

ATTIDEL XLCONGRESSO INTERNAZIONALE DEGLIAMERICANISTI

(Estratto)

Roma - Genova 3-10 Settembre 1972

Sheila Cosminsky

Utilization of a Health Clinic in a Guatemalan Community*

Studies of the reactions to modern health programs in developing countries have tended to emphasize that new medical practices are accepted either because of their observed effectiveness (Erasmus 1961) or because they fit into the traditional beliefs and practices (Paul 1955). Nonacceptance or underutilization has been attributed to the persistence of such beliefs which purportedly conflict with the Western view, particularly those which concern the supernatural, fatalism, and the concept of the "limited good" (Foster 1967, 1969). Relatively little research has been done on either the empirical aspects of medical beliefs and behavior or on the medical programs themselves, especially people's perceptions of the barriers and benefits of alternative medical resources.

This paper will examine the utilization of a particular rural health clinic and the factors that may influence medical care choices. These factors are presented in terms of the characteristics of the clinic, of the patients, and of the disorders, and reviews some of their practical implications.

The data presented here were collected as part of a larger study of medical beliefs and practices, carried on from December 1967 to December 1968, in the town of Santa Lucia Utatlán in the Southwest highlands of Guatemala (1). The standard ethnographic methods of participant observation and informant interviewing were employed. Additional informations was derived from surveys, case studies, and clinic records.

The Community

Santa Lucia Utatlán is located at an altitude of 8000 feet. The population of 6000 is 93% Quiché speaking Mayan Indian and 7% Ladino (2). The Indians are primarily subsistence farmers, growing maize as the staple crop. Income is supplemented through the cultivation of wheat as a cash crop and wage labor, primarily on the coastal plantations. The Ladinos are landowners, entrepreneurs, or wage laborers. The majority of Indians live in dispersed rural settlements called aldeas, whereas most of the Ladinos live in the town center (pueblo). The clinic is located in one of these aldeas, Chuchexic, which has a population of 1600 and is near the Pan-American highway. Other medical resources are: home treatment, native specialists (including shamans), pharmacies and stores, most of which are located in the pueblo, and the hospital, which is located in Sololá, about 30 km. away. (Cf. Cosminsky, 1972 fof information concerning these other resources).

The Clinic

In 1964, an agricultural cooperative was established in Chuchexic by a Catholic Mission. At the request of the members of the cooperative, a clinic was built in 1965. In 1966, a group of three nuns from the United States came to work in the clinic. A Guatemalan doctor joined them in September 1967 and made weekly visits until July

Publication INCAP I-670.

Fable I
Clinic Attendance of Chuchexic Patients by Month 1967
and 1968

Month	Year	One Visit	Two or More 'Visits	Lotal Visits	
141411111					
Limites	1967	b	27	33	
1 chruary		13	27	40	
March	144	7	20	27	
April	**	8	31	39	
May	••	10	5 }	63	
Line	14	11	55	66	
July	••	23	63	86	
August	••	10	32	42	
> prember	**	18	53	101	
Catober	••	22	23	55	
November	••	30	35	65	
December	**	15	15 13		
Subtotal		203	412	615	
Limitary	1968	26	25	51	
February	**	6	16	22	
Mirch	**	1	7	8	
April	••	7	7	TI	
May	••	5	6	11	
June	••	8	3	11	
j als	••	20	16	36	
August	••	20	2 4	44	
September		25	10	65	
October	••	30	12	72	
N mber	••	12	21	33	
December	••	10	24	5.1	
Sufford		170	231	101	
Lotal		373	673	1046	

1968. Another Guatemalan doctor came in September 1968 and stayed for two months. After that, no doctor was present for several months. The clinic personnel thus included two or three nuns and the doctor. They trained some local assistants to give injections, extract teeth, administer first aid, keep the clinic records, and act as interpreters.

The clinic was open three days a week, but the majority of patients came the same day as the doctor, who visited once a week. On the other days, the nuns held clinics in the neighboring towns of Nahualá, and Santa Catarina Ixtahuacán. The doctor made rounds not only of these clinics but also those in four other towns. He also worked in the Santa Teresita Hospital in Sololá, where hospital emergencies often cause him to be delayed for clinic visits.

Attendance

Data in this section pertain only to Chuchexic, since the population surveyed for illness behavior is also from that aldea. The largest number of people from any one location attending the clinic come from this aldea and account for 28% of the total attendance. The statistics from the clinic records represent minimal attendance from Chuchexic, since home visits and emergency visits are often not recorded and in some cases the doctor's writing could not be understood.

According to the records, 603 people made 1046 visits from January 1967 to December 1968, 373 (65%) made only one recorded visit; the remainder made two or more visits. The attendance over the two years for which records are available shows a decline from 645 visits in 1967 to 401 in 1968 (Figure 1, Table 1).

The largest number of visits occur during the rainy season, i.e. May through October, especially toward the end of that period. Thus some illnesses may be seasonal (e.g. colds). Another seasonal factor is internal coastal migration. Many individuals contract malaria, intestinal parasites, and other diseases when they work on the coast. When they return to the highlands in September and October for the harvest, they are often sick, and may go to the clinic at that time. There may also be more money available at harvest time. Their absence when they are on the coast thus contributes to the lower clinic attendance during these months.

The peaks of attendance also coincided with the arrival of a doctor. One doctor arrived in September 1967, with a concommitant rise in attendance. The new doctor arrived in September 1968, with a marked increase in attendance for September and October. He left in November for a position in Guatemala City, at which time there was another drop

in attendance.

There is no evidence that Chuchexic. those living closest to the clinic use it more frequently than those turther away. pharmacies, which are further away, used are trequently. Distance, therefore, does not seem to be an important factor within the aldea, although it may be more important to people from other locations.

Patient's Expectations

Many patients expect consultation and advice from the physician, whom they regard as a specialist. This specialist's role is reinforced the doctor's uniform. instruments, examination. If the doctor does not give an examination use his instruments and (often due to time pressure), but only gives the patient some medicine, the patient

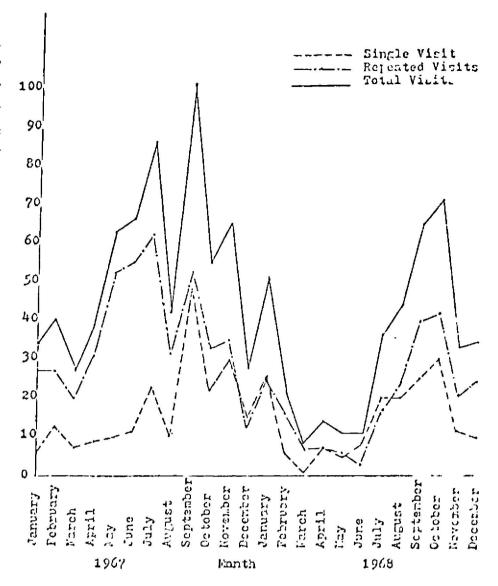


Fig. 1 Clinic Attendance, Single and Repeated Visits, by Month, Chuchexic, 1967, 1968.

feels cheated. He expects to receive an examination and expects the doctor to play the role of an illness specialist. He is therefore disillusioned when the doctor's actions reinforce the image of himself and of the clinic as a dispensary, comparable to the pharmacy, rather than of a professional specialist. Because the clinic is also a dispensary, some people do come merely for medicines, especially injections, with their own self-diagnosis. The nuns are trying to encourage these people to go to the clinic for consultations, not just medicines. Ironically, they can actually give little consultation.

The doctors and nurses thus play a dual role: illness specialist and dispenser of remedies. There is a different set of expectations associated with the two functions. The greater the expectations that the patient has of the doctor as a specialist, the greater his disappointment and the more critical he will be if these expectations are unfulfilled.

The people that have these higher expectations are usually the more acculturated (or "ladinoised") individuals. Increasing dissatisfaction with one of the doctors was expressed by several informants, some of whom were important and influential members of the agricultural cooperative. They complained that the doctor was not giving them a thorough examination, that the patient was not told the diagnosis, and that he did not recover with the doctor's recommended treatement. Such complaints were spread through the community and influenced the expectations of others and possibly contributed to the attendance decline. They resulted in an argument between the priest and the doctor, and the eventual resignation of the latter.

The length of treatment is another factor. The treatment recommended by the clinic consists usually in at least a week's supply of pills or injections. Some diseases (e.g. tuberculosis, malaria, pneumonia, and epilepsy) require prolonged treatment for several months. Some patients discontinue treatment after initial relief, not understanding the need to take medication for a longer period. Other patients generalize from what they have experienced or heard about antibiotics, especially penicillin injections, and expect the same immediate results from other clinic remedies. Prolonged treatments with delayed benefits are difficult to accept. The people prefer to receive injections on the belief that they are more effective than pills. However, the nuns are reluctant to give injections and usually give pills or capsules. As a compromise, they may give vitamin injections. Because of the ease of obtaining injections at the pharmacy, many people will first utilize that resource.

Lime Pressures

There are often fifty patients during the clinic hours (10-12, 1-3). Consequently, there is little time for extended interviews or examinations. The cost in time for the patient is relatively high.

Overwork and the lack of time are two big problems facing this type of health service. In this particular case, these problems led to tension and misunderstanding, and contributed to the doctor's resignation. Due to the shortage of doctors and nurses, the use of paraprofessional personnel would seem to be the most practical solution.

Financial Costs

The initial visit to the clinic costs a minimum of 25 cents, which includes medicines, and 10 cents for return visits and subsequent injections. A remedy for a minor ailment, such as a cold, initially costs less at the pharmacy. For consultation and treatment of a more serious illness, the clinic may be the less expensive choice. Although several informants mentioned lack of money as a reason for not using the clinic, there did not seem to be any significant correlation between socioeconomic status and clinic utilization. The amount charged by the clinic is often adjusted to the patient's ability to pay The clinic allows the patient to pay later or to pay in kind, e.g. with eggs. Some informants, however, said they were unaware of the availability of credit.

Communications Barriers

The doctors and nurses can speak Spanish, but not Quiché (About 50% of the men and less than 157 of the women are bilingual in Quiché and Spanish). They depend on the Indian assistants for translation. The language barrier makes only a minimum of communication possible. The patient usually presents a short, incomplete description of his symptoms, often only mentioning those he regards as most serious. Other symptoms he may regard as a different disease. A patient may also not want the interpreter, who is his neighbor, to know the details of his illness.

In addition, the doctor frequently uses terminology which he takes for granted, but which may be unfamiliar to the average patient. Pride, shame, and embarrassment prevent the patient from admitting his ignorance and asking for an explanation.

Finally, the doctor and nurses do not understand some of the important Indian medical concepts (e.g. hot and cold qualities) and disease categories, which are basic to the native belief system. The realization that they do not share these has influenced some individuals not to use or return to the clinic.

Social Distance

The dominant-subordinate relationship of practitioner-client is reinforced by the status of the physician or nurse as a Ladino or non-Indian. Social distance is maintained in several ways. The medical personnel does not take part in most community activities. The doctor lives outside the community and visits only on clinic rounds. Although the nurses live there, they only participate in activities that are organized or sponsored by the Catholic Mission or its members. They rarely make social visits, and never drink or eat in a villager's house. This is related to their own values of health and cleanliness, but serves to maintain social distance.

The clinic personnel generally treat the Indian respectfully. However, they tend to give advice or lecture to patients in a somewhat paternalistic and authoritarian manner, telling them to wear shoes, boil water, drink Incaparina (3), eat eggs, make windows in their houses, etc. The patient's reply is usually a polite, but submissive, "Yes, doctor".

The doctor and nurses are supposed to be impersonal "objective" scientists. Consultations and examinations are carried out in a formal and efficient manner. The doctor's immediate concern is to get directly to the point of the patient's complaints. This also relates both to the time pressure and the emphasis on symptomatic treatment.

The native specialist holds his consultation with the patient in a more personal manner. He knows the patient's background and asks questions relating both to the patient and his family. The shaman always shares a meal and drinks with the patient's family. The diagnosis and treatment are explained to them and they must participate in the ritual, confession, and treatment. The patient thus has the support of his family, who plays an active role in the curing process. Modern medicine focuses solely upon the individual patient.

Social Sanctions and Psychological Costs

By treating the individual alone, out of his social context, Western medicine ignores the role that social sanctions, advice, support, or pressure play as choice determinants. People do not make their decisions concerning illness privately; it is a social matter. This support is looked for and is given at any stage in the treatment sequence. Ignoring such advice or pressure, whether it be in favor of or against a particular treatment may result in shame, embarrassment, or other social sanctions.

Psychological costs include guilt, anxiety, fear, humiliation, and loss of self respect, and are increased by the factors of social distance and communication barriers which exist at the clinic.

The Patients

In addition to the clinic records, data on utilization behavior was obtained through a survey. The use of resources for 479 illness episodes in 172 households was compared with several variables including sex, age, marital status, proximity, educational level, ability to speak Spanish, membership in the agricultural cooperative, and religious affiliation.

Table 2, Figure 2 shows the use of the clinic according to age and sex (from the clinic records). Utilization is higher for females (58%) than for males. (Females represent 52% of the population). The sex differential may reflect the use of the clinic by females of child-bearing age for gynecological problems: according to the records, there were at least 44 such cases. The sex difference is primarily in the 15-35 year old range. Females of this age account for 39% of female patients, whereas only 29% of male patients are of that age. A major factor may be the seasonal migration and the corresponding absence of

Table 2 Clinic Attendance by Age and Sex, Chuchexic 1967 - 1968

	Male		Formale		Total		
	No.	7	No.	Z	No.	z	
Age Group							
1 year	21	8.2	31	8.9	52	8.6	
1 4	52	20.3	45	13.0	97	16.1	
5 9	32	12.5	41	11.8	7.3	12.1	
16 14	15	5.9	14	4.0	29	4.8	
45 19	23	9.0	30	8.6	53	8.8	
20 24	18	7.0	46	13.3	64	10.6	
25 29	9	3.5	33	9.5	42	7.0	
45.54	25	9.8	26	7.5	51	8.5	
35 39	18	7.0	23	6.6	41	6.8	
40 44	7	2.7	15	4.3	22	3.6	
15 49	10	3.9	10	2.9	20	3.3	
501 54	7	2.7	13	3.7	20	3.3	
55.59	4	1.6	6	1.7	10	1.7	
60 64	7	2 7	4	1.2	11	1.8	
65 69	3	1.2	1	0.3	4	0.7	
Over 70	5	2.0	9	2.7	1.4	2.3	
Cotal	256	100.0	347	100.0	603	100,0	

many males.

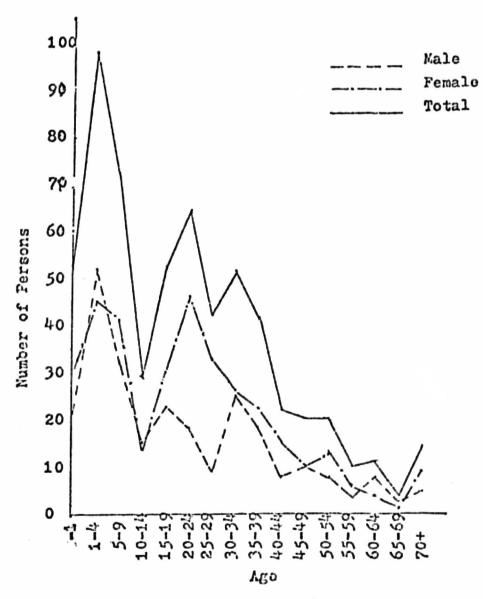
The largest number of patients belong to the group under 4 years old. This is probably a reflection of both the large proportion of the population of that age and the high infant and child morbidity and mortality rate.

Only the variables of religious affiliation, ability to speak Spanish, and membership in the agricultural cooperative showed a significant association with clinic attendance (beyond the .001 level of significance as measured by Chi square). There was no association between these and any of the other medical resources.

Religious affiliation is one of the outstanding factors influencing decisions about medical care and it may do so in several ways. The population of the community is divided into two main religious factions 1) orthodox Catholics, who support the priest

now in charge of the parish, and who refer to themselves as being "in the doctrine", 2) non-doctrine members. who are the majority (at least 66%) and are believers of a syncretized Catholic-Mayan religion. They consider themselves as Catholics but are regarded as pagans by the priest and doctrine members. There are also about eight Protestant included in f a milies survey, who were placed in the non-doctrine category.

Some non-doctrine people were reluctant to attend the clinic because they feared the nuns or because they thought that the clinic was only for doctrine members. Although such feelings were more prevalent when the clinic was first established, there is still lower acceptance of the clinic by some people because of its identification with the priest



Lig. 2 Clinic Attendance by Age and Sex. 1967, 1968.

and nuns.

The traditional curers have been condemned by the nuns, priests, and catechists as pagans and witches. The doctrine members are forbidden to use them, whereas non-doctrine members can utilize any resource. If a doctrine member goes to the shaman, he will usually not admit it for fear of gossip and sanctions from the fellow doctrinists. As a result of this prohibition, doctrine members may use other alternatives like the clinic and pharmacy more frequently.

Several of the shamans are also political and cofradia (religious brotherhoods) officials, and are highly influential among the non-doctrine people. These men feel the priest wants to take away their traditions. While some of them recognize certain benefits of modern medicine and occasionally have used the clinic in emergencies, they do so reluctancely

Programs of preventive medicine, such as vaccinations, latrine projects and health and nutrition classes that are run by the clinic reach primarily doctrine members. Of the 37 families in which children received some type of vaccine, only four were not doctrine members. Vaccination programs are announced at Sunday mass and classes are given in the church. Any such programs will therefore be of little value to the non-doctrine people. Religious affiliation influences the exposure to, as well as the acceptance of medical information.

Characteristics of the Disorders

Several studies have reported that people tend to dichotomize illnesses into "local", "folk", or "supernatural" ones, which are treated by folk medical practices, and "doctor" or naturally caused ones, which are treated according to modern or Western medicine (Foster 1958, Goodenough 1963, Simmons 1955, Rubel 1960, and Weaver 1969).

Such a dichotomy does not exist among Lucianos (4). There is no correlation between diagnostic categories, or type of etiology, and resource utilization. Luciano disease theory contains two major orders of information involving different levels of causation and predisposing factors. Douglas (1969) reports similar findings in Santiago.

The first order contains an extensive body of ideas about illness as a disturbance of bodily processes, organized primarily by the principles of the hot-cold and weak-strong balance. Diagnosis and identification of the disease are usually made in terms of the qualities of hotness or coldness of the body. Treatment strategies are based on the restoration of the balance through the principle of opposition. Diagnosis and treatment are concerned primarily with questions of evidence or symptoms and of immediate cause. The clinic, as well as home treatment and the pharmacy, treat disease on this level, and emphasize alleviation of symptoms. People first resort to this order of explanation in terms of immediate causation, which is empirically and pragmatically based.

The first five sequential steps in resource utilization for 479 illness episodes are shown in Table 3. The most frequent order of usage is: the pharmacy, the clinic, home treatment, the hospital, and the native specialist.

The diseases most commonly treated at the clinic are gastro-intestinal disorders, respiratory diseases, and skin disorders. Most of the patients using the clinic are without functional impairment, or only moderately so. They consider themselves ill, but are able to perform many of their normal activities. They perceive most of these illnesses as not very serious and often regard the remedies as pain or symptom relievers, rather than as cures. Most of these illnesses are non-incapacitating, and usually of short duration, although some chronic or recurrent ones are included (rheumatism, asthma, and gastritis).

The second order of explanation deals with concepts relating to the religious and moral values of the culture. Illness is viewed as ultimately being sent by the supernatural

Table 3
Sequence of Curing Resources Utilized, Chuchexic, 1967, 1968

		1		2	5	3		4		5
	No.	z								
Pharmacy	261	54.5	37	30.6	6	24.0	3	33.3		_
Chnic	127	26.5	45	37.2	9	36.0	1	11.1	1	25.0
Home Treatment	74	15.5	30	24.8	3	12.0		-	1	25.0
Hospital	15	3.1	5	4.1	5	20.0	5	55.6	1	25.0
Native Specialist*	2	0.4	4	3.3	2	8.0	_	-	1	25.0
ICTAL	479	100.0	121	100.0	25	100.0	9	100.0	4	100.0

Native specialists include the shamans, spiritists, bonesetters, and midwives. The two initial cases were treated by the bonesetter.

for transgression or as retaliation by an enemy. The seriousness, worsening, or persistence of an illness condition makes this order relevant and leads the patient to go to a native specialist to seek additional information concerning the question: "Why did this happen to me at this time"? Every case treated by a native practitioner (excluding the bonesetter and midwife) was of a recurring or incapacitating nature, such as malaria, pneumonia, and epilepsy. Although these diseases are also treated at the clinic, they are the most frequent kind for which the shaman is utilized. For the majority of the population, satisfactory resolution was obtained without resorting to this level and the issue of ultimate and supernatural cause did not become salient. Only about 2% of the sample population resorted to the native specialist for cases of illness (5).

This pattern is opposite that reported by Gould in India (1957, 1965). He observed that people went to the Western type of clinic for critical incapacitating dysfunctions, usually as a last resort, but went to their village practitioner for chronic non-incapacitating dysfunctions (asthma, rheumatism, and headaches). Gould does not discuss possible cases of chronic and incapacitating disorders, which are the illnesses for which Lucianos seek help from the native practitioner. They do not resort to him for non-incapacitating illnesses, but rather utilize the clinic and pharmacy for such disorders, both acute and chronic. I suggest that the perceived characteristics of the illness, especially relative severity, as reflected by the degree of pain and incapacitation, are more helpful in accounting for the differential use of the clinic than are the diagnostic categories or the etiology of the illness.

Practical Implications

There was a decline in clinic attendance during the research period compared to the previous year. Various factors were suggested in this paper as possible contributions to that decline. One of these was the high expectations that people had of the doctor as a treatment specialist and of the desired benefits of rapid cures, and the consequent disillusionment when these did not materialize. Other factors related to religion, social, psychological and financial costs. Several recommendations may be made for a more effective health program, the most important of which are reviewed below.

- 1. The doctor and nurses gave a three month weekly health course attended by 12 local people, all doctrine members. They were trained as paraprofessionals (promotores de salud), and some of them are now assisting in the clinic, making home visits, giving injections, and teaching classes in the various aldeas and adjacent towns. Such classes should be continued to train more people, and if possible, to include non-doctrine members.
- 2. The clinic personnel should learn Quiché, at least those concepts concerning health and illness that would be important for communication with clinic patients. Speaking Quiché would decrease the communication barriers, enable the doctor to get a more complete case history and possibly to make a more accurate diagnosis. It might also increase the confidence of the patients and thus improve the doctor-patient rapport.
- 3. The nuns and doctor have very little knowledge of the folk medical beliefs and practices. Some information could be gained either from various villagers or from the available literature on similar communities in Guatemala and Mexico, virtually none of which they have read. Those of which they are aware, they judge as supersitions, or merely ignore. The people are aware of this and react accordingly.
- 4. The medical records of the clinic presently record only the minimum amount of information the patient's name, age, location, diagnosis, and treatment. This information is inadequate, not only for research purposes, but also for an effective health program or an assessment of such a program.
- a) Since many people have the same name, the names of the patient's parents should be recorded, especially if the patient is a child.
- b) The patient's complaints, with the native disease terms, and the doctor's diagnosis should both be recorded. The present system is inconsistent; some patient's cards show one but not the other. It is often not easy to distinguish between the patient's and the loctor's diagnoses.
- 5. At present, no communication exists between the clinic personnel and the traditional specialists. An attempt at cooperation and communication should be made by the doctors and nurses, instead of their condemning the shamans as witches and pagans. Although this may be difficult with the existing factionalism, the new health center has now been turned over to a different order of nuns and it may therefore be easier to change the policy.

Various plans of collaboration between Western practitioners and native specialists are being carried on in other societies, as among the Yoruba (Lambo 1964), the Navajo (Adair and Deuschle 1970), and the Mexican-Americans (Weaver 1969). None has been tried, as far as I know, in Guatemala. With the shortage of medical personnel, the training of paraprofessionals is an important issue and an attempt should be made to use this human resource, which has an important role in the existing medical system.

- 6. Non-religious channels of communication should also be used for preventive programs such as vaccination. The schools and school teachers could be used for both the announcements of such programs and for cooperation in their implementation.
- 7. An attempt should be made to enlist the cooperation of the officially elected political leaders, such as the mayor and councilmen, and the unofficial leaders, who are the principales or elders. Much friction exists between these leaders and the nuns, for several religious and political reasons. However, if such attempts were made to involve these people and solicit their advice and aid for these programs, some of the tensions might be eased and the programs might be widened to include more people.

Conclusion

From the Luciano viewpoint, the doctors and the clinic are not competitors of the

shaman. They are, however, alternatives for the pharmacists and home treatment, since these deal primarily with the body condition and its symptoms. The shaman, however, deals with the patient and illness situation not only with specialized knowledge, but also with supernatural power. There is no conflict with the etiological theories of ultimate or final cause with which the shaman is concerned.

The agents of change should consider that 1) many cases of non-utilization of their services are due to the perceived costs outweighing the perceived benefits, and 2) there are areas where Western medicine can be integrated with minimum disruption. The inclusion of additional treatment resources, such as the clinic, relates to a different order of knowledge and does not challenge the logic of the ultimate etiological explanation of illness.

References

- (1) This work was supported by a fellowship from the Institute of Nutrition of Central America and Panama, National Institutes of Health, and by Grant 1-F1-MH-34, 568-01A1. Travel to the International Congress of Americanists was made possible through a partial grant from the American Anthropological Association.
- (2) The term "Ladino" refers to both descendents of former Spanish or mixed Spanish-Indian ancestry and to people of Spanish or Western culture in contrast to people of Indian culture.
- (3) Incaparina is a high protein food supplement which is sold in the local stores.
- (4) Luciano means a native from Santa Lucia Utatlán.
- (5) It should be noted that the reluctance of doctrine members to report the use of a native specialist may have introduced some bias in this figure. However, this bias should not hold for non-doctrine members.

Bibliography

Adair and Deuschle, The Peoples Health, 1970,

Cosminsky S., Decision Making and Medical Care in a Guatemalan Indian Community, Ph. D. Dissertation, Branders University, 1972.

Douglas W., Illness and Curing in Santiago Atitlan, Ph. D. Dissertation, Stanford University, 1969.

Erasmus C., Man Takes Control, New York, 1961.

Foster G., Problems of Intercultural Health Programs, Pamphlet No. 12, Social Science Research Council, New York, 1958.

Foster G., Tzintzuntzan: Mexican Peasants in a Changing World, Boston, 1967.

Foster G., Applied Anthropology, Boston. 1969.

Goodenough W., Cooperation in Change, New York, 1963.

Gould H., Implications of Technological Change for Folk and Scientific Medicine, American Anthropologist, 59, pp. 507-516, 1957.

Gould H., Modern Medicine and Folk Cognition in Rural India, Human Organization 14, pp. 201-208, 1965.

Paul B., Health, Culture and Community, New York, 1955.

Rubel A., Concepts of Disease in Mexican-American Culture, American Anthropologist, 62, pp. 795-814, 1960.

Simmons O., Popular and Modern Medicine in Mestizo Communities of Coastal Peru and Chile, Journal of American Folklore, 68, pp. 57-71, 1955.

Weaver T., The Hypothetical Situation in Group Interviewing on Illness Referral Systems, Paper presented at the Northeastern Anthropological Association, Providence, R.I., 1969