Cross-Cultural Perspectives on the Common Cold: Data from Five Populations


This paper focuses on conceptualizations of the common cold among Latin Americans, as compared with middle-class Americans. Four geographically dispersed groups of Latin Americans were initially chosen for study: Guatemalans in Guatemala; Mexicans in Guadalajara, Mexico; persons of Mexican descent in Edinburg, Texas (on the Texas-Mexican border); and Puerto Ricans in Hartford, Connecticut. In addition, a comparison group of middle-income Americans living in Tampa, Florida, was also studied to see the extent to which folk concepts were seen in what is considered to be a “mainstream” population. The data suggest a great deal of both intra- and intercultural agreement as to causes, symptoms, and treatments of the common cold. The cold seems to be viewed as very much in the realm of a biomedical illness, with the exception of ascribing the hot/cold system of causality to the common cold, among all five populations. Finally, the cold is clearly differentiated from “the flu,” which seems to exist as an illness only among English-speaking populations in the United States.

Key Words: colds, Latinos, middle-income Americans, flu

Introduction

Anthropologists have long recognized the variability in health beliefs among different cultural groups. This paper focuses on conceptualizations of the common cold among Latin Americans, as compared with middle-class Americans. Four geographically dispersed groups of Latin Americans were initially chosen for study: Guatemalans in Guatemala; Mexicans in Guadalajara, Mexico; persons of Mexican descent in Edinburg, Texas (on the Texas-Mexican border); and Puerto Ricans in Hartford, Connecticut. However, when preliminary data analysis indicated the importance of folk concepts about the causality of the cold, a comparison group of middle-income Americans living in Tampa, Florida, was added to see the extent to which folk concepts were seen in what is considered to be a “mainstream” population. Specific research questions were:

1. Is there a coherent set of conceptualizations at each site?
2. Are conceptualizations the same across sites?
3. How critical is ethnic variability among groups included in the census category “Hispanic” to health care providers treating patients with a “cold”?
4. To what extent can middle-income or mainstream Americans be considered to be closer to the biomedical model in their conceptualizations about this illness?
5. How does the cold differ from related illnesses, such as “the flu”?

Background

The common cold was chosen for study for a number of reasons. It is, as the name suggests, a very common illness, affecting almost everyone and, while bothersome, is rarely of great severity. “The cold” is biomedically referred to as a type of acute respiratory infection (ARI), or specifically, an upper respiratory infection (URI). Its symptoms include runny nose, nasal discharge, sore throat, cough, and earache.
(Campbell 1995). International public health research has focused primarily on lower respiratory infection (LRI), for example, pneumonia (see, for example, Nichter and Nichter 1994). While LRI is responsible for much of the ARI-related childhood mortality in developing countries (Campbell 1995), a broader understanding of the management of URI at the household level may be important in determining the role of such actions in the causality or prevention of the more serious conditions (such as LRI), whose symptoms are often emically linked with those of URI.

Although URI and in particular, the cold, are common illnesses, there are very few data from cross-cultural studies on the extent to which perceptions regarding the causes, symptoms, and treatments of the cold vary cross-culturally or across different geographic regions within a single population. The cold is recognized by biomedicine, but frequently treated at home using nonprescription medicines and folk remedies. There are a number of cross-cultural issues related to this illness. In the United States, for many purposes, Hispanics are often lumped into a single category, regardless of differences in ethnic background. But different groups of Hispanics, even within the U.S., have different morbidity and mortality profiles (Vega and Amargo 1994). Further, Hispanic populations are often noted for their beliefs regarding a number of folk illnesses that are not recognized by biomedical providers (Pachter 1994). How do such diverse populations conceptualize an illness as ubiquitous as the cold? Would the signs and symptoms be the same despite cultural, economic, and political diversity? Do folk aspects about causality or treatments of the cold remain, in spite of contact and interaction with biomedical care?

The literature is limited but suggests some interesting hypotheses. Relevant to these discussions is the hot-cold folk classification of medicine and illness, which has been reported throughout Latin America. This version of humoral theory attributes health to a balance of hot and cold elements. Exposure to extreme temperatures can upset the body’s self-regulatory system and thus cause illness. However, the classification of foods, medicines, and diseases as either hot or cold is not necessarily dependent on their temperature, but rather on an innate quality of hotness or coldness (Foster 1979; Cosminsly 1975).

The hot-cold system is thought to be an important belief system for illness management throughout Latin America (Logan 1978). In a population of principally Guatemalan Indians, Logan (1978) found the common cold was classified as a “cold” illness and was treated with “hot” remedies. Weller (1984:343), studying a completely Ladino population of non-Indian Guatemalans who speak Spanish, found little evidence of a “consistent and culturally shared definition of the hot-cold concept as applied to illness in medicine.” However, some illnesses were significantly classified as needing either hot or cold remedies to be cured (Weller 1983). Urban Guatemalans significantly classified “flu” as needing hot remedies, and a majority of the rural Guatemalans in the study classified both “cold” and “flu” as needing “hot” remedies.

The hot-cold dichotomy is also significant in Puerto Rican culture. Harwood (1971) found that among mainland Puerto Ricans, “cold illnesses are believed to be caused by a chill... [and that] colds are commonly attributed to drafts” (Harwood 1971:1154). Harwood also reported that Puerto Rican patients classified treatments as hot and cold, and would not adhere to regimens that involved treatment of a “cold” illness with “cold” medication. In a study of Puerto Ricans in Connecticut, Lieberman (1979) noted a number of hot-cold beliefs and practices. She describes how balance is maintained for good health. Specifically, she found that a child who has a cold should not have milk, which is classified as “cold.” Pachter (1995), also working with Puerto Ricans in Connecticut, finds that respiratory conditions, in general, are considered to be cold illnesses. Spector (1991) suggests a similar pattern; she reports that colds are classified by Puerto Ricans in New York City as cool in the hot-cold system. “A person who has been working (hot) must not go into the coffee fields (cold) or he can contract a respiratory illness” (Spector 1991:221).

The hot-cold system has been described over the years in a number of Mexican contexts, in both Indian and Mestizo communities (see, for example, Currier 1966; Lewis 1963). In a study of Spanish-speaking Mexicans in the Chiapas highlands, Fabrega and Manning (1973) found that illness causality may be related to naturalistic factors, such as excessive heat or cold drafts of air. Contemporary hot and cold practices and beliefs have been noted among Mestizos in Sonora, Mexico (Baer 1998), particularly with respect to foods appropriate for different health states. For example, fresh homemade cheese was considered to be muy fresca (very cool) and was therefore not eaten by someone who had a cold. Another example of these relationships was seen among Tarascan Indians; eating “cold” foods was believed to be a cause of gripa (cold or flu). It was also believed that to cure this illness, “hot” foods should be consumed (Young and Garro 1994).

There is less information on this topic among Mexican Americans. Spector (1991) discusses health concepts of this population but does not specifically address the cold. Schreiber and Homiak (1981) have little to add, except that a cold is one of the illnesses often treated according to the tenets of Mexican American folk medicine. Kay (1977:147) found that the treatment for a cold is “directed principally to prevent complications, especially of the cold ‘falling to the chest.’” Specific remedies included applying hot cloths or menthol poultices of a substance such as Vicks.

With respect to middle-income or mainstream Americans, it is often assumed that the beliefs of this group are more similar to those of health care providers than they are to the beliefs of minority and immigrant populations. In a study of explanatory models of patients and providers, Kleinman et al. (1978) cite differences between these models as a possible reason for poor adherence to some medical regimes. Demers et al. (1980) studied members of the Group Health Cooperative of Puget Sound, Washington, who were
“demographically similar to the majority of physicians and in whom a shared level of knowledge may be... assumed” (Demers et al. 1980:1092). They found, however, that a number of the explanatory models of illness collected were biomedically either incomplete or wrong.

Boster and Weller (1990) had Tlaxcalan and U.S. Anglo study samples rate foods on whether they were “hot or cold,” as well as on whether they would be “good for a cold,” and compared their results to Mathews’s (1983) Oaxaca sample. Tlaxcalans and Oaxacans agreed on general “hot-cold” classification of foods (Pearson correlation coefficient, $r = +.56$), as did a U.S. sample, although to a lesser extent ($+.30$ with Tlaxcala and $+.31$ with Oaxaca). The American sample’s beliefs about what foods would be good for a cold, however, differed from those of Tlaxcalans ($-.21$ with Tlaxcala) and Oaxacans ($-.42$).

To what extent, then, are nonbiomedical, or folk, conceptualizations about the common cold seen in populations with whom we do not usually associate with folk medical beliefs, such as middle-income/mainstream Americans? Such concepts have been recorded in contemporary English populations. Helman (1978) conducted a study of health beliefs of people living in a suburb of London. Colds were reported to occur when certain body parts, such as the top of the head, back of the neck, or the feet, were exposed to dampness or drafts. Other causes included going outside after washing one’s hair or going into a cold room after a hot bath. Some studies in the United States suggest that such concepts are indeed present; among a young, white, well-educated, and healthy population in Seattle, several respondents reported that cold exposure causes upper-respiratory-tract illness. These beliefs were considered by those conducting the study to be “secular folk beliefs” (Demers et al. 1980:1090). In a study of European American mothers’ responses to treatment of colds, Pachter et al. (1998) found use of interventions that fit within the hot-cold theory of illness.

Other studies (Spector 1991; Ragucci 1981) have focused on other ethnic communities, such as German, Italian, and Polish Americans. All three groups saw avoiding drafts as a way of preventing a cold. Similar beliefs are seen among African Americans: Snow (1993) found the belief that the intake of cold air through the pores of the skin is often responsible for upper respiratory infections.

Another indication of the existence of folk beliefs about the common cold is seen by an examination of the American popular press, which discusses folk beliefs about colds, usually in the fall of each year. For example, an article in Parent’s Magazine (Perrine 1992) points out the incorrectness of the folk belief about catching a cold after getting chilled. This pattern, as well as the scholarly research, suggests that beliefs of this sort are held by significant segments of the U.S. population.

A final issue related to the cold is that we know little about how conceptualizations of the common cold differ from similar illnesses, such as “the flu,” or, in Spanish, the differ-
Valley, within 15 miles of the U.S.-Mexico border. This region, although intermixed urban and rural, is predominantly agricultural and is among the poorest standard metropolitan areas of the U.S. Eighty percent of the residents of the area are Mexican Americans.

Hartford, Connecticut, is a medium-sized city in the northeastern United States. About one-third of its population is Hispanic, and 47 percent of the children in the public school system are of Puerto Rican descent. Interviews were conducted in the two census tracts that have the majority of the Puerto Rican population.

The Guatemalan interviews were conducted among Spanish-speaking Ladinos in four rural villages (population of about 500 each) on the Pacific coastal plain in the department of Esquintla. This area is agricultural and the principal crops are cotton and sugar cane.

The Mexican interviews were administered in Guadalajara, a modern industrial city with a population of approximately 3 million. Residents of Guadalajara are from both rural and urban backgrounds and are predominantly mestizo. To capture the variation present in the city, the interviewing took place in three neighborhoods, one middle class, one working class, and one poor; all interviewees were Spanish-speaking Mestizos.

Tampa is a medium-sized city in west-central Florida. Unlike many other areas of Florida, the economy is not based on tourism or retirees; a major contributor to Tampa’s economy is its large port. Interviews were conducted in two census tracts in the northern part of the city, selected because of their middle-income levels (household incomes of about $30,000 per year). The ethnic backgrounds of this sample group were predominantly northern European (85%). One respondent was of Asian background, two were from the African diaspora, and two labeled themselves as being of mixed European/Native American descent.

Questionnaires were developed from initial key-informant interviews at each of the four Latino sites. Qualitative data was gathered on the perceived causes, symptoms, and treatment of the cold (catarro/gripe) using open-ended interviews and free-listing techniques (Weller and Romney 1988). On the basis of these data (any response mentioned by at least 10% of the sample), symptoms from the Cornell Medical Index, and the anthropological literature, a true-false questionnaire was developed. The questionnaire (available from the authors upon request) contained 142 items: 52 causes, 48 symptoms, and 42 treatments for “a cold” or, in Spanish “catarro.”

The questionnaire also included basic demographic data on the respondent, as well as questions about experiences with the illness. In addition, the interview asked several open-ended questions, designed to investigate the difference between colds and “the flu,” or in Spanish, the difference between catarro, resfriado, and gripe. The questionnaire was translated into the form of Spanish or English spoken at each particular site.

Data Analysis

Responses to the 142 questions about cold beliefs were analyzed and aggregated using consensus analysis (Romney, Weller, and Batchelder 1986; Batchelder and Romney 1988). This analytic procedure accomplishes three things. It determines whether the responses of a group of individuals indicate a “consensus” in beliefs. It thus establishes whether or not a sufficient degree of homogeneity in responses is present that would enable the researcher to talk about a set of “cultural beliefs.” The analysis is somewhat analogous to factor analysis. In factor analysis, items on a questionnaire are grouped on the basis of an underlying structure; in consensus analysis, individuals are grouped based on their responses. If all of the individuals are “factored” into one group (i.e., have similar answers and hence there is a single factor structure), then the consensus model may be used. The consensus model is only appropriate for data with high agreement among informants (Weller and Mann 1997).

Consensus analysis also estimates individual respondents’ level of cultural knowledge. Cultural “competence” scores are a function of the degree of agreement among individuals and are found by “factoring” a matrix of person-by-person similarity coefficients. We used covariance because of its relative insensitivity to response bias. Competency scores range from zero to one, inclusive, and may be interpreted as the proportion of items that an individual knows or shares with the normative cultural beliefs (as assessed by the questionnaire items).

Finally, consensus analysis estimates the culturally “correct” answers to the questionnaire (the normative cultural beliefs) and provides a probabilistic confidence level for the classification of each item. Responses are “weighted” by the competence scores to obtain a Bayesian posterior probability that the answer is “true/yes” or “false/no.” With a simple majority decision (e.g., a Binomial test on a sample of 40), items with a 67 percent/33 percent or more extreme distribution would be classified as “yes” or “no.” The remaining items would not be significantly different from 50/50 and thus would not be classified. The consensus model is far more powerful than a majority binomial test because it uses the entire response pattern across items and individuals and is able to determine the cultural classification of many items that would be “unclassified” by the latter test. For our analysis, we used a stringent confidence level (p> .999).

Results

Demographic data on the 200 individuals interviewed are shown in Table 1. The sample was composed primarily of females of about 40 years of age, with educational levels ranging from 1.7 years (Guatemala) to 12.6 years (Tampa). We assumed that females would have more responsibility for management of illness, thus the preference was to interview the female head of household whenever possible. Some
males were interviewed at some of the sites, but no differences were found between male and female response patterns. In addition, given that a high degree of shared beliefs was found across great educational, income, and geographical diversity, it is unlikely that any kind of significant “female” bias exists for this area of cultural knowledge.

While many of the demographic characteristics varied greatly among the sites, the cross-cultural data indicate that there is a great deal of both intra- and intercultural agreement on the causes, symptoms, and treatment of the common cold. Part of this may be due to the vast experience our respondents had with this illness.

There was strong agreement within each sample about the cold; the consensus model fit the data for each sample (eigenvalue ratios exceeded the recommended 3:1 and competency scores were all positive). The highest agreement was in the Connecticut sample; the average cultural competency for informants was .68, indicating that about 69 percent of the answers or concepts about the cold were shared across informants. The Mexican sample, although highly diverse in socioeconomic and educational levels, also had a high level of shared conceptualizations about the causes, symptoms, and treatments of a cold. Similarly, the Texas and Tampa samples had 65 percent and 66 percent shared concepts, respectively. The lowest agreement was in the Guatemalan sample—59 percent shared concepts.

We checked for interpretable intracultural variation by examining the relationships between demographic variables and an individual’s cultural knowledge about the cold. In the Texas, Mexico, and Tampa samples, age, educational level, and household size were unrelated to knowledge levels. In Connecticut, older (Pearson correlation coefficient, r = +.48), less-educated (r = -.48) individuals with smaller households (r = -.50) knew more of the cultural concepts. In Guatemala, literate informants (r = +.34) knew more.

With regard to intercultural variation, of the 52 items on the questionnaire that dealt with susceptibility and causes of the cold (Table 2), there was agreement across the four Latino sites on 60 percent of the items and across all five sites on 52 percent of the items. All five sites agreed that a cold cannot be caused by a fright (susto) or by witchcraft; nor by a hard envious stare, food being stuck in the stomach, drinking hot liquids, eating too much, eating spoiled food, eating dry food, eating certain foods, sleeping late in the day, lying, drinking unboiled water, or by being overweight. Colds are thus clearly differentiated from such common folk illnesses as susto (fright), mal de ojo (evil eye) and empacho (gastrointestinal blockage), as well as from diabetes.

All five sites agreed that colds can be caused by a lack of vitamins, low resistance, exposure to drafts/wind/air, a change in the weather, not being properly clothed in cold weather, and by being around a person who has a cold. Thus, there is a sense that colds are linked to low resistance and to exposing the body to cold. If we examine the responses of just the four Latino sites, we can see that the Latin American beliefs regarding the hot/cold system are similar to those of Anglo Americans, but are more elaborate (Table 3). The four Latino sites agreed that colds can be caused by walking on a cold floor without shoes, by getting wet when you are sweating, and by being exposed to cold weather. In addition, the

### Table 1. Sample Demographics

<table>
<thead>
<tr>
<th>Sample</th>
<th>Guatemala</th>
<th>Mexico</th>
<th>Texas</th>
<th>Connecticut</th>
<th>Tampa</th>
</tr>
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<tbody>
<tr>
<td>Sample Size</td>
<td>40</td>
<td>40</td>
<td>41</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td>% Female</td>
<td>95</td>
<td>100</td>
<td>100</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Age in yrs (range)</td>
<td>37.8 (17-72)</td>
<td>37.8 (18-82)</td>
<td>39.4 (22-65)</td>
<td>37.8 (18-78)</td>
<td>48.2 (23-84)</td>
</tr>
<tr>
<td>Total # Children (range)</td>
<td>2.8 (0-8)</td>
<td>4.4 (0-13)</td>
<td>2.5 (0-7)</td>
<td>3.4 (0-10)</td>
<td>1.7 (0-4)</td>
</tr>
<tr>
<td>Household Size (range)</td>
<td>5.3 (1-10)</td>
<td>5.3 (1-11)</td>
<td>4.0 (1-8)</td>
<td>3.7 (1-9)</td>
<td>2.7 (1-6)</td>
</tr>
<tr>
<td>Education (range)</td>
<td>1.7 (0-8)</td>
<td>6.7 (0-13)</td>
<td>12.0 (5-16)</td>
<td>9.2 (0-16)</td>
<td>12.6 (0-16)</td>
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</table>
Texas, Mexico, and Guatemala samples agreed that eating or drinking icy things when one is sweating can cause a cold. The Latin American hot-cold system thus includes the concept that exposure of the body to cold, particularly when it is physically hot, is dangerous.

There appears to be another Latin American pattern with respect to causality of colds linked to airborne substances. The Guatemala, Mexico, and Connecticut samples all agreed that breathing smoke, dirty air/air pollution, living in an unclean house, and dust/dirt might all cause a cold; however, the Texas and Tampa samples disagreed.

Finally, there was agreement across all samples that susceptibility to colds is universal. All five samples agreed that colds can occur in babies, boys, girls, men, women, old people, or anyone. Similar patterns of agreement across sites were seen in symptoms of the cold. Of the 48 items on symptoms (Table 2b), there was agreement across the four Latino sites on 54 percent of the items and across all five sites on 52 percent of the items. The majority of symptoms occurred in the head and chest regions of the body; the majority of the symptoms not indicative of a cold were associated with the gastrointestinal system. As such, all five sites agreed that a swollen or bloated stomach is not a symptom of a cold, nor is having a stomach ache, constipation, diarrhea, vomiting, or yellow skin. Seeing one’s ribs while breathing is also not a symptom of a cold. Items identified symptoms of a cold include red, inflamed eyes; watery eyes; sneezing; muscle and body aches; fever or fever and chills; hoarseness; breathing difficulty; a runny nose; a stuffy nose; mucus, itchiness in the throat; sore throat; chest congestion; headache; and decreased activity.

By examining cold symptoms by body region and by the visible versus less visible nature of the symptom, it is clear that symptomatology is localized in the head and neck. All samples agreed on visible symptoms of the head and neck, such as red eyes, sneezing, stuffy nose, and runny nose. A similar pattern was seen for chest symptoms, such as a cough and mucus, and systemic symptoms, such as fever, chills, and decreased activity. Agreement was also seen for the less visible symptoms of the head and neck (such as headache, itchiness in the throat, and sore throat), as well as those

<table>
<thead>
<tr>
<th>Table 2a. Causes of Colds</th>
<th>Not caused by</th>
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<tbody>
<tr>
<td>Lack of vitamins</td>
<td>Fright/susto</td>
</tr>
<tr>
<td>Due to low resistance</td>
<td>Food stuck in the stomach</td>
</tr>
<tr>
<td>Exposure to drafts/wind/air</td>
<td>Drinking hot liquids</td>
</tr>
<tr>
<td>Change in the weather</td>
<td>Drinking unboiled water</td>
</tr>
<tr>
<td>Being around/near a person with illness</td>
<td>Dietary indiscretions such as: eating too much, eating spoiled food, eating certain foods, eating an unbalanced diet, eating dry food, eating too much</td>
</tr>
<tr>
<td>Not being properly clothed in cold weather</td>
<td>Being overweight or obesity</td>
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<tr>
<td></td>
<td>Witchcraft</td>
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<tr>
<td></td>
<td>Sleeping late in the day</td>
</tr>
<tr>
<td></td>
<td>Lying</td>
</tr>
<tr>
<td></td>
<td>A hard, envious stare</td>
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<tr>
<th>Table 2b. Symptoms of Colds</th>
<th>Not symptoms</th>
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<tr>
<td>Symptoms</td>
<td>Not symptoms</td>
</tr>
<tr>
<td>Red and inflamed eyes</td>
<td>Swollen, bloated stomach</td>
</tr>
<tr>
<td>Muscle and body aches/pain</td>
<td>Seeing ribs while breathing</td>
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<tr>
<td>Fever and chills</td>
<td>Stomach ache</td>
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<tr>
<td>Hoarseness</td>
<td>Constipation</td>
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<tr>
<td>Watery eyes</td>
<td>Skin turning yellow</td>
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<tr>
<td>Sneezing</td>
<td>Diarrhea</td>
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<tr>
<td>Breathing difficulty</td>
<td>Vomiting</td>
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<td>Runny nose</td>
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<tr>
<td>Mucus or phlegm</td>
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<tr>
<td>Itchiness in the throat</td>
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<tr>
<td>Fever</td>
<td></td>
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<tr>
<td>Sore throat</td>
<td></td>
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<tr>
<td>Stuffy nose</td>
<td></td>
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<tr>
<td>Chest congestion</td>
<td></td>
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<tr>
<td>Headache</td>
<td></td>
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<tr>
<td>Lack of animation or decreased activity</td>
<td></td>
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<tr>
<td>Can lead to pneumonia</td>
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</table>
of the chest (chest congestion and breathing difficulty). However, the less visible and more systemic symptoms, such as myalgia and irritability, varied across sites. Thus, there was a decrease in consensus as the symptoms became less visible and moved away from the head and neck area.

This pattern of agreement persists when we look at prevention and treatment of a cold. For the 43 items about treatments (Table 2c), there was agreement across the four Latin sites on 44 percent of the items and across all five samples on 40 percent of the items. To help cure a cold, respondents agreed that it is advisable to drink liquids; use medicines given by a doctor; drink orange or lemon tea; use eucalyptus or camphor balm, such as Vicks; and/or take vitamins. Treatments considered appropriate included burning prayer candles, putting holy water on the body in the shape of a cross, exercise (and not exercising), drinking marijuana tea, drinking tea made with the addition of a few drops of gasoline, taking milk of magnesia, or using garlic. Nor is avoiding getting upset felt to be a way to prevent a cold. An untreated cold is believed to turn into bronchitis or lead to pneumonia.

Agreement was seen among the four Latino sites for use of hospitals and aspirin/tylenol as treatments, both of which were rejected in Tampa. In Tampa, non-use of the hospital is probably related to the extent to which middle-income Americans use private physicians and walk-in clinics for common illnesses such as the cold. Tampa was also unique in its beliefs that a cold was not easily cured (but that an untreated cold would get better by itself) and that use of antibiotics was not an appropriate treatment.

In addition to the closed questions dealing with causes, symptoms, and treatments of the cold, the questionnaire also included open-ended questions designed to elucidate the differences between the cold and similar illnesses. In Tampa, informants were asked about the difference between the cold and “the flu.” Cold symptoms identified in this portion of the interview were virtually identical to those obtained in the yes/no questions. In contrast, “the flu” was char-
acterized by gastrointestinal symptoms (including nausea, diarrhea, and stomach ache), body aches and pains, fatigue, fever and sweating, as well as upper respiratory symptoms. Flu was considered to be more serious and more severe than a cold.

The four Latino groups were asked for the differences between the common cold (catarro) resfriado, and gripe. Mexicans tended to define gripe as the same as catarro. Some Texas respondents classified gripe as “a cold” and others as “the flu.” At all sites except Texas, the symptoms offered for gripe focused on upper respiratory complaints. The Texas respondents included fever as a symptom of gripe. Resfriado showed a somewhat different pattern, with a focus on symptoms of coldness (as seen in responses such as “cold sweats,” “chills,” “cold hands and feet,” “feel cold”), particularly in Guatemala, Mexico, and Texas.

Discussion and Conclusions

These data suggest a great deal of both intra- and inter-cultural agreement on the causes, symptoms, and treatments of the common cold. A coherent set of conceptualizations was seen at each of the five sites, with high levels of shared beliefs. Across sites, great similarities were seen, with identical answers across all five sites on 52 percent of the items covering causes and symptoms, and 40 percent of the questions about treatments. Agreement among any two or three sites was much higher. Certainly among the populations studied, there is a common core of shared concepts about this illness.

In these five populations the cold seems to be very much in the realm of a biomedical illness. The only exception is in folk theories of causality. As identified by this study, the mainstream American hot-cold system is less elaborate than the Latino version. The Latino inclusion of such concepts as the danger of walking barefoot on cold floors shares similarities with cultures such as those of China (C. Cassidy: personal communication) and Turkey. In Fiji, where there are no shoes or floors, it is believed that colds are caused by going into the ocean when one is hot (B. Cook: personal communication). Yet educated middle-income mainstream Americans were just as likely to report hot-cold theories to explain causality of the common cold. For this reason, middle-income mainstream Americans cannot be considered closer to the biomedical model than the populations at the other four sites studied. Nor are hot-cold concepts exclusively Latino, although there are some intercultural differences in the specifics of the system.

Biomedicine itself is not totally clear on the issue of the role of cold in causality of the cold. Some studies have found correlations between low outdoor temperature and incidence of colds (Lidwell et al. 1965). However, other studies that have experimentally exposed individuals to cold air or water before and after infecting them with rhinovirus type 15 have not supported a link between exposure to “cold” and incidence of the common cold (Douglas et al. 1967).

Treatments for a cold incorporate some folk remedies. The main home/folk remedy agreed upon by all five sites was orange or lemon tea. Eucalyptus tea or a spoonful of honey were also thought to be appropriate treatments in Guatemala, Mexico, and Connecticut. The Latin American cure-all of chamomile/manzanilla tea was only seen as an appropriate remedy for a cold by Connecticutans. The Texas respondents included fever as a symptom of gripe. The four Latino groups were asked for the differences between the common cold (catarro) resfriado, and gripe. Most sites rejected home remedies such as cactus syrup/jarabe of maguey, aloe vera/cactus/nopal juice, and herbal syrup (siete jarabe). While Guatemala and Connecticut respondents advocated use of spearmint/herba buena tea, only Guatemalans suggested the use of bitter tea/Verbena and cod liver oil. Four sites agreed that a traditional healer (curandero) or spiritual healer (espiritista) would not help cure a cold. The lack of initial open-ended research in Tampa meant that the value of chicken soup did not appear on the questionnaire. Curiously, this remedy did not emerge from the open-ended interviews at the Latino sites as an important item to include on the final questionnaire.

Both the yes/no and open-ended questions showed a differentiation between “the cold” and “the flu.” The latter appear to be identical to “folk flu,” characterized by gastrointestinal symptoms identified by McComb (1987) in southern Arizona. In neither Arizona nor Tampa did “flu” correspond to the biomedical illness influenza (the onset of which is abrupt and includes symptoms such as coryza, conjunctivitis, pharyngitis, and a dry cough; other systemic signs are high fever, myalgia, malaise, and headache [Behrman et al. 1996]).

“Flu” has also been reported among English-speaking Puerto Ricans as well as among African Americans living in Hartford. Symptoms reported by these groups (decreased appetite and activity, fever, cough, crankiness, crying) were similar to those of folk flu, although only the Rio Ricans included vomiting as a symptom of the flu (Pachter et al. 1996). Interestingly, a sample of Hartford biomedical practitioners, who were largely Anglo American, reported similar symptoms, including vomiting (Pachter et al. 1996). This suggests that “folk flu” may be a syndrome commonly seen in Anglo Americans (as well as in other English-speaking populations in the United States), and that Anglo Americans are as likely to exhibit folk illness conceptualizations as any other ethnic group. Agreement with the biomedical model cannot be assumed in middle-income/mainstream populations, much less among members of ethnic minorities.

An illness with the characteristics of folk flu does not seem to exist in any of the Latino populations studied; it is not catarro, gripe, or resfriado, although the literature (Pachter et al. 1996) reports that English-speaking Puerto Ricans in Hartford, Connecticut, recognize “the flu.” Thus, if “the flu” exists in any of the Latino populations studied, we have not identified the term for it. The other possibility is that “folk flu” is a culture-bound (or perhaps English language-bound) syndrome, thus far just identified in middle-income mainstream American populations, African American populations, and English-speaking Puerto Ricans (Pachter et al. 1996).
In conclusion, we see a high degree of cross-cultural similarity in conceptualization about the causes, symptoms, and treatments of the common cold among the five groups studied here. Exposure to “cold” is an important aspect of concepts of causality of the common cold for all of them. This pattern has also been noted in Pakistan (Mull and Mull 1994), rural Bangladesh (Stewart et al. 1994), India (Chand and Bhattacharyya 1994), West Java (Kresno et al. 1994), and Honduras (Hudelson 1994), as well as among other cultures (Grove and Pelto 1994). This pattern may be of importance in the understanding of more serious types of ARI, e.g., LRI, as the literature suggests that some populations do not differentiate between URI and LRI, and attribute “cold” causality to both types of illness (Iyun and Tomson 1996). Other populations see more serious types of ARI, including pneumonia, as the worsening of or the natural progression of the common cold (Hudelson 1994; Stewart et al. 1994). While the common cold is a minor health problem, biomedically trained health care workers who are unaware of, or who dismiss patient’s conceptualizations about “cold” causality, may find it difficult to communicate with patients about, and to prevent, more serious types of acute respiratory infections.

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