Curanderismo, from the Spanish verb curar (to heal), is a healing tradition found in Mexican-American communities throughout the United States. Its historic roots are common with traditional healing practices in Puerto Rican and Cuban-American communities, as well as traditional practices found throughout Latin America. At the same time it has a history and a set of traditional medical practices that are unique to Mexican cultural history and to the Mexican-American experience in the United States.

Seven historic roots are embedded in modern curanderismo. Its theoretical beliefs partly trace their origins to Greek humoral medicine, especially the emphasis on balance, and the influence of hot and cold properties of food and medicines on the body. Many of the rituals that provide both a framework and a meaningful cultural healing experience in curanderismo date to healing practices contemporary to the beginning of the Christian tradition and even into earlier Judeo-Christian writings. Other healing practices derive from the European Middle Ages, including the use of traditional medicinal plants and magical healing practices.

The Moorish conquest of Southern Europe is visible in the cultural expression of curanderismo. Some common Mexican-American folk illnesses originated in the Near East and then were transmitted throughout the Mediterranean, such as belief in mal de ojo, or the evil eye (the magical influence of staring at someone). Homeopathic remedies for common health conditions such as earaches, constipation, anemia, cuts and bruises, or burns were brought from Europe.
to the New World to be passed down to the present time within curanderismo. There also is significant sharing of beliefs with Aztec and other Native American cultural traditions in Mexico. Some of the folk illnesses treated in pre-Columbian times, such as a fallen fontanelle (caída de la moladera) and perhaps the blockage of the intestines (empacho) are parts of this tradition. The pharmacopoeia of the New World also is important in curanderismo (and added significantly to the plants available for treatment of diseases in Europe from the 1600s to the present). Some healers (curanderos) keep track of developments in parapsychology and New Age spirituality, as well as acupuncture and Eastern healing traditions and have incorporated these global perspectives into their own practices.

Finally, curanderismo is a traditional healing system, but it exists within the modern world. Biomedical beliefs, treatments, and practices are very much a part of curanderismo and are supported by curanderos. On the border between the United States and Mexico, it is not unusual for healers to recommend the use of prescription medications (which can often be purchased in Mexico over the counter) for infections and other illnesses. These healers also use information obtained from television and other sources to provide the best advice on preventive efforts such as nutrition and exercise and on explanations for biomedical illnesses. Individual healers vary greatly in their knowledge of the practices that stem from each of these seven historical sources: The overall system of curanderismo is complex and not only maintains its cultural link to the past but evolves toward accommodation with the future as well.

Cultural Context

This chapter is based partly on research that was conducted in the Lower Rio Grande Valley of Texas for more than 15 years. That information is enhanced by data from other regions near the U.S.-Mexican border, and from Mexican-American communities in Colorado, Nebraska, Chicago, and Florida. A multiplicity of research environments, both rural and urban, has affected the practice of curanderismo. Alger (1974) has described one possible outcome of urbanized curanderismo, in which the folk healing system mimics the modern medical system. Yet this mimicry does not exist to any significant extent in southern Texas, where both curanderos and their patients have extensive knowledge of the medical system in urban and rural areas. However, unlike attitudes reported in earlier studies of the area (Madsen, 1961; Rubel, 1966), curanderos and their patients accept the use of modern medicine. These multiple environments of curanderismo practice create a complex healing system with core elements that are common to each place and modifications that respond to local cultural, political, and legal circumstances.

The earliest systematic research was done on curanderismo in the late 1950s, when modern medicine was inaccessible, or only recently available to significant segments of the Mexican-American population. Since that time, the efficacy of modern medicine has been demonstrated empirically numerous times, so it is an integrated part of the cultural system, although many access barriers still exist to prevent its full use by everyone. These barriers reflect the same reasons that the holistic health movement and the charismatic healing movements are becoming increasingly popular. Although traditional healers in Mexican-American communities believe that modern medicine is as capable in certain types of healing, their experience shows that their own practices are not recognized in hospitals and clinics and that they can accomplish those same tasks better than modern medicine. Thus curanderismo and modern medicine often assume complementary roles in the minds of the curanderos and their patients, although not necessarily in the minds of the medical professionals of the area.

Intellectual Tradition

Traditional Mexican-American healers perceive health and illness to contain a duality of "natural" and "supernatural" illnesses. This duality forms the theoretical base on which curanderismo is constructed. The natural source of illness is essentially a biomedical model of illness that includes lay interpretations of some diseases inspired by Mexican-American culture. Biomedical aspects such as the germ theory of disease, genetic disorders, psychological conditions, and dietary causes for medical conditions are accepted. These natural illnesses are treated by physicians with herbal remedies. A parallel supernatural source of illness also is recognized by this healing tradition. These illnesses are not considered amenable to treatment by the medical establishment. They can be re-
Curanderismo


Another element of curanderismo that forms an important intellectual foundation for its practices is the concept that healers work by virtue of “a gift of healing” (el don) (Hudson, 1951; Madsen, 1965; Romano, 1964; Rubel, 1966). This inherent ability allows the healer to practice his or her work, especially in the supernatural area. In the past this was believed to be a gift from God. However, a secular interpretation of the don is competing with the more traditional explanation. Many healers still refer to the don as a gift from God and support this premise with Biblical passages (Corinthians 12:7 and James 5:14), but other healers explain the don as an inborn trait that is present in all human beings, just like the ability to sing, run, or talk. Almost any human being can do these things, but some do them better than others, and a few people can do them extremely well. Curanderos, according to this theory, are the individuals with a better ability to heal than is normative for the population as a whole. Healers refer to this concept as “developed abilities.”

Another element common to Hispanic-based folk medicine is the hot-cold syndrome (Currier, 1966; Foster, 1953; Ingham, 1940). This belief system is not common in southern Texas (Madsen, 1961), where the only indications of a hot-cold syndrome found among the patients were scattered folk beliefs such as not eating citrus during menses, not ironing barefoot on a cement floor, or taking a cold shower after prolonged exposure to the sun. None of these beliefs were organized in a systematic fashion, nor were they extensively shared within the Mexican-American population. In other areas there is extensive knowledge and use of this system of classifying foods, treatments; and elements of illnesses to provide the basis for deciding which remedies apply to specific illnesses.

THEORETICAL BASIS

The community-based theoretical structure for curanderismo has three primary areas of concentration, called levels (niveles) by the healers: the material level (nivel material), the spiritual level (nivel espiritual), and the mental level (nivel mental). More curanderos have the don for working at the material level, which is or-
organized around the use of physical objects to heal or to change the patient's environment. This theoretical area can be subdivided into physical and supernatural manipulations. Physical treatments are those that do not require supernatural intervention to ensure a successful outcome. Partarlas (midwives), hueseros (bone setters), yerberos (herbalists), and sobadores (people who treat sprains and tense muscles) are healers who work on the nivel material and effect cures without any need for supernatural knowledge or practices. All of the remedios caseros (home remedies) used in Mexican-American communities are part of this healing tradition.

The supernatural aspect of this level is involved in cures for common folk illnesses found in Mexican-American communities, such as susto, empacho, caída de molles, espanto, and mal de ojo. These illnesses are unique to Hispanic cultural models of health and illness. This area of healing also includes the spells and incantations that are derived out of medieval European witchcraft and earlier forms of magic, such as the cabala, that have been maintained as supernatural healing elements of curanderismo. Supernatural manipulations involve prayers and incantations in conjunction with such objects as candies, ribbons, water, fire, crucifixes, tree branches, herbs, oils, eggs, and live animals. These treatments use a combination of common objects and rituals to cure health problems.

The mental level (nivel mental) is the least commonly encountered of the three levels. One healer described working with the mental level as the ability to transmit, channel, and focus mental vibrations (vibraciones mentales) in a way that would affect the patient's mental or physical condition directly. Both patients and healers are confident that the curanderos can effect a cure from a distance using this technique.

The three levels are discrete areas of knowledge and behavior, each necessitating the presence of a separate gift for healing. They involve different types of training and different methods of dealing with both the natural and the supernatural world. The material level involves the manipulations of traditional magical forces found in literature on Western witchcraft. Spiritualism involves the manipulation of a complex spirit world that exists parallel to our own and the manipulation of corrientes espirituales, spiritual currents that can both heal and provide information or diagnosis from a distance. The mental level necessitates the control and use of the previously mentioned vibraciones mentales. Thus the levels are separate methods of diagnosing and treating human problems that are embedded into a single cultural tradition.

Not all problems can be dealt with successfully using each level. An example of this is serious alcohol abuse (Trotter, 1979; Trotter & Chavira, 1978). Alcohol abuse and alcoholism are treated by curanderos, using techniques of both the material and the mental level. The techniques of the spiritual level, however, were considered ineffective in dealing with alcohol-related problems. So if one has the don for working with the spiritual level alone, he or she is excluded from the process of curing alcohol problems.

One theme that is common to the practices of all three levels is the use of energy to change the patient's health status. On the material level this energy often is discussed in relation to the major ritual of that level, known as the barrida or limpias (a sweeping or cleansing). In that ritual a person is "swept" from head to foot with an object that is thought to be able to either remove bad vibrations (vibraciones malas) or to give positive energy (vibraciones positivas) to the patient. The type of object used (e.g., egg, lemon, garlic, crucifix, broom) depends on the nature of the patient's problem and whether it is necessary to remove or to replace energy. On the spiritual level the energy that is used for both diagnosis and healing is the previously mentioned corrientes espirituales. The mental level is nearly totally oriented around generating and channeling vibraciones mentales. The following sections provide more detail on the actual practices of the curandero's work on each level.

The Material Level (Nivel Material)

The material level is the easiest of the three levels to describe; it is the most extensively practiced and the most widely reported. At this level the curandero ma-
nicipulates physical objects and performs rituals (or
trabajas, spells). The combination of objects and ritu-
als is widely recognized by Mexican Americans as hav-
ing curative powers. Practitioners of the material level
use common herbs, fruits, nuts, flowers, animals and
animal products (chickens, doves, and eggs), and
spices. Religious symbols, such as the crucifix, pic-
tures of saints, incense, candles, holy water, oils, and
sweet fragrances are widely used, as are secular items,
such as cards, alum, and ribbons. The curandero al-
 lows the patients to rely extensively on their own re-
sources by prescribing items that either are familiar
or have strong cultural significance; thus a significant
characteristic of the objects used at the material level
is that they are common items used for daily activities
such as cooking and worship.

Natural Illnesses and Herbal Cures
Curanderos recognize that illnesses can be brought
about by natural causes, such as dysfunction of the
body, carelessness or the inability of a person to take
proper care of himself or herself, and infection. Cu-
randeros at the material level used large amounts of
medicinal herbs (plantas medicinales) to treat these nat-
ural ailments. Some traditional curanderos classify
herbs as having the dichotomous properties consid-
ered essential for humoral medicine, based on a hot-
cold classification system common throughout Latin
America (Foster, 1953). They use these dual properties
to prescribe an herb or combination of herbs, de-
pending on the characteristics of the illness. If a per-
son’s illness supposedly is caused by excessive “heat,”
an herb with “cold” properties is given. Conversely, if
a person’s illness is believed to be caused by excessive
“coldness and dryness,” a combination of herbs hav-
ing “hot and “wet” properties is administered.

Other curanderos recognize herbs for their chem-
ical properties, such as poisons (yerba del coyote, Kar-
winskiya humboldtiana Roem. et Sch.) hallucinogens (pey-
ote, Lophaphora williams Lem.), sedatives (flor de tila,
Talca mexicana Schl.), stimulants (yerba del trueno), and
purgatives (cascara sagrada). These individuals refer to
the beneficial chemical properties of the herbs that al-
low them to treat natural illnesses.

Curanderos prescribe herbs most frequently as
 teas, baths, or poultices. The teas act as a sort of for-
mative chemotherapy. Borraja (borage: Borago officialis
L.), for example, is taken to cut a fever; flor de tila, a
mild sedative, is taken for insomnia; yerba de la golond-
rina (Euphorbia prostrata Ait.) is used as a douche for
vaginal discharges; and pelos de olote are used for kid-
ney problems. Herbal baths usually are prescribed to
deal with skin diseases; fresno (ash tree, Fraxinus
species) is used to treat scalp problems such as
eczema, dandruff, and psoriasis; and linaza is pre-
scribed for body sores. For specific sores such as boils,
malva (probably a Malvastrum) leaves are boiled until
soft and then applied to the sores as a poultice. Other
herbs are used as decongestants. A handful of oregano
(oregano: Oregenum vulgare L.) is placed in a humidifier
to treat someone with a bad cold.

Some herbal lore is passed on as an oral tradi-
tion, and other information is available in Spanish
language books for Mexico that are widely circu-
lated among both curanderos and the public (Arias;
Wagner). These works describe and classify numerous
herbs. Herbal remedies are so important to Mexican-
American folk medicine that their use often is con-
fused with the art of curanderismo itself by the mass
culture. Indeed, some curanderos known as yerberos
or yerberos, specialize in herbs, but their knowledge
and skills go beyond the mere connection of one dis-
ease to one herbal formula. For curanderos to be gen-
uine, even at the material level, an element of mysti-
cism must be involved in their practice. Herbs are
used commonly for their spiritual or supernatural
properties. Spiritual cleansings (barridas) often are
given with ruda (Ruta graveolens L.), romero (rosemary,
Rosmarinus officiates L.), and albacar (sweet basil, Oc-
mum basilicum L.), among others. Herbs are used as
amulets; verbena (verbena, Verbena officinalis L.), worn
as an amulet, is used to help open a person’s mind to
learn and retain knowledge.

Some curanderos have successful practices on the
material level without resorting to the use of herbs.
Some nonherbal treatments are described in the fol-
lowing section.

Supernaturally Caused Illnesses
and Ritual Cures
Supernatural illnesses, which occur when superna-
atural negative forces damage a person’s health, some-
times can be confused with natural illnesses. One
healer stated that these supernatural illnesses may
manifest as ulcers, tuberculosis, rheumatism, or mi-
gaine headaches, but in reality, they are believed to
be hexes that have been placed on the person by an
enemy. Supernatural influences also disrupt a per-
son’s mental health and his or her living environ-
ment. Physicians cannot cure a supernatural illness.
The curandero commonly deals with social disruption, personality complexes, and sometimes with serious psychological disturbances. One healer gave the following description of a case that contained several of these elements:

This patient worked for the street maintenance department of (a small city in south Texas). Every day after work a voice would lead him out into the brush and sometimes keep him there until 2:00 AM. This activity was wearing out the man and his family and he was going crazy. A bad spirit was following this man and would not leave him alone. The man was cured, but it took three people to cure him: myself, a friend, and a master (maestro) from Mexico. This man was given three barridas each day for seven days, one by each of us. The tools used were eggs, lemons, herbs, garlic, and black chickens. The man was also prescribed herbal baths and some teas to drink. He was also given a charm made from the haba mijrina designed to ward off any more negative influences which might be directed at him. This patient regained his sanity.

There also are a number of illnesses that are both supernaturally caused and of a supernatural nature, which can be treated on the material level. The following account is an example of such an illness and cure.

My brother-in-law was working at a motel... in Weslaco. When he started working they laid off this other guy who had been working there for several years. This guy didn’t like it, and he’s been known to be messing around with black magic. I don’t know what he did to my brother-in-law, but every other day he’d have to be taken home because he was sick. He started throwing up, had shaky knees, and weak joints. So my mother and I went over to see this lady in Reynosa, and she told my mother just what to do. My sister rubbed her husband with a lemon every night for three days. She also gave him some kind of tea... On the third day, a big black spot appeared on the lemon, so we threw it away, and he’s been fine ever since.

Rituals and the Material Level

Curanderos use several types of rituals for supernatural cures. The barrida is one of the most common rituals. These cleansings are designed to remove the negative forces that are harming the patient, while simultaneously giving the patient the spiritual strength necessary to enhance recovery. Patients are always "swept" from head to toe, with the curandero making sweeping or brushing motions with an egg, lemon, herb, or whatever object is deemed spiritually appropriate. Special emphasis is given to areas in pain. While sweeping the patient, the curandero recites specific prayers or invocations that appeal to God, saints, or other supernatural beings to restore health to the patient. The curandero may recite these prayers and invocations out loud or silently. Standard prayers include the Lord’s Prayer, the Apostles' Creed, and Las Doce Verdades de Mundo (The Twelve Truths of the World).

The following description of a barrida illustrates how the material objects, the mystical power of these objects, the invocations, the curandero, and the patient come together to form a healing ritual designed for a specific patient and a specific illness: In this case, five eggs, four lemons, some branches of abacar (sweet basil), and oil were used. To begin the healing process, the lemons and eggs were washed with alcohol and water to cleanse them spiritually. Before beginning the ritual, the participants were instructed to take off their rings, watches, and other jewelry; high-frequency spiritual and mental vibrations can produce electrical discharges on the metal, which might disturb the healing process. The sweeping itself is done by interchanging an egg and a lemon successively. Sweeping with the egg is intended to transfer the problem from the patient to the egg by means of conjures (conjures) and invocations (rechasos). The lemon is used to eliminate the trabajo (magical harm) that has been placed on the patient. The patient is swept once with abacar (sweet basil) that has been rinsed in agua preparada (prepared water). This sweeping purifies the patient, giving strength and comfort to his spiritual being. The ritual ends by making crosses with aceite preparado (specifically prepared oil) on the principal joints of the patients, such as the neck, under the knees, and above the elbow. This oil serves to cut the negative currents and vibrations that surround the patient, which have been placed there by whoever is provoking the harm. The crosses protect against the continued effect of these negative vibrations. Agua preparada is then rubbed on the patient’s forehead and occiput (cerebro) to tranquilize and to give mental strength. All the objects used in the barrida are then burned to destroy the negative influences or harm transferred from the patient.

Another common ritual is called a sahumerio, or incensing. The sahumerio is a purification rite used primarily for treating businesses, households, farms, and other places of work or habitation. This ritual is executed by burning hot coals with an appropriate incense. The curandero may prepare his own incense, or
he may prescribe some commercially prepared incense such as *el sahumerio maravilloso* (miraculous incense). A pan with the smoking incense is carried throughout the building, making sure that all corners, closets, and hidden spaces, such as under the beds, are properly filled with smoke. While "incensing," the healer or someone else recites an appropriate prayer. If the *sahumerio maravilloso* is used, the prayer often is one to Santa Marta, requesting that peace and harmony be restored to the household. After the *sahumerio*, the healer may sprinkle holy water on the floor of every room in the house and light a white candle that stays lit for 7 days. The *sahumerio* is an example of the curandero treating the general social environment, seeking to change the conditions of the persons who live or work there. Incensing of a house removes negative influences such as bad luck (*salaciones*), marital disruptions, illness, or disharmony. For business and farms, incensing helps ensure success and growth and protects against jealous competitors. These rituals are designed to affect everyone in the environment that has been treated.

Another type of ritual, called a *sortilegio* (conjure), uses material objects such as ribbons to tie up the negative influences that harm the curandero's patients. These negative influences are often personal shortcomings such as excessive drinking, infidelity, rebellious children, unemployment, or any other problem believed to be imposed by antisocial magic (*un trabajo*). One *sortilegio* that I observed required four ribbons in red, green, white, and black, each approximately 1 yard in length. The color of each ribbon represents a type of magic, which the curanderos can activate to deal with specific problems. Red magic involves domination, green deals with healing, white with general positive forces, and black with negative or debilitating forces.

When working with a specific area of magic, one uses material objects that are the appropriate color naturally or that have been made that color artificially. The color-based division of magic also is carried over into another type of ritual system used on the material level, *velacione*, or burning candles to produce supernatural results. The *velacione* and the colored material objects used in the *sortilegios* tie into the energy theme that runs throughout curanderismo, because the colors and objects are believed to have specific vibratory power or energy that can affect the patient when activated by the incantations used in conjunction with the objects. For example, blue candles are burned for serenity or tranquility; red candles are burned for health, power, or domination; pink candles are burned for good will; green candles are burned to remove a harmful or negative influence; and purple candles are burned to repel and attack bad spirits (*espiritus obscuros*) or strong magic. Once the proper color of candle has been chosen to produce the proper mental atmosphere, the candles are arranged in the correct physical formation and activated by the *conjuros* y *rechasos*. If a patient asks for protection, the candles might be burned in a triangle, which is considered to be the strongest formation, one whose influence cannot be broken easily. If they want to dominate someone—a spouse, a lover, or an adversary—the candles might be burned in circles. Other formations include crosses, rectangles, and squares, depending on the results desired (Buckland, 1970).

Another relatively common use of candles is to diagnose problems by studying the flame or the ridges that appear on the melted wax. A patient may be swept with a candle while the healer recites an invocation asking the spirit of the patient to allow its material being to be investigated for any physical or spiritual problems that may be affecting the person. This ritual also can be performed by burning objects used in a *barrida*. Lighting the candle or burning the object after the *barrida* helps the curandero reveal the cause and extent of the patient's problems. Similarly, if a petitioner asks for candling, the wax of the candles burned for the velacion may be examined for figures or other messages that point to the source of a patient's problems.

One of the organizing principles of the material level of curanderismo is synchronicity with Christianity in general and the Catholic Church in particular. Special invocations often are directed at saints or spirits to bring about desired results. For example, San Martin de Porres is asked to relieve poverty, San Martin Caballero is asked to ensure success in business, San Judas Tadeo is asked to help in impossible situations, and Santa Marta is asked to bring harmony to a household. Ritual materials used by the church, such as water, incense, oils, and candles, are extensively used by folk healers. The ways in which these religious objects are used and the theories for their efficacy closely mirror the concepts found within the healing ministry of the Church, which are not incompatible with European witchcraft, from which curanderismo partly derives.
The Spiritual Level
(Nivel Espiritual)

Curanderos who have the don for working on the spiritual level (nivel espiritual) of curanderismo are less numerous than those who work on the material level. These practitioners also must go through a developmental period (desarrollo) that can be somewhat traumatic. Spiritual practices in communities revolve around a belief in spiritual beings who inhabit another plane of existence but who are interested in making contact with the physical world periodically. Healers become a direct link between this plane of existence and that other world. In some cases the curanderos claim to control these spirit beings, and in other cases, they merely act as a channel through which messages pass. Some of these practices are carried out by individual healers, whereas other activities occur in conjunction with spiritual centers (centros espiriritistas) that are staffed by trance mediums and other individuals with occult abilities. These centers often work through two prominent folk saints: El Nino Fidencio from Northern Mexico and Don Pedro Jaramillo from southern Texas (Macklin, 1974a, 1974b, 1974c). This trend in visiting spiritualist centers appears to be relatively recent, having not been reported during the 1950s and 1960s by those doing research on Mexican-American folk medicine (Clark, 1959; Madsen, 1964; Rubel, 1960, 1966).

The practice of spiritualism rests on "soul concept," a belief in the existence of spirit entities derived from once-living humans. The soul is thought to be the immortal component, the life and personality force of human beings—an entity that continues to exist after physical death on a plane of reality separate from the physical world. This concept is important not only to curanderismo but also to the religions and mystical beliefs found in all Western cultures.

The soul is alternatively described by curanderos as a force field, ectoplasm, concentrated vibrations, or group of electrical charges that exist separate from the physical body. It is thought to retain the personality, knowledge, and motivations of the individual even after the death of the body. Under proper conditions the soul is ascribed the ability to contact and affect persons living in the physical world. Although souls occasionally can be seen as ghosts or apparitions by ordinary human beings, they exist more often in the spiritual realm previously mentioned. Some people view this realm as having various divisions that have positive or negative connotations associated with them, for example, heaven, limbo, purgatory, or hell. Other people see the spiritual realm as parallel to the physical world. They state that the spiritual is a more pleasant plane on which to live, but few attempt any suicidal test of this belief. One healer commented that "spirits" [espiritos], "souls" [almas], are the same thing. These spirits' activities closely parallel their former activities in this world. Because the personality, knowledge, and motivation of the spirits are much the same as they were for the living being, there are both good and evil spirits, spirits who heal and spirits who harm, wise spirits and fools.

These spirits might communicate with or act on the physical plane. Some have left tasks undone in their physical lives they wish to complete; others want to help or cause harm; many wish to communicate messages to friends and relatives, telling them of their happiness or discontent with their new existence. Therefore curanderos with the ability to work on the spiritual realm become the link between these two worlds. Some curanderos believe that there are multitudes of spirits who want to communicate with the physical world, and they tend to hover around those who have the don to become a medium, waiting for an opportunity to enter their bodies and possess them. This explains the cases of spirit possession in Western cultures. Individuals who become possessed are people with a strong potential to be trance mediums, who have not had the opportunity to learn how to control this condition.

The ability to become a medium is thought to be centered in the cerebro, that portion of the brain found at the posterior base of the skull. Those with the gift are said to have a more fully developed cerebro, whereas those who do not are said to have a weak cerebros (un cerebro débil). This weakness has no relationship either to the intelligence or to the moral nature of the individual, only to his or her ability to communicate with the spiritual realm. Weak cerebros represent a danger for anyone who wishes to become a medium. Only rare individuals demonstrate mediumistic potential spontaneously and can practice as mediums without further training. So, curanderos often test their patients and friends for this gift of healing, and those with the gift are encouraged to develop their ability. The development of this ability is called desarrollo and is a fairly lengthy process that might last from 2 months to more than 6 months initially, with periodic refresher encounters often available.
from the maestro (teacher). Desarrollo is a gradual process of increasing an apprentice’s contact with the spirit world, giving him or her more and more experiences in controlled trances and possessions, as well as the knowledge necessary to develop and protect himself or herself as a spiritualist. The teacher also is responsible for giving the apprentice knowledge at a safe pace. The curandero does not always explain what each sensation means; each person, as he or she develops, becomes more sensitive to his or her environment. The apprentice must expect to encounter odd sensations such as bright light, noises, changes in pressure, and other sensations associated with developing powers. At the end of these desarrollo sessions, the conversation reverts to social chatting for some time before the apprentice takes his leave. This developmental process continues, with variations, until the apprentice is a fully developed medium.

Fully developed mediums control how, where, and when they work, and several options are available to them. Some mediums work alone and treat only family problems (Box 23-1); others might use their

**Curanderos**

Many curanderos able to work on the spiritual level prefer to work at home, alone. Their practices tend to be less uniform than the practices of mediums working at spiritual centers, because they do not have to conform to the calendric and ritual structure found in more formalized temples. However, there is enough commonality to their actions to provide an accurate description of a home medium. This healer is described by a student in his early 20s who was one of her patients; she had been handling problems for him and his family for several years.

R: Can you describe how this curandera works, in as great detail as you can?
S: We drive up into the driveway of a fairly decent-looking place. She walks out and greets us, asks how we are doing and how we have been. Then we go inside. She’s got a small room perhaps 8 by 10 feet. She has an altar with saints and candles and flowers on it. She has a small vase shaped like a crystal ball sitting on a table. Sometimes it has water on it and sometimes turned upside down.

You walk in there and sit down and she’s talking with you. She’s not in her trance; it’s just social talk. Then she sits and puts her hand on that crystal ball. She taps it, closes her eyes, and she starts asking you what kind of problem you have or whatever you want to ask her.

R: Her voice changes?
S: Yes, it does. It’s a lot lower. All of a sudden her voice becomes soft; sort of like whispering. Really mild.
R: Does she keep her hands on the glass all of this time?
S: No. Sometimes she grabs a folder with papers in it and starts writing down things on it, using her finger.

R: Can she read what she has written?
S: I’m pretty sure she can.
R: How does she cure people?
S: She does it in a number of ways. Some time ago my mother had pains on both of her heels. She went to the doctor and the doctor didn’t find anything wrong. So she went over to this lady again who said it was something (a trabaja or her) that [a woman across the alley from her house] had put in the yard. When my mother’s out hanging up clothes she’s barefooted and she stepped on it. And that’s what was hurting her. So the curandera gave her a “shot” on her arm like a regular shot. And that cured her.
R: How did she give her the shot?
S: (Simulated the action of giving an injection without a syringe or hypodermic.)
R: Could your mother feel it?
S: She told me she didn’t. But it cured her.

The informant went on to tell of several other cures this curandera had performed for his family. She had prescribed herbs, suggested the use of perfumes to ward off the envidia (envy) of their neighbors, and suggested that the mother perform a series of barridas on her son-in-law to remove a hex against him that was making him ill and keeping him from work. Each of these cures could just as easily have been suggested or performed by a curandero working on the material level of curanderismo, but this curandera did it from a trance state. Therefore what sets this curandera apart from those working strictly on the material level is not the tools she uses or the rituals she suggests to her clients, but the source of her diagnosis and cure—her contact with a spirit world.
abilities only for their own knowledge and gratification. Some mediums work in groups with other mediums or with other persons whom they believe have complimentary spiritual or psychic powers. Some mediums work in elaborate spiritual centers (centros espiritistas) that are formal churches, often dedicated to a particular spirit (e.g., Fidencio, Francisco Rojas, Don Pedro Jaramillo). The spiritual centers and the activities surrounding them take on the major aspects of a formalized religion.

Sometimes a trance session is open to more than one person at the same time. This group session can be carried out by a lone curandero but more often is found at spiritual centers. The process of the development of these centers is described elsewhere (Trotter & Chavira, 1975a). Once a temple has been established, it may house from 1 to 20 mediums. The more mediums, the better; otherwise, a medium may have to let his or her body be used by too many different spirits, exhausting them and laying them open to supernatural harm. Larger temples might have four or five videntes (clairvoyants), as well as the mediums, and might be putting several apprentices through desarrollo at the same time. Many of the accounts provided to these authors about spiritual healing were from individuals who had had experiences with spiritual temples in Mexico. Some temples were located in Espinosa, the home of El Niño Fidencio and a center of pilgrimage for mediums practicing in his name, and others were in urban centers such as Tampico and Mexico City. Large numbers of people make pilgrimages to these healing centers in Mexico to deal with health care problems that they have not resolved in the United States.

One healing center is called Roca Blanca, after the spirit that speaks most often in that place. The owner, Lupita, founded it 25 years ago, after discovering her ability to cure. She was granted permission to practice by a spiritual association. This report is from a visitor to Lupita’s healing center:

I went to this place simply because I was curious. I was swept with albacar and the medium was at my side. While I was being swept, the medium went into trance. The sister who was sweeping me asked the spirit who he wanted to talk to. He said, “with the one you are sweeping.” Then, the sister finished sweeping me and directed me to talk with the person who was addressing me. When she (the medium in trance) talked to me, she sounded like a man. He asked me, “Do you know who I am?” I have a cousin who got killed in a place in Tampico. “You must be my cousin,” I said. “Yes, exactly, I am your cousin.” “Look,” he said, “You have come here with your husband.” On other occasions I really had been there with my husband, mother and different relatives. “You have come here with your husband because you think he is hexed and that is why he is sick. But that’s not true. He has a physical illness that the doctor can cure. Don’t believe it’s anything bad.”

He said, “I’m going to prove who I am by coming to your house. Tell my cousin I’m going to see her.” You see, I have a sister who’s not nervous at all and who isn’t afraid of anything. On Tuesday, as my sister was leaning by the window watching a television show, she felt someone embrace her. She turned and saw no one.

These spiritual centers vary according to their size, their owners, and the spirits who are associated with them, yet there is considerable regularity in the services they perform. Sometimes mediums prescribe simple herbal remedies for physical problems. These recipes are virtually identical to the ones presented in the previous section on the material level, although, occasionally, it is said that a spirit will recommend a new use for an herb. The mediums might suggest the patient perform the already familiar ritual, curanderismo, such as the barrita. The spirits are thought to be able to influence people’s lives directly; in addition to imparting knowledge about remedies. The curanderos state that spirits control spiritual currents (Corrientes espirituales) and mental vibrations (vibraciones mentales); they can manipulate the patient’s health by directing positive or negative forces at them from the spiritual realm.

During spiritual sessions observed at a developing spiritual center in southern Texas, a spirit repeatedly presented himself over the course of several weeks to treat several patients. One of these patients was a man with lower back pain. One week the spirit told him to buy a bandage and bring it to the next session. The man did so, but then the spirit chided him for not following instructions correctly. The bandage was too narrow and not long enough. The man was instructed to buy a new bandage and place it on the window ledge to catch the morning dew, which is thought to have healing properties. He then was to place a glass of water under the head of his bed and a jar of alcohol at the side of the bed. He was to wrap himself in the bandage according to given instructions and lie quietly on his bed for no less than 2 hours, during which time the spirit promised to visit him and complete the cure. The man followed...
these instructions and stated that he did gain relief from his back pain. The same spirit treated a young college girl who periodically had asthma attacks. The girl's mother, a regular member of the group, brought her to the session. The spirit, in the person of the medium, stood and clasped the girl's head with one hand on her cerebro and the other on her forehead, sending Corrientes espirituales through her brain. The spirit then told her to take a sip of agua preparada and sit back down in the circle. The treatment was successful in overcoming this particular attack, and the mother mentioned after the session that these cures relieved her own asthma for several months.

Another patient requested a social and emotional treatment. Her husband recently had begun to practice witchcraft (brujeria), and she was worried that he or his friends might attack her or members of her family. A considerable amount of tension existed between the couple's families. She felt under continual stress and had gone to a doctor for help. The doctor prescribed a mild sedative, which she had taken for 3 weeks without relief. The medium's spirit probed her mind and told her to take three sips of agua preparada to break any spells that had been cast on her. The spirit promised to provide her with protection and help from the spiritual realm to counteract anything that her husband might do. She appeared to be content with the spirit's activities on her behalf and was greatly relieved.

Several aspects of the spiritual level have not been covered in this brief description but are described in more detail elsewhere (Trotter, 1975). These include the actual techniques of testing for el don, the physical and supernatural dangers of trance mediumship, the acquisition of spiritual protectors to overcome those dangers, detailed descriptions of the trance state from the subjective perspective of the developing medium and the objective perspective of an observer, and finally, the existence and purpose of mediums' associations.

**The Mental Level (Nivel Mental)**

Conducting observational, descriptive, and experimental research on the practices of the mental level has proven to be the most difficult task in exploring all of the aspects of curanderismo. The mental level has the fewest rituals and the least outward complex behavior associated with it. To date, it has the fewest practitioners, which severely limits the number of people who could be approached for an opportunity to investigate the phenomenon. All of the cases the author observed followed a similar pattern. For example:

After the curandero chatted with the patient and asked them about the basic problem, he asked the patient to state her complete name (el nombre completo). The curandero wrote the name on a piece of paper. Sitting behind the desk he used for consultations, he leaned his arms on the desk, bent forward slightly, closed his eyes, and concentrated on the piece of paper. After a few minutes, he opened his eyes, told the patient more about his or her problem, and stated that it was being resolved.

The curandero stated that he had learned to use his mind as a transmitter through desarollo. He could channel, focus, and direct vibraciones mentales at the patient. These mental vibrations worked in two ways—one physical, one behavioral. If he was working with a physical illness, such as cancer, he channeled the vibrations to the afflicted area, which he already had pinpointed, and used the vibrations to retard the growth of damaged cells and accelerate the growth of normal cells. In a case of desired behavioral changes, he sent the vibrations into the person's mind and manipulated them in a way that modified the person's behavior. The curandero gave an example of one such case in which a husband had begun drinking excessively, was seeing other women, was being a poor father to his children, and was in danger of losing his job. The curandero stated that he dominated the man's thought processes and shifted them so that the husband stopped drinking to excess, and became a model husband and father (Trotter, 1981, p. 473).

There also are a number of syncretic beliefs drawn from other alternative healing traditions—such as New Age practices, the "psychic sciences," and Eastern philosophy—that have been incorporated into this area of curanderismo. For example, some healers state that they are able to perceive "auras" around people and that they can use these auras to diagnose problems that patients are encountering. They conduct the diagnosis on the basis of the color or shape of the patient's aura. Some state that they learned these practices from other healers, whereas others indicate that they learned them from books on parapsychology.

The mental level is practiced most often by individual healers working with individual patients, rather than in groups. It appears to be a new addition to this healing system and does not have, as yet, a codified body of ritual associated with it. It therefore con-
stitutes an area in which additional descriptive work will be necessary to unify healers’ behavior.

Theoretical Unification

The three levels of curanderismo unify the theories of disease and illness found in the Mexican-American folk medical model. They create a framework for determining the therapeutic approaches of curanderos in southern Texas. The system emphasizes a holistic approach to treatment and relies heavily on the intimate nature of the referral system and the extensive personal knowledge of the patient’s social environment that is normally held by the curandero. Christian symbols and theology provide both tools (candles, incense, water) and organization models (rituals, prayers, animistic concepts) for the material and the spiritual levels, but not to a similar degree for the mental level. An energy concept is the central idea that integrates the three levels and forms a systematic interrelationship between them. This energy concept derives from belief in forces, vibration, and currents that center in the mind of those who have the gift for healing and that can be transmitted to cause healing from a distance, by affecting the patient’s social, physical, spiritual, or psychological environment.

All three levels of healing are still evolving. The variations in the practices of curanderismo can be explained partly by differences in the curanderos’ personality, differences in their treatment preferences or abilities, and differences in their emphasis on theoretical or experiential approaches. There also are variations produced by individual interpretations of an underlying body of theory. A study of these variations would be useful, now that the underlying theoretical system provides a common starting point and common objectives.

SETTINGS FOR CURANDERISMO HEALING SYSTEM

Curanderismo is a community-based healing system. It is complex and widespread. At one level it may be practiced anywhere that there exist Mexican Americans who know about it. Part of this healing tradition is the information that is spread throughout the Mexican-American culture on home treatments for common physical ailments (colds, flu, arthritis, asthma, or diabetes) and for common spiritual or “folk illnesses” (susto, mal de ojo, and empacho). This is analogous to the biomedical information that is spread throughout all European cultures, including the Mexican-American culture, where the home is the first line of defense and diagnosis of illnesses that eventually might necessitate a doctor or a hospital. On the other hand, some aspects of curanderismo require the use of special locations, preparations, and tools. This is especially true of spiritual practices on the spiritual level and for the effective treatment of supernatural harm on the material level.

The first setting where this knowledge is used is at home. When people become ill, they use their existing cultural model of health and illness to come up with solutions. One type of solution is home diagnosis and home treatment. Therefore both biomedical concepts and folk medical concepts are applied immediately, and home treatments are attempted. In the case of curanderismo this often results in the use of home remedies (remedio casero) that have been part of the culture for generations, especially herbal cures. When the diagnosis identifies a magical or supernaturally caused illness, the illness results in a home-based ritual. These interventions are done by mothers, grandmothers, cousins, friends, or knowledgeable acquaintances.

Illnesses that appear to be too serious to handle at home, both natural and supernatural, are taken to professional healers who have a locally widespread reputation for being able to treat both biomedical and traditional health care problems. Most of these healers work in a silent, but positive, partnership with physicians, although the physicians often are unaware of the link. The curanderos interviewed in various studies of Mexican-American folk medicine are consistent in their positive regard for modern medicine. They consistently refer patients to modern health care services, where they see the efficacy of that approach to be equal to or greater than their own. At the same time they note significant differences in the models of health and illness between their own practices and modern medicine, especially in the areas of supernatural illnesses, in addressing social (marital, business, interpersonal) problems, and in dealing with psychological problems. In these cases the treatments take place either in the patient’s home or work environment or in special workrooms established by the curanderos as part of their practices. The cure
might call for working directly in the environment that is affected. In other cases the venue of choice is the curandero's area because the cure depends on careful preparation and protection from outside influences. These work areas contain altars, medicinal plants, tools for supernatural rituals, and other items, and the atmosphere is considered most beneficial for the healing process, particularly in the case of supernatural problems and treatments (Trotter & Chavira, 1981).

RESEARCH AND EVALUATIONS APPROACHES

The research that is available on curanderismo is broad in interest and historic depth. Unlike specific healing techniques, such as acupuncture, which can be studied in relation to specific illnesses with relative ease, curanderismo is a complex brew of both theoretical approaches to healing and an interrelated set of healing techniques. The techniques range from herbal cures, which must be approached from an ethnopharmacological perspective; to rituals, which can be studied symbolically as projective psychiatric techniques; to methods such as massages, natural birth, nutritional prescriptions, and dietary practices. Some studies have investigated the scientific efficacy of the practices of curanderismo, whereas others have approached it from a sociopolitical or symbolic viewpoint. Some practices have not been studied at all. Therefore, although the efficacy of some parts of the system are clearly defined, others remain to be explored.

Early research on curanderismo can be found in the classic anthropological works on Mexican-American folk medicine, published primarily in the 1960s (Clark, 1959a; Currier, 1966; Kiev, 1968; Madsen, 1961, 1964; Romano, 1965; Rubel, 1960, 1964, 1966). These authors produced descriptive baseline data on the prominent folk medical practices of Hispanic communities in the United States. They provide an initial view of curanderismo that is rich in descriptions of Mexican-American folk illnesses such as susto, empacho, mal de ojo, caida de mollera, bilis, and esfanto (Nail & Speilberg, 1967). These works generally treat traditional healing in Mexican-American communities as a body of knowledge that is widely distributed throughout the culture, rather than as a theoretical healing system. Therefore the works consider the consensual data on what is available to a significant segment of the existing Mexican-American population but spend less time describing the professional actions of curanderos, because these mass cultural phenomena are generally thought of as having themes or unifying elements rather than a theoretical structure. This viewpoint is well represented in articles about curanderismo and its form and function within Mexican-American communities (Clark, 1959b; Edgerton, et al., 1970; Foster, 1953; Martinez & Martin, 1966; Torrey, 1969).

Later research maintains the strengths of this approach but adds folk theoretical concepts. Early epidemiological approaches to folk illnesses give an idea of the geographical spread and variation in beliefs, illnesses, and healing rituals, whereas later studies identify or discuss the common denominators that unify curanderos—their underlying perception of illness. Traditional anthropological research techniques were used to gather the data for these studies, primarily participant observation and interviewing over prolonged periods. Most of the authors used personal networks to identify individuals who were known locally as healers. Emphasis often was placed on finding individuals who were full-time healers rather than talking to those who treated only family members and neighbors. Therefore a curandero can be defined as an individual who is recognized in his community as having the ability to heal, who sees an average of five or more patients a day, and who has knowledge of and uses the theoretical structure described in this chapter. These people can be viewed as both specialists and professionals. Several areas of curanderismo have received a considerable amount of research attention.

Home Remedies

Herbal and chemical treatments for both natural and supernatural illnesses are very common in Mexican-American communities. More than 800 remedios caseros have been identified on the U.S.-Mexican border alone (Trotter, 1981a, 1981b). Many of the remedies have been tested for biochemical and therapeutic activities (Etkin, 1986; Trotter, 1981, 1983; Trotter & Logan, 1986). Overall, the remedies are not only biochemically active; more than 90 percent have demonstrated therapeutic actions that matched the folk medical model for their uses. At the same time only a
small proportion of the herbs have been tested. This lack of information is being overcome by an ongoing project to study the efficacy of the complete range of herbal cures available in Mexican-American communities (Graham, 1994), by use of combined ethnographic and biomedical methods (Browner et al., 1988; Croom, 1983; Ortiz de Montellano & Browner, 1985; Trotter, 1985).

The exceptions to the general rule of efficacy are the use of remedies for illnesses such as the common cold, where they relieve symptoms but do not directly treat the illness. The actions of these remedies, some of which are described earlier, include diuretics, treatments for constipation, abortifacient, analgesics, sedatives, stimulants, cough suppressants, antibacterial agents, coagulants and anticoagulants, vitamin and mineral supplements, and plants with antiparasitic actions. Most have proven safe and effective when used in the manner described and recommended by the curanderos. This area, and the therapeutic, culturally competent counseling practices of the healers are the most clearly acceptable and useful for articulation with modern medicine.

Additional Information on the Epidemiology of Folk Illnesses

Of all the complex areas of Mexican-American traditional healing, the one that has received the most research attention has been the study of common folk illnesses that are experienced and treated in Mexican-American communities. The most commonly reported are susto, an illness caused by a frightening event; mal de ojo, an illness that can be traced to the Near East, which involves a magically powerful glance taking away some of the vital essence of a susceptible person; empacho, a blockage of the intestines caused by eating the wrong type of food at the wrong time or by being forced to eat unwanted food; and caída de la mollera, a condition of fallen fontanel in infants. A number of others also are well defined, if not as commonly studied, but these four take up most of the research attention.

The epidemiology and the cognitive models of these illnesses have been well documented (Rubel, 1964; Trotter, 1982, 1985; Weller et al., 1993). They have been studied both singly and in combination (Baer et al., 1989; Logan & Morrill, 1979; Rubel et al., 1984; Weller et al., 1991, 1993), in terms of their cognitive structure within and between Hispanic cultural groups, their frequency of treatment, belief and mention in various communities, and their relationships to medical conditions and to the treatment of medical conditions (Collado-Ardon et al., 1983; Trotter, 1991; Trotter et al., 1989). In the case of susto there is clear evidence that it is linked directly to serious morbidity patterns in Latin-American communities and acts as an excellent indicator that biomedical personnel should investigate multiple conditions and problems among patients complaining of its symptoms. Caída de la mollera, on investigation, is a folk medicine label that corresponds to severe dehydration in infants caused by gastrointestinal problems. It is life-threatening and, when identified by parents, is an excellent indicator that the child should be brought in immediately for medical care. Empacho is a severe form of constipation based on its description and is treated with numerous remedies that cause diarrhea. Because it is thought to be a blockage of the intestines, the purgative effect of these remedies signals that treatment has been effective. To date, no studies have linked mal de ojo to any biomedical condition; however, because the symptoms include irritability, lethargy, and crying, it is possible that some connection will be made in the future.

Healing and Psychiatry

Another area of significant endeavor in curanderismo is the identification of parallels and areas of compatibility between the processes and rituals of curanderismo and the use of psychiatry in multicultural settings. The time period between 1969 and the mid-1970s saw the analysis and publication of several seminal works in this area (Kiev, 1968; Klineman, 1969; Torrey, 1969: Trotter, 1979: Velimirovic, 1978). The parallels are clear, especially when healers concentrate on psychological conditions that they recognize from their knowledge of psychology and psychiatry. This is an area in which a number of successful collaborations have been conducted between traditional healers and individuals from modern medical establishments in several states.

Unexpected Consequences

It is clear that Mexican-American folk medicine contains a very high ratio of useful, insightful, and cul-
turally competent healing strategies that work well in Hispanic communities. As seen previously, these range from proven herbal cures to therapeutic models to culturally important labeling systems that can help physicians identify the cultural labels for certain types of biomedical problems. The complexity of curanderismo ensures that these findings will increase.

At the same time no health care system exists that does not have side effects and unexpected results. With allopathic medicine, these range from the birth defects of thalidomide to dreadful side effects of chemotherapy and the limited ability of psychology to deal with chronic mental health conditions such as alcohol and drug abuse. In curanderismo conditions are not the bulk of the effects of its use, a few unexpected consequences have been discovered in treating empacho (Baer & Ackerman, 1988; Baer et al., 1989; Trotter, 1983b). These occurrences are rare but must be taken into account and understood within the overall cultural context of curanderismo and within the context of the far more pervasive positive benefits that the communities derive from having these alternative health care practices available. With the complexity and the diversity of practices within this traditional healing system, there remains a great deal of useful and insightful research that can be conducted beneficially in relation to curanderismo.

Acknowledgments

The initial phase of the research findings reported by the author was supported by a grant from the Regional Medical Program of Texas (RMPT Grant No. 75-108G). Further efforts at data collection were supported by the Texas Commission on Alcoholism, Pan American University, and the author himself.

References

Currier RL. 1966. The hot-cold syndrome and symbolic balance in Mexican and Spanish American folk medicine. Ethnology 4:251-263
Hudson WM. 1951. The healer of Los Olmos and other Mexican lore. Texas Folklore Soc XXIV
Ingham IM. 1940. On Mexican folk medicine. Am Anthropol 42:76-87
Macklin J. 1974a. Santos folk, curanderismo y cultos espiri-
tistas en Mexico: eleccion divina y seleccin social. Anuario Indigenista 34:195-214
Torrey FE. 1969. The case for the indigenious therapist. Arch Gen Psychiatry 20(3):365-373
Trotter RT II. 1979b. Las Yerbas de Mi Abuela (Grandmother's Tea), slide series/filmstrip. Institute of Texas Cultures. San Antonio, Texas
Trotter RT II, Chavira JA. 1975b. Los Que Curan. A 43-minute color 16 mm film of South Texas Curanderismo
CHAPTER 23 Curanderismo

Suggested Readings


Bard CL. 1930. Medicine and surgery among the first Californians. Touring Topics


Capo N. Mis observaciones clinicas sobre el limon, el ajo, y la cebolla. Ediciones Natura

Cartou LSM. 1947. Healing herbs of the Upper Rio Grande. Laboratory of Anthropology, Santa Fe


Comas J. 1954. Influencia indigena en la Medicina Hiperbatica, en la Nueva Espana del Siglo XVI. America Indigena XIV(4):327-361


Davis J. 1979. Witchcraft and superstitions of Torrance County. NM Histor Rev 54:53-58


Esteyneffer J de SJ. 1711. Florilegio medicina vide todas las enfermedades, acadodevarios, y clasicos autores, para bien de los pobres y de los que tienen falta de medicos, en particular para las provincial remotas en donde administran los RRPP. Misioneros de la Compania de Jesus, Mexico.

Esteyneffer J de SJ. 1887. Florilegio Medicinal o Oreve Epidomede las Medicinas y Cirujia. La primera obra sobre esta ciencia impresa en Mexico en 1713. Mexico.


Martinez CJr, Alegría D, Guerra E. El Hospital Invisible: A Study of Curanderos. Mimeoograph. Department of Psychiatry, University of Texas Health Science Center at San Antonio, San Antonio.


