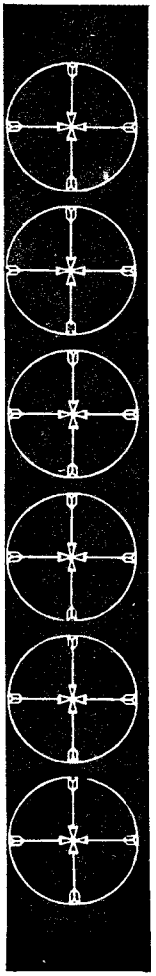
Medical Anthropology

Cross-Cultural Studies in Health and Illness



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Community Morbidity Patterns and Mexican American Folk Illnesses: A Comparative Methodology

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The general ethnographic parameters of Mexican American folk healing have been well established, as evidenced by the seminal and the recent works on the subject (e.g., Clark 1959; Rubel 1960, 1964; Madsen 1961, 1964; Romano 1960, 1964, 1965; Kiev 1968; and Trotter and Chavira 1975, 1980, 1981). These works, and the closely related ones presented in their bibliographies, represent more than twenty years of nearly continuous ethnomedical research in the Lower Rio Grande Valley of Texas. However, one critical factor has been neglected in these books and articles. To date, no one has produced an ethnographically sensitive technique to establish the relative position of the folk illnesses described in these works within the context of all of the health problems faced by Mexican American communities.

Unfortunately, this lack of balance may have created a false impression about Mexican American ethnomedicine; a subtle form of cultural stereotyping brought about by the interactions of the theoretical orientations of the researchers combined with the emphasis on ritual practices that is prevalent in anthropology. This tendency produces descriptions of ethnomedical systems that suggest a general pervasiveness of culturally-constructed folk illnesses treated by healing specialists with little or no attention directed to the treatment of symptoms or ailments within the home. This situation can be demonstrated by a brief analysis of three works from the same geographical area from which the data for this paper are derived.

Madsen (1964) devotes one-third of his monograph (37 out of 112 pages) to a description of the existence and treatment of folk illnesses such as *susto,* and *empacho,* and the existence of folk healers, *curanderos,* in the community. While he describes some of the negative attitudes of his informants towards physicians, he devotes virtually no space to either positive attitudes towards physicians, or to the treatment of physical ailments in the home. Rubel (1966) devotes forty-seven pages

(18 percent of the total monograph) to culture bound syndromes and folk healers, and, again fails to take into account the possible home treatment of physical ailments. Yet both authors note an under-utilization of physicians, who, they point out, treat physical ailments exclusively. This causes one to wonder what their informants were doing to cope with the pervasive physical problems that occur in all cultures. My feeling is that our inordinate interest in rituals is at fault here. The rituals surrounding the magico-religious part of Mexican American ethnomedicine stand out to a trained observer, causing the more common, but less spectacular use of home treatments to disappear into the background of everyday living in the community.

Even in the author's own monograph (Trotter and Chaviro 1980), only approximately ten pages out of 200 are devoted to descriptions of the home treatment of physical ailments, less than 5 percent of the total monograph. On the other hand, more than 50 percent of the work is devoted to descriptions of ritualized treatment processes. These imbalances in the description of the magical treatment of folk illnesses, compared with the often ignored and more prosaic treatment of physical symptoms not conceptualized as a folk illness, may well set up an assumed dichotomy in the mind of the reader, even though the authors never intended such a distinction. This dichotomy is the equation of rituals and magical illnesses with ethnomedicine, and physical illnesses with biomedicine. Even though there are multiple caveats in all three monographs to the contrary, it is entirely possible that the reader could be left with a false impression of the pervasiveness of folk illnesses in the communities described.

Since even unintentional cultural stereotyping, created by the conditions described above, can have serious negative effects, this paper represents a first step in balancing the impressions created by earlier works. The following technique is proposed as an ethnographically sensitive method for determining: (1) the types of illnesses which are treated within the home, (2) the forms of treatment which are utilized when people attempt to cope with illness at home, and (3) the sociocultural characteristics of people using home treatments for illnesses. This analysis of variation in treatment provides a considerably different view of folk illnesses from the more homogeneous descriptions found in earlier works.

METHODOLOGY

The methodology used in collecting the data reported in this paper combines the strength of an open-ended case study approach with the potential for quantification of results found in a survey. The basic premises and data gathering techniques utilized are already described in detail elsewhere (Trotter 1981a, 1981b), but will be briefly reviewed here for the sake of clarity.

We are collecting case examples of the use of home remedies (*remedios caseros*) in an ongoing survey, then coding each case into a computer archive for analysis. Each case in the archive is collected within a common format consisting of the following items: the name or names of the remedy, the illness it treats, the method of preparation and administration of the remedy, an example of an actual use of the remedy, plus basic demographic data on the informant who supplies the information (age, sex, ethnicity, languages spoken, residence, place or country of birth, occupation, etc.).

The data presented in this article represent an analysis of all cases presented by Mexican American informants currently in the computer archive. The number of case examples collected from individual informants ranged from one to twenty-nine. However, this should not be taken as the upper limit of knowledge of *remedios caseros* in the community. An upper limit of twenty-five cases was arbitrarily imposed on the collectors as being the maximum number that could be collected

without unduly taxing the informant's good will. Thus, although most informants volunteered fewer than twenty-five cases (mean = 3.3, median = 2, mode = 1), there are a number of individuals who know literally hundreds of remedies.

As previously noted (Trotter 1981a:3;, 1981b:209), it has not been possible to establish a formalized random sampling procedure to collect the cases in the Lower Rio Grande Valley. Therefore, the sample of cases should be considered a convenience sample, since the survey was not originally designed to cover specific geographical or sociocultural characteristics of the research region in a demographically systematic manner. However, an inspection of the data in the archive indicates that it does generally match the overall sociodemographic characteristics of the population, when compared with census data and with the geographical distribution of informants. Thus, any distortion of the data, due to sampling error, should not be critical to an analysis of the data, given the fact that this is an exploratory technique, rather than one refined through long-term usage.

The 1,223 cases analyzed for this paper were collected from 378 informants who ranged in age from sixteen to eighty-two, but clustered most heavily in the thirty to fifty-five-year-old range. Of the total, 41.4 percent of the cases were provided by individuals born in Mexico, but now residing in the United States, while 58.6 percent of the cases were presented by informants born in the United States. Eighty-five percent of the cases were collected from female informants, who appear to be the most knowledgeable and most common users of *remedios caseros*, while 14.6 percent of the cases were collected from male informants. Cross tabulations of age, sex, and country of birth were computed, comparing those variables with the *remedios caseros* and with the ailments.

Very clear age and sex differences occur in the presentation of both remedies and ailments by informants, as reported by Trotter (1981b). Comparing the twenty-one most common ailments reported by female and male informants demonstrated a statistically significant difference in the informants' presentation of case examples of ailments ($p<.001$) for the two groups. For example, the five most common ailments reported by all female informants were stomach ache, cough, colic, *nervios*, and earache, while those reported by men were arthritis, fever, stomach ache, upset stomach, and constipation. When the sexual groups were separated by age sets, the differences between remedies and ailments reported by men, as opposed to women, become even greater. Comparisons within the sexes, but between age groups, also produced significant differences. For instance, for males seventeen and forty-four, the four most commonly reported ailments were upset stomach, constipation, intestinal parasites, and painful joints, while for males forty-five and over,the four most common were fever, stomach ache, and a tie between diarrhea, kidney infection and painful joints. These, and other comparisons were made (Trotter 1981b:110-114) as part of an effort to use the data derived from the ethnographic computer archiving described above to produce a comparative measure of community morbidity patterns, when more conventional approaches to morbidity research are not possible. There were no significant differences in the presentation of either *remedios* or of ailments by informants born in the United States, compared with those born in Mexico.

Five hundred and ten separate remedies (both botanical and nonbotanical items) were discovered in this sample. Most were single-ingredient remedies, but some were complex combinations of ingredients. A total of 198 illnesses were presented in the sample, each being treated by one, or, more frequently, several of the remedies. Many of the ailments appear to be potentially overlapping. For example, it is difficult to see on what basis

people separate out upset stomach, nausea, and indigestion. However, since it is assumed that these illnesses present a folk classification of home-treated ailments, ailments have not been combined together, pending further ethnographic research. Ailments are identified by the words that informants used to label them originally.[1]

The ethnographic evidence collected by the author, prior to this study, indicated that there was probably a core group of most frequently treated ailments and remedies. Nearly everyone interviewed provided an overlapping set of ailments and remedies, while some, but not most, of the informants went beyond this consensual information and presented data on less commonly encountered remedies or ailments. This situation led to the assumption that there is a core of most commonly encountered and treated morbidity conditions in the community, tied to a core set of treatments. This contention is further supported by subsequent analysis of the data in the archive (Trotter 1981a, 1981b) and by the data in table 1 (to be discussed below). In one of the two previous works (Trotter 1981a:210-211), a group of 56 (11 percent) of 510 remedies are shown to account for 52.6 percent of the total sample of cases. In fact, the ten most commonly presented remedies account for 26.8 percent of the total sample of cases. And, as will be shown in table 1 below, 87 of 198 ailments represent 88.9 percent of the case sample, and six out of the seven folk ailments presented in this paper are represented in this core group.

FINDINGS

Among the 1,223 cases analyzed for this paper there were 198 separate ailments. Seven folk ailments which have received a considerable amount of attention by ethnographers are present in this sample of cases, along with 191 home-treated ailments that have received far less attention. Table 1 presents the most frequently encountered ailments represented by three or more cases in the sample. All seven folk ailments are also listed.[2] If it is assumed that the cases collected were provided by informants because they were either the ailments

TABLE 1

FREQUENCIES OF AILMENTS IN SAMPLE OF CASES[2]

	AILMENT	NO. OF CASES	% OF TOTAL
1.	Stomach ache	76	6.2
2.	Cough	54	4.4
3.	Nervios	49	4.0
4.	Colic	44	3.6
5.	Fever	41	3.6
6.	Upset stomach	39	3.2
7.	Earache	37	3.0
8.	Diarrhea	36	2.9
9.	Susto	35	2.9
10.	Constipation	29	2.4
11.	Eye irritation	27	2.2
12.	Arthritis	26	2.1
13.	Sores/Granos	24	2.0
14.	Insomnia	23	1.9
15.	Burns	20	1.6
16.	Kidney infections	20	1.6
17.	Bladder infections	19	1.6
18.	Diabetes	19	1.6
19.	Sore throat	19	1.6
20.	Intestinal parasites	18	1.5
21.	Colds	15	1.2
22.	Insect bites	15	1.2
23.	Boils	14	1.1
24.	Heart problems	14	1.1
25.	Menstrual cramps	14	1.1
26.	Acne	13	1.1
27.	Bleeding	13	1.1
28.	Body aches and pains	13	1.1
29.	Empacho	12	1.0
30.	Congestion	12	1.0
31.	Headaches	12	1.0
32.	Balding	11	0.9
33.	Gases	11	0.9
34.	Anemia	10	0.8
35.	Cuts	10	0.8
36.	Late menstruation	10	0.8
37.	Stomach cramps	10	0.8
38.	Bronchitis	9	0.7
39.	Toothache	9	0.7
40.	Ulcers	9	0.7
41.	Asthma	8	0.7
42.	Backache	7	0.6
43.	Infected wounds	7	0.6
44.	Feeling run down	7	0.6
45.	High blood pressure	7	0.6
46.	Mouth infections	6	0.5
47.	Obesity	6	0.5
48.	Pneumonia	6	0.5
49.	Tired blood	6	0.5
50.	Tuberculosis	6	0.5
51.	Mal de ojo	5	0.4
52.	Evil spirits	5	0.4
53.	Hemorroids	5	0.4
54.	Hemorrage	5	0.4
55.	Hiccups	5	0.4
56.	Liver problems	5	0.4
57.	Rashes	5	0.4
58.	Wound infections	5	0.4
59.	Blood needing tonic	5	0.4
60.	Dandruff	4	0.3
61.	Insufficient lactation	4	0.3
62.	Infertile womb	4	0.3
63.	Mental disorders	4	0.3
64.	Mumps	4	0.3
65.	Panacea	4	0.3
66.	Stomach infections	4	0.3
67.	Sun stroke fever	4	0.3
68.	Urinary tract infection	4	0.3
69.	Warts	4	0.3
70.	Whooping cough	4	0.3
71.	Bad luck	3	0.2
72.	Athlete's foot	3	0.2
73.	Bruises	3	0.2
74.	Cancer	3	0.2
75.	Uterus needing cleansing	3	0.2
76.	Dizziness	3	0.2
77.	Dolor del aire	3	0.2
78.	Late labor	3	0.2
79.	Internal injury	3	0.2
80.	Jaundice	3	0.2
81.	Kidney stones	3	0.2
82.	Loss of appetite	3	0.2
83.	Irregular bowel movements	3	0.2
84.	Splinters enbedded	3	0.2
85.	Ringworms	3	0.2
86.	Vitamin deficiency	3	0.2
87.	Vomiting	3	0.2
107.	Caida de mollera	1	0.1

most commonly encountered by the informants or the ones which were the most important to the informants, then a comparison of the frequency of each ailment within the total sample should provide a relative measure of the prominence of these ailments in the community.

As can be seen from the data in Table 1, this technique is very useful for allowing a multitude of comparisons to be made among the ailments treated in the home in Mexican American communities. It should be noted, however, that not all of the ailments encountered in Mexican American communities are present in this sample. The ones that are present appear to fall into three broad groups: ailments perceived to have no appropriate biomedical treatment (e.g., *mal de ojo* and bad luck); ailments the medical system has failed to deal with appropriately from the patients' perspective (e.g., arthritis and cancer which cannot be *cured*); and ailments that do not normally require medical treatment (e.g., colds, scrapes and minor cuts, coughs, indigestion, etc.) (see Trotter 1981a:219-220). Other ailments are taken to the appropriate medical resource. Illnesses such as broken bones, appendicitis, and infectious diseases are viewed within the community as being most appropriately treated by the medical system, and therefore they do not show up in the sample, or in the ethnographic research, as being treated by *remedios caseros*.

The seven folk illnesses, sometimes referred to as culture-bound syndromes, which appear in this sample are *susto, empacho,* being bothered by evil spirits, *mal de ojo,* problems with bad luck, *dolor del aire* and *caida de mollera.*[3] *Susto,* as defined by Rubel's classic article (1964), is generally thought to be "magical fright" brought about by a frightening or shocking event that causes the soul to dissociate from the body. *Empacho* is thought to be stomach or digestive problems caused by a bolus of food that has adhered to the stomach or intestine and must be dislodged for the person to recover. *Mal de ojo* is translated as "the evil eye" and is an accidental harm, normally to young children, caused by excessive admiration. One informant explained that the "hot vision" of someone admiring a child can draw away some of the child's "vital essence" which must be restored to return the child to health. *Dolor del aire* is a set of aches and pains, normally in the shoulder and neck or lower back regions, brought about by a draft, or a sudden change from a hot to a cold environment. It is basically thought to be caused by air being "trapped" in the muscles. That air must subsequently be removed or neutralized to cure the condition. *Caida de mollera* is a fallen fontanel and is identified by the depression of the anterior fontanel in an infant. The other two ailments, bad luck and evil spirits, are generally thought of as magical interferences in people's lives. They can be caused either through the agency of people practicing sorcery or by fate.

The seven ailments together represent 5.2 percent of the total sample of 1,223 cases. In and of itself, this indicates that anthropologists have been correct in recommending that these ailments be paid attention to as a part of the overall morbidity patterns in Mexican American communities. At the same time, some may have been overemphasized in the anthropological literature. *Susto* is the most prominent of the seven syndromes. It constitutes 54.7 percent of the total of sixty-four cases of these ailments and is nearly three times as common in the sample as the next most prominent ailment, *empacho. Mal de ojo* and dealing with evil spirits are equally common in the sample, followed by treating or preventing bad luck and *dolor del aire,* then, finally, one case of *caida de mollera.* The relative position of these ailments, *vis à vis* one another is presented in table 2.

In the ethnographic works mentioned above, these ailments appear to be lumped

	AILMENT	TOTAL NO. OF CASES	% OF TOTAL CASES IN SAMPLE	% OF TOTAL FOLK AILMENT CASES
1.	Susto	35	2.9	54.7
2.	Empacho	12	1.0	18.8
3.	Mal de ojo	5	0.4	7.9
4.	Evil spirits	5	0.4	7.9
5.	Bad luck	3	0.2	4.7
6.	Dolor del aire	3	0.2	4.7
7.	Caida de mollera	1	0.1	1.3
		64	5.2	100.0

together solely on the basis that they have no English or biomedical equivalents. While this may be heuristically useful within anthropology, it does not necessarily reflect the viewpoint from within Mexican American ethnomedicine. Since it seems logical to assume that similar or closely related physical ailments might have similar treatments, and that similar or related magico-religious ailments might have related treatments as well, it was decided to use the computer to determine the frequency of types of treatments, and their administration for each of the seven ailments. The results are presented in table 3.

It is very interesting to note that *susto,* which is normally defined as "magical fright" or soul loss in the literature (Rubel 1964; Gobeil 1973; O'Nell 1975) has a preponderance of nonmagical treatments. Teas, or ingesting something, account for 60.2 percent of the cases, while the magico-religious ritual called a *"barrida"* (a magical sweeping) accounts for only 39.8 percent of the treatments. This differential in treatment modalities can be vividly contrasted by the following two excerpts. The first is taken from one of the cases of *susto* which was treated by *yerba aniz* (anise; *Pimpmella anisum* L.).

> One day one of her children came in the house scared to death. He was playing out in the yard when a snake snapped at him, but missed him. He was shaking and could hardly talk. One of her neighbors was visiting and told her to use yerbanis (sic). That it was good for *susto.* She prepared it and gave it to the child. Later that afternoon, the child was better, so she gave him more and the child slept all night.[6]

This is clearly contrasted with the treatment reported by another informant, using *albacar* (sweet basil; *Ocumum basilicum L.*) to complete a *barrida,* a ritual purification ceremony.

We have had many people that feel sick because they are tired or because they were once frightened by something or someone; this in Spanish is called *enfermo de susto*. What my mother does is called *barrelos con albacar*. Mother gets the person on his feet, says some prayers, and then she starts sweeping him or her from head to toe. During the sweeping, constant praying should be going on. You may contact Mrs. Villarreal for prayers information.

These two examples are generally representative of the other cases within the sample, and their dichotomous nature suggests that a general reappraisal of *susto* needs to be undertaken.

In fact, the whole question of the etiology and cultural meaning of *susto* is currently under review. In another recent article (Trotter 1982), the author utilized the data set used for this article to create an indepth analysis of *susto*, within the context of the type of morbidity patterns that can be derived from the method recommended above. This provided a new perspective on the illness, based on a description of the range, type, and variation in types of treatment for *susto*. It was also shown that useful information about a folk healing system can be derived from comparing the treatment of one illness with others, and clustering groups of illnesses according to overlapping sets of treatments. The results of that study clearly suggest that *susto* may actually be a complex set of ailments, or a complex set of manifestations of the same ailment.

A differentiation was made by informants between *susto* (the regular form of the illness) and *susto pasado*, an advanced form of the illness. This reconfirms the general findings reported by Rubel (1960, 1964, 1966) and Madsen (1964) for the same area. *Susto pasado* is felt to be potentially fatal and is most commonly treated by folk specialists called *curanderos*, rather than in the home. A couple of informants added a third condition, *espanto*, to the other two, saying it was by far the worst form of *susto* of them all. Madsen also reports

TABLE 3

FREQUENCIES OF TREATMENTS FOR SEVEN FOLK AILMENTS[4]

REMEDY	NO. CASES	%	METHOD OF ADMINISTRATION
A. SUSTO			
1. Yerba aniz	14	40.0	tea
2. Albacar	4	11.4	3 barrida; 1 tea & barrida
3. Altamiza	3	8.6	barrida
4. Pirul	3	8.6	barrida
5. Manzanilla	2	5.7	tea
6. Agua, sal, vinagre	1	2.9	mix and drink
7. Azucar	1	2.9	1 tsp. w/out water
8. Cenizo	1	2.9	barrida
9. Hojas de naranjo	1	2.9	tea
10. Epazote de zorrillo	1	2.9	barrida
11. Jerbanillo	1	2.9	tea
12. Simonillo	1	2.9	unknown
13. Toronjil	1	2.9	tea
14. Yerba buena	1	2.9	tea
	35	100.0	
B. EMPACHO			
1. Pull up skin on back	2	16.8	pull up skin
2. Raiz de nopal	2	16.8	1 tea; 1 ashes in food
3. Aceite de recino	1	8.3	add sugar, ingest 1 tsp.
4. Agua de pita	1	8.3	cut, squeeze, drink sap
5. Hojas sen	1	8.3	tea
6. Marrubio	1	8.3	tea
7. Olivo	1	8.3	massage on stomach
8. Raiz constonate	1	8.3	tea
9. Raiz de yerba buena and comino	1	8.3	tea
10. Rock, milk, canela	1	8.3	use hot rock to boil
	12	100.0	

REMEDY	NO. CASES	%	METHOD OF ADMINISTRATION
C. MAL DE OJO			
1. Huevos	4	80.0	barrida, break into glass, put glass under bed
2. Ojo de venado	1	20.0	wear as amulet (preventative)
	5	100.0	
D. EVIL SPIRITS			
1. Ajo	2	40.0	amulet (preventative)
2. Albacar	1	20.0	barrida
3. Cal, agua, ruda	1	20.0	ritual (see case example below)
4. Cebolla morado	1	20.0	amulet in house (preventative)
	5	100.0	
E. BAD LUCK			
1. Insenso	1	33.3	sahumerio[5]
2. Romero	1	33.3	sahumerio
3. Savila and red ribbon	1	33.3	amulet (preventative)
	3	100.0	
F. DOLOR DEL AIRE			
1. Nuez moscada	1	33.3	nut is chewed
2. Ruda	1	33.3	tea
3. Nuez moscada and canela	1	33.3	tea
	3	100.0	
G. CAIDA DE MOLLERA			
1. Huevo, flor de cenizo	1	100.0	see case example below

espanto (1964:79) but distinguishes it from *susto* on the basis that informants saw the fright for *espanto* being caused by a supernatural agent, while *susto* is caused by a natural one (an accident, a dog bite, etc.). This distinction was not made by any of the current informants. Mention of *espanto* was rare and it was only mentioned as a severe form of *susto*, in one case equated with *susto pasado*, rather than a magical form of *susto*.

In fact, there appears to be an overall tend towards a "secularization" of *susto* in the valley, away from a magico-religious explanation of the illness. None of the informants who were recently questioned about the cause and cure of *susto* made any spontaneous mention of the soul loss aspect of susto. They merely described it as the result of a frightening or shocking experience. When the author then asked about soul loss as a part of susto, only the two *curanderos* clearly saw this as an element of the illness. The "lay" members of the community who were queried either said they didn't think that was a part of it, or they had only a vague impression that soul loss was in some way connected with the ailment according to something they remember their parents saying. This is considerably different from the responses collected by other authors twenty years ago in South Texas and currently in other parts of Latin America. Since these findings appear to support and be supported by the dichotomy between the physical and the ritual treatments of *susto* in the sample, even though the symptoms reported for *susto* have remained stable for twenty years, this research technique appears to be ethnographically sensitive, and useful in proposing areas in which focused ethnographic research efforts could be directed at current problems of interest to anthropologists.

Empacho presents a slightly different treatment picture than *susto*. The treatment of *empacho* is the most physical of all of the culture bound syndromes in Mexican American folk medicine; that is, there is a very little ritual elaboration in its treatment. As can be seen from table 3, eight out of the ten treatments are ingested, the idea being that each of the remedies will physically detach the bolus of food stuck to the stomach or intestine that is creating the *empacho*. Massaging with olive oil, and lifting the skin up on the back until it "pops" are also considered physical treatments for the ailment, although the latter appears to be closer to a ritual treatment than any of the others. The verbatim cure of one informant provides an example of the recognition and treatment of *empacho*.

> As a little girl, whenever I stopped eating and turned a sickly yellow, mama quickly diagnosed my malady as *empacho*, the most dreaded of all childhood illnesses because of the treatment involved. Mama would have me lie face down on the floor and she would proceed to pinch the skin of my back between her thumb and forefinger until it popped. This was followed with repeated poundings with open palm all the way down my back. This was indeed a miracle cure, for mama never had to repeat it more than once. I got well fast!

The humor built into this anecdote, and the allusion to the informant's distinction between a psychosomatic miracle and a supernatural miracle are important ingredients in this example. Both conditions are commonly found within this area of study and need to be identified appropriately, to avoid a distortion of the folk medical paradigm within the community. Again, the sampling technique being utilized in this study appears to be sensitive to the ethnographic variations existing within the community as a whole.

The second culture-bound syndrome which appears to have a more physical than magical treatment modality is *dolor del aire*. In the sample of cases, all of the remedies for this illness were ingested, as exemplified by the following quote.

> My mother-in-law had some chest pains a few months ago, and by chewing two nut megs (sic) her ailment ceased. These chest pains were insued when

she left the warm house and stepped into the cold night of February.

The author has also collected another treatment for this illness. In this treatment, the patient is asked to lie down, a coin with a short stub of candle melted to it is placed on bare skin above the pain, the candle is lighted, and a glass is placed upside down over the burning candle. The vacuum created by the burning candle draws skin up into the glass. The glass is then pulled off, usually with a loud sucking noise, moved to a new spot over the pain, and the procedure repeated several times. This action is thought to draw the "bad air" (mal aire) out of the body, curing the illness. The fact that this treatment is missing from the survey might be considered somewhat disturbing, but is accounted for by the relative infrequency of the illness in the region. A new batch of cases, which have not yet been loaded into the computer, do contain this treatment, which confirms the general wisdom of collecting as many case examples as is possible when using a survey technique. This is the only instance where the method failed to duplicate, even temporarily, the data on treatment first derived from the in-depth ethnography that preceded the survey. This result can be considered a basic validation for both the ethnography *and* the survey method structured from the ethnography.

A final ailment within this group of seven that calls forth a physically-based treatment as opposed to a supernatural curing approach is *caida de mollera,* or a fallen fontanel. The only case example of its treatment in the sample follows:

A baby suffering from a fallen fontanel would be treated with the (rubbed in scalp) mixture of egg and a pinch of *flor de ceniza* (sic). The mixture would be applied to the infant's head. The child would then have to undergo the insertion of the thumb into the mouth to lift the palate. After this was done, the child would be turned upside down (held by the heels) and shook three or four times to get the *mollera* back in place.

The final three folk ailments presented here (bad luck, evil spirits, and *mal de ojo*) have treatments which are much more clearly magico-religious in nature. These ailments, or problems, also have in common examples in the cases of treatments that are preventative in nature, as well as treatments that are for existing conditions. The preventative treatments appear to follow the common pattern of making an amulet out of a plant or some other material object and hanging it on a person or above a doorway of the home. As an example, one informant reported a process for both attracting good luck and acting as a warning that someone is trying to magically harm you: "A small aloe vera plant tied with a small red ribbon tacked to the inside entrance of an exit door. This is used for good luck. It is believed that if the plant dies or dries, you have been hexed."

The active treatment of these three ailments, on the other hand, normally involves a ritualized process, always including a *barrida,* a magical sweeping, that draws out or drives away the negative influence thought to be causing the problem. One of the informants who provided a treatment for ridding evil spirits gave the following example of such a ritual:

After a series of unfortunate happenings, a relative of mine concluded that I was possessed by evil spirits wished on me by the *curandera* my ex-husband's mother was seeing. In order to drive them away, a cross of lime was spread under bed sheets of my bed. For a period of three nights, Mondays, Wednesdays, and Fridays, I would be brushed with ruda while lying over the "cruz of cal." Prayers were said and towards the end the glass of water would be placed under the bed and I had to get up before sun-up and toss the water out over my left shoulder for three days.

The final ailment, *mal de ojo,* is extremely common in the literature on Mexican American folk medicine and, as such, deserves slightly more attention than is indicated by its relative prominence in the sample. It is the only other home-treated folk illness besides

susto that is considered by the general population to be fatal if left untreated, yet, according to our ethnographic research, most of the effort on *el ojo* is spent in preventing the problem by touching a person or an object that has been admired. This emphasis on prevention may explain why there were relatively few treatments for it in the sample. On the other hand, when informants were recently asked to give their impressions about the relative frequencies of *susto, empacho,* and *mal de ojo,* the overwhelming consensus was that *susto* was the most common, followed by *empacho,* and that *mal de ojo* was much more rare than the other two. This response tends to confirm the relative frequencies of these ailments in the sample.

One other condition is apparent in a number of the cases collected for the archive. There is a wide variation in the credence given to both the illnesses and to their treatments. One of the cases reported for *mal de ojo* very nicely illustrates this point.

> The person who rubs it (the egg) all over the body says a prayer over the body of the one who is ill.
>
> My niece does a lot of cute things and one day a lady who was watching her commented on the baby, but she didn't go over and touch her. Touching the person is supposed to prevent the evil eye. The baby got a high fever and then my grandmother prayed over her with the egg. It could have been that the baby was just teething, and a prayer will help anyone.

Such ambivalence is not uncommon, although the ethnographic reports on folk ailments sometimes fail to mention it. On the other hand, it was only within the magico-religious treatment cases, not in the physical treatment cases, that such ambivalence was expressed.

SUMMARY AND CONCLUSIONS

Given the depth and scope of the above data, the computer based survey of home-treated ailments described above appears to be a very useful adjunct to normal ethnographic research techiques. It answers questions not answerable by more qualitative methodologies, yet it appears to remain sensitive to the ethnographic environment, and it produces research questions, that, in turn, are best answered through more conventional ethnographic data collection techniques.

This article establishes the relative positions of seven of the most common Mexican American folk ailments in relation to all of the home-treated ailments in Mexican American communities.[8] Further, the article identifies the range of variations in the treatment of these ailments. One result of the information on variation is a recommendation that a reinvestigation of *susto,* at least as it is manifested on the border, is indicated by the data. Another situation that is apparent from the data presented in this article is that several of the folk ailments noted by authors previously researching the Lower Rio Grande Valley are missing from this sample. These include *cipil, sereno,* and bewitchment or *mal puesto* (Madsen 1964) as well as *bilis* (Rubel 1966). The item *"mal puesto"* or bewitchment, is of special interest. If hexes are a part of the ethnomedical system, as indicated by *all* of the ethnographies, why do they not have corresponding treatments amongst the *remedios caseros?* The answer may be, for the same reason that infectious diseases and broken legs to not appear: these problems are not normally treated in the home. They are taken to a specialist. In this case the specialist is a *curandero* rather than a physician, but the logic behind the action is perfectly consistent. Only those ailments which can be effectively treated in the home appear to show up in the sample of *remedios caseros.*

It is hoped that this general research technique will be duplicated in some other research areas. It is not difficult to set up, and appears to provide a very high rate of return on the time invested. The author would welcome any inquiries about the processes involved and would be happy to exchange information about

similar techniques developed by other researchers. As both a problem solving technique, and as a technique for generating new research questions, this approach of weaving back and forth between qualitative and quantitative data collection (a process the author is calling a spiral methodology due to its ability to produce increasingly rich and increasingly generalizable data) appears to hold a great deal of promise in the area of medical anthropology.

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NOTES

1. Some of the ailment labels were presented in both Spanish and English, some in Spanish only, some in English only. Wherever the illness was clearly identical for both its English and Spanish label, only the English label is presented in the paper. If there was no clear English equivalent for an illness, then the Spanish was retained.

2. Table 1 contains all of the ailments in the sample which have three or more cases. There are nineteen "two case" ailments, including: anxiety, bed wetting, bloating during period, blood purification, chest pains, chills, closing the navel, preventing deformities, *encarnar* (closing boils after they drain), excessive drinking, to gain weight, gum abcesses, irritated skin, measles, nose bleeds, *sofocamiento* (either bloating of the stomach or difficulty breathing; needs further research), sprained joints, stuffy nose, and teething pains. All other ailments were only presented once in the sample. In the table, if two or more ailments had the same number of cases, they were arbitrarily put in alphabetical order, except for the ailments described in the article, which were arbitrarily placed first in such a list. *Caida de mollera* is also presented in the table, although it was only presented once in the sample. It is ranked 107th, according to the above system.

3. One ailment category, *nervios*, is not presented here as a folk ailment, or culture bound syndrome, due to the ambiguity of its current status. *Nervios* is classified as a culture-bound syndrome in Costa Rica (cf Low 1976, Bartlett and Low 1980). But, beyond the correspondence in labels for the Lower Rio Grande Valley and Costa Rica, the similarity of the cultural ailments remains suspect. In Costa Rica the ailment has a wide variety of manifestations and/or symptoms including crying, worrying, fear, alcoholism, headaches, backaches, ulcers, alergies, high blood pressure, and asthma (Bartlett & Low 1980). In the valley the ailment is described, basically, as an anxiety attack, and the English word anxiety is often associated with *nervios* by bilingual informants. In Costa Rica, "folk medicine is not a major response to *nervios*." (Bartlett and Low 1980:531). In the Lower Rio Grande Valley, the primary response is the ingestion of an herbal tea, the most common of which are *Yerbaniz* (*Tagetes lucida* Willid), *Te de Narranjo* (*Citrus arantium* L.), and *Ruda* (*Ruta gravolens* L.). It is not an ailment which would normally be presented to a physician or cause someone to be taken to the hospital in the valley; in Costa Rica taking a case of *nervios* to the physician or hospital appears to be a major response (Bartlett and Low: Table 1). Taken together, these differences between *nervios* in Costa Rica and the Lower Rio Grande Valley, coupled with the similarity of *nervios* and the Anglo ailment called "an anxiety attack," or an "attack of nervousness," have caused the author to exclude *nervios* from consideration in this article until it can more unequivocally be determined to be a culture bound syndrome.

4. The binomial designations and/or translations of the remedies are as follows: yerba aniz (*Pimpinella anisum* L.; anise); albacar (*Ocimum basilicum* L.; sweet basil); altamisa (*Ambrosia artemisiaefolia* L; mugwort); pirul (*Schinus mole* L.; California pepper tree); agua, sal, vinagre (water, salt, vinegar; azucar [sugar]); ceniso (*Leucophyllum texanum* Benth.; purple sage); hojas de naranjo (*Citrus arantium* L.; orange tree leaves); epazote de zorrillo (*Chenopodium gravolens lugi;* skunk weed); jerbanillo (unidentified plant); simonillo (unidentified plant); toronjil (*Melissa officialis* L.; balm); yerba buena (*Mentha spicata* L.; mint); raiz de nopal (*Opuntia* sp.; prickly pear cactus roots); aceite de recino (castor oil); agua de pita (unidentified plant); hojas sen (*Florensia cenura* D.C.; American tar bush); marrubio (*Marrubium vulgare* L.; hore hound); olivo (olive oil); raiz constonate (unidentified plant); raiz de yerba buena and comino (*Mentha spicata* L. and *Arracacia atropurpurea*

Benth. et Hook; mint roots and cumin); rock, milk, canela (rock, milk and cinnamon); huevos (chicken eggs); ojo de venado (*Aesculus* sp. L.; buckeye); Ajo (*Allium satiuum* L.; garlic); cal, agua, ruda (lime; water; *Ruta gravcolens* L.; rue); cebolla morado (*Allium cepa* L.; purple onion); insenso (incense); romero (*Rosmarinus officinalis* L.; rosemary); savila and red ribbon (*Aloe barbadensis* Mill.; aloe vera); huevo, flor de cenizo (egg, flower of purple sage): nuez moscada (nutmeg; *Myristica* L.)

5. A sahumario is a ritual that uses prayer and the smoke from some form of incense to "sweep" problems from a building or a person.

6. All of the quotations in this article are taken verbatim from the section in the survey instrument which asks for an example of the use of the remedy in curing the ailment. In each case, the total response is provided; nothing is left out.

7. *Ruda* is the medicinal herb "Rue" (*Ruta gravolens* L.), while *cruz de cal* is a cross of ground lime.

8. The contention that the sample contains all or nearly all of the home treated ailments is supported by the fact that no new ailment in the sample appeared beyond the point at which only about half of the 1,223 cases had been coded.

REFERENCES

Bartlett, P. and S. Low
1980 Nervios in Rural Costa Rica. Medical Anthropology 4(4):523564.

Clark, M.
1959 Social Functions of Mexican American Medical Beliefs. California's Health 16:153155.

Goebel, O.
1973 *El Susto:* A Descriptive Analysis. International Journal of Social Psychiatry 19:3843.

Kiev, A.
1968 Curanderismo: Mexican American Folk Psychiatry. New York: The Free Press.

Low, S.
1976 The meaning of *nervios:* Social organization of urban health care in San Jose, Costa Rica. Doctoral Dissertation, University of California at Berkeley.

Madsen, W.
1961 Society and Health. Austin, Texas. Hogg Foundation for Mental Health.
1964 The Mexican Americans of South Texas. New York: Holt, Rinehart, Winston, Inc.

O'Nell, C.W.
1975 An Investigation of Reported "Fright" as a Factor in the Etiology of Susto, "Magical Fright." Ethos 3:4163.

Romano, O.
1960 Donship in a Mexican American Community in Texas. American Anthropologist 62:966976.
1964 Don Pedrito Jaramillo. The Emergence of a Mexican American Folk Saint. Ph.D. Dissertation. University of California, Berkeley.
1965 Charismatic Medicine, Folk Healing, and Folk Sainthood. American Anthropologist 67:11511173.

Rubel, A.J.
1960 Concepts of Disease in a Mexican American Community in Texas. American Anthropologist 62:795814.
1964 The Epidemiology of a Folk Illness: Susto in Hispanic America. Ethnology 3:268283.
1966 Across the Tracks: Mexican Americans in a Texas City. Austin: University of Texas Press.

Trotter, R.T. II and J.A. Chavira
1975 The Gift of Healing. Edinburg, Texas: Pan American University.
1980 Curanderismo: An Emic Theoretical Perspective of Mexican American Folk Medicine. Medical Anthropology 4(4):423487.
1981 Curanderismo: Mexican American Folk Healing. Athens, Ga.: The University of Georgia Press.

Trotter, R.T. II
1981a Folk Remedies as Indicators of Common Illnesses: Examples from the United States-Mexico Border. Journal of Ethnopharmacology 4:207221.
1981b *Remedios Caseros:* Mexican American Home Remedies and Community Health Problems. Social Science and Medicine 15B:107114.
1982 *Susto:* Within the Context of Community Morbidity Patterns. Ethnology