The Relationship between Acculturation and Illness Referral Systems among Urban Mexican-Americans

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THE RELATIONSHIP BETWEEN ACCULTURATION AND ILLNESS REFERRAL SYSTEMS AMONG URBAN MEXICAN-AMERICANS

by

Heidi Vyhmeister

A Thesis Submitted to the Faculty of the Graduate School of Loyola University of Chicago in Partial Fulfillment of the Requirements for the Degree of Master of Science in Nursing

April 1984
ACKNOWLEDGEMENTS

I would like to acknowledge the guidance and support given to me during the implementation of this thesis by Dr. Dona Snyder, Dr. Ardelina Baldonado, and Dr. Diana Hackbarth, of the Marcella Niehoff School of Nursing at Loyola University of Chicago. I would also like to thank Dr. Nancy Sargis, also of the School of Nursing, for her continued interest and encouragement during the preparation of the research proposal.

I further wish to acknowledge the generous assistance of Mr. Brocky Dillworth in making available to me the human and physical resources of Gad's Hill Settlement House.

Finally, I would like to thank Jim Brower, of Andrews University, for his editorial assistance, and the friends, colleagues, and family members who have offered encouragement and relieved me of some responsibilities so that I might complete this research.
VITA

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Persons of Hispanic origin compose the second largest ethnic minority in the United States, the first group being American Blacks. Because of rapid biological growth and immigration, it is predicted that within the next decade, Hispanics will become the country's largest subcultural group (O'Brien, 1982). Much has been written regarding health beliefs and practices of Hispanics. There is consensus in the literature that Hispanics display a great deal of divergence from Anglo-American beliefs and practices (Rubel, 1960).

Illness behaviors are based on socioculturally defined values and rationales which lead to specific perceptions of an illness and the steps to be taken in order to alleviate it. The choices a person makes regarding the source of treatment of disease are known as an illness referral system. This is a pattern common to a specific culture which, although varying slightly in individual situations, establishes the pathway taken when attempting to move from illness to health (Weaver, 1970).

Illness referral systems within the Hispanic-American culture have been described by several authors (Ailinger, 1977; Weaver, 1970). There has been some comment made regarding changes resulting from adaptation to the Anglo-American culture. There are no actual data available on the subject. In addition, what has been written regarding
Hispanics most often does not make clear distinctions between the various subgroups within the Spanish-speaking population. For example, Puerto Rican-Americans, Cuban-Americans, Spanish Americans, and South Americans are often grouped together as "Hispanics." The largest subgroup in the United States, composed of Mexican-Americans (U.S. Bureau of the Census, 1980), will be the focus of this Thesis. All subgroups mentioned in the literature review will be identified by national origin unless this has not been done in the literature itself, or the group referred to is of mixed origins, in which case, these persons will be referred to as Hispanics.

As more and more health care facilities and personnel have to deal with Hispanics, it becomes vital that health care professionals understand the health behaviors of their clients. This cannot be realistically achieved by stereotyping all Hispanics as subscribing to the traditional health beliefs identified in nursing and anthropological research. It is necessary to be able to anticipate behaviors more accurately, based on a knowledge of the client's exposure to Anglo-American society and his particular cultural background.

**Statement of the Problem**

Although a relationship between acculturation and illness referral systems has been postulated, no research has been reported that either supports or rejects this supposition. A variety of studies have been conducted to measure acculturation (Cuellar, Harris, & Jasso, 1980; Padilla, 1980) or illness referral systems (Ailinger, 1977; Weaver, 1970). No studies have looked at both in relation to the Mexican-American population.
It was the purpose of this study to analyze the relationship between acculturation and illness referral systems in persons of Mexican descent within an urban setting. The resulting data will serve to expand the knowledge base necessary for the practice of crosscultural nursing.
CHAPTER II

REVIEW OF LITERATURE

Spanish is the fourth most common language spoken in the world, after Chinese, English, and Hindi (Tutherly, 1980). Interestingly enough, the United States has the sixth largest Hispanic population in the world, exceeded only by Mexico, Spain, Colombia, Argentina, and Perú. This is a heterogeneous group composed of individuals of many differing national origins and racial characteristics, who may or may not speak Spanish. They are all united, however, by a common neglect on the part of the health research sector. It is not known at present how many Hispanics are born or die each year in this country. Efforts are being made to improve data gathering but their effectiveness is often limited by the undisclosed presence—and therefore natality, morbidity, and mortality—of millions of Hispanics who have entered the United States illegally (Trevino, 1982).

Various anthropological and sociological studies have provided a basis for understanding Hispanic culture, generally doing so by comparing it to the Anglo-American culture. Culture has been defined by Fejos as "the sum total of socially inherited characteristics which one generation can tell, convey, or hand down to the next, in other words, the non-physically inherited traits we possess" (1959, p. 43). Of primary interest within the present study is that portion of culture
comprising the health beliefs and practices identified within the Mexican-American community.

**Health Beliefs and Practices**

The great majority of the material concerning health beliefs and practices among Hispanics and Mexican-Americans focuses on folk illness and cure. Because of the predominance of Mexicans in the United States, most of the literature concerns Mexican health behaviors and beliefs. The five major illnesses consistently identified are: caída de la mollera, mal de ojo, empacho, susto, and mal puesto. It should be noted that these are more clearly connected to Mexican culture but are also observed in other Hispanic cultures (Hautman, 1979; Rubel, 1960).

**Caida de la mollera** is seen only in infants and small children. It is a depression or "falling in" of the anterior fontanelle. This is believed to occur when a blow or shock dislodges the hard palate, thus removing the support for the fontanelle. This depression of the palate causes inability to suck, irritability, vomiting, and diarrhea. Cure is achieved by returning the palate and fontanelle to their proper position through a variety of maneuvers.

**Mal de ojo**, translatable as "evil of the eye," does not carry the connotation of witchcraft but of too strong a glance. It originates when an improper bond is created between two people (as when a neighbor admires a handsome child) and then not severed by touching the person's head or face. The person afflicted with mal de ojo is drained of the will to act and becomes subject to the stronger power of the other. Manifestations are sudden severe headaches, inconsolable weeping, fretfulness, and high temperature. Cure is rapidly achieved
if the person who neglected to break this bond is found and touches the ill person on the head or forehead. If the source of the mal de ojo cannot be identified, a curandera (healer) uses rituals involving an egg to extract the evil from the person. If left untreated, mal de ojo can be fatal. Severe coughing and vomiting rupture the bile sac, after which there is no effective cure available.

Empacho is caused by a failure of the digestive system to pass a chunk of food into the intestinal tract. The cause may be the food itself, or eating when one is not hungry or is stressed. Symptoms include stomach pain, diarrhea, vomiting, and anorexia. At time an abdominal mass can be felt. Treatment is carried out by a family member, a sobador(a) (masseuse/healer), or a curandera, and consists of massaging the back and pulling at the skin over the spine until a snapping sound is heard. A purgative, such as epsom salts, milk of magnesia, or castor oil may also be given.

Susto (fright) can be caused by a shocking experience, such as seeing a ghost or being involved in an accident, or by the stress resulting from inability to fulfill one's social role responsibilities. Symptoms include restlessness during sleep, anorexia, depression, listlessness, and disinterest in personal appearance. This is due to the absence of the spirit of the person which is said to be wandering after being frightened away. The cure is effected by a curandero (male healer) or espiritualista (spiritualist), or by the family members, who engage in rituals calling the spirit back to the body. The ritual ends with the abrupt showering of the patient with water which should jolt him back into this world. If susto is not recognized soon enough, it can become very advanced, in which case a priest is called in to bless
(ensalmar) the person. If not arrested, susto can degenerate into tis (tuberculosis), and prove fatal.

Mal puesto is the only illness of maleficent nature, and is caused by a hex placed on the sufferer by another person. The symptoms vary considerably, and include behavior changes, labile emotions, and convulsions. The cure is magical and can be carried out by a curandero or brujo (male witch).

Beliefs regarding health and illness are based on a holistic conception of man, and the Hippocratic humoral theory of disease. Wet, dry, hot, and cold must be kept in the right balance within the person to maintain health. The most important of these is the hot-cold balance. Various foods, diseases, and remedies are assigned a hot/cold value which may or may not coincide with actual temperature. If a disease is considered to be "hot," then "cold" remedies and foods are given in the correct amount to balance the system again (Currier, 1978).

Emotional origins for disease are recognized. Disruptions within the social structure and the roles a person must fill are also seen as a source of illness. The person is not considered responsible for his illness—he is an innocent victim of forces in the environment. Whatever a physician may diagnose as the cause of the illness does not alter the patient's perception of the origin of his disease. Therefore, doctors who do not take these forces into account, or at least refrain from scoffing at them, are considered poor practitioners (Clark, 1970).

When a person feels ill, he presents the symptoms to his family and friends for validation, as illness involves expenditure of money
and time for them. If the kin group validates the illness, then referral to a health care system will occur (Clark, 1970; Spector, 1979). For the same reason, should a practitioner propose a course of treatment, the patient cannot agree or disagree independently. After discussion with the people who will meet the social and financial obligations the patient cannot meet due to his illness, he will convey the decision to the practitioner (Clark, 1970).

Health practitioners, either lay or professional, are chosen depending on availability, but are more importantly, by reason of perceived knowledge of, and ability to cure certain diseases (Fabrega & Zucker, 1979). Personality and culture also enter into the decision, as Hispanics will prefer a person who understands their sociocultural background and will work within it. An important aspect of this is the willingness to consider and include the family and community in the diagnostic and treatment process (Foster & Anderson, 1978; Toohey & Dezelsky, 1980). Treatment prescribed by a curandera (healer), for example, is open to criticism and discussion by the family and the patient, who then accept or reject it, with no hard feelings on the part of the healer (Clark, 1970).

Marginal practitioners within the medical system—such as chiropractors and homeopaths—are more acceptable to Mexican-Americans, as they are similar to some folk practitioners. Physicians do not normally belong to the patient's authority structure, which is composed of kin, and powerful members of the social group. For this reason, they are not authority figures among Mexicans in the barrio as they are in Anglo-American society. Thus, a doctor's prescription may be ignored if so dictated by the patient's society (Clark, 1970).
Other problems that raise barriers between Hispanics and the professional health care system include minority sensitivity to so-called second class status citizenship, which even in case of serious illness may cause them to hesitate to utilize agencies or facilities perceived to be unfriendly or unsympathetic (Rosenblatt & Suchman, 1964). The language barrier is a significant problem for many, as is poverty. The perception of time, and the importance which a Hispanic places on punctuality may differ greatly from that of the professionals at the clinic, causing hostility on all sides and discouraging further visits (Spector, 1979). Another very Hispanic problem is the carefully structured relationship between males and females. Very often the client and health practitioner are of opposite sexes. This can be perceived as a threat to the modesty and decorum that is felt to be necessary in maintaining proper relationships outside of the family. This threat in turn will probably cause a patient to become upset, hostile, and possibly leave the system (Clark, 1970).

Zola (1964) states that delaying and nonparticipation in medical care, aside from being associated with culture, is linked with low socio-economic status. The person feels that if he has not been able to cure himself, then whatever disease he has must be very serious, and delays seeking medical help for fear of the diagnosis he will receive. Although this behavior is common to all socio-economic strata, Zola contends it is seen more frequently in low income groups.

In 1978 the median income of Mexican-Americans was $12,800 per year, and 18.6% of Mexican-Americans were below the poverty level. An additional 7.4% were in the group earning only 25% more than poverty.
level income (U.S. Bureau of the Census, 1980). Thus a large number of Mexican-Americans will underuse the health system both because of cultural background and low socio-economic status.

In her study of illness behavior patterns among Hispanic migrant workers, O'Brien (1982) found that medical care is illness or injury oriented, and illness is only recognized when it interferes with effective day to day activity. Through use of grounded theory O'Brien identified the underlying attitudes and behaviors. The main concept was that of pragmatic survivalism. This is "a pattern of behaviors and attitudes that focus on achievement and maintenance of low-level wellness in the most practical manner possible for the continuance of productive life" (p.21). The subconcepts she identified were: (a) role-constrained illness perception—a person is not ill unless he cannot carry out usual role responsibilities; (b) parochial-restricted health behavior—a function of availability of health care choices and knowledge; and (c) reality-accommodated treatment response—if the patient feels better, treatment is discontinued; easily carried out treatments are accepted more readily.

Using records from a TB sanitarium in Texas, Nall and Speilberg (1978) identified 53 Hispanic patients who had been discharged from the institution. Twenty-seven of these had complied with the in-patient treatment, and 26 had not. Both groups were socially homogeneous, and males and females were distributed evenly. These persons were interviewed to determine the factors influencing their attitude to medical treatment. The researchers found that few used folk cures (12%), and only 19% sought curatives from kinfolk or friends. If the patient was married, with the spouse present, lived near his relatives,
sought advice from his family, and had a high degree of knowledge of and contact with his neighborhood, then acceptance of treatment was low. Persons who sought advice from friends, who were socially alienated, and under 40 years of age, were more likely to comply with the treatment. Persons who were older than 40 years on age, and women who spoke little English were less likely to comply. The researchers contend that folkways are not the cause of rejection of medical treatment. The true problem is that the family and community will not give up its members.

Zola (1966) described the cultural influence on perception of symptoms as serious and worthy of medical attention. Values and beliefs held by different cultures caused the same symptomatology to be viewed in different ways, and varied the person's response to illness.

Illness Referral Systems

When illness is perceived, relief is sought in a variety of ways. An illness referral system is defined as "the process of selecting a health care alternative by an individual who perceives he is ill" (Ailinger, 1977, p. 53). There is general agreement to the effect that illness referral systems are socio-culturally determined. In many cultures illness referral systems have been studied by anthropologists or health care professionals, but a lack of consensus is seen in diverse conceptions of the system.

Hautman and Harrison (1982) studied health beliefs and practices in an Anglo-American neighborhood. A convenience sample of 100 individuals 18 years old or above which excluded doctors and nurses was used. Most respondents were of the middle class. Although 65% utilized a private physician for health care, and others went to Health
Maintenance Organizations, clinics, and chiropractors, a wide variety of folk treatments and over the counter medications were used for self-treatment. If self treatment failed, the next step usually was orthodox practitioners, although 49% consulted pharmacists regarding medications and treatment for problems perceived to be self limiting. The author concludes that it is difficult to separate Anglo folk beliefs from Anglo medicine, because much of the culture's perception of illness is incorporated into orthodox medical practice.

O'Brien (1982) describes an indigenous health care system among the Mexican-American community composed of the curandera/o (healer), yerbalista (herbalist), and sobador/a (masseuse). She compares it to the professional system composed of the physician, registered nurse, and practical nurse, stating that both systems are parallel and little communication between the two exists. Folk illnesses are taken to the lay system, whereas "orthodox" ailments are referred to the professionals. Leininger (1978) sees indigenous health care systems as different from professional systems, although some overlapping and interdigitation is often seen. The rationale behind the use of both systems is given as the belief "that in the particularly crucial area of life and death, reliance on only one therapist or therapy, or system of care may be too precarious" (Scott, 1977, p. 347).

The most common view of illness referral systems is that both lay and professional practitioners form part of one system. Various authors have described the process. Polgar (1963) identifies three phases: self-addressed, where the client and health actor are one and the same; lay health phase, in which the person solicits and/or receives help from the immediate social group; and the professional
phase, in which help is sought from a health actor recognized by the group. This may be a healer or a western practitioner.

Weaver (1970) described the illness referral system of Spanish-Americans living in New Mexico (descendants of Spanish settlers when the area belonged to Spain). According to him, "an illness referral system is a subsystem of the medical system which includes all health actors and their expected and actual behaviors in illness situations" (p. 141). Weaver's study took the form of interview, both with individuals and with groups, in predominantly Spanish-speaking towns and villages, over a period of three summers. Discussion was initiated with the presentation of an hypothetical situation describing a particular setting, and identifying which member of the social group was ill. Sometimes symptoms were given, and at other times not. Age and sex of the hypothetical patient were varied to increase the breadth of the information obtained. When the same questions and situations were put to non-Hispanic respondents, the answers were completely different.

On the basis of the data collected, Weaver identified five phases in the illness referral system. The first of these is the self-addressed phase, which in rural non-acculturated Hispanics is relatively short, as illness is almost immediately referred to the mother or wife for treatment. In urbanized Hispanics this is a somewhat longer phase. The kinship phase is the next step, and centers in the household. Among both urban and rural Hispanics illness is the primary concern of women. The mother's authority in this will override the father's. If she needs advice or help she will go to her female consanguineous relatives, beginning with the eldest and following on
down the age scale. If these are not available, her female in-laws are called upon in the same order. Elder sons and other males act as couriers or may be asked for advice on referral to other practitioners, but not on methods of curing. Consulting the relatives also serves the function of conveying news regarding the patient's illness. A person often included in the kinship phase but who is not kin is the comadre (ritual co-parent, or godmother of one's child) (1970).

The community phase is entered due to a possible disagreement within the family regarding the patient's complaint. Help is sought from a variety of persons, including fellow church members, neighbors, the priest, the postmaster, the storekeeper, and so forth. These persons are valued for past experience with a particular disease or skill in treating it. They may also provide transportation for appointments with an orthodox medical practitioner or for visitors to a hospitalized patient (Weaver, 1970).

Health actors included in the folk specialist phase are the curandera or medica (healer), medico (man with superior knowledge for treating a particular disease, such as maleficio—witchcraft, or broken bones), albolario (deal with witchcraft), sobador/a (masseuse), and partera (midwife). Not all of these roles are mutually exclusive as, for example, a partera may also be a curandera and sobadora. The folk health practitioner is usually visited at his or her home, diagnosis is preceded by a gossip session, treatment is given and/or herbs prescribed, and the patient pays what he can afford, all in the spirit of a gift, rather than fee for service. If the symptoms are not alleviated he is told to return when able. The choice of practitioner is determined by the perceived nature of the illness. Most
gynecological and venereal problems, for example, are seen as the province of the *medica-partera*. For urbanized Hispanics, both the community and folk specialist phases are often skipped as they go directly to the last, urban professional phase (Weaver, 1970).

All licensed medical and paramedical personnel are included in the fifth phase, as are health structures or subsystems such as private practice, group health plans, hospitals, clinics, and pharmacies. Villagers are often unaware of a professional referral system within the health care system. Referral to another professional causes loss of prestige in the eyes of the patient, as he then perceives the referring practitioner as not completely knowledgeable and skilled. Villagers will arrive at this phase only when all other recourses have failed. Should this fail also, both rural and urban Hispanics are likely to return to the folk specialist or community phases (Weaver, 1970).

Ailinger (1977) spent 14 months living in a cooperative in a fringe low-income suburb of an eastern metropolis. Over half the residents were Latin-American (from Colombia, Dominican Republic, El Salvador, Nicaragua, Paraguay, and Perú). Nineteen families (99 persons) participated in the study. Verbal permission was obtained from the participants and research was conducted in Spanish. Each family recorded in a family health calendar all illnesses occurring during the month. Data collected were: name of the ill person, symptoms, remedies used, and on whose suggestion. Half the mothers and fathers, one third of the children, and two thirds of the extended family and boarders reported symptoms of illness. Most frequently
reported were headaches and gastrointestinal complaints for fathers, and respiratory problems for children.

Self treatment was seen in 60% of cases for problems such as headaches, colds, and menstrual complaints, with treatment consisting of herbal remedies and both prescription and nonprescription drugs. Referral to the social network was seen in 10% of illnesses. This includes recommendations for treatment from family or friends. Friends were usually those from the same country of origin. Lastly, about 30% of the incidents were referred to the professional network. Almost all contacts were with Spanish-speaking physicians. There were no reports of contacts with folk practitioners or nurses. Persons referred to the professional network were usually clients with chronic problems such as rheumatism, allergies, skin problems, and gastrointestinal disturbances (Ailinger, 1977).

The three steps were not always taken consecutively. Some went directly to the social or professional network without self-treatment. Those not satisfied with treatment received at the professional stage shopped around or returned to self treatment. Ailinger postulates that folk practitioners, although not used directly, were influential in terms of the traditional remedies used by the clients in self treatment.

Although these two studies address illness referral systems in only a portion of the Hispanic population, similar behaviors have been observed by Spector (1979) among Puerto Ricans, and in South Americans by the researcher.

The difference between rural and urban Hispanic behavior patterns was pointed out by Weaver (1970). He felt this was a result
of greater exposure to the Anglo-American way of life. This change in behavior by contact with another culture is known as acculturation.

**Acculturation**

The traditional model of acculturation is unidimensional and linear: group X from Culture A comes into contact with Culture B (the dominant culture), and gradually its members relinquish Culture A's behaviors as they take up those of Culture B. The final result is total integration with Culture B (Szapocznik, Scopetta, Aranalde & Kurtines, 1978). However, behavioral scientists have since realized that there are more variables than time and exposure involved. Szapocznik and Kurtines conceptualize acculturation as:

A multidimensional process involving an accommodation on the part of the migrant group to a total cultural context. According to this model of acculturation, the process may be unidimensional, two-dimensional, or multi-dimensional, depending upon the cultural context involved. (1980, p. 143)

Keesing and Keesing state that the speed of acculturation has to do with the similarity between the two cultures. However, a group may accept the material elements of another culture quite rapidly without becoming acculturated (1971, pp. 353-354). Berry (1980) postulates a three phase process of acculturation involving contact between two groups or an individual and a group, conflict between the two caused by differences, and adaptation. This adaptation can take three forms: (1) assimilation—complete identification with the new culture; (2) integration—acceptance of some of the new culture and its behaviors while not totally rejecting the old, thus arriving at a "blend" that enables the person or group to function within the new culture; or (3) rejection. Rejection is seen in withdrawal or
segregation, and may be chosen by the individual, imposed by the group, or by the host society.

In order to create a theoretical model that would identify the elements involved in acculturation, Padilla (1980) studied Mexican-Americans in southern California. Three hundred eighty-one subjects were interviewed (68 males and 313 females). The average age was 43 years, and the majority were married. The subjects were grouped into generational levels in order to correlate these to the findings.

The interview schedule used consisted of 584 questions covering awareness of cultural heritage, loyalty to the ethnic group, socio-economic information, and social spheres (interaction with neighbors, friends, relatives, and public agencies). Factor analysis of the questions resulted in the identification of 15 Cultural Awareness (CA) Homogeneous Item Dimensions (HID's): Respondent's language familiarity; respondent's cultural inheritance and contact; respondent's knowledge of Mexican cultural symbols, historical events and contemporary personalities; ethnicity of peers during childhood; respondent's legal first name; spouse's language familiarity and preference; spouse's cultural inheritance and contact; spouse's legal and preferred first name; parents' language familiarity and preference; parents' cultural inheritance and contact; parents' ethnic identification; father's legal and preferred first name; perceived group discrimination; and perceived personal discrimination (Padilla, 1980).

In addition, 11 Ethnic Loyalty (EL) HID's were identified: respondent's language choice in situations dealing with other people; respondent's language preference in personal situations; respondent's
preferred first name and children's first names; number of children who speak Spanish; preference for ethnicity of associates; perception of Mexican culture; perception of Mexico and U.S.; preference and maintenance of contact with Mexico; respondent's identification with a group name; ethnicity of associates at present; and preference and consumption of Mexican food.

Cultural awareness and ethnic loyalty were postulated as the central concepts in acculturation. Eight factors were extracted from the main concepts. The respondent's cultural heritage, spouse's cultural heritage, parents' cultural heritage, and perceived discrimination fell under CA. Language preference and use, cultural pride and affiliation, cultural identification and preference, and social behavior orientation were found to be components of EL.

A second-order factor analysis found that in actual fact, CA included all the factors except for perceived discrimination and cultural pride and affiliation. Social behavior orientation was found to be a component of both CA and EL.

The final model was hierarchical—the first level composed of the 26 HID's, the second level of the eight factors, and the third level of the two main concepts. Reliability of CA was 0.98 and of EL, 0.83. Intercorrelation between CA and EL was 0.37.

Using the CA and EL scores of the respondents, Padilla identified five clusters (or types). The highest combined scores formed the cluster of the least acculturated, and as acculturation increased, scores dropped. Positive correlations were established between acculturation and education, generational level, and income. An inverse relationship was found between acculturation and ethnic
density of the neighborhood. Padilla acknowledged also that personal factors do enter into acculturation and account for the small amount of nonconformity to type seen.

Using Padilla's model, Keefe (1980) studied acculturation in urban Mexican-American families. She found that kin are a factor in acculturation. Large extended families were positively correlated with low acculturation, but paradoxically, many acculturated Mexican-Americans were found to have close knit, large extended family networks. Keefe suggests the reason for this is provision of warmth, protection, and group strength for persons who belong to neither culture in reality.

Measurement of acculturation must be carried out cautiously as there are problems whenever cross-cultural equivalence is attempted. Furthermore, causal ordering of acculturation cannot always be construed as the antecedent of behavior (Olmedo, 1980). For example, in studying coping mechanisms in a Mexican-American barrio (neighborhood), Hoppe and Leon (1977) found that the families that were having problems adapting were not all Mexican as had been anticipated, but were predominantly—all but one—from the United States.

Using Padilla's model of acculturation, Cuellar, Harris and Jasso (1980) developed an Acculturation Rating Scale for Mexican-Americans (ARSMA). This consists of 20 Likert-type questions addressing language familiarity and usage, ethnic interaction, ethnic pride and identity, cultural heritage and generational proximity. Item analysis resulted in exclusion of questions that attempted to tap ethnic distance and perceived discrimination. The answers are scored
on a scale of 1 to 5, with 1 being Mexican/Spanish, and 5 Anglo/English.

The questionnaire was tested using a sample of 88 hospitalized (psychiatric) Mexican-American patients, and 134 students or staff from the San Antonio State Hospital and the Bilingual/Bicultural Training Programs in Michigan, Arizona, New Mexico, Texas, and Mexico City. Of the latter, 17 were from Mexico City, 13 were Anglo-American, and 104 were Mexican American. Ninety-two of the subjects were males and 129 were females.

Based on the data obtained from the subjects, Cuellar, Harris and Jasso (1980) identified five types of Mexican-Americans by acculturation level. These are: Type 1, ARSMA scores of 1.0-1.99, very Mexican; Type 2, ARSMA scores of 2.0-2.79, Mexican-oriented bicultural; Type 3, ARSMA scores of 2.8-3.2, truly bicultural; Type 4, ARSMA scores of 3.21-4.0, Anglo-oriented bicultural; and Type 5, ARSMA scores of 4.01-5.0, very anglicized.

**Methodologic Approach**

In order to study acculturation and illness referral systems, a variety of approaches can be used. The best by far, and most commonly employed in cross-cultural research, is ethnography. Ethnography is research involving prolonged contact with a culture or group in order to learn as much as possible by participant observation. Once the major social structure features and values have been identified, the researcher can determine the health-illness caring system. Leininger, who has pioneered research in trans-cultural nursing, suggests that based on such knowledge of a culture, a classification of constructs
can be developed. These constructs can then be analyzed and findings applied to nursing (1978).

However, since it is not always feasible to carry out such indepth research, an appropriate methodology which is specifically oriented toward qualitative data and its analysis is that of phenomenology (also known as grounded theory or constant comparative analysis). This methodology is considered to be particularly appropriate for use in areas where no theory regarding a situation exists, or where there is insufficient previous knowledge to permit the use of a quantitative methodology. Constant comparative analysis is also useful when a fresh perspective on a familiar topic is desired (Stern, 1980).

Glaser and Strauss (1968, 1978) have described the process of and uses for grounded theory. A general area of interest is identified, a relevant population is selected, and data collection is commenced. This may be through interviews, observation, or participant/observation. All pieces of data collected are coded by substantive content. These groups of data are then analyzed by the researcher and assigned to categories according to obvious fit. Data collection continues until it is apparent that no new categories will emerge. The researcher then attempts to organize these categories into core categories, from which he or she will be able to identify main variables or concepts. Further data collection in the areas of the main concepts identified will serve to validate, expand, alter, or even possibly eliminate the concepts identified. Credibility of the concepts and the framework they are part of, is determined by their ability to fit the cases studied and to explain the researcher's or
reader's own experience of the phenomena (Oiler, 1982; Stern, 1980).

Glaser (1978) proposed the use of multiple comparison groups to enhance the credibility of the resultant theory. Detailing the differences or similarities of the groups provides for a better delimitation of the theory. Also, a more comprehensive set of data is likely to be obtained, since there is an increased likelihood of the emergence of negative cases. Speed of analysis of the data is also increased with comparison groups, as points of difference or similarity help identify concepts and their relationships.

Analysis of the data—through coding and category formation—often occurs simultaneously with data collection. Because of this, the researcher can change approach or seek additional or different data in order to fill gaps or explain emerging concepts. This results in a theory which is firmly rooted in the data—and in reality. Another source of input for the analysis is the review of literature. Findings in the literature are treated as other data collected, coded and categorized, and fit into the final framework. If they do not, in the end, fit into an otherwise cohesive and functional theory, they are discarded (Oiler, 1982).

Based on the literature available, it was the researcher's position that Padilla's model of acculturation, as operationalized by Cuellar et al, best reflects reality and suits the purposes of the proposed study. Weaver's model of illness referral systems accounts for the options available as seen in the literature and in personal experience. Application of the model to the proposed population might, however, have been a source of artificiality and bias, as his research involved Spanish-Americans in New Mexico, and might not be
representative of the behavior of Mexican-Americans in Chicago.

The phenomenologic approach was considered to be most appropriate for collection and analysis of data on illness referral systems among urban Mexican-Americans. Because of the paucity of previous knowledge on the subject, another major consideration that prompted the selection of this methodology was the fact that a qualitative approach would create a broader and deeper data base than would a quantitative approach.

Definition of Terms

Acculturation was defined as "those phenomena which result when groups of individuals having different cultures come into continuous firsthand contact, with subsequent changes in the original culture patterns of either or both groups" (Redfield, Linton & Herskovits, 1936, p. 149). For the purposes of this study acculturation was represented by the score obtained from the Acculturation Rating Scale for Mexican-Americans (ARSMA).

Illness referral systems were defined as the pattern of choices habitually made by a person regarding health care options, as described through interviews using the Illness Referral Systems Interview Schedule developed by the researcher.

A Mexican-American was defined as a person born in Mexico and/or having a Mexican parent or grandparent and who presently lives in the United States.

Research Questions

It was the purpose of this research to answer the following questions:
1. Is there an identifiable illness referral system among Mexican-Americans in Chicago?

2. Do different levels of acculturation exist among Mexican-Americans in Chicago?

3. Is there a relationship between identified illness referral systems and acculturation level among Mexican-Americans in Chicago?

Assumptions

It was assumed that:

Answers given by the subjects would reflect their true beliefs and practices.

The subjects would be able to accurately recall instances of illness within their immediate social group, and report them.

Persons in both groups of subjects had access to both lay and professional health care systems.
CHAPTER III

METHODOLOGY

Research Design

This research design was descriptive and used an interview methodology. A convenience sample was obtained, and both qualitative and quantitative data analyses were used.

Sample

A convenience sample of 50 Mexican-American women was obtained. Criteria for inclusion were: age between 19 and 46 years, and being the mother of dependent children. Marital status was not an inclusion criterion. The rationale for the above criteria was that the decisions regarding treatment of an ill person are most often made by the mother or wife, thus resulting in an illness referral system more characteristic of the family than of the individual himself. Because of this only one individual from each nuclear family was interviewed, i.e., the mother or wife. The ages of 19 to 46 were chosen as it was expected that this would enhance homogeneity of the sample in terms of developmental stage. The majority of the subjects would be concerned with rearing and supporting a growing family. Because of early childbearing, women past the age of 46 are more likely to be grandmothers and act as consultants rather than as primary decisionmakers.

Two different neighborhoods were used in order to increase the
likelihood that sufficient cases would be found for different acculturation levels. Neighborhood A was highly Mexican, and drew many of the new arrivals from Mexico. The subjects interviewed there were a self-selected sample, who utilized the services of the settlement house. Therefore, the sample might not be representative of new arrivals. Half of the subjects (25) were selected from neighborhood A. A settlement house was used as the location for the interviews. Subjects were drawn from mothers bringing children to classes or coming to classes or activities themselves.

The other half (25) of the sample was obtained from neighborhood B. Neighborhood B included persons of varied ethnic origins. Many of these were Mexican. Access to this group was achieved through church members at the Spanish-speaking church attended by the researcher in the neighborhood. Church members were asked to introduce the researcher to people in the community who met the inclusion criteria. Persons interviewed were, in turn, asked to introduce the researcher to others who could participate in the study. Church members were used for access but not as subjects. This method of sample selection in neighborhood B decreased the likelihood of unwillingness to participate in the study.

**Procedure**

Potential respondents were approached by the researcher and asked if they would be willing to participate in the study. Information about the purpose of the study and the implications for the respondent of participation in the study was given to each one prior to obtaining verbal consent (See Oral Consent Summary, Appendix A).

Subjects were asked to report their illness referral patterns
in a specific situation. Administration of the acculturation scale followed the interview. This was done in order to prevent researcher bias during the illness referral portion of the interview.

Consent

Neither the research methodology nor the type of data to be collected were considered to place the subjects at risk. The subjects were in no way experimented upon, and other than the time involved, there was no cost to them.

It was expected that not all the subjects would be able to read and/or write, thus making it impossible to obtain written consent from all. A further consideration was the fact that many Mexicans and Mexican-Americans are reluctant to sign documents, even if consent is actually given—particularly if the person requesting the signature is a stranger. In addition to a culturally engendered distrust of signing papers, there was the possibility that some of the subjects might be undocumented residents. Any action on the part of the researcher that could be interpreted as official fact-finding for the Immigration and Naturalization Service might have immediately caused these people to falsify information, withdraw, or even terminate contact. Precedent for the use of oral consent had been well established by other researchers studying Hispanics (Ailinger, 1977, 1982; O'Brien, 1982; Weaver, 1970). Because of all the potential hazards to the reliability and validity of the research that could result from the use of written consent, oral consent only was used with all the subjects.

Confidentiality was preserved by numerically coding the data obtained and not using the subjects' names or addresses in any way in the study. Consideration to privacy was given during the interview.
**Instrument**

Two instruments were used. The first (Illness Referral Systems Interview Guide) recorded the illness referral systems of the respondent. The instrument provided the researcher with space to record briefly the case reported and who was involved, and to list sequentially all referral options selected in that situation. Spaces were also available to record the rationales for each referral. Additional space was allowed for comments and discussion of any alternate illness referral patterns (See Appendix B).

All the subjects were interviewed using the Illness Referral Systems Interview Guide developed by the researcher (See Appendix B). The respondents were asked to recall a case in which a family member or close friend was ill, and describe: the nature of the illness, when it occurred, the steps taken to obtain the care deemed appropriate, what this care was, and who provided it. She was also asked whether she considered this to be a typical case and if not, what types of cases would elicit a different behavior pattern. It was expected that this approach would produce the most positive response from the subjects, would rapidly build rapport between the subject and the researcher, and would provide richer data in that it was based on reality. All persons were interviewed by the researcher.

This interview guide was pilot tested using five women meeting the inclusion criteria. No difficulty in administration of the interview was found.

The second part of the interview consisted of the administration of the ARSMA (See Appendix C). The instrument could be administered either in English or in Spanish. The reliability and
Validity of the instrument, established by Cuellar, Harris, and Jasso (1980) was tested in several ways. Alpha coefficients of 0.88 for normal subjects, and of 0.81 for hospitalized subjects were obtained. Test-retest reliability was assessed in a sample of 16 Mexican-American psychotic patients, by the same rater, and with a five week interval. A correlation of .72 was obtained. Test-retest was also used with a sample of 26 staff members, with a one month time lapse. A correlation coefficient of .80 was obtained. Interrater reliability on 26 patients was found to have a correlation coefficient of .89.

Validity of the ARSMA was determined in several ways. Twelve staff members were asked to evaluate 26 patients on a scale of 1 to 5 such as is used by the instrument. The mean score for each patient resulting from these ratings was correlated to his or her ARSMA score using Spearman Rank Order. A correlation coefficient of .75 was obtained. In addition, correlation with the Wechsler Adult Intelligence (vocabulary subtest), Biculturalism Inventory, and the Behavioral Acculturation Scale was found to be positive.

In order to control for problems arising from poor reading skills, the ARSMA was administered orally to all subjects. The questions were asked as they are stated in the instrument.

No previous use of the ARSMA among Mexican-Americans in the urban center studied has been reported. Validity of the ARSMA for the target population of this research study was not known, since it was developed using a different population of Mexican-Americans.
Data Analysis

Each respondent was assigned a number which was used to identify both the interview guide and the ARSMA. No names were retained.

When 50 women had been interviewed, ARSMA scores were calculated for the whole group to determine if sufficient cases for all acculturation levels had been obtained. The ARSMA scores obtained were not compared to the illness referral information on any of the subjects until analysis of the interview guides had been completed.

Each respondent's Illness Referral Systems Interview Guide was color coded for sources of treatment and/or referral. The categories identified were: care or referral by respondent, the family (including husband as well as other relatives), the community, and the medical system. This coding facilitated category recognition and enabled the researcher to identify patterns of illness referral. Patterns were identified by sources of care and/or referral, since there was no significant repetition of sequence of care and/or referral. Within each pattern identified, sequence of care was addressed.

Glaser (1978) advocates determination of both interrater and intrarater reliability. Since the researcher was the only rater in this study neither one was done.

The distribution of demographic characteristics for the whole sample was calculated and t-test and chi-square statistics were used to determine if there were differences between neighborhoods. Tabulation of the types of illness reported and identity of the ill person were made.

Each illness referral system identified was described
demographically. Sources of care and/or referral for each pattern were also described.

ARSMA scores were divided into three acculturation level groups. Each group was described demographically.

A comparison between the two largest illness referral systems by mean ARSMA scores was made using a t-test. In addition, a comparison between acculturation levels was made to determine frequencies of illness referral systems.
CHAPTER IV

RESULTS

This chapter will consist of four parts. The first will describe the demographic composition of the sample, and the remaining three will answer the research questions.

Demographic Characteristics of the Subjects

The subjects' ages ranged from 19 to 46, with a mean age of 30.5 years. Most were married, Roman Catholic, and born in Mexico. None had completed college, and most had gone no further than grade 6 (see Table 1).

The mean ages of each neighborhood subgroup (see Table 2) were compared by means of an independent t-test. There was no significant difference. Educational level, generation and marital status were also compared using the chi-square statistic (See Table 3). No significant difference was found in any of these. Therefore the respondents did not differ between neighborhoods in age, marital status, education, or generational level.

Illness Referral Systems

The respondents identified a great variety of illness situations. The most frequent of these were fevers, coughs, throat infections, vomiting, flu, colds, stomach problems, and diarrhea (See Table 4).
Table 1: Demographic Characteristics

<table>
<thead>
<tr>
<th>Age</th>
<th>Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19-46</td>
<td>30.52</td>
<td>7.2372</td>
<td>30</td>
<td>28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Married</th>
<th>Single</th>
<th>Widowed</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>39</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>None</th>
<th>1-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>18</td>
<td>10</td>
<td>15</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Generation</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>42</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>R. C.</th>
<th>Pent.</th>
<th>None</th>
<th>Christian</th>
<th>Evangel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>43</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

NOTE. In order to facilitate presentation of demographic data, Tables 1, 6, 7, 9, 10, 13, 14, and 15 are condensations of variable frequencies.

Table 2: Comparison of Age by Neighborhood

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>Mean</th>
<th>S.D.</th>
<th>Range</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>30.76</td>
<td>5.7683</td>
<td>21-42</td>
<td>.2275</td>
</tr>
<tr>
<td>B</td>
<td>30.28</td>
<td>8.5757</td>
<td>19-46</td>
<td>Not Signif.</td>
</tr>
</tbody>
</table>

The family members which were reported as having been ill were most often the respondent's children (See Table 5), although there were a few instances each of illness among the respondents themselves, their mothers, or husbands. Two cases reported illness among more than one child.

There were five illness referral systems identified. These
Table 3: Chi-square Comparison of Marital Status, Education and Generation Between Neighborhoods

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>A</th>
<th>B</th>
<th>$\chi^2$</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>20</td>
<td>19</td>
<td>.1166</td>
<td>None</td>
</tr>
<tr>
<td>Not married</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades 1-6</td>
<td>10</td>
<td>9</td>
<td>.0849</td>
<td>None</td>
</tr>
<tr>
<td>Above grade 6</td>
<td>15</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st generation</td>
<td>20</td>
<td>22</td>
<td>.5952</td>
<td>None</td>
</tr>
<tr>
<td>Born in U.S.</td>
<td>5</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

have been labelled as the: One-step pattern, Two-step pattern, Three-step (family) pattern, Three-step (community) pattern, and Four-step pattern.

One-step pattern

The one-step pattern involves care solely given by the wife/mother. Only one respondent fell into this group. She stated that her family's health needs were all dealt with by herself. She was 34 years old, married, had no religion, and a primary level of education. She was born in Mexico.

Two-step pattern

This pattern involves the use of the professional health care system if and when provision of care by the respondent is considered to be insufficient. As with all patterns which involved professional care, the decision to see a physician was based on a perception of inappropriateness or failure of home care.
<table>
<thead>
<tr>
<th>Illness</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>19</td>
<td>38%</td>
</tr>
<tr>
<td>Cough</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>Throat infection</td>
<td>8</td>
<td>16%</td>
</tr>
<tr>
<td>Vomiting</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Flu</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>Cold</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Stomach problems</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Broken leg</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Headache</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Ear infection</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Chills</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Broken ankle</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Convulsions</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Uterine tumor</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Arthritis</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Ovarian troubles</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Pain</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Bell's Palsy</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Rheumatism</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Hematemesis</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Swollen eye</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Fall</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Lump</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Tonsilitis</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Dizziness</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Muscular dystrophy</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Hyperkinesis</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Chicken Pox</td>
<td>1</td>
<td>2%</td>
</tr>
</tbody>
</table>

**NOTE.** Individual subjects reported more than one illness.

This group consisted of six respondents (See Table 6) whose ages ranged from 25 to 40. Three were presently married, and three were divorced or widowed. All were Roman Catholic, and had some education (half had an education of high school or above). Four of the respondents were born in Mexico, and the other two were born in the U.S. and had one or both parents born in the U.S.
Table 5: Distribution of Illness Reported Among Family Members

<table>
<thead>
<tr>
<th>Family Member</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Son</td>
<td>19</td>
<td>38%</td>
</tr>
<tr>
<td>Daughter</td>
<td>18</td>
<td>36</td>
</tr>
<tr>
<td>Self</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Mother</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Husband</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Grandmother</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Mother-in-law</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Sister</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Brother</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

NOTE. Individual respondents reported illness in one or more family member.

Table 6: Demographic Characteristics of Two-step Pattern Respondents

n=6

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-40</td>
<td></td>
<td>31.33</td>
<td>6.3541</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Married</th>
<th>Single</th>
<th>Widowed</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>None</th>
<th>1-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13-16</th>
<th>0</th>
<th>2</th>
<th>1</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Generation</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>R. C.</th>
<th>Pent.</th>
<th>None</th>
<th>Christian</th>
<th>Evangel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

All reported illnesses in their children (4 sons, 2 daughters), the most common of which were throat infections (50%), fevers (33%) and ear infections (17%). A cough, cold, flu, or chills were also reported.
Two of the respondents stated that there were no family members other than themselves available in the U.S. for advice or referral. Two respondents also observed that they would take a child to the professional health care system much sooner (within 24 hours) than they would go themselves. The reasons given for this were the inability of the child to convey what he or she was feeling, and the unpredictability of illness in children.

Five of the six respondents sought attention at a clinic, although two of these stated that they use the Emergency Room (ER) just as frequently. Only one respondent referred her child to a private physician, and even then reverted to self care shortly after. All used over the counter medications, and five employed home remedies as well.

Three-step (family) pattern

Twenty-six women reported an illness referral system involving care or referral given by themselves, their family, and the professional system. This was identified as the three-step (family) pattern. These respondents (See Table 7) had the same age range as the total sample. Most were married, although six had not been, or were not presently married. Educational backgrounds were equally distributed between primary and secondary/junior college levels. Most were Catholic born in Mexico, although six respondents were born in the U.S.

The family members that became involved in this referral system were: the husband (27%), the respondents's mother (19%), her sister (15%), the family as a whole (12%), a sister-in-law or daughter (8% each), and a mother-in-law, aunt, cousin, brother, eldest son, or
Table 7: Demographic Characteristics of Three-step (Family) Pattern Respondents

n=26

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-46</td>
<td>30.9</td>
<td>7.7404</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Married</th>
<th>Single</th>
<th>Widowed</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>None</th>
<th>1-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>8</td>
<td>5</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Generation</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>R. C.</th>
<th>Pent.</th>
<th>None</th>
<th>Christian</th>
<th>Evangel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

grandmother (4% each). More than one family member was involved in some cases. It should be noted that for this and all other instances in which the husband was involved, his role was solely that of decisionmaker when entering into the professional health care system.

The role of the family in this pattern was two-fold: advice and referral. Male family members only referred, female relatives advised as well. The usual point of entry by the family into the illness referral system was after the respondent had initiated care herself. Sometimes, however, family members brought the ill member to the attention of the respondent so she could deal with the problem. When the ill member had grown children, these often took on the task of persuading the parent to seek medical attention.

More respondents reported use of the ER (solely, or in conjunction with other sources of care) than any other professional
health care agency (see Table 8). The average wait before entry into the professional health care system was three to five days. Ten (38%) of the cases reported were withdrawn from the professional system by the family, seven (70%) of these being later referred back to the ER, clinic, or physician.

Seven (27%) of the respondents reported use of over the counter medications, two (8%), that of home remedies, and nine (35%) reported the use of both.

Three-step (community) pattern

Two respondents stated that they treated health problems themselves, with input from the community (friend, teacher), and went to the professional system if this was insufficient. Both persons reported illness in their children: chicken pox, and a stomach upset. Both were married, Mexican-born, and with a low level of education (See Table 9). One went to a private physician, and the other to the clinic and ER. One respondent (Evangelical) stated that she prayed for healing first before entering the professional network.

Both women stated that their visits to a physician only served
Table 9: Demographic Characteristics of Three-step (Community) Pattern Respondents

n=2

<table>
<thead>
<tr>
<th>Age</th>
<th>Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-33</td>
<td>30.5</td>
<td>3.53</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Married</th>
<th>Single</th>
<th>Widowed</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>None</th>
<th>1-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13-16</th>
<th>0</th>
<th>2</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Generation</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>2</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>R. C.</th>
<th>Pent.</th>
<th>None</th>
<th>Christian</th>
<th>Evangel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

to confirm a diagnosis or treatment given them by the community members.

Four-step pattern

Fifteen women reported an illness referral system involving themselves, their families, friends and neighbors, and the professional health care system. Their ages ranged from 19 to 44 years, with a mean of 29. Most were married and Catholic, none had post-secondary education, and all were Mexican-born (see Table 10).

Family members involved in this pattern were: the husband (80%), the whole family (20%), the mother-in-law (20%), and a sister, brother, daughter, aunt, uncle, cousin, father or sister (7% each). Frequently more than one person was involved.

The persons from the community who played a part in this
Table 10: **Demographic Characteristics of Four-step Pattern Respondents**

n=15

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-44</td>
<td>29.26</td>
<td>7.8782</td>
<td>27</td>
<td>27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Married</th>
<th>Single</th>
<th>Widowed</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Level</th>
<th>None</th>
<th>1-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13-16</th>
<th>1</th>
<th>5</th>
<th>4</th>
<th>5</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation</td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
<td>4th</td>
<td>5th</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>R. C.</th>
<th>Pent.</th>
<th>None</th>
<th>Christian</th>
<th>Evangel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The table above shows the demographic characteristics of four-step pattern respondents. The age range for these respondents is 19-44 years old, with a mean age of 29.26 and a standard deviation of 7.8782. The median age is 27, and the mode is also 27. The marital status distribution shows that 13 respondents were married, 2 were single, 0 were widowed, 0 were separated, and 0 were divorced.

The education level distribution indicates that 1 respondent had no education, 5 had an education level of 1-6, 4 had an education level of 7-9, 5 had an education level of 10-12, and 0 had an education level of 13-16. The generation distribution shows that 15 respondents were in the 1st generation, 0 in the 2nd, 0 in the 3rd, 0 in the 4th, and 0 in the 5th.

The religious affiliation distribution shows that 11 respondents were Roman Catholic, 1 was Pentecostal, 1 had no religion, 1 was Christian, and 1 was Evangelical.

Patterns were most frequently female friends of the respondent (67%), neighbors (13%), the godfather of the child, or ritual co-parent (13%), and the child's teacher (7%). Neighbors were valued for possession of a car, telephone, or for experience with illness in children. The Pentecostal respondent emphasized a dependence on God for healing along with use of other resources.

Most respondents reported going to a private physician and/or the ER (see Table 11). Nine respondents (67%) left the professional health care system. Examples given of interruption of professional care were: discontinuing antibiotics before completion of the course, not following prescribed regimes, discharge from hospital against medical advice, and not returning to the clinic for follow-up visits. Seven of these subsequently reentered the medical system. Three of these seven cases referred the ill member back to the mother, family,
or community again. Of those who left the professional network, four (44%) were referred to the respondent, four (44%) were referred to the family, and six (67%) were referred to the community. Some cases were referred to more than one person.

Two (13%) of the 15 respondents reported the use of home remedies. Three (20%) reported the use of over the counter medications. Six (40%) of the respondents reported the use of both home remedies and over the counter medications.

Summary

The first research question was: Is there an identifiable illness referral system among Mexican-Americans in the urban center studied? This can be answered affirmatively. Two patterns of referral were reported by sufficient numbers to be generalizable to the sample group. The first of these was the three-step (family) pattern which involves care and/or referral on the part of the wife/mother, the family, and the professional health care system. The second referral system identified was the four-step pattern, which includes participation by the community as well.
Acculturation Level

Acculturation Rating Scale scores for all respondents ranged between 1.1 and 4.1. The mean was 2.1140, with a standard deviation of 0.8385. The scores were very evenly distributed within this range, and no modality emerged (See Table 12). The researcher grouped these into three levels with arbitrarily selected cut-off points. Responses fell into three discrete groups: low acculturation (1.1-2.25), medium acculturation (2.45-3.2), and high acculturation (3.6-4.1). Although by strict mathematical division of the ARSMA scale into thirds, one of these respondents (ARSMA 3.6) should have been included with the medium acculturation group, the 0.4 point gap between the score in question and the next lowest one (3.2) was considered to warrant the present division between the groups.

**Table 12: ARSMA Scores**

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>50</td>
<td>1.10-4.10</td>
<td>2.1140</td>
<td>0.8385</td>
<td>1.95</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>33</td>
<td>1.10-2.25</td>
<td>1.5727</td>
<td>0.3496</td>
<td>1.60</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>11</td>
<td>2.45-3.20</td>
<td>2.7182</td>
<td>0.2732</td>
<td>2.60</td>
<td>2.55</td>
</tr>
<tr>
<td>High</td>
<td>6</td>
<td>3.60-4.10</td>
<td>3.8167</td>
<td>0.1693</td>
<td>3.75</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Three levels with arbitrarily selected cut-off points. Responses fell into three discrete groups: low acculturation (1.1-2.25), medium acculturation (2.45-3.2), and high acculturation (3.6-4.1). Although by strict mathematical division of the ARSMA scale into thirds, one of these respondents (ARSMA 3.6) should have been included with the medium acculturation group, the 0.4 point gap between the score in question and the next lowest one (3.2) was considered to warrant the present division between the groups.

Low acculturation

Thirty-three respondents were included in the low acculturation group. Their mean ARSMA score was 1.5727 with a standard deviation of 0.3496, and there was no modal distribution of the scores. The respondents' age range was that of the whole sample, most were married...
and Roman Catholic. All had been born in Mexico, and most possessed a primary education only (See Table 13).

Table 13: Demographic Characteristics of Low Acculturation Respondents

<table>
<thead>
<tr>
<th>Age</th>
<th>Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-46</td>
<td>31.18</td>
<td>7.7840</td>
<td>31</td>
<td>27,28,34</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Married</th>
<th>Single</th>
<th>Widowed</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>29</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>None</th>
<th>1-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>16</td>
<td>8</td>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Generation</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
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<td></td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Religion</th>
<th>R. C.</th>
<th>Pent.</th>
<th>None</th>
<th>Christian</th>
<th>Evangel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Medium acculturation

Eleven respondents' ARSMA scores placed them in the medium acculturation level. The mean score was 2.7182, with a standard deviation of 0.2732, a median of 2.6, and a mode of 2.55. The age range was 19-36 years, with a mean of 28. Most were married, Catholic, and born in Mexico. All had completed at least six grades of education, and three had attended college (See Table 14).

High acculturation

Six respondents fell into the high acculturation category. The mean score for these respondents was 3.8167, with a standard deviation of 0.1693, and a median and mode of 3.75. The mean age was 31.5, with
Table 14: Demographic Characteristics of Medium Acculturation Respondents

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-36</td>
<td>28</td>
<td>6.0698</td>
<td>28</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
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<th>Widowed</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>None</th>
<th>1-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Generation</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
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<td>9</td>
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<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>R. C.</th>
<th>Pent.</th>
<th>None</th>
<th>Christian</th>
<th>Evangel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The second research question was: Do different levels of acculturation exist among Mexican-Americans in the urban center?
Table 15: Demographic Characteristics of High Acculturation Respondents

n=6

<table>
<thead>
<tr>
<th>Age</th>
<th>Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-40</td>
<td>31.5</td>
<td>0.8566</td>
<td>28</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Married</th>
<th>Single</th>
<th>Widowed</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>None</th>
<th>1-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>2</td>
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<td>3</td>
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<table>
<thead>
<tr>
<th>Generation</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0</td>
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<td>1</td>
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<table>
<thead>
<tr>
<th>Religion</th>
<th>R. C.</th>
<th>Pent.</th>
<th>None</th>
<th>Christian</th>
<th>Evangel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

studied? This was also answered affirmatively. Three levels of acculturation were identified in the sample group. Most respondents fell into the lower acculturation group.

Relationship Between Acculturation and Illness Referral

Mean ARSMA scores were computed for each illness referral pattern identified (see Table 16). The one-step pattern was excluded because of small sample size (n=1). Respondents in the two-step pattern showed no clearly defined acculturation level. The ARSMA mean for the three-step (community) pattern is not meaningful because of small sample size (n=2). Therefore analysis was centered on the two largest groups.

Although the mean ARSMA score for the three-step (family) pattern was 2.2519, four respondents with high-level acculturation were
Table 16: Comparison of ARSMA Scores Between Referral Systems

<table>
<thead>
<tr>
<th>ARSMA Scores</th>
<th>n</th>
<th>Range</th>
<th>Mean</th>
<th>S.D.</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-step</td>
<td>6</td>
<td>1.45-3.75</td>
<td>2.825</td>
<td>0.8566</td>
<td>2.55</td>
<td></td>
</tr>
<tr>
<td>Three-step</td>
<td>26</td>
<td>1.10-4.10</td>
<td>2.2519</td>
<td>0.9344</td>
<td>1.95</td>
<td></td>
</tr>
<tr>
<td>Three-step</td>
<td>2</td>
<td>1.55-1.70</td>
<td>1.625</td>
<td>0.1061</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(comm.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four-step</td>
<td>15</td>
<td>1.10-2.25</td>
<td>1.72</td>
<td>0.3463</td>
<td>1.7</td>
<td>1.3</td>
</tr>
</tbody>
</table>

included in this group. Three of these stated that finances affected their choices. When they did enter the medical system, two went to the ER, one to the clinic, and one to a physician or the ER depending on availability. Only one of the two married women in the subgroup stated that her husband participated in decision-making.

The four-step pattern ARSMA range was that of the low acculturation level, although the mean was slightly higher than that of the total low acculturation group.

A comparison of mean acculturation scores between the two largest subgroups (three-step [family] and four-step) was made by means of an independent t-test (two-tailed). A statistically significant difference was found between the two groups (see Table 17). Analysis of variance between all means was not carried out because of the small size of the other subgroups.

Illness referral systems represented within each acculturation subgroup were also identified (See Table 18).

The low level acculturation group included all the respondents
Table 17: Comparison of Acculturation Between Three-step (Family) and Four-step Pattern Respondents

<table>
<thead>
<tr>
<th>I.R.S.</th>
<th>Mean</th>
<th>t-test</th>
<th>Degrees of freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-step (family)</td>
<td>2.2519</td>
<td>2.0698</td>
<td>39</td>
<td>.05</td>
</tr>
<tr>
<td>4-step</td>
<td>1.7200</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 18: Distribution of Illness Referral Systems by Acculturation Level

<table>
<thead>
<tr>
<th>I.R.S.</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-step</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Two-step</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Three-step (family)</td>
<td>14</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Three-step (comm.)</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Four-step</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

in the four-step, three-step (community) and one-step patterns. Also included were one of the two-step pattern and 14 of the three-step (family) pattern respondents.

Respondents in the medium acculturation group reported a three-step (family) illness referral system most frequently. Three of the two-step pattern responses also fell into this category. There was
little leaving of the professional system (18%), and only rarely was the community included.

Illness referral systems reported by the high acculturation group were the two-step and three-step (family) patterns. After entry into the professional health care system, 33% reported referral to self or family—usually for home care.

Summary

The final research question was: Is there a relationship between illness referral systems and acculturation level among Mexican-Americans in the urban center studied? The results indicate that low levels of acculturation are associated with a referral system that includes the respondent, the family, the community, and the medical system. Higher levels of acculturation are associated with exclusion of the community from the referral system.
As was stated in Chapter II, the theoretical base for the Illness Referral portion of this study was to be Weaver's (1970) study. He presented a five-step model in which the ill person progressed from one step to the next, with some bypassing of steps, or returning to previous steps. This model cannot adequately describe the data obtained in the present study. Discrete and sequential steps were not consistently observed. For this reason, the different patterns will be diagrammed as a number of interlocking circles which are not closed systems.

**One-step pattern**

Since there was only one representative of this illness referral system, no conclusions can be drawn. A larger sample might have found more women who shared her beliefs.

This pattern can be presented as a single circle, in which care is provided entirely by the wife/mother (See Figure 1).

**Two-step pattern**

The respondents in this group had a slightly higher level of acculturation than the total group, and were from the middle portion of the total age range. Fifty percent were single parents, a much higher percentage than that found in any other group. When one considers in
addition that 33% stated they had no relatives in the area they could turn to for advice, it is understandable that they should choose this pattern of illness referral. These persons might, under other circumstances, report the use of a three-step (family) pattern. The absence of community involvement may be due to level of acculturation.

Again, the small sample size allows only tentative conclusions to be drawn. The two-step pattern would be diagrammed as two interlocking circles, in which there are both separate and common areas of care and referral (See Figure 2).

**Three-step (family) pattern**

The demographic characteristics of the respondents reporting the use of a three-step (family) pattern very closely parallel those of the whole group. The major difference is the high incidence of Catholicism among this subgroup.

The input from the family did not increase the use of home remedies, as could have been expected (See Appendix D for listing of
There was, however, a greater variety of medical facility use than in the two-step pattern.

The presence of the four most highly acculturated respondents in this group is not surprising if Keefe's (1980) statement that acculturated persons rely heavily on their families for warmth and support is taken into consideration. Interestingly, of the two that were married, only one felt her husband had any say in health care. It should be noted that this pattern is seen in Anlgo-American society as well (Hautman & Harrison, 1982).

The three-step (family) pattern can be diagrammed as three interlocking circles representing the three components of the system (See Figure 3).
Three-step (community) pattern

Very little can conclusively be said about this pattern, as it was reported by only two persons. Demographically, the distribution is most similar to the four-step pattern distribution. Since both were married, it is interesting that neither one considered her husband to be a part of the decision-making process.

The three-step (community) pattern is presented in the same way as the three-step (family) pattern, with the substitution of the community for the family (See Figure 4).

Four-step pattern

The demographic characteristics of this group most closely resemble those of the low acculturation subgroup, as they were all part of that group. There was a greater involvement on the part of the
husband, and a high level of fluidity and movement from phase to phase. If the amount of the time spent outside of the professional health care system is taken into consideration, the low incidence of home remedy use is surprising. It is possible that the cases recounted were not representative, or that for some reason, the respondents chose not to disclose the extent of their reliance on home treatment.

The behaviors recounted make this pattern the one most like that described by Weaver (1970). The difference lies in the fact that his family-addressed phase has been divided into two: respondent given care, and family care. In addition, there is no self-addressed phase (unless the respondent was the ill person) and no folk specialist phase. The four-step pattern can be diagrammed, then, as four interlocking circles (See Figure 5).

The absence of a folk specialist phase in all the patterns is
explained by several factors. Respondents, both singly and in groups, stated that folk specialists were employed by older persons, and by those coming from the south of Mexico where indigenous beliefs and practices still obtain. They stated that these persons were to be found in a different part of the city than that where the research was being conducted. Those respondents who had grown up in Mexico also pointed out that they had become used to using the medical system as medical care is free.

It was expected that there would be some report of the folk illnesses cited in the literature. No folk illnesses were mentioned by the respondents. Some of the Mexican health beliefs reviewed in the literature were reflected in comments made by respondents when
discussing the etiology of a particular illness, or describing home remedies employed.

The researcher interviewed a curandera (healer) to obtain information about the services she provided and the clientele that sought these services. The curandera stated that she gave only advice and readings, and the people came to her for help with emotional and relational problems. When questioned about folk practitioners involved in provision of care for the physically ill, she replied that there were brujos (witches) and herbalistas (herbalists) in the city, but their whereabouts are a closely guarded secret, as some of their practice is extra-legal. For this reason it is possible that respondents would have omitted the report of use of folk practitioners when speaking to the researcher, since she was a stranger.

A question which also arises is whether the relatively frequent and rapid use of the professional health care system was in fact so, or whether this was an attempt to provide the researcher with the information that the respondents thought was desired.

Differences between patterns by acculturation

The only patterns identified within the study sample which can be significantly associated with acculturation levels, are the three-step (family) and the four-step patterns. The mean ARSMA scores of the two are significantly different. Thus it can be said that persons in this sample with low acculturation levels are more likely to involve the family, community and medical system, whereas the higher the acculturation level becomes, the less likely it is that the community will be involved.

The one-step, two-step, and three-step (community) patterns
cannot be generalized because of small sample size.

Implications for Nursing

O'Brien's (1980) concept of pragmatic survivalism is borne out by the present research. Frequent statements reflecting initiation (or cessation) of treatment because of interference with daily life were made. No information on preventive care was volunteered by the respondents. Health promotion and disease prevention are areas of legitimate nursing concern and action. It is not, however, to be expected, that the Mexican-American population will voluntarily come to the professional health care system for preventive health care. For this reason, the major emphasis should be placed on outreach into the Mexican-American community.

This outreach can take more than one form, depending on the major concerns of the particular segment of the community which is to be reached. One type of interaction with the community which could be more readily acceptable than others is education in home health care. This could include basic hygiene, disease prevention, first aid, and common remedies for minor ailments. Effort should be made to incorporate the clients' health beliefs and practices whenever practicable and correct. A better knowledge of the home remedies used in the community will help the nurse to select those which are beneficial and incorporate them into her teachings.

For nurses working in a direct care agency (hospital, clinic, Health Maintenance Organization, etc.), the implications of this study lie in the awareness of the importance of the family and community in the decision making process. Care should be taken to be accepting of their participation in the referral and care-giving process (Clark,
1970) in order to prevent inappropriate termination of professional health care. Identification of the client's acculturation level can give the nurse an indication of which persons are likely to be important in this process.

In addition, a clear explanation of the goals of the professional system and means being used to achieve these goals should be given to the client and his family, as very often clients do not adhere to treatment because of lack of understanding. The nurse should plan to explain the treatment plans carefully, possibly more than once, and bring in an interpreter if necessary.

Recommendations for further research

Because of the nature of this study, its scope is limited, and the results are generalizable only to the sample group. Further research should include a larger sample and at least two interviews with each respondent to establish a greater degree of trust and disclosure. Other neighborhoods in the city should be used as well to include persons from different parts of Mexico, and increase the number of persons with higher levels of acculturation.

No information was obtained about the actual level of wellness in the families of the respondents. Administration of a wellness inventory to each family would help describe each illness referral system in terms of outcome.

The best way to obtain accurate and complete data on the subject would be to carry out an ethnography of the Mexican-American population in Chicago. The cost and time involved, however, render this approach impracticable for most researchers.
SUMMARY

Two different patterns of illness referral in the Mexican-American population studied were identified. One of these provides care and referral by the wife/mother, the family, and the professional health care system (three-step [family] pattern), and the other uses the community as well (four-step pattern). The ARSMA means of these groups were significantly different. The three-step (family) pattern is associated with high levels of acculturation, whereas the four-step pattern is associated with lower levels of acculturation. Three other less frequent patterns were identified.

The subjects were divided into three acculturation groups based on ARSMA scores, with cut-off points determined by the researcher. The majority of respondents in the sample had scores at the lower end of the acculturation scale. Further research is needed to obtain more definitive and generalizable data on which to base trans-cultural nursing care for this population.
REFERENCES


BIBLIOGRAPHY


ORAL PRESENTATION SUMMARY

I am carrying out a study involving people of Mexican descent to find out what kind of choices they make regarding treatment when they are ill, and why they make these choices. I would appreciate it very much if you would help with this study by talking with me and answering some questions I have for you.

I would first ask you to tell me about a recent illness in your family and what was done about it. You could choose which you wanted to talk about. After that I would need to ask you a few questions about yourself—where you were born, what languages you speak, what your family and friends are like. This information will help me to place you into one of the subgroups in this study.

This will cost you nothing other than about one hour of your time. There are no risks for you other than the possibility that a question may upset you. There will be no immediate benefit from this study for you, but the information will help us in the future to better meet the health needs of Mexican-Americans in Chicago. Please feel free to ask me any questions you may have, and I will do my best to answer them.

At any time during the interview or after, you are free to stop answering questions or to ask that your answers not be used in the study. If you choose to answer the questions, what you say will be used, but there will be no way in which anyone else will know which were your answers. Neither your name nor your address will be included in this study.

If you're interested in the results of the study, I'll be glad to send you a copy.
<table>
<thead>
<tr>
<th>Respondent</th>
<th>Person who was ill</th>
<th>Nature of illness</th>
<th>Date of illness</th>
<th>Referred to</th>
<th>by</th>
<th>Reasons</th>
<th>Treatment given</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Referred to</th>
<th>by</th>
<th>Reasons</th>
<th>Treatment given</th>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

69
Referred to ____________________________________________

by ____________________________________________

Reasons __________________________________________

___________________________________________

Treatment given __________________________________

___________________________________________

Referred to ____________________________________________

by ____________________________________________

Reasons __________________________________________

___________________________________________

Treatment given __________________________________

___________________________________________

Different referral system:

What cases:

Why:
Acculturation Scale for Mexican Americans

Name

Sex

Age

Marital Status

What is your religious preference?

Last grade competed in school:
1. Elementary 0–5
2. 6–8
3. 9–12
4. 1–2 years of college
5. 2 years of college or more

This questionnaire is designed to yield a measure of acculturation in Mexican Americans. With normal adults, it may be self-administered or given in groups. However, with certain clinical populations, individual administration is required, often incorporating the use of an informant and additional observational data. In such cases, the rater is required to make a judgmental rating for the subject. (For a complete set of instructions, please refer to the instructional material that accompanies this scale.) Items are presented in English, Spanish, or in both languages depending on the subject's preference. All items are scored in relation to one or the other of the following continuums:

<table>
<thead>
<tr>
<th>(Culture)</th>
<th>Mexican</th>
<th>Bicultural</th>
<th>Anglo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(Language)</th>
<th>Spanish</th>
<th>Bilingual</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Where more than one answer seems appropriate, the subject or rater should base their choice, as best possible, on what would be most correct under normal circumstances or under most conditions.

Circle the number next to the answer that best fits the question.

1. What language do you speak?
   1. Spanish only
   2. Mostly Spanish, some English
   3. Spanish and English about equally (bilingual)
   4. Mostly English, some Spanish
   5. English only

2. What language do you prefer?
   1. Spanish only
   2. Mostly Spanish, some English
   3. Spanish and English about equally (bilingual)
   4. Mostly English, some Spanish
   5. English only

3. How do you identify yourself?
   1. Mexican
   2. Chicano

Indique con un círculo la respuesta que considere más adecuada.

1. ¿Qué idioma habla usted?
   1. Solamente Español
   2. Mas Español, menos Inglés
   3. Igual en Español y en inglés (bilingüe)
   4. Mas Inglés, menos Español
   5. Solamente Inglés

2. ¿En qué idioma prefiere hablar?
   1. Solamente Español
   2. Mas Español, menos Inglés
   3. Igual en Español que en inglés (bilingüe)
   4. Mas Inglés, menos Español
   5. Solamente Inglés

3. ¿Cómo se identifica usted?
   1. Mexicano
   2. Chicano
4. Which ethnic identification does (did) your mother use?
1. Mexican
2. Chicano
3. Mexican American
4. Spanish, Hispanic, Latin American, American
5. Anglo American or other

5. Which ethnic identification does (did) your father use?
1. Mexican
2. Chicano
3. Mexican American
4. Spanish, Hispanic, Latin American, American
5. Anglo American or other

6-7. What was the ethnic origin of the friends and peers you had, as a child up to age 6? ____ (use codes 1-5 below)
from 6 to 18? ____ (use codes 1-5 below)
1. Almost exclusively Mexicans, Chicano, Mexican Americans (LA RAZA)
2. Mostly Mexicans, Chicanos, Mexican Americans
3. About equally Raza (Mexicans, Chicanos, or Mexican Americans) and Anglos or other ethnic groups
4. Mostly Anglos, Blacks, or other ethnic groups
5. Almost exclusively Anglos, Blacks, or other ethnic groups

8. Whom do you now associate with in the outside community?
1. Almost exclusively Mexicans, Chicanos, Mexican Americans (LA RAZA)
2. Mostly Mexicans, Chicanos, Mexican Americans
3. About equally Raza (Mexicans, Chicanos, or Mexican Americans) and Anglos or other ethnic groups
4. Mostly Anglos, Blacks, or other ethnic groups
5. Almost exclusively Anglos, Blacks, or other ethnic groups

9. What is your music preference?
1. Only Spanish
2. Mostly Spanish
3. Equally Spanish and English
4. Mostly English
5. English only

10. What is your TV viewing preference?
1. Only programs in Spanish
2. Mostly programs in Spanish
3. Equally Spanish and English programs
4. Mostly English
5. English only

4. ¿Cuál identificación étnica tiene (tenía) su madre?
1. Mexicana
2. Chicana
3. Mexicana Americana
4. Española, Latina Americana, Hispánica, Americana
5. Anglo Americana o otro

5. ¿Cuál identificación étnica tiene (tenía) su padre?
1. Mexicano
2. Chicano
3. Mexicano Americana
4. Española, Hispánica, Latino Americana, Americana
5. Anglo Americana o otro

6-7. ¿Cuál fue el origen étnico de sus amigos y compañeros hasta la edad de seis (6) años? ____ (use codes 1-5 below)
de 6 a 18? ____ (use codes 1-5 below)
1. Exclusivamente Mexicanos, Chicano, México Americanos (LA RAZA)
2. En su mayoría Mexicanos, Chicanos, México Americanos (LA RAZA)
3. Casi igual (Mexicanos, Chicanos, México Americanos o RAZA) y otros grupos étnicos
4. En su mayoría Anglo Americanos, Negros o otros grupos étnicos
5. Exclusivamente Anglo Americanos, Negros o otros grupos étnicos

8. ¿Con quién se asocia ahora en la comunidad?
1. Exclusivamente Mexicanos, Chicanos, México Americanos (La Raza)
2. En su mayoría Mexicanos, Chicanos, México Americanos (La Raza)
3. Casi igual (Mexicanos, Chicanos, México Americanos o Raza) y otros grupos étnicos
4. En su mayoría Anglo Americanos, Negros o otros grupos étnicos
5. Exclusivamente Anglo Americanos, Negros o otros grupos étnicos

9. ¿Cuál música prefiere?
1. Solamente música en Español
2. Por la mayor parte en Español
3. Casi igual en español como Inglés
4. Por la mayor parte en Inglés
5. Solamente Inglés

10. ¿Qué tipo de programas de televisión prefiere?
1. Solamente programas en Español
2. Por la mayor parte programas en Español
3. Equilibrado en español y en inglés
4. Por la mayor parte en inglés
5. Solamente inglés
4. Mostly programs in English
5. Only programs in English

11. What is your movie preference?
1. Spanish-language movies only
2. Spanish-language movies mostly
3. Equally English/Spanish
4. English-language movies mostly
5. English-language movies only

12. a. Where were you born (subject)
   - Mexico
   - U.S.
   - Other
   (Parents)
b. Where was your father born?
   - Mexico
   - U.S.
   - Other
c. Where was your mother born?
   - Mexico
   - U.S.
   - Other
   (Grandparents)
d. Where was your father's mother born?
   - Mexico
   - U.S.
   - Other
e. Where was your father's father born?
   - Mexico
   - U.S.
   - Other
f. Where was your mother's mother born?
   - Mexico
   - U.S.
   - Other
g. Where was your mother's father born?
   - Mexico
   - U.S.
   - Other

On the basis of the above answers, circle the generation that best applies.
1. 1st generation = subject born in Mexico or other
2. 2nd generation = subject born in U.S., either parent born in Mexico or other
3. 3rd generation = subject born in U.S., both parents born in U.S., and all grandparents born in Mexico or other
4. 4th generation = subject and parents born in U.S. and at least one grandparent born in Mexico or other with remainder born in the U.S.
5. 5th generation = subject and parents born in U.S. and all grandparents born in U.S.

Sobre la información anterior indique el número de la generación que mejor le corresponde.
1. 1a generación = sujeto nacido en México u otro país
2. 2a generación = sujeto nacido en los Estados Unidos, cualquiera de sus padres nacidos en México u otro país
3. 3a generación = sujeto nacido en los Estados Unidos, sus dos padres nacidos en los Estados Unidos y todos los abuelos nacidos en México u otro país
4. 4a generación = sujeto nacido en los Estados Unidos, los dos padres nacidos en los Estados Unidos y por lo menos un abuelo nacido en México u otro país
5. 5a generación = sujeto y sus dos padres nacidos en los Estados Unidos y todos sus abuelos nacidos en los Estados Unidos
13. Where were you raised?
1. In Mexico only
2. Mostly in Mexico, some in U.S.
3. Equally in U.S. and Mexico
4. Mostly in U.S., some in Mexico
5. In U.S. only

14. What contact have you had with Mexico?
1. Raised for one year or more in Mexico
2. Lived for less than 1 year in Mexico
3. Occasional visits to Mexico
4. Occasional communications (letters, phone calls, etc.) with people in Mexico
5. No exposure or communications with people in Mexico

15. What is your food preference?
1. Exclusively Mexican food
2. Mostly Mexican food, some American
3. About equally Mexican and American
4. Mostly American food
5. Exclusively American food

16. In what language do you think?
1. Only in Spanish
2. Mostly in Spanish
3. Equally in English and Spanish
4. Mostly in English
5. Only in English

17. Can you read Spanish? ☐ Yes ☐ No
Can you read English? ☐ Yes ☐ No
Which do you read better? Rate the subject on the following continuum:
1. Reads only Spanish
2. Reads Spanish better than English
3. Reads both Spanish and English equally well
4. Reads English better than Spanish
5. Reads only English

18. Can you write in English? ☐ Yes ☐ No
Can you write in Spanish?
Yes ☐ No ☐
Which do you write better? Rate the subject on the following continuum:
1. Writes only Spanish
2. Writes Spanish better than English
3. Writes both Spanish and English equally well
4. Writes English better than Spanish
5. Writes only in English

19. If you consider yourself a Mexican, Chicano, Mexican American, member of La Raza, or however you identify

13. ¿En dónde creció usted?
1. En México
2. La mayor parte del tiempo en México y la menor parte en los Estados Unidos
3. La misma cantidad de tiempo en los Estados Unidos y en México
4. La mayor parte del tiempo en los Estados Unidos y la menor parte en México
5. En Los Estados Unidos

14. ¿Qué contact ha tenido usted con México?
1. Criado un año o más en México
2. Criado menos de un año en México
3. Visitas ocasionales a México
4. Comunicaciones ocasionales (cartas, llamadas telefónicas, etc.) con gente de México
5. Ningún contacto o comunicación con gente de México

15. ¿Qué tipo de comida prefiere?
1. Solamente comida Mexicana
2. Por la mayor parte comida Mexicana, parte Americana
3. Lo mismo Mexicana y Americana
4. Por la mayor parte comida Americana
5. Solamente comida Americana

16. ¿En qué idioma piensa usted?
1. Solamente en Español
2. La mayor parte en Español
3. Igual en inglés y Español
4. La mayor parte en Inglés
5. Solamente en Inglés

17. ¿Puede leer en Español? Sí ☐ No ☐
¿Puede leer en Inglés? Sí ☐ No ☐
¿En cuál lenguaje lee mejor? Indíque con un círculo el número que mejor corresponde:
1. Lee solamente Español
2. Lee mejor Español que Inglés
3. Lee igual en Inglés que en Español
4. Lee mejor en Inglés que en Español
5. Lee solamente en Inglés

18. ¿Puede escribir en Inglés? ☐ Sí ☐ No ☐
¿Puede escribir en Español? ☐ Sí ☐ No ☐
¿En cuál lenguaje escribe mejor? Indíque con un círculo el número que mejor corresponde:
1. Escribe solamente en Español
2. Escribe mejor en Español
3. Escribe igual en Inglés y Español
4. Escribe mejor en Inglés que en Español
5. Escribe solamente en Inglés

19. ¿Si se considera usted como Mexicano, Chicano, México Americano, Miembro de la Raza, o cualquiera que
this group, how much pride do you have in this group?
1. Extremely proud
2. Moderately proud
3. Little pride
4. No pride but does not feel negative toward group
5. No pride and feels negative toward La Raza

20. How would you rate yourself?
1. Very Mexican
2. Mostly Mexican
3. Bicultural
4. Mostly Anglicized
5. Very Anglicized

Total score ________  Total score is the sum of all 20 multiple-choice items circled.
Average score ________ Average score is the total score divided by 20.

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<table>
<thead>
<tr>
<th>Remedies</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamomile tea</td>
<td>Stomach upset</td>
</tr>
<tr>
<td>Mint tea</td>
<td>&quot; &quot;</td>
</tr>
<tr>
<td>Ginseng tea</td>
<td>To give strength</td>
</tr>
<tr>
<td>Peppermint tea</td>
<td>Cold</td>
</tr>
<tr>
<td>Cinnamon tea</td>
<td>To calm a person</td>
</tr>
<tr>
<td>Oregano and honey tea</td>
<td>Cough</td>
</tr>
<tr>
<td>Potato peelings on forehead</td>
<td>Headache</td>
</tr>
<tr>
<td>Roast garlic or lit cigarettes in both ears</td>
<td>Earache/headache</td>
</tr>
<tr>
<td>Wrap feet in butter and brown paper</td>
<td>Fever</td>
</tr>
<tr>
<td>Rice water</td>
<td>Diarrhea</td>
</tr>
<tr>
<td>Pull skin over spine, castor oil by mouth</td>
<td>Indigestion</td>
</tr>
<tr>
<td>Tincture of marijuana</td>
<td>Rheumatism</td>
</tr>
<tr>
<td>Baked tomato poultices behind knees, on soles, on neck</td>
<td>Tonsilitis or fever</td>
</tr>
<tr>
<td>Green tomatoes baked with bicarbonate, applied to tonsils with pressure</td>
<td>Tonsilitis</td>
</tr>
<tr>
<td>Lemon tea</td>
<td>Sore throat/cold</td>
</tr>
<tr>
<td>Orange tea</td>
<td>&quot; &quot;</td>
</tr>
<tr>
<td>Guava fruit</td>
<td>Diarrhea</td>
</tr>
<tr>
<td>Yerba buena</td>
<td>Stomach upset</td>
</tr>
<tr>
<td>Eucalyptus inhalations</td>
<td>Congestion</td>
</tr>
<tr>
<td>Garlic, cummin, cloves, and onion</td>
<td>Diarrhea</td>
</tr>
</tbody>
</table>
APPENDIX E
Dear Heidy,


You may make copies of the scale from the Journal article or however you wish for your research purposes. It is my wish that the scale be used and you have my permission to use it and make copies as needed.

Good luck with your study.

Sincerely yours,

Israel Cuellar, Ph.D.
APPROVAL SHEET

The thesis submitted by Heidi Vyhmeister has been read and approved by the following committee:

Dr. Dona Snyder, Director
Associate Professor, Nursing, Loyola

Dr. Ardelina Baldonado
Assistant Professor, Nursing, Loyola

Dr. Diana Hackbarth
Assistant Professor, Nursing, Loyola

The final copies have examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Science in Nursing.

April 18, 1984

Date

Director's Signature