and Supplements

Herbal product	Latin binomial name	Purported Uses
Ajo (garlic)	<i>Allium sativum</i>	Orally, hypertension, hyperlipidemia, coronary heart disease, atherosclerosis, chronic fatigue syndrome, ARV-induced lipid disorders, cancer, diabetes, osteoarthritis, allergic rhinitis, colds/flu, immunostimulant, bacterial and fungal infections ^{b,c,d,e}
Anis (star anise)	<i>Pimpinella anisum</i>	Orally, dyspepsia, flatulence, rhinorrhea, menstrual disorders, loss of appetite, expectorant, diuretic, libido stimulant ^{a,b,c,e}
Betabel (beet)	<i>Beta vulgaris</i>	Orally, liver diseases ^{c,e}
Canela (cinnamon)	<i>Cinnamomum verum</i>	Orally, diabetes, flatulence, muscle and gastrointestinal spasms, loss of appetite, nausea, vomiting, diarrhea, infections, colds/flu, poor circulation ^{b,c,e}
Cascara sagrada	<i>Rhamnus purshiana</i>	Orally, constipation, gallstones, liver diseases ^{c,e}
Cranberry	<i>Vaccinium oxycoccus</i>	Orally, UTI, antioxidant ^{c,e}
Damiana	<i>Turnera diffusa</i>	Orally, headache, depression, aphrodisiac, libido stimulant ^{c,e}
Echinacea	<i>Echinacea angustifolia</i> ; <i>Echinacea pallida</i> ; <i>Echinacea purpurea</i>	Colds/flu, immunostimulant ^{c,e}
Epazote (wormseed)	<i>Chenopodium ambrosioides</i>	Orally, anthelmintic, emmenagogue ^{b,c}
Eucalipto (Eucalyptus)	<i>Eucalyptus globulus</i>	Cough, infections, fever, dyspepsia ^{c,d,e}
Flaxseed	<i>Linum usitatissimum</i>	Orally, constipation, diarrhea, GI disorders, laxative- induced colon damage, diabetes, menopausal symptoms, hypercholesterolemia, hypertriglyceridemia, hypertension, atherosclerosis, coronary artery disease, cancer, systemic lupus erythematosus, nephritis, respiratory tract infections, rheumatoid arthritis ^{c,e}
Flor de Jamaica (hibiscus)	<i>Hibiscus sabdariffa</i>	Cardiovascular disease, hypertension, hypercholesterolemia, anxiety, loss of appetite, colds, respiratory tract infections, circulatory conditions, diuretic ^{c,e}
Ginseng	<i>Panax quinquefolium</i> ; <i>Panax ginseng</i>	Orally, general health tonic, immunostimulant, digestive aid ^{c,d,e}
Green tea	<i>Camellia sinensis</i>	Orally, hyperlipidemia, stomach disorders, cancer, cervical dysplasia, genital warts, cardiovascular disease, diabetes, chronic fatigue syndrome, oral leukoplakia, antioxidant, general health tonic ^{c,e}
Hoja de naranja (orangeleaf)	<i>Citrus sinensis</i>	Digestion aid, appetite stimulant, stomach upset, anxiety, insomnia, diuretic ^c
Horsetail	<i>Equisetum arvense</i>	Orally, edema, kidney/bladder stones, UTI, incontinence, diuretic ^{c,e}
Jengibre (ginger)	<i>Zingiber officinale</i>	Orally, motion sickness, morning sickness, dyspepsia, flatulence, nausea, vomiting, osteoarthritis, loss of appetite, migraine headache, respiratory tract infections, cough, bronchitis, diaphoretic, diuretic ^{a,b,c,d,e}
Manzanilla (chamomile)	<i>Matricaria recutita</i>	Orally, flatulence, allergic rhinitis, restlessness, insomnia, GI disorders, menstrual cramps. Topically, hemorrhoids, leg ulcers, skin inflammation ^{a,b,c,d,e}
Marijuana	<i>Cannabis sativa</i>	Orally, loss of appetite, nausea, vomiting, pain ^{c,e}
Milk thistle	<i>Silybum marianum</i>	Orally, liver disorders, chronic hepatitis, cirrhosis, loss of appetite, dyspepsia, diabetes, gallbladder complaints ^{c,e}

Herbal product	Latin binomial name	Purported Uses
Mint	<i>Mentha longifolia</i>	Orally, cold, cough, sinusitis, fever, liver and gallbladder complaints, GI disturbances, dyspepsia, fever, flatulence, tension headache, nausea, vomiting, respiratory infections, dysmenorrhea, diarrhea ^{c,e}
Noni juice	<i>Morinda citrifolia</i>	Orally, arthritis, diabetes, high blood pressure, muscle aches and pains, menstrual difficulties, headaches, heart disease, cancer, gastric ulcers, depression, senility, poor digestion, atherosclerosis, circulation problems, general health tonic ^{c,e}
Nopal (prickly pear cactus)	<i>Opuntia ficus-indica</i>	Orally, diabetes, hypercholesterolemia, colitis, diarrhea, benign prostatic hyperplasia, antiviral ^{c,e}
Olive oil	<i>Olea europaea</i>	Orally, cardiovascular disease, hypertension, hypercholesterolemia, diabetes, rheumatoid arthritis, gallbladder inflammation, gallstones, jaundice, flatulence, and constipation ^{c,e}
Rhubarb	<i>Rheum rhubarbarum; R. officinale</i>	Orally, constipation, diarrhea, dyspepsia, gastritis, GI bleeding. Topically, cold sores ^{c,e}
Saw palmetto	<i>Serenoa repens</i>	Orally, enlarged prostate and urinary bladder disorders. ^{c,e}
Savila (aloe vera)	<i>Aloe barbadensis</i>	Orally, osteoarthritis, inflammatory bowel diseases, fever, itching and inflammation, gastroduodenal ulcers, diabetes, asthma, constipation, colds, bleeding, amenorrhea, depression, glaucoma, hemorrhoids, varicose veins, bursitis, vision problems, general health tonic. Topically, wound healing, inflammation, psoriasis, cold sores ^{a,b,c,d,e}
Uña de gato (cat's claw)	<i>Uncaria tomentosa</i>	Orally, osteoarthritis, rheumatoid arthritis, diverticulitis, peptic ulcers, colitis, gastritis, hemorrhoids, parasites, viral infections including herpes zoster, herpes simplex, HIV, chronic fatigue syndrome, wound healing, asthma, allergic rhinitis, cancer ^{b,c,e}
Hierba de la Mula or Hoja de guayabilla	<i>Eriosema grandiflorum</i>	As a tea (hot or cold) against amebas and to treat GI symptoms ^g
Yerba de la vibora (snakeweed, broom snakeweed)	<i>Gutierrezia sarothrae</i>	Orally, stomachaches, diuretic ^f
Supplements		
Calcium		Dietary supplement
Clorofila (chlorophyll)		Orally, bad breath, constipation, detoxification, wound healing ^{c,e}
Espirulina (Spirulina)		Orally, source of dietary protein, B vitamins, iron; immunostimulant; also for weight loss, oral leukoplakia, premenstrual syndrome, allergic rhinitis, diabetes, stress, fatigue, anxiety, depression, increasing energy, metabolism ^{c,e}
Glucosamine		Orally, osteoarthritis, rheumatoid arthritis, arthritis, back pain ^{c,e}
Melatonin		Orally, sleep disorders ^{c,e}
Multivitamins		Dietary supplement
Omega 3 Omega 6 Omega 9		Orally, hyperlipidemia, hypertriglyceridemia, coronary heart disease, hypertension, bipolar disorder, depression, rheumatoid arthritis, osteoporosis, psoriasis, atopic dermatitis, ulcerative colitis ^{c,e}
Selenio (selenium)		Orally, cardiovascular disease, cancer, diabetes, thyroid conditions, osteoarthritis, rheumatoid arthritis ^{c,e}
Soy protein		Dietary supplement
Vitamins B, C, E		Dietary supplement
Zinc		Orally, colds/flu, respiratory infections ^{c,e}

Note. ARV = antiretroviral; UTI = urinary tract infection; GI = gastrointestinal.

^aBalick et al., 2000

^bHowell et al., 2006

^cNatural Medicines Comprehensive Database, n.d

^dOrtiz, Shields, Clauson, & Clay, 2007

^eNatural Standard: The Authority on Integrative Medicine, n.d.

^fU.S. Forest Service, n.d.

^gGonzalez-Stuart, in press