Culture and Clinical Care

Folk Illness Beliefs and Behaviors and Their Implications for Health Care Delivery

Lee M. Pachter, DO

This article presents an approach to the evaluation of patient-held beliefs and behaviors that may not be concordant with those of biomedicine. Physicians and patients often hold discrepant models of health and illness that may affect the effectiveness of communication during the clinical visit. An extreme example of such a discrepancy exists when the patient feels that he or she has an illness that is not defined within the biomedical paradigm. These are commonly referred to as folk illnesses. An example of such an illness is provided in order to discuss the effects of folk beliefs on patient-held perceptions of health and sickness, treatment-seeking behavior, clinical care, and physician-patient communication. Guidelines for addressing clinical issues surrounding folk beliefs and behaviors in a culturally sensitive way are discussed.

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CULTURAL BELIEF SYSTEMS, EXPLANATORY MODELS, AND FOLK ILLNESSES

The relationship between culture and health-related beliefs and behaviors is complex. Personal experiences, family attitudes, and group beliefs interact to provide an underlying structure for decision making during illness. These factors may also affect communication between the sufferer and others who may be recruited to provide support during illness. In the clinical setting, effective communication is maximized when the patient and the health care provider share beliefs about the sickness. It can be expected that appropriate use of health services, compliance with therapeutic interventions, and improved health outcomes have a higher likelihood of being realized when the health care provider and the patient acknowledge and respect each other's beliefs about illness, even though these beliefs may not be wholly concordant. Discrepancies in beliefs and behaviors are often greatest when the physician and patient have different cultural orientations.

A "cultural group" is a collective of individuals that share common beliefs, ideas, experiences, knowledge, attitudes, and behaviors. Physicians and other health care providers may be viewed as constituting a cultural group. Health care practitioners have a style of discourse that differs in form and content from that of the general public. They have acquired a corpus of knowledge that is not commonly known to those who have not gone through the process of medical education. There is a certain amount of cohesion among the members of this culture, in part because of a common bond of experiences. As any participant-observer at a medical meeting will note, there are specific codes of conduct and rules for communication to which participants usually adhere. As a result of the medical training process and medical practice, one becomes "acculturated" into the culture of biomedicine.

Given this perspective of medical providers constituting a cultural group, most clinical encounters can be analyzed as an interaction between two cultures—the "culture" of medicine and the "culture" of patients. These two groups often have different perceptions, attitudes, knowledge, communicative styles, and approaches toward health-related issues. Individuals from each group think about health and illness from different perspectives. In other words, physicians and patients often have different explanatory models for sickness. An explanatory model is the way an individual conceptualizes a sickness episode. It includes beliefs and behaviors concerning etiology, course and timing of symptoms, reasons for becoming sick, diagnosis, methods of treatment, and roles and expectations of the sick individual.[1]

Explanatory models are held by individuals but are influenced in large part by cultural beliefs, behaviors, and values. Usually, an individual's model is a conglomeration of such ethnocultural beliefs, personal and idiosyncratic beliefs, and biomedical concepts. Very rarely are explanatory models exclusively "lay" or "popular" on one hand, or wholly "scientific" or "biomedical" on the other. Differences in certain components of the explanatory model (for instance, in beliefs about the role of medical therapy) may have more of an effect on health outcome than do differences in other components (eg, differences in beliefs concerning etiology).

One can think of a spectrum of illness beliefs where on one extreme lie illnesses that are defined within the biomedical paradigm and where certain components of the popular explanatory models vary only slightly from the biomedical view. For example, patient beliefs and behav-

From the Departments of Pediatrics and Anthropology, University of Connecticut, and the Center for the Health and Development of Children and Youth, St Francis Hospital and Medical Center, Hartford, Conn.

Reprint requests to the Department of Pediatrics, St Francis Hospital and Medical Center, 114 Woodland St, Hartford, CT 06105 (Dr Pachter).

iors concerning illnesses such as asthma[2] and cancer[3] are often only slightly different than biomedical doctrine. These differences may have important consequences with regard to therapeutic outcome, but at least the sickness episode is acknowledged in both systems and therefore the chance for negotiations between the two systems is good. Other illness categories lie in the middle of the spectrum and have greater discrepancies between medical and lay beliefs—for example, colds,[4] flu, anemia, and high blood pressure.[5] On the opposite end of the spectrum lie illnesses in which crucial components of the explanatory models of physician and patients are more obviously discrepant. In some instances, no biomedically defined disease can be assigned to the illness that is perceived by the patient. In other cases, the clinical picture may point to a mild, self-limiting illness, but the patient and family may have concerns that seem to be out of proportion to the nature of the biomedical diagnosis. In either case it is possible that the patient's explanatory model regarding etiology, presentation, diagnosis, or treatment may not fit into any biomedical disease category. Illnesses such as these are commonly referred to as "folk illnesses," ie, illnesses that are commonly recognized within a cultural group, and whose explanatory models often conflict with that of the biomedical paradigm.[6,7] The belief in folk illnesses is one of the most obvious examples of cultural discrepancies around health beliefs and behaviors. This example can illustrate how ethnomedical beliefs and practices may affect the health and health care of patients, and how the physician may use the knowledge of these beliefs and practices to provide more culturally sensitive health care.

WHY DO CLINICIANS NEED TO KNOW ABOUT FOLK ILLNESSES?

There are several reasons why it is important for health care providers to understand folk illness and culturally mediated health beliefs and behaviors. First of all, people who experience sickness episodes that are perceived as folk illnesses may present for care to a practitioner of biomedicine. One may expect that in culturally pluralistic settings, people go to "doctors" for "medical" illnesses and to "folk healers" for folk illnesses. In fact, this view is much too simplistic, and the data have proven it incorrect.[8-10] Individuals may use many sources of care during a single episode of illness. Patients sometimes go to biomedical practitioners for relief of symptoms while simultaneously using a folk therapist to eliminate the cause of the illness. Parallel utilization patterns such as this may be seen with African Americans of Southern descent who go to a physician and at the same time seek the services of a traditional healer to remove the "hex" that is causing the illness, with urban and suburban Anglo Americans who practice varied new age therapies in addition to biomedical care, and with Puerto Rican patients who seek spiritual readings and therapeutic remedies at *centros de espiritismo* (spiritism center) and *botanicas* (herbal and religious shops). The reasons for parallel utilization are many and include differential access, economic constraints, linguistic considerations, and uncertainty regarding the actual diagnosis.

Another reason why medical personnel need to be aware of folk illness beliefs is because some folk practices and treatments may be potentially hazardous. It is uncommon for folk remedies to cause major adverse effects, but occasional examples have been reported, and the potential for serious harm does exist. Marijuana tea, which is occasionally used to treat asthma by some West Indian patients, is one example of a potentially harmful remedy. Geophagia—the ingestion of earth or clay—is a folk practice that has been noted in Africa and in the American South, where reports of it are most common among pregnant African-American women and children.[11] This is a cultural practice that could potentially lead to adverse health effects such as gastrointestinal impaction, decreased iron absorption, and anemia.[12]

Another group of practices has a different type of potential risk, in which the folk therapy produces skin lesions that may be mistaken for signs of abuse. Most widely recognized are the Southeast Asian practices of "coining" (*cao gio*), the Chinese practice of moxabustion, and the Mexican-American and Southeast Asian practice of "cupping." In coining, warm oil is placed on a child's trunk and the area is briskly rubbed with the edge of a coin or spoon, which creates areas of ecchymosis. This practice is thought to relieve fevers. Moxabustion entails the touching of the skin with burning herbs or incense. Cupping consists of placing a heated glass or cup onto the skin; as it cools it creates negative pressure that produces an area of ecchymosis. All of these practices result in skin lesions that could be interpreted as signs of abuse by health care practitioners who are not aware of these customs.[13-15]

Folk illnesses may be cultural interpretations of states of pathophysiology that may, in fact, need medical attention. The Mexican folk illness *caida de mollera* (fallen fontanelle) has been shown to be a cultural interpretation of significant dehydration in infants.[16] If the folk beliefs and behaviors become an impediment to biomedical care because of delay in medical attention or because of harmful folk treatments, significant morbidity may occur.[17]

Yet another reason why practitioners need to become aware of culturally mediated health beliefs and behaviors concerns the effectiveness of communication between clinician and client. Differences in the understanding and definition of health terms as well as in the conceptualization of illness widens the distance between physician and patient. The quality of the clinician-client interaction, patient satisfaction with one's care, and adherence to therapeutic recommendations may suffer as the gap widens.[18,19] As the "cultural distance" between individuals increases, the likelihood of a communication problem increases.

The importance of health care practitioners becoming aware of and sensitive to folk illness and other cultural health beliefs and behaviors can be shown by the following example of a Latino childhood folk illness called *empacho*. Included in this discussion is a description of the explanatory model for this folk illness, the treatment-seeking patterns during the illness, as well as an example of how a knowledge of ethnocultural beliefs and behaviors led to improved physician-patient communication and patient satisfaction.

EMPACHO

The Explanatory Model

Empacho is a folk illness that has been described in various Latino ethnic groups, including Puerto Ricans,[5,10] Mexicans,[20] Mexican Americans,[8,9,21] and Central Americans.[22] The descriptions of this illness are surprisingly consistent among these different Latino groups.[23]

Empacho has been described as a condition wherein food or other matter gets "stuck" to the walls of the stomach or intestines, causing an obstruction. It is thought to be caused by dietary indiscretion—often by eating too much food or spoiled food, inappropriate combinations of food, or eating at the wrong time. In children, *empacho* can also occur if a child swallows too much saliva during teething, or when a parent changes types of infant formula, or changes over from infant formula to milk (the thought being that the different formulas or milk will mix and cause a *pelota*, or ball of material that will stick to the stomach).

Symptoms of *empacho* in children include nausea, stomach cramps, stomach-

ache, lack of appetite, a bloated stomach, the perception of a lump in the abdomen, and diarrhea. Treatments include dietary restrictions, herbal teas, abdominal massage with warm oil, popping the skin on the small of the back (in Mexicans and Mexican Americans but not other Latino groups), and going to a special folk therapist or healer (called a *santiguadora* in the Puerto Rican community and a *sobadora* in the Mexican-American community) who performs a special massage, recites prayers, and recommends dietary modifications. Infants can avoid getting *empacho* if their caregivers refrain from mixing different formulas or formula and milk. When a formula change is necessary, the parent will place the infant on a diet of water, tea, or clear liquids for a day to "refresh the stomach" (clean out the stomach so that the new and old formula do not mix and cause *empacho*).

In the southwestern United States and Mexico, some parents were also treating *empacho* by administering certain powdered substances (*greta, azarcon, albayalde*) that were found to contain high concentrations of lead compounds. The use of these substances, to date, has been documented only in certain areas of the United States (Texas, New Mexico, California, Arizona, Colorado, Wisconsin, and Michigan)[24,25,26] and Mexico (Guadalajara and Oaxaca).[20] It does not appear that Puerto Ricans use these substances for the treatment of *empacho*.

Treatment-Seeking Behavior

In a study of *empacho* in Puerto Ricans living in Hartford, Conn, 67 parents were interviewed in the waiting room of a hospital-based pediatric clinic.[10] Ninety percent of those interviewed knew what *empacho* was, and 64% responded that a child in their household had had the illness. Roughly a third of the parents first tried to treat the episode with a home-based intervention, a third took their child initially to a folk therapist (a *santiguadora*), and a third first took their child to a physician. The last treatment option before resolution of illness consisted of home-based remedies in 23% of cases, a visit to the *santiguadora* in 68%, and a trip to the physician in only 9%. This could be interpreted as showing that parents may bring their children to physicians when they think their child has *empacho*, but the efficacy of the clinical consultation is low—as can be seen by the low percentage of physician treatment as the final therapy.

Nevertheless, it is important to note that a good percentage of parents took their child to a physician at some point during the illness, even when they know that "doctors do not treat *empacho*." There can be many reasons for this. First of all, most parents do not have a sure diagnosis in mind during the initial phase of their child's illness. In some ways, going to a physician and assessing the results of biomedical therapy can be part of the diagnostic process; if the child remains sick, the parent has essentially ruled out a biomedical illness and may then go to a folk healer. Another reason why a parent may present to the clinic is that folk healers in this community usually recommend that parents take their child to a physician first, and if he or she does not get better after the visit, they are to then return to the folk healer. Finally, parents are concerned that others may think of them as neglectful if they did not bring their ill child to a physician, regardless of the cause of the illness. The meaning embedded in taking a child to the physician includes the social as well as biomedical context.

The Folk-Biomedical Interface: Clinical Care Issues

The data suggest that regardless of whether *empacho* is an "illness without biomedical pathophysiology," or whether it is a cultural definition of a mild, self-limiting sickness episode, many Latino parents believe in the existence of *empacho* as an illness that affects their children, and make health care decisions based on that belief. Sometimes those decisions include consultation with a practitioner of biomedicine.

The following case illustrates how knowledge of *empacho* can enable a practitioner to provide care that is culturally sensitive and medically sound.

A 20-month-old Puerto Rican boy was admitted to the inpatient unit for failure to thrive after a weight loss of 1.6 kg, associated with a decrease in appetite. Social history was significant in that the mother had limited support and had been out of work for 2 months because of a back injury. Physical examination showed a thin child without any signs of organic pathology.

The child was admitted to the inpatient unit for dietary and behavioral observation. On questioning, the mother expressed the opinion that a possible cause of her child's weight loss and poor appetite was his eating some pork a few weeks earlier. She believed that the pork was spoiled and caused *empacho* in her son. She was so certain about this that she and her husband were planning to send for her husband's mother—a *santiguadora*—to visit from Puerto Rico to see the child and perform the treatment that cures *empacho*. Since the husband's mother could not come immediately, we asked the mother if she would like us to bring a local *santiguadora* into the hospital to treat the child. She readily agreed to this, and with the help of the owner of a local *botanica* (a shop in the Puerto Rican community that sells herbs, remedies, and various religious objects, and is an informal source of information about many folk beliefs and practices) we contacted a local *santiguadora* who came into the hospital and performed the ritual healing massage on this child. Two days later the child was discharged from the hospital after showing a moderate weight gain during hospitalization, and follow-up medical, behavioral, and dietary management was arranged in the private physician's office. The family was also going to continue to treat *empacho* when the child's grandmother arrived from Puerto Rico.

As an afternote, a few days after contacting the *botanica* owner for a recommendation of a *santiguadora*, I received a call from the owner. He had a child with a rash in the store—the mother brought the child to the *botanica* to seek a remedy—and the owner was unsure of the cause of this rash. He called me to request that I see the child and help treat the rash. This seems to be an example of effective bidirectional consultation between folk and biomedicine.

IMPLICATIONS: CULTURALLY SENSITIVE HEALTH CARE

This case demonstrates how knowledge, inquiry, and nonjudgmental acceptance of folk illness beliefs may enhance the quality of the interaction between the patient and the health care system. The health care practitioner did not necessarily believe in the entity called *empacho*, but this did not prevent an opportunity to work collaboratively with the family toward the goal of more successful health care.

This case is an example of what has come to be known as "culturally sensitive" health care. A culturally sensitive health care system is one that is not only accessible, but also respects the beliefs, attitudes, and cultural lifestyles of its patients. It is a system that is flexible—one that acknowledges that health and illness are in large part molded by variables such as ethnic values, cultural orientation, religious beliefs, and linguistic considerations. It is a system that acknowledges that in addition to the physiological aspects of disease, the culturally constructed meaning of illness is a valid concern of clinical care. And finally, it is a system that is sensitive to intragroup variations in beliefs and behaviors, and avoids labeling and stereotyping.

The following discussion will show how the medical practitioner can use this per-

spective with regard to issues concerning discrepant models of sickness. The clinician needs to (1) become aware of the commonly held folk medical beliefs and behaviors in his or her patients' community, (2) assess the likelihood of a particular patient or family acting on these beliefs during a specific illness episode, and (3) arrive at a way to successfully negotiate between the two belief systems.

Becoming Aware of Commonly Held Folk Medical Beliefs in a Community

There are various sources of ethnomedical information that the clinician can use. Perhaps the best source of information regarding patient beliefs and behaviors are the patients themselves. Another valuable source of folk beliefs are office staff members who reside in the community or who are of the same ethnocultural background as the patients. Probing into nonbiomedical illness customs may initially be met with apprehension, but if the topic is approached in a sincere and nonjudgmental style, it is surprising how much information can be obtained.

There are various sources of specific information on ethnomedicine and folk illnesses in the social science and clinical literature. Books,[27-30] handbooks,[31,32] and journals such as *Social Science in Medicine; Medical Anthropology; Culture, Medicine and Psychiatry;* and *Medical Anthropology Quarterly* can provide the culturally sensitive clinician with information about ethnocultural beliefs and behaviors. Occasional special issues of medical journals also provide a forum for these topics.[33,34]

Assessment of the Likelihood That a Particular Patient or Family May Act on Folk Beliefs During a Particular Illness Episode

A goal of culturally sensitive health care is to acknowledge that health care decisions are made by individuals—not groups. There is often as much intracultural variation in beliefs and behaviors as there is interculturally. The culturally sensitive clinician must be aware that there exist certain beliefs within a group, and then determine to what extent these beliefs may be acted on by a specific patient during a specific illness episode.

The amount of adherence to ethnocultural beliefs and behaviors is in part related to the individual's level of acculturation. Those individuals who (1) are recent migrants to the mainland United States, (2) who live in ethnic enclaves, (3) who prefer to use their native tongue, (4) were educated in their country of origin, (5) who migrate back and forth to the country of origin, and (6) who are in constant contact with older individuals who maintain a high degree of ethnic identity, may be considered less acculturated and may have stronger convictions regarding ethnocultural health beliefs and behaviors.[35,36]

If a patient presents with signs and symptoms that may be interpreted as a folk illness, and appears to be an individual who may subscribe to ethnocultural health practices, the clinician should inquire as to the patient's thoughts about the cause of the illness. A strategy that has met with success has been to approach the topic in the following way: "Some of my patients have told me that there is an illness called ——— that doctors don't know about but that people get. Have you ever heard of ———?" If they answer in the affirmative, follow with: "Do you think that you [or your child] may have ——— now?" This type of nonjudgmental inquiry often provides a nonthreatening framework for communication.

Negotiating Between Biomedicine and Folk Medicine

Once the clinician has determined that folk beliefs and behaviors are a significant part of the patient's explanatory model, he or she is faced with how to deal with these issues. The type of approach depends on the potential effects of the beliefs and behaviors on the outcome of the specific illness episode, as well as on the ongoing physician-patient interaction.

Any ethnomedical practice that has the potential for serious negative outcome needs to be discouraged, but this must be done in a sensitive and respectful way. Replacing dangerous practices with alternatives that fit into the patient's ethnocultural belief system are often met with acceptance. For example, a form of elemental mercury (*azogue*) is used for medicoreligious ceremonies in a small portion of the Puerto Rican community. A communitywide campaign to alert the public to the potential danger of this practice included suggesting culturally accepted alternate substances to use instead of mercury for these ceremonies.[37] Likewise, the use of marijuana tea for respiratory conditions should be discouraged by explaining the reason for one's concerns as well as by recommending an alternative herbal tea that is acceptable within the West Indian ethnomedical system.

Most folk medical beliefs and practices are not harmful and do not interfere with biomedical therapy. Under these circumstances, the clinician should not attempt to dissuade the patient from these beliefs, but instead educate him or her as to the importance of the biomedical therapy in addition to the patient-held beliefs. In fact, combining the folk and biomedical therapies may help increase compliance since it places the medical therapeutic plan within the context of the patient's cultural system and lifestyle. For example, a physician who cares for a child with mild asthma learns of the mother's belief that the asthma is better controlled when she gives the child a remedy called *jarabe maguey* (a syrup made from extract of the maguey plant and sugar). Once it is known that this remedy has no significant adverse effects, the physician can advise the parent to follow the *jarabe maguey* with albuterol for a better effect. The physician may approach the topic with the parent in this manner: "I do not know if *jarabe maguey* is effective in treating asthma, but I know that it is not harmful if taken as directed on the label. If you think that it helps your child's asthma, you can continue to use it. But I believe that if you give albuterol in addition, your child's asthma will be much better controlled."

If the patient is suffering from a mild, self-limited illness, the physician may be able to incorporate benign behaviors that fit into the cultural beliefs of the patient while waiting for the illness to resolve. For example, telling the Puerto Rican parent to massage the abdomen of a child with viral gastroenteritis will (1) do no harm, (2) make the parent feel that he or she is providing some benefit to the child, and (3) fit into a culturally prescribed belief system. The concept of placebo is acknowledged and accepted within the biomedical paradigm; there is no reason why it should not be extended to nonharmful beliefs and practices that exist in our patients' belief systems.

Another method of negotiation between systems is the collaboration and consultation between folk healers and medical practitioners. Such collaboration has been described in the mental health and international health fields.[38,39] In some cases, the referral of a patient to a biomedical therapist instead of a culturally sanctioned healer may create misunderstandings as well as improper therapy. For example, there are certain culture-bound syndromes that may initially mimic neurological or psychiatric conditions. "Falling out" in African Americans[40] and *ataque de nervios*[41] in Puerto Ricans are two such examples. Both of these syndromes are culturally accepted idioms of distress that are often treated within the family or community context. Occasionally, individuals are taken to emergency departments during episodes. Once all medical con-

ditions have been ruled out, the physician may consider referring the individual to a psychotherapist for follow-up. Such a referral may be met with resistance since there is a popular conception of psychotherapy as a treatment for mental illness, which is considered different from a person who is "falling out" or "has nerves." It may be better to investigate the patient's and family's ideas concerning the cause of the episode and, if appropriate, suggest that the individual seek help from a culturally sanctioned therapist (called a "root-worker" in the African-American instance, or an *espiritista* in the Puerto Rican example).

The folk healers that I have interviewed do not downplay the effectiveness of biomedicine. A phrase commonly heard when talking to folk healers is "doctors are good at treating their types of illnesses, we are good at treating other types." All of the healers I interviewed actively seek medical attention for themselves, and most recommend that their clients seek medical attention before using their services. Two of the *santiguadoras* interviewed have even offered to teach physicians how to cure *empacho* by massage. Their rationale was that the more people who have the power to cure, the better it is for the community. These facts point to the potential for significant collaboration between folk therapists and biomedical practitioners.

CONCLUSIONS

The discrepancy between biomedically defined disease and individually experienced illness will continue to exist. If our goal is to provide culturally sensitive health care, we need to acknowledge that many patients have beliefs that exist outside of biomedicine and act on these beliefs. Physicians do not need to agree with the logic of the beliefs or the efficacy of the behaviors, but they should acknowledge and respect them. Harmful practices should be discouraged and replaced. Nonharmful beliefs and practices should be discussed so that the physician has an understanding of the patient explanatory model, and ways of integrating the patient and physician models should be investigated. Opening the lines of communication around these issues can lead to an alliance between patient and practitioner that may facilitate better adherence to therapeutic suggestions, more appropriate utilization of health care services, and improved patient satisfaction with the health care encounter.

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References

1. Kleinman A, Eisenberg L, Good B. Culture, illness, and care: clinical lessons from anthropologic and cross-cultural research. *Ann Intern Med.* 1978; 88:251-258.
2. Guarnaccia PJ, Pelto PJ, Schensul SL. Family health culture, ethnicity, and asthma: coping with illness. *Med Anthropol.* 1985;9:203-224.
3. Perez-Stable E, Sabogal F, Otero-Sabogal R, Hiatt RA, McPhee SJ. Misconceptions about cancer among Latinos and Anglos. *JAMA.* 1992;268:3219-3223.
4. Harwood A. The hot-cold theory of disease: implications for treatment of Puerto-Rican patients. *JAMA.* 1971;216:1153-1158.
5. Harwood A. Mainland Puerto Ricans. In: Harwood A, ed. *Ethnicity and Medical Care.* Cambridge, Mass: Harvard University Press; 1981:397-481.
6. Pachter LM. Cultural issues in pediatric care. In: Behrman RE, ed. *Nelson Textbook of Pediatrics.* 14th ed. Philadelphia, Pa: WB Saunders Co; 1992:10-12.
7. Pachter LM. Latino folk illnesses: methodological considerations. *Med Anthropol.* 1993;15:103-108.
8. Slesinger DP, Richards M. Folk and clinical medical utilization patterns among Mejicano migrant farmworkers. *Hispanic J Behav Sci.* 1981;3:59-73.
9. Martin HW, Martinez C, Leon RL, Richardson C, Reyes Acosta V. Folk illness reported to physicians in the lower Rio Grande Valley: a binational comparison. *Ethnology.* 1985;24:229-236.
10. Pachter LM, Bernstein B, Osorio A. Clinical implications of a folk illness: *empacho* in mainland Puerto Ricans. *Med Anthropol.* 1992;13:285-299.
11. Reid RM. Cultural and medical perspectives on geophagia. *Med Anthropol.* 1992;13:337-351.
12. Roselle HA. Association of laundry starch and clay ingestion with anemia in New York City. *Arch Intern Med.* 1970;125:57-61.
13. Buchwald D, Panwala S, Hooton TM. Use of traditional health practices by southeast Asian refugees in a primary care clinic. *West J Med.* 1992; 156:507-511.
14. Feldman KW. Pseudoabusive burns in Asian refugees. *AJDC.* 1984;138:768-769.
15. Sandler AP, Haynes V. Nonaccidental trauma and medical folk belief: a case of cupping. *Pediatrics.* 1978;61:921-922.
16. Kay MA. Fallen fontanelle: culture-bound or cross-cultural. *Med Anthropol.* 1993;15:137-156.
17. Trotter RT II, Ortiz de Montellano B, Logan MH. Fallen fontanelle in the American Southwest: its origin, epidemiology, and possible organic causes. *Med Anthropol.* 1989;10:211-221.
18. Korsch BM, Gozzi EK, Francis V. Gaps in doctor-patient communication, I: doctor-patient interaction and patient satisfaction. *Pediatrics.* 1968;42: 855-871.
19. Korsch BM, Freemon B, Negrete VF. Practical implications of doctor-patient interaction analysis for pediatric practice. *AJDC.* 1971;121:110-114.
20. Baer RD, Garcia de Alba J, Cueto LM, Ackerman A, Davison S. Lead-based remedies for *empacho:* patterns and consequences. *Soc Sci Med.* 1989;29:1373-1379.
21. Trotter RT II. Folk medicine in the Southwest: myths and medical facts. *Postgrad Med.* 1985;78: 167-179.
22. Weller SC, Ruebush TK, Klein RE. An epidemiological description of a folk illness: a study of *empacho* in Guatemala. *Med Anthropol.* 1991;13:19-31.
23. Weller SC, Pachter LM, Trotter RT II, Bear RD. *Empacho* in four Latino groups: a study of intra- and inter-cultural variation in belief. *Med Anthropol.* 1993;15:109-136.
24. Bose A, Vashistha K, O'Loughlin BJ. *Azarcon por empacho*—another cause of lead toxicity. *Pediatrics.* 1983;72:106-108.
25. Centers for Disease Control. Lead poisoning from Mexican folk remedies—California. *MMWR Morb Mortal Wkly Rep.* 1983;32:554-555.
26. Trotter RT II. *Greta* and *azarcon:* a survey of episodic lead poisoning from a folk remedy. *Hum Organ.* 1985;44:64-72.
27. Harwood A, ed. *Ethnicity and Medical Care.* Cambridge, Mass: Harvard University Press; 1981.
28. Helman CG. *Culture, Health and Illness: An Introduction for Health Professionals.* 2nd ed. London, England: Wright & Sons; 1990.
29. Spector RE. *Cultural Diversity in Health and Disease.* 3rd ed. Norwalk, Conn: Appleton-Century-Crofts; 1992.
30. Rubel AJ, O'Nell CW, Collado-Ardon R. *Susto, A Folk Illness.* Berkeley: University of California Press; 1984.
31. COSSMHO-The National Coalition of Hispanic Health and Human Service Organizations. *Delivering Preventive Health Care to Hispanics: A Manual for Providers.* Washington, DC: The National Coalition of Hispanic Health and Human Service Organizations; 1990.
32. Lotito BA. *Entre Nosotros: Communicating With the Hispanic Client.* New York, NY: Newbury House; 1988.
33. Barker JC, ed. Cross-cultural medicine: a decade later. *West J Med.* 1992;157. Special issue.
34. Culture and chronic illness: raising children with disabling conditions in a culturally diverse world. *Pediatrics.* 1993;91(suppl 5, pt 2):1023-1081.
35. Harwood A. Guidelines for culturally appropriate health care. In: Harwood A, ed. *Ethnicity and Medical Care.* Cambridge, Mass: Harvard University Press; 1981:482-507.
36. Pachter LM, Weller SC. Acculturation and compliance with medical therapy. *J Dev Behav Pediatr.* 1993;14:163-168.
37. Marxuach-Rodriguez L. *Quicksilver (Azogue) and Your Health: How to Prevent Metallic Mercury Poisoning.* Hartford, Conn: Hispanic Health Council Environmental Health Unit; 1993. Information Booklet No. 2.
38. Garrison V. Doctor, *espiritista,* or psychiatrist? health-seeking behavior in a Puerto Rican neighborhood of New York City. *Med Anthropol.* 1977; 1:65-180.
39. Nations MK, de Sousa MA, Corriera LL, Nunes da Silva DM. Brazilian popular healers as effective promoters of oral rehydration therapy (ORT) and related child survival strategies. *PAHO Bull.* 1988; 22:335-354.
40. Weidman HH. Falling out: a diagnostic and treatment problem viewed from a transcultural perspective. *Soc Sci Med.* 1979;13B:95-112.
41. Guarnaccia PJ, DeLaCancela V, Carrillo E. The multiple meanings of *ataque de nervios* in the Latino community. *Med Anthropol.* 1989;11:47-62.