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Physicians' knowledge and communication about traditional, complementary and alternative medicine use among Latino patients at Kaiser Permanente, Oakland CA

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Abstract. Understanding Latinos' health beliefs and traditional, complementary and alternative medicine (TCAM) practices, and improving cross-cultural communication skills may improve quality of care and reduce health disparities. Although studies have examined the health beliefs and practices of Latino patients, few have examined the knowledge, attitudes, and communication skills of health care providers in regards to Latino TCAM use. This paper discusses the results from 10 physician questionnaires, which form part of a larger mixed-methods study of patients and physicians at a bilingual clinic at Kaiser Permanente in Oakland, California. Physicians had a range of knowledge regarding health beliefs and practices common among Latinos, but all reported an open and non-judgmental attitude during patient interactions and were permissive of TCAM therapies they considered safe. Physicians believed that TCAM use decreased with acculturation and varied by ethnicity, education and income. Physicians were more concerned with the misuse of prescription drugs among Latino patients than the potential for herbal toxicity or herb-drug interactions. The results indicate a need to include questions about pharmaceuticals in future research on Latino health practices, and also point to the need for research on how education, income and acculturation affect health beliefs and TCAM practices within different Latino subgroups.

Keywords. Latinas, Health disparities, Complementary and alternative medicine, Traditional medicine, Physician attitudes, Cultural competence, Cross-cultural communication

1. Introduction

California has the largest Latino population in the nation, with over 14 million Latinos representing 38% of the state's total population[1]. Latinos have lower overall mortality and infant mortality than non-Hispanic white and black Americans, a phenomenon known as the "Latino health paradox" [2-4]. At the same time, Latinos suffer disproportionately high rates of diabetes, HIV/AIDS, tuberculosis, certain cancers, depression, and death from homicide or incarceration.

Many social factors contribute to Latino health disparities, including income, lack of access to health care, insurance status, immigration status, language barriers, working conditions, environmental contamination, neighborhood safety, and unhealthy lifestyles [4,6]. Cultural barriers between patients and health care providers, as well as individual- and institutional-level discrimination, also contribute to poor health among Latinos and other ethnic minorities [7].

Cultural competence, cultural humility, and patient-centered communication have all been promoted as strategies for reducing health inequities [8-12]. Since the federal Office of Minority Health released its standards for Culturally and Linguistically Appropriate Services (CLAS) in 2000, many health care systems have complied with language services standards. However, cross-cultural communication skills and knowledge about the particular health beliefs and practices of Latinos remain an area of weakness in health care research and practice [13].

For many Latinos, their health

beliefs and practices do not fit within the framework of Western biomedicine, which has been cited as a barrier to care [4,14]. Although rates of use vary by region and national origin, at least 25% of Latinos use some form of traditional, complementary or alternative medicine (TCAM) [15,16]. Some studies show that up to three quarters of Mexican-Americans use TCAM [17].

A common theme throughout Latino cultures is a holistic perspective on health, where spirituality, physical and mental/emotional health are equally important and intertwined [18-21]. Illness may result from natural causes or may be related to emotional, spiritual, or supernatural causes. Folk illnesses, also known as "culture-bound syndromes," are collections of symptoms not recognized by conventional medicine but with popularly understood mechanisms of causation and often treated using TCAM. Commonly cited folk illnesses include *ataque de nervios* (nervous attack), *susto* (fright), *mal de ojo* (evil eye), *empacho* (blocked bowel in children), *caída de mollera* (fallen fontanel), and *caida de matríz* (fallen uterus) [11,22].

Herbal remedies, folk chiropractors (*sobadores*), massage, spiritual practices, and relaxation techniques are some of the most frequently reported forms of TCAM among Latinos [16]. Over-the-counter (OTC) and non-prescribed prescription drugs (purchased across the border or under-the-table in the U.S.) also form part of the "ethnopharmacology" of Latinos [23]. Despite much curiosity about folk healers, such as *curanderos*, most studies indicate that no more than 4% of Latinos have visited such a healer within the past year [17,19,24,25], although other studies report rates as high as 13% [21,26].

Self-care through diet and lifestyle, as well as herbal home remedies, appear to be the most important features of Latino health maintenance and are the first steps many Latinos take before consulting a medical professional [22,27,28]. In fact, some argue that the preference for self-care and natural remedies leads Latinos to seek conventional medical treatment as a last resort [21].

Of particular concern to physicians and public health officials is the underreporting of TCAM by Latino patients. Studies have shown that up to 80% of Latino patients do not report TCAM use to their physician [29]. Poor communication not only increases the risk of herb-drug interactions or missing potentially serious health problems, but also points to a profound breakdown in the patient-provider relationship. Improving clinicians' communication skills and knowledge of patients' health beliefs and practices can enhance doctor-patient relationships and improve health outcomes [11,30].

Lacking among research on Latino health beliefs, practices, and outcomes is an investigation of what health care providers who serve Latinos know about their patients' health beliefs and practices and how they communicate with their patients about TCAM. This study explores the cultural knowledge and communication skills of physicians regarding Latino health beliefs and TCAM practices at a bilingual clinic in Oakland, California. Later stages of the research will examine the health beliefs and practices of Latino patients served by the same clinic. Research questions include: (1) How do physicians rate their understanding of Latino patients' health beliefs and use of TCAM and pharmaceuticals? (2) Which TCAM therapies do they consider most effective or most problematic? and (3) How do physicians communicate with Latino patients about TCAM and health beliefs?

2. Methods

This is an exploratory mixed methods study at Salud en Español (SE), a bilingual module at Kaiser Permanente in Oakland, California, founded in September 2009. SE serves a diverse Latino patient population from across Alameda County, providing medical services in family and internal medicine, obstetrics and gynecology, and pediatrics. The study involves questionnaires conducted with 10 SE physicians and a telephone survey of 65 adult Latina patients. Results from provider questionnaires conducted May through July 2011 are presented here. The results from patient surveys will be presented separately. The study was approved by the Kaiser Permanente Institutional Review Board and the UC Berkeley Committee on the Protection of Human Subjects.

2.1 Questionnaire instrument

All physicians at SE were invited to participate in a 20-minute questionnaire administered in person by the graduate student researcher. The questionnaire included questions pertaining to (1) personal background and use of TCAM; (2) knowledge about Latino patients' TCAM use; and (3) communication with patients about TCAM. Both open-ended and scaled questions were included; notes were taken to record responses to open-ended questions, as audio recording was not permitted.

2.2 Analysis

Physician questionnaires were analyzed using qualitative techniques. Scaled questions were analyzed to generate frequencies that described the characteristics, knowledge and skills of the group of interviewees. Open-ended questions were coded and sorted into themes, and lists of herbs, supplements, OTC, and prescription medications were sorted and compared.

3. Results

3.1 Demographics

Participants included 10 physicians (3 men and 7 women), including 6 internal medicine doctors, 3 family practice physicians, and one pediatrician. Their ages ranged from 32 to 57 years old, and their length in practice ranged from 5 to 31 years since beginning their medical residency training. All of the physicians self-identified as Hispanic or Latino/a. Nine physicians felt most comfortable with English but also spoke Spanish fluently; one felt equally comfortable speaking both languages. Eight were born in the US; one was born in Mexico and another in Trinidad and Tobago.

The participants had diverse experiences with using TCAM in their personal health maintenance. Three physicians had

Table 1. Physicians' self-reported knowledge about Latino health beliefs & practices

Knowledge of Latino patients' health beliefs (n = 9)			
Health belief	No knowledge	Some knowledge	Extensive knowledge
Definition of health		8	1
Definition of illness		9	
Causes of illness/disease	1	8	
Help-seeking behaviors	1	8	
Health decision-making		6	3
Role of spirituality in health		6	3
Knowledge of Latino patients' use of TCAM (n = 10)			
Traditional/ alternative therapy	No knowledge	Some knowledge	Extensive knowledge
Herbal remedies		9	1
Traditional healers (curandero, sobador, etc)	1	8	1
Alternative therapies (acupuncture, chiropractic, etc)		8	2
Prayer, rituals, other spiritual practices	1	6	3
Over-the-counter medications		6	4
Non-prescribed prescription drugs		7	3
Knowledge of Latino folk illnesses (n = 10)			
Folk illnesses	No knowledge	Some knowledge	Extensive knowledge
Ataque de nervios (Nervous attack)		6	4
Empacho (Blocked bowel)	4	3	3
Caída de mollera (Fallen fontanel)	6	2	2
Mal de ojo (Evil eye)	2	4	4
Susto (Fright)		6	4
Caída de matríz (Fallen uterus)	2	4	4

no experience using any TCAM therapy. The other seven physicians had some experience with some kind of TCAM, including herbal medicine, yoga, meditation, tai chi, acupuncture, and other TCAM practices (massage, acupressure osteopathy, reiki, craniosacral therapy). None had ever visited a *curandero* or other traditional/folk Latino healer.

Physicians had varying levels of cultural competency training. Six of the 10 participants mentioned receiving information about cultural health beliefs and practices during an orientation when they began working at Kaiser Permanente, while three reported having participated in cultural competency programs elsewhere. One physician leads such trainings at Kaiser Permanente and other settings. Five physicians underwent "extensive" cultural competency training during their medical residency training or fellowships at academic institutions.

3.2 Cultural Knowledge

The majority of physicians felt that they had some knowledge and understanding regarding their Latino patients' health belief system (Table 1). One participant did not respond to this set of questions because she did not feel that she could generalize about all of her Latino patients due to the diversity of their cultural backgrounds and socioeconomic status.

The physicians had a wide distribution of knowledge and understanding about folk illnesses. Physicians expressed a greater understanding of *ataque de nervios* (nervous attack), *mal de ojo* (evil eye), *susto* (fright), and *caída de matriz* (fallen uterus). They reported less understanding of *empacho* (blocked stomach) and *caida de mollera* (fallen fontanel). Another commonly encountered syndrome mentioned by three physicians was the description of low back pain as *dolor de riñones* (kidney pain) in the absence of urinary tract symptoms. Two others cited the widespread belief that exposure to cold air causes illness.

Similarly, physicians varied in their level of knowledge and understanding about Latino patients' use of traditional, alternative and complementary therapies. Nine out of ten reported having some knowledge of herbal remedies commonly used by their Latino patients, while they had more knowledge about their patient's use of OTC medications and non-prescribed prescription drugs.

Four participants discussed how socioeconomic status, educational attainment, and level of acculturation, as well as patients' experiences with health care in their country of origin, affect Latino patients' health beliefs and practices. Among less acculturated immigrants, said one doctor, "they first try herbal remedies, then they get antibiotics from a friend, then they call me." More traditional/less acculturated immigrants "are more deferential; they will nod and say 'yes', but they don't necessarily trust me." The physicians agreed that Kaiser Permanente members were more likely to believe in and use Western medicine than traditional systems, possibly due to education, income, acculturation, and their membership in a managed care plan. "Most of these folk illnesses don't come up in my patients, except some older or recent migrants," said one physician. "Most tend to be pretty Westernized; [they] have a Western mechanistic understand-

ing with various inflection points."

Each physician provided a unique list of herbs, supplements, OTC, and/or non-prescribed prescription drugs commonly used by their Latino patients (Table 2). The most frequently mentioned herbs were *manzanilla* (*Matricaria recutita*), *yerba buena* (*Mentha spp.*), and *sábila* (*Aloe vera*). Types of preparations included teas, shakes (with *nopal*), and alcoholic extracts for internal or external use. Not all of the herbs or herbal products listed were considered "traditional"; St. Johnswort (*Hypericum perforatum*) was considered a "Western" herbal remedy that more acculturated Latinos learned about while living in the U.S. Similarly, physicians believed that dietary supplements were more common among more acculturated Latinos; these included chondroitin/glucosamine products, erectile dysfunction products, Vitamin B_{12} injections, grapeseed oil, and multivitamins.

Physicians did not automatically consider OTC medications to be part of traditional Latino health practices, but when asked about which OTC medications were common among their Latino patients they mentioned. Vick's Vaporub, cough syrups and non-steroidal anti-inflammatory drugs (NSAIDs). When considering prescription drugs that patients use without a prescription, five physicians mentioned antibiotics, three reported oral and/or injected corticosteroids, and one said that some diabetic patients share hypoglycemic medications with family members.

Physicians expressed different opinions about the safety and efficacy of traditional remedies and therapies. One physician stated that she did not "think of acupuncture or [a] chiropractor (*sobador*) as dangerous." Two physicians expressed concern about the safety of Chinese herbal medicines. Two physicians believed that honey, mint and ginger were very effective for treating the common cold and recommended these to their patients on a regular basis. Another felt that *nopal* and other herbs may not have measurable physiologic effects, but patients who use natural remedies are often more willing to make significant changes to their diet and lifestyle, which makes a difference for patients with chronic diseases, such as diabetes. On the other hand, another physician had experience with diabetic patients who used sweetened fruit smoothies containing *nopal*, resulting in elevated blood glucose from the extra sugar, the opposite of the intended therapeutic effect.

Physicians were more concerned with the misuse or mislabeling of pharmaceuticals. Six of the participants considered the use of non-prescribed antibiotics to be a major problem among Latinos (especially for viral infections), due to increased bacterial resistance and the danger of home-administered injections. Four of the ten physicians mentioned corticosteroids as a problem, either as injections for pain or allergies, or as an unlisted ingredient in "natural" pain relief formulas obtained in Mexico. These products, said two physicians, may also contain unlabeled NSAIDs, which posed a risk of gastric, hepatic or renal damage. One also considered weight-loss products being sold in Latino communities to be dangerous.

Six physicians could not think of any significant herb-drug interactions that they knew of or had encountered in clinical practice. One mentioned the potential for reactions between warfarin and ginkgo or between chondroitin-glucosamine and cholesterol medications. Another physician mentioned St. Johnswort as posing a risk, as well as herbs that interact

Table 2. Commonly used herbs among Latino patients listed by physicians.

Common name	Latin Binomial	Use (according to physician)	# times mentioned
Manzanilla/chamomile	Matricaria recutita		3
Yerba buena/spearmint	Mentha spicata		3
Sábila, aloe	Aloe vera		3
Gengibre/ginger	Zingiber officinalis	Upper respiratory infections	2
Miel/honey		Upper respiratory infections	2
Limón/Lemon	Citrus x limon	Colds/flu	2
Linaza/flax seed	Linus utisatissimum		2
Nopal/prickly pear cactus	Opuntia spp.	Diabetes	2
Tilia/linden flower	Tilia spp.		2
Canela/cinnamon	Cinnamomum verum	Diabetes	1
Marijuana	Cannabis sativa	External rub for arthritis/joint pain	1
Eucalypto/eucalyptus	Eucaluptus spp.	Upper respiratory infections	1
St. Johnswort	Hypericum perforatum	Depression	1
Ruda/rue	Ruta graveolens		1
Cola de caballo/horsetail	Equisetum spp.	Diabetes, kidney pain	1
Arnica	Arnica spp.		1
Uña de gato/cat's claw	Uncaria tomentosa		1

Table 3. Self-reported physician frequency of asking about Latino patients' TCAM and conventional therapies (n = 10)

Type of therapy or perception	Rarely	Sometimes	Always
Herbal remedies	5	3	2
Supplements	1	5	4
Traditional healers	4	3	3
Alternative practitioners	3	4	3
Spiritual practices	7	2	1
Over-the-counter medications			10
Non-prescribed prescription drugs	1		9
Medication dosage	1	2	7
Side-effects related to drugs or alternative treatments	3	4	2
How the patient understands their illness	2	6	1

with statin drugs. Two felt that the lack of regulation of herbal products and supplements made it difficult to assess their safety or the risk of herb-drug interactions.

3.3 Attitudes and Communication Skills

All of the physicians described their way of communicating with their Latino patients about their health beliefs and practices as open-minded and/or nonjudgmental. They agreed that asking point-blank "what they think is going on" and "what they're doing for the problem," including "anything natural," was the best way to elicit information about the patient's explanatory model and use of TCAM. They reported that patients are usually quite forthcoming with this information. "That's where the '*mal de ojo*' comes up. It's not usually their chief complaint, but it comes out when I ask them what's going on."

Three physicians emphasized the importance of understanding how patients understand their illness, in part because the patient population is very diverse and health literacy varies from person to person. One physician stated the following:

> I always ask patients about how they understand their illness. Then we can tailor or customize how much time I have to spend on health education. Because of time issues, 'tell me what you know about hypertension or diabetes' is a good starting point, to determine how much do they need to know.

Besides tailoring health education during initial patient visits, asking how the patient understands his or her illness at follow-up visits was seen as important "because things can get lost in translation and over time people develop their own understanding of their own health." One physician felt that asking about the patient's perspective was most important for psychosocial issues, where the problem was less clear-cut than physical complaints.

Responding to patients' information about TCAM in a nonjudgmental way was seen as the best way to build trust with patients and keep the lines of communication open. A participant reported:

> I've learned that it's important for me not to be critical. I usually let it roll by. Unless I feel there's a reason for me to tell them it's dangerous, I usually don't. If I challenge what they use or the person they saw, it is counterproductive for me—it reduces my credibility.

As long as the patient was not using something harmful, physicians usually did not recommend that patients stop using TCAM:

> I try and respond positively because in general it doesn't help to come down on them about it. I try to make sure it's not dangerous and then say they can drink their 'whatever' unless it's something I know is directly harmful; a diabetic taking fruit shake they have to stop, but if its *nopales* that's ok. I try to let them continue and incorporate that.

Physicians mentioned using online resources, such as Natural Standard, to look up the evidence base on the safety and efficacy of herbal remedies. "If there's no evidence, my usual spiel is that if you think it's helpful, go ahead. But I tend to be an empiricist; I don't recommend unless there's evidence." Others were more open to the possibility that traditional medicine may be effective: "I believe that 100s or 1000s of years of traditions has some truth to the healing process."

The frequency with which physicians asked about specific TCAM and conventional therapies varied. Half of the participants rarely asked about herbal remedies or

Table 4. Self-reported physician frequency of integrating preventive health practices and/or TCAM therapies to the treatment plan (n = 10)

Practice/therapy	Rarely	Sometimes	Always
Diet		2	8
Exercise		1	9
Herbal remedies	8	2	
Supplements	3	4	3
Spiritual practices	4	4	1
Relaxation techniques	2	4	4
Referrals to traditional healers	10		
Referrals to alternative practitioners	2	4	2

traditional healers, while all of the physicians almost always asked about OTC and prescription medications (Table 3).

Providers differed in their frequency of incorporating TCAM into treatment plans. All of the participants recommended diet and exercise sometimes or always However, half of the participants had never recommended herbal remedies. Two sometimes recommended herbs but only with patients who were already using natural products or who were unwilling to use pharmaceuticals. "I throw in soothing things … if they don't like medications, or if they're skeptical about Western medicine, or I know that it's important for their healing practice." More common was referring to acupuncturists within the Kaiser Permanente network or recommended relaxation techniques. No physicians had ever recommended that a patient consult a traditional Latino healer (Table 4).

4. Discussion

All of the physicians described their attitude toward Latino patients regarding TCAM as non-judgmental. The physicians believed that unbiased, direct questioning during medical encounters resulted in open, honest responses from patients that allowed physicians to make good medical decisions and offer appropriate patient education. Many of the physicians reported having a fairly good to excellent understanding of Latino health beliefs and folk illnesses, although others were less familiar. As a group, they reported the least knowledge about herbal medicine. This indicates that although physicians' "cultural knowledge" was not always extensive, they considered their open-minded attitude and direct communication style to be effective in working with Latino patients. Research indicates that in addition to racial/ethnic concordance, good communication skills between patients and physicians lead to better patient satisfaction and treatment plan adherence [31].

Although the herbal remedies that physicians listed included many of the herbs mentioned in research on Latino TCAM, [17,23,24,32,33], each physician mentioned a different list, indicating a limited amount of knowledge spread over a wide spectrum. Some of their familiarity with certain herbs may arise from clinical practice. For example, internists who treat type 2 diabetic adults talked more about *nopal* (used as a hypoglycemic agent) than other physicians. The pediatrician and family medicine doctors were more familiar with folk illnesses that affect children, such as *empacho* and *caída de mollera*. A lack of formal training or evidence-base for herbal remedies or supplements prevented some physicians from recommending them to patients.

Physicians may have reported asking more about OTC and prescription medications and having a better understanding of how Latino patients used these products because they are more familiar with pharmaceuticals than with herbal medications. Similarly, while physicians did not volunteer much knowledge about herb-drug interactions or dangerous herbal remedies, they were worried about the misuse of antibiotics, corticosteroids, NSAIDs, and weight-loss drugs. This concern may stem not only from the potency and potential danger of these medications over herbs, but also from more physician knowledge about these drugs.

While all of the physician participants identified somehow as Latino or Hispanic, they have experienced multiple processes of acculturation that may have limited their understanding and use of Latino health beliefs and practices. They all grew up and attended medical school in the U.S., and for all but two, English was their first language.

Medical education in the US inculcates physicians with a scientific culture that emphasizes objectivity and excludes many TCAM modalities [34]. Although they had all participated in some type of cultural competency training, none of the physicians had extensive education in herbal medicine or other TCAM modalities. Increasing physician knowledge about the safety, efficacy, and potential interactions of herbs may raise their rate of asking about these remedies [35].

Physicians' concerns with their Latino patients' use of non-prescribed medications highlight the importance of including these therapies in studies of Latino TCAM use. Ethnopharmacology encompasses more than herbal remedies and traditional healing practices by including studies of why and how people use and understand the mechanism of modern pharmaceuticals [23]. Socioeconomic barriers to health care, as well as cultural beliefs about efficacy, and greater comfort using familiar medications from one's native country, are all factors that contribute to the self-prescription of antibiotics and other drugs [36]. In regards to antibiotics, besides their inefficacy against viral infections, infectious disease specialists and public health officials are concerned with the rise in antibiotic resistance resulting from inappropriate

antibiotic use and point to the need for culturally-appropriate interventions that target consumers as well as vendors of these antibiotics [37]. The literature does not include a discussion of problems with Latinos' misuse of corticosteroids or NSAIDS for pain management, but physicians' concerns point to a need to research this issue.

The physicians' open, nonjudgmental approach may help patients feel more comfortable volunteering information about TCAM. While a physician's attitude is important for increasing patient comfort, studies indicate that physicians may also need to ask more explicitly about TCAM and other health issues in order to elicit information [30,38]. Some physicians mentioned that unlike community-based clinics serving mostly recent, low-income immigrants, Kaiser Permanente Latino members are more educated and acculturated, and thus less likely to use TCAM. However, providers' assumptions that their patients do not use much TCAM may prevent them from asking regularly [30]. Patient data gathered in the second stage of this study will demonstrate if providers' assumption that Latino Kaiser Permanente members use less TCAM than lower-income Latino patients matches patients' actual rates of use.

4.1 Limitations

This research was limited by the questionnaire format; more open-ended questions and audio recording of responses may have helped to capture physicians' knowledge and attitudes. The questions asked physicians to generalize about all Latinos, which did not effectively capture the diversity of the patients they serve. Furthermore, the data is based on self-reporting, rather than observations of physician behavior in clinical encounters, so it is difficult to know if what providers say they do actually happens in clinical practice.

Because these physicians all identify as Latino/a and work with a primarily Latino patient population within a bilingual module, their cultural knowledge, communication skills, and attitudes toward TCAM may not be representative of other groups of physicians within Kaiser Permanente. As employees of a managed care organization, they may have different clinical guidelines or time constraints than physicians working in other medical contexts.

5. Conclusions

This study demonstrated that in regards to Latino patients' health beliefs and TCAM, physicians at Kaiser Permanente's Salud en Español module consider their communication style to be direct and their attitude open-minded. Their level of knowledge about specific health beliefs and TCAM modalities varies from very low to quite extensive, with the least amount of knowledge falling in the realm of herbal remedies. The physicians' primary safety concerns are not about herbs or traditional healers, but about the misuse of non-prescribed prescription drugs, such as corticosteroids and antibiotics. Rather than understanding and communicating more about TCAM, physicians felt that developing skills to quickly assess the educational level and health literacy of their patients would improve patient-provider communication and lead to better health outcomes.

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